CREDIT MANAGEMENT AND SUSTAINABILITY OF SELECTED SACCOs IN NYAMASHEKE DISTRICT, WESTERN PROVINCE OF RWANDA

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Abstract

The study purported to test the null hypothesis aimed to find out the relationship between the credit management and the sustainability of selected SACCOs namely KVS, SACCO-CYATO, KANJONGO SACCO, WRS and AMS in Nyamasheke district, and also to confirm or deny the theory of sustainability proposed by Pierce (1992) cited in Diane Rusell (1995). Specifically the study has the objectives, that were to determine the demographic profiles of respondents; to determine also the degree of credit management; and also to determine the degree of sustainability, and lastly to find out if there is any significant relationship between the level of credit management and the level of sustainability in the selected SACCOs. In addition, the review of related literature through different opinions and ideas of scholars and authors were internalized to understanding the study concepts. Descriptive correlation design was used in this study and census was used whereby the entire population of 102 respondents was selected. Self-administered questionnaires were used as research instrument and validity and reliability of research instruments were tested using Content Validity Index and pre-testing. Data was analyzed through statistical techniques such as mean, standard deviations and correlation matrix. Research findings portrayed that the level of credit management was high, above the critical point to ensure satisfaction in the selected SACCOs and this was justified by an overall mean value of 3.33; whereas the level of sustainability in the selected SACCOs was also high, above the critical point to ensure satisfaction in the selected SACCOs, at the overall mean value of 3.44 except the financial sustainability which was very low whereby findings reveled that they highly headed for bankruptcy if the situation remains as it was during the research period.

Keywords: Credit, Sustainability, Management, Rwanda

INTRODUCTION

The concept of sustainability of SACCOs is not new. Globally SACCOs through credit they intend to be fully sustainable. In Europe, as long to the middle of the 1800s, the theorist Lysander Spooner was writing over the benefits of organizations in offering small credits to entrepreneurs and farmers as a way of achieving sustainability. Independently to Spooner, Friedrich Wilhelm Raiffeisen founded the first cooperative lending banks to support farmers in rural Germany. Both forms spread rapidly all over Europe, Ireland has a strong SACCOs or Credit unions movement, with 1.6 million people (44 percent of the population) in membership (Birchall, 2008).

Today SACCO societies have significant role in sustaining themselves and empowering their members Socio-Economic Status all over the world. Institutions were known as People's Banks, Credit Unions, and Savings and Credit Co-operatives, because they providing financial services to customers who were traditionally neglected by commercial banks in order to improve their sustainability (WOCCU, 2003). The issue of sustainability in SACCOs is nothing new to Rwanda where diverse small SACCOs and "Banque Populaire du Rwanda" (BPR), the most important credit union in last years have operated in struggling for sustainability. To address this issue analyzed as a major factor hindering economic development, a recent National Dialogue Meeting held in December 2008 recommended the creation of at least one sustainable SACCO at the level of each Administrative Sector (MINECOFIN, 2008).

To improve the credit management; SACCOs in Mexico and Ecuador apply credit scoring tools for risk analysis and offer flexible lines of credit to find working capital needs.(CGAP, 2005). The cooperative movement quickly spread to East African countries whereby a number of local organizations in the Nyeri District of Kenya provide management services to group-based loan funds; The Accumulating Savings and Credit Associations (ASCAs) and its Management Agencies (AMAs) serves a wider client base than the mainstream donor funded SACCOs who tend to focus their attention on micro and small entrepreneurs (Nthenya et all.2001).

According to Adongo and Stork (2005); The Sustainability in simple terms refers to the long-term continuation of the organization programme after the project activities have been discontinued; It entails that appropriate systems and processes will enable the services to be available and also the programme would meet the needs of the members through resources raised on their own strength, either from among themselves or from external sources (Adongo and Stork 2005).

In this study sustainability can refers to the sustainability of the SACCOs' human resource (HR), finance; the market of SACCO and its legal environment.

The credit management refers to the total amount of credit extended and the period for which it is extended are consistent with the organization's financial policies by ensuring that it is granted on a consistent basis and its costs are understood, the repayment process is effectively administered, and a debt recovery policy is in place (http://www.businessdictionary.com/definition/credit-management).

In this study credit management refers to the process of loan application analysis (appraisal), loan disbursement, and loan recovery and also loan repayment in compliance to the credit policy with the aim of proving sustainability of SACCO.

Statement of the Problem

Most financial institutions fail due to the rigidity of the credit management whereby this situation leads to the lack of sustainability within the SACCO. According to Banque Nationale du Rwanda (BNR). (2008) Regarding the liquidation of 9 MFIs which went bankrupt in 2006 and the recovery of loans is still under process, Even if this process is ongoing, it is very slow (as at 11th December 2008 the amount recovered was around Rwf 201 million, representing 10.7% of the total inventory of loans). In addition to this the BNR promised and paid a half of lost deposits (BNR, 2008). From the year 2009 whereby SACCOs were created at every administrative sector, today they are struggling to strengthen their credit management so as to sustain themselves in order to clean up bad reputation from previous SACCOs. As we know the job of government is to enable financial services, not to provide them. So this SACCOs were created by Rwandese people in support with the government of Rwanda.

Lack of sustainability within these selected SACCOs can due to the lack of government support (as the government of Rwanda is subsidizing SACCOs at every administrative sector through Rwanda Cooperative Agency "RCA"), fail to cut edge over competitors, failure to meet the cost of operations, lack of capital, Failure to mobilize savings.

Research Objectives

The objective was to determine the demographic profiles of respondents in terms of their Gender, age, level of education and the working experience;

It was also to determine the degree of credit management in terms of loan application analysis (appraisal), loan disbursement, loan recovery and loan repayment;

It was finally to determine the degree of sustainability in terms of HR, finance; market and legal environment; and the financial sustainability.

Research Questions

-What are the demographic profiles of the respondents in terms of their gender, age, levels of education and their working experience?

-To what extent is the degree of the credit management in terms of loan application analysis (appraisal), loan disbursement, loan recovery and loan repayment?

-To what extent is the degree of the sustainability in terms of HR, finance; market, legal, and also financial sustainability?

-Is there any significant relationship between the level of credit management and the level of sustainability according to the BoD, committees and employees of the selected SACCOs?

Hypothesis

There is a no significant relationship between the credit management and the sustainability according to the members of the BoD, committees and employees of the selected SACCOs.

Operational Definitions of Key Terms

Sustainability refers to the SACCO s' human resource (HR), finance, the market of SACCO and its legal environment.

Human resource sustainability refers to recruit, to train and maintain or retain well-qualified staffs that are capable of delivering the services as required.

Financial sustainability means that the SACCO is able to cover all its present costs and the costs incurred in growth, if it expands operations.

Market sustainability refers to the SACCO's activities to deal with the whole gamut of issues that deal with demand and supply of SACCO with issues relating to the different types of the clientele, their differing types of needs, and designing products that suit the needs of its clientele.

Legal sustainability refers to the existence of a stable and friendly legal environment that will enable the proliferation of a large number of stakeholders involved in the delivery of SACCO services.

Credit management refers to the process of loan application analysis (appraisal), loan disbursement, and loan recovery and also loan repayment in compliance to the credit policy with the aim of providing sustainability of SACCO and its members.

Loan application analysis refers to the process of mobilizing members for loans, help them to conceptualize there micro projects and put them on the paper, analyze the profitability of these micro projects in order to finance them.

Loan disbursement means the action providing money to return it back with interest to different members in order to implement her/his micro projects of development.

Loan recovery is the process of recalling money disbursed with interest the time an installment of loan is due.

Loan repayment refers to the action of returning back the money with the applicable interest as you are running your micro projects.

REVIEW OF RELATED LITERATURE

Sustainability

According to Adongo and Stork (2005); the Sustainability in simple terms refers to the long-term continuation of the organization programme after the project activities have been discontinued; It entails that appropriate systems and processes will enable the services to be available and also the programme would meet the needs of the members through resources raised on their own strength, either from among themselves or from external sources.

Norgaard R.B. (1992) also defined sustainability as "the achievement that meets the needs of the present generation while letting future generations meet their own needs." It is also defined as the development of products and delivery systems that meet client needs, at prices that cover all costs of providing these financial services (Rosengard, 2001).

Credit management

Credit management refers to the total amount of credit extended and the period for which it is extended are consistent with the organization's financial policies by ensuring that it is granted on a consistent basis and its costs are understood, the client payment process is effectively administered, and a debt recovery policy is in place (http://www.businessdictionary.com/definition/credit-management).

According to Salomon Kagaba (2001), Credit management is the whole process and systems through which the MFI's lending operations strive to Offer services which meet the demands of the clients; to Operate as efficiently as possible by minimizing costs; to Charge interest rates and fees, which are sufficient to cover all costs, to Motivate clients to repay loans as per agreed terms in order to Achieve sustainability of operations through high degree of efficiency exercised.

Theoretical Perspectives

This study was based on theory of sustainability proposed that sustainability is "Far from being a monolithic concept, sustainability will vary over space and time, depending upon the factors

relating generally to the balance between demand and supply potential. ...The transition to a sustainable state is a process that requires the development of a value system." Proposed by Pierce (1992) cited in Diane Rusell (1995). In this study the researcher get that sustainability is vary over space and time, depending upon the factors such as the credit management hence the relevance of this theory. The amount of loans disbursed is theoretically expected to be negatively (positively) related to financial unsustainability (sustainability) because it reduces per unit cost of the lending (Adongo and Stork, 2005); According to theory, group lending is expected to positively influence financial sustainability for microfinance institutions because the peer pressure that group members exert on each other should lead to lower default rates on the number of loans disbursed (Adongo and Stork, 2005). Robinson's criticism of the poverty-lending approach states as follows: "Institutions are not sustainable primarily because their interest rates.

According to some Christen et al. 1995; Otero and Rhyne (1994), also cited in Meyer and Skinner (2002) about sustainability measures, they indicate that "Measuring financial sustainability requires that SACCOs maintain good financial accounts and follow recognized accounting practices that provide full transparency for income, expenses, loan recovery, and potential losses." In addition to these they argued that the number of clients increase SACCO enjoys economies of scale and hence reduce costs which help them to financial sustainable (Christen R. and Vogel R. 1995).

Paradis (2001) concluded that the failure of SACCOs indirectly determined by the corporate governance. He further concluded that a multiple ownership and no secondary market of equity exists (as in Rwanda) the conflicts between members and management causes failure to SACCOs (Paradis, 2001). The researcher also get that this conflicts may result to the rigidity of the credit management in SACCO.

According to Fernando N.A. (2006) companies in high risk categories of credit management are affected by weak solvency (liquidity ratios), highly leveraged conditions, and overcapitalization; weak efficiency shows that there is a substantially inadequate cash flow or working capital to sustain the company or reinvestment, and minimal or nil profitability(Fernando,2006). This theory ascertains that there are certain factors such as credit management that influence the sustainability of the organizations as well as SACCOs.

METHODOLOGY

Research population

The target population included a total of 65 members of BoD and committees and also 37 managers and staff. The researcher chose the BoD, committees, management and staff of the

selected SACCOs. All of them have a greater role in credit management of these selected SACCOs as well as their sustainability.

Census design

The researcher used the census whereby everyone in the targeted population were included as respondents (102 in total) because it can be manageable and cost effective to the researcher; and it will provide fully information from every element of the whole population. It is presented in the Table below.

Table 1: The respondents of the study

N° of SACCOs	Names of SACCOs	Targeted population		Sample size	
		BoD and Committees	Managers and staff	BoD and Committees	Managers and staff
1	KARAMBI VISION SACCO	13	8	13	8
2	SACCO-CYATO	13	8	13	8
3	KANJONGO SACCO	13	8	13	8
4	WISIGARA RANGIRO SACCO	13	7	13	7
5	AMIZERO MACUBA SACCO	13	6	13	6
TOTAL		**65**	**37**	**65**	**37**
GRAND TOTAL		**102**		**102**	

Validity and Reliability of the Instrument

When the whole area or population of persons is contacted the method is known as census method; Data are obtained from each and every unit; they are Accurate and Reliable, and they can be exploited as a basis for various surveys. Content validity ensured by subjecting the researcher used the method of duties judgment, then devised questionnaires on credit management and sustainability to judgment by the content experts who are contended with

objective related formulation of research instruments. Further adjustments were made on the items rated irrelevant. The summary on this is presented in Table 2 below.

Table 2: Determination of Validity of Instrument

	Relevant items	Not relevant items	Total
Rater 1	23	4	27
Rater 2	24	3	27
Total	**47**	**7**	**54**

$$CVI= \frac{\text{Number of items rated as relevant}}{\text{Total number of items being judged / rated in the questionnaire}}$$

CVI= 47/54 = 0.87

As the CVI was 0.87, which is greater than 0.7, the research instruments were measured valid. Thus the questionnaire was considered valid because the items in the instruments were relevant and sufficient to cover the content validity index valid for the study.

The pre-test technique was used to determine the reliability (accuracy) of the researcher devised instruments to ten qualified respondents, five from BoD and committees and five from managers and staff of non selected SACCOs. In this pre-test technique, the questionnaires was administered twice to the same subjects; whereby the test was reliable and the trait measured was stable, then the results was consistent and essentially the same in both times.

ANALYSIS

The Demographic profile of respondents

To answer the first research question; the summary on this is presented in the Table below.

Table 2: Profile of Respondents (n= 102)

Statistical factors Demographic profile	Frequency	Percent
Gender		
Male	54	52.94
Female	48	47.06
Total	**102**	**100.00**

Table 2…

Age group		
21-35	58	56.86
36-65	43	42.16
66 and above	1	0.98
Total	**102**	**100.00**
Education Level		
Primary level	18	17.65
Secondary level	75	73.53
University level	9	8.82
Total	**102**	**100.00**
Working Experience(Number of years spent in SACCOs)		
Below One Year	13	12.75
1-2 Years	52	50.98
3 Years and above	37	36.27
Total	**102**	**100.00**

To answer the first research question which was to determine the profile of respondents as regards to; gender, age, education level and the working experience that the respondents have spent with SACCOs.

The first group of items was explored on this issue, whereby the gender of respondents was to be explored by the second item. In the selected SACCOs there are men and women either in administrators and employees; most of the respondents were men since there were 54 (52.94%) of the respondents while women were 48 (47.06%) of the respondents. And so, this helps the researcher to collect information for the research variables from both men and women from their perspective point of view; either it regards to men as well as woman without any discrimination.

Apart from the gender, the age interval of the respondents was determined by the researcher. Then, It was revealed that most of the respondents were 58 at the age of 21 to 35 (56.86%), followed by 43 respondents with the age group of 36 to 65 (42.16%), lastly 1 respondent with the age of 66 and above (0.98%); In reference to this information the majority of SACCOs' members in the BoD, committees as administrators and their managers and staff as employees, they are youth where as the big number of respondent is very young especially for employees who has to be retained for enough period of time as experienced workers. However, differences in age interval were helpful in that it enabled different point of views and opinions

among elders and youth about the levels of credit management and sustainability in the selected SACCOs of KVS, SACCO-CYATO, KANJONGO SACCO, WRS and AMS. In addition to these there was a very small percentage in the last section of 66 age and above, which means that the selected SACCOs does not much more involve old persons either in administration or appoint old ones as employees because they are considered to be retired persons to better perform such responsibilities.

Educational level of respondents was also investigated under demographic characteristic of respondents such as primary level, secondary level and university level. As it shown in the table below the respondents have different education level whereby they were those who were attained primary level 18(17.65%); this was followed by the majority which is constituted by those with secondary level 75 (73.53%); and lastly, those with university level who were only 9 (8.82%); As it can be seen, the majority of the respondents whose qualification is at the secondary education level to understand and improve SACCOs' credit management and sustainability especially the selected SACCOs' administrators. In addition they were also a certain number of selected SACCOs' respondents who were highly educated to understand and improve SACCO's credit management and sustainability in support to their neighbors who are fairly educated because they were non negligible number of respondents whose qualification is at the primary education level .

The last aspect investigated under the respondents profile was the respondents' working experience. Here the minority of the respondents whose number is 13(12.75%) had spent below one year of experience in SACCOs' industry because the SACCO sector in Rwanda is still very young, findings also revealed that the majority is constituted by 52 respondents, means (50.98%) whose years of experience is between 1 to 2 years. They were followed by that ones whose years of experience is 3 years and above at the number of 37 respondents (36.27%).

One of the general interpretation to the demographic profile of the selected SACCOs' respondents, it is that they constituted by both men and women, which means that data for research were collected without any gender discrimination. Apart from the gender profile, age grouping in three different interval was also used among respondents, findings revealed that very fewer were retired persons, where as big number of respondents were young people and so, the majority were very young people as it is shown in the table below but educated as it is shown by their education level which was also explored by the researcher, because findings revealed that ones with secondary education level where majority, in support with ones who are highly educated, even if they are other ones with primary education level among their qualification but whose working experience is considerable, These ones had probably work in the SACCO in the previous time when the SACCO sector was not regulated enough; and lastly,

those who had less than one year of experience. One of the interpretations from this study is that the majority of the respondents had some experience (that is to say from 2 to 3 years) hence able to give authentic information needed for the study and also use their experience to better analyze these issue as it required their objectivity in providing their critical point of views. Additionally, it can also be noted that fewer administrators and employees has enough experience, though there were very fewer respondents who has the working experience below or at least one year. Note that this was done because most of the issues investigated under credit management and sustainability are based on both education level and the working experience among others to better know respondents' demographic profile and analyze their various capacities to contribute in the selected SACCOs' credit management and sustainability.

The Credit management

To answer the second question which was to determine the degree of the credit management in terms of loan application analysis (appraisal), loan disbursement, loan recovery and loan repayment. The second group of items was explored on this issue by twelve items, whereby loan application analysis (appraisal), loan disbursement, loan recovery and loan repayment were to be explored by three items each in order to compile them and know the degree of the credit management in the selected SACCOs as it is shown in the table below.

Table 3: The degree of Credit management

Individual Score (IS)	Frequency (F)	Arithmetic Average (AA)	Corresponding Conclusion (CC)
Loan application analysis (appraisal)			
4	153	612	
3	121	363	
2	18	36	
1	14	14	
TOTAL	306	1025	3.35
Individual Score (IS)	**Frequency (F)**	**Arithmetic Average (AA)**	**Corresponding Conclusion (CC)**
Loan disbursement			
4	178	712	
3	113	339	
2	13	26	
1	2	2	
TOTAL	306	1079	3.53

Individual Score (IS)	Frequency (F)	Arithmetic Average (AA)	Corresponding Conclusion (CC)
Loan recovery			
4	157	628	
3	128	384	
2	18	36	
1	3	3	
TOTAL	306	1051	3.43

Individual Score (IS)	Frequency (F)	Arithmetic Average (AA)	Corresponding Conclusion (CC)
Loan repayment			
4	116	464	
3	115	345	
2	34	68	
1	41	41	
TOTAL	306	918	3.00

Individual Score (IS)	Frequency (F)	Arithmetic Average (AA)	Corresponding Conclusion (CC)
Cumulative outcomes to determine the level of credit management			
4	604	2416	
3	477	1431	
2	83	166	
1	60	60	
TOTAL	1224	4073	3.33

To interpret data, one of the most useful things the researcher did, it was to compare different distributions of scores; whereas the proprieties of a distribution of score is an average; and then the type of average or measures of central tendency is the Mean which is the sum of set of scores divided by the number of scores. The one explored is the arithmetic mean, which is the most commonly used measure of central tendency. The score from close-ended questions was analyzed according to the criteria of judgment set for this analysis whereby the questionnaire was conceived in such a way those respondents' points of view were collected according to the four rating set by the researcher such as Strongly agree to express fully satisfaction by the number 4, Agree to express satisfaction by number 3, followed by disagree to express dissatisfaction by number 2, then Strongly disagree to express fully dissatisfaction by number 1; from here the researcher set the critical point as follows (4+3+2+1):4= **2.5**. So the criteria of judgment set for this analysis is that any item of which the arithmetic average is above the

critical point has to be satisfactory; otherwise it has to be unsatisfactory. In reference to the cumulative outcomes from data in the table above which was gathered to determine the degree of credit management in the selected SACCOs; the mean is equal to **3.33** which means that this arithmetic average is above the critical point of **2.50**; the interpretation is that the credit management in the selected SACCOs is better since various respondents' point of views is ensuring satisfaction in the process of loan application, disbursement, recovery and loan repayment as the main factors to determine the credit management in the selected SACCOs.

The sustainability

To answer the third question which was to determine the degree of sustainability in terms of HR, finance; market and legal environment; and also the financial sustainability. The third group of items was explored on this issue by nine items, whereby HR, market and legal environment were to be explored by three items each in order to compile them and know the degree of the sustainability in the selected SACCOs on one hand from primary data; on the other hand secondary data were used to determine the degree of sustainability in terms of financial sustainability, as it is shown in the tables below.

Table 4: The degree of sustainability referring to HR, market and legal environment

Individual Score (IS)	Frequency (F)	Arithmetic Average (AA)	Corresponding Conclusion (CC)
Human resource sustainability			
4	148	592	
3	146	438	
2	11	22	
1	1	1	
TOTAL	**306**	**1053**	**3.44**
Individual Score (IS)	**Frequency (F)**	**Arithmetic Average (AA)**	**Corresponding Conclusion (CC)**
Market sustainability			
4	141	564	
3	152	456	
2	9	18	
1	4	4	
TOTAL	**306**	**1042**	**3.41**

Individual Score (IS)	Frequency (F)	Arithmetic Average (AA)	Corresponding Conclusion (CC)
Legal sustainability			
4	168	672	
3	129	387	
2	9	18	
1	0	0	
TOTAL	**306**	**1077**	**3.52**
Individual Score (IS)	Frequency (F)	Arithmetic Average (AA)	Corresponding Conclusion (CC)
Cumulative outcomes to determine the level of sustainability referring to HR, market and legal environment.			
4	457	1828	
3	427	1281	
2	20	40	
1	5	5	
TOTAL	**918**	**3154**	**3.44**

To interpret data, the researcher used the same method as it is here above for the credit management; findings from cumulative outcomes in the table below whereby the sustainability in the selected SACCOs in reference to the factors such HR, market, and legal environment are ensuring long lasting sustainability because the mean is equal to **3.44** which means that this arithmetic average is above the critical point of **2.50**; the interpretation is that the sustainability in terms of HR, market and legal environment in the selected SACCOs is better based on various respondents' point of views from the selected SACCOs because it is ensuring satisfaction of HR sustainability, market sustainability, as well as legal environment sustainability.

Table 5: The degree of sustainability referring to financial sustainability

X	N	D	Xv	c	Z	D	I
X1	**working capital= 552,069,423**	**Total Assets= 578,266,751**	0.152	0.012	0.002	3 or more – Safe Below 1.8 –	Since the **z_score** is equal to **0.093** which is **below**
X2	**Retained earnings=23, 215,023**	**Total assets= 578,266,751**	0.040	0.014	0.001	Highly likely headed for bankruptcy	**1.8** the conclusion is

X	Numerator	Denominator	xv	c	z	dr	i
X3	Earnings before taxes =25,940,020	Total assets= 578,266,751	0.045	0.033	0.001	2.8 to 3 – Probably safe 1.8 to 2.7 – Likely to be bankrupt within 2 years	that the selected SACCOs are Highly likely headed for bankruptcy in terms of financial sustainability
X4	Market value of equity= 113,988,012	Book value of total liabilities= 464,278,739	0.246	0.006	0.001		
X5	Net total income or Sales= 50,745,696	Total assets= 578,266,751	0.088	0.999	0.088		
		TOTAL			0.093		

Legend: Denomination(X), Numerator (n), Denominator (d), X_value(xv), Constant (c), Z_score (z), Decision rule (dr), Interpretation (i).

This third research question has not been limited to the HR, market and legal sustainability; it had also emphasized about financial sustainability in order to better know the sustainability of selected SACCO in most important angles. So, to explore the dependent variable of the study which was about looking the extent to which is the degree of the sustainability in terms of financial sustainability among; Secondary data from 2011 financial statements reports of the selected SACCOs as they are in appendix IVB, through the use of the Credit risk models used by banks such as Altman's Z score model was used for this matter.

Findings revealed that the **z_score** as an indicator of SACCO's financial sustainability is equal to **0.093** which is **below 1.8** where as any z-score below this number indicates that the organization is highly likely headed for bankruptcy. So, conclusion is that the selected SACCOs are highly likely headed for bankruptcy in terms of financial sustainability; As the SACCO sector in Rwanda is still in infant period, SACCOs are not yet financially sustainable, in addition to this situation findings revealed that they have not yet accumulating many reserves from various yearly net incomes so as to be financially sustainable following various costs to be covered so as to generate enough income, as well as increasing assets both in quantity and in quality.

Relationship between credit management and sustainability

In this study, the fourth research question focused on looking whether there is a significant relationship between the level of credit management and the level of sustainability according to

the BoD, committees and employees of the selected SACCOs. This research question was also very useful in sense that it helped in the confirmation or denial of the study hypothesis which stated that there is no significant relationship between the level of credit management and the level of sustainability according to the BoD, committees and employees of the selected SACCOs.

The process of answering this research question by confirming or denying the research hypothesis required the correlation of the overall mean values of the independent variable and that of dependent variable. The correlation was done by the use of Pearson's Linear Correlation Coefficient (PLCC) whereby the results are indicated in table below as follows.

Table 6: Pearson's Correlations matrix of Credit Management and Sustainability

Correlated Variables		Credit management	Sustainability	Interpretation	Decision on Ho
Credit management	Pearson Correlation		.980**	Significant relationship	Rejected Ho
	Sig. (2-tailed)		0.01		
	N	12	9		
Sustainability	Pearson Correlation	.980**		Significant relationship	
	Sig. (2-tailed)	0.01			
	N	9	12		

The Regression Analysis on the Relationship between Credit Management and Sustainability

To test the strength and degree of relationship between the two study variables, regression analysis was also carried out in this research. Regression analysis is also useful in that it can enable research hypothesis be tested appropriately. The findings regarding this are presented in Table here below.

Table 7: Regression Analysis on the Variables to Test Research Hypothesis

Correlated Variables		Credit management	Sustainability	Interpretation	Decision on Ho
Credit management	Pearson Correlation		.980**	Significant relationship	Rejected Ho
	Sig. (2-tailed)		0.01		
	N	12	9		
Sustainability	Pearson Correlation	.980**		Significant relationship	
	Sig. (2-tailed)	0.01			
	N	9	12		

Reaffirmation of Hypothesis by Regression Co-efficient

In order to determine the increase in the values of dependant variable for each unit of increase in the predictor variable, regression co-efficient analysis was carried out. The importance of using regression co-efficient is that it helps in rechecking the research hypothesis by the use of done to determine the increase in the values of dependent variable for each unit of beta coefficients, t statistics and significance value. The findings regarding this are indicated in Table below.

Table 8: Regression co-efficient Analysis on the Variables

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.980[a]	.961	.961	.16493

a. Predictors: (Constant), credit management

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	160.066	1	160.066	316.884E3	0.01[a]
	Residual	6.529	240	2.027		
	Total	166.595	241			

a. Predictors: (Constant), credit management

b. Dependent Variable: sustainability

Regression Analysis on the Variables to Test Research Hypothesis was used to test the strength of relationship between these two research variables, whereby the degree of credit management accounts for 96.1 percent of the total variation in the level of sustainability. And this is indicated in the value of R. Square value that is .961. The validity of the findings in R. Square is determined by Adjusted R. Square that remains the same as the R. Square, this means that R. Square value that justifies the percentage variation of the relationship between these two variables is very authentic. ANOVA is used so that the degree based on the general regression models can be statistically assessed the relationship between the two research variables is positively significant as the F ratio is 316.884E3 hence, highly significant at the 0.01 level as we all know that higher F. ratio is an indication of more variance in the dependent variable explained by the independent variable. So, the general regression model is statistically significant (F ratio=316.884E3 probability level 0.01). The probability level 0.01 means that the

chances are almost zero that the results of regression model are due to random events instead of a true relationship. The research hypothesis of no significant relationship between credit management and sustainability is rejected which means that there is a positively significant relationship between credit management and sustainability in the selected SACCOs.

Reaffirmation of Hypothesis by Regression Co-efficient

Regression co-efficient analysis helps to recheck the research hypothesis by determining the increase in the values of dependant variable for each unit of increase in the predictor variable for each unit of beta coefficients, t statistics and significance value.

Table 9: Reaffirmation of Hypothesis by Regression co-efficient

Coefficients[a]

Model		B	Std. Error	Beta	T	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
1	(Constant)	.771	.037		52.302	.01
	Credit Management	.822	.014	.980	132.771	.01

a. Dependent Variable: sustainability

Regression co-efficient analysis helps to recheck the research hypothesis by determining the increase in the values of dependant variable for each unit of increase in the predictor variable for each unit increases the degree of credit management by 98 percent and this is confirmed at Beta = .980, t = 132.771, P< .01. Once more again, the research hypothesis of no significant relationship between credit management and sustainability is rejected, and then findings ensured a positive and significant relationship between credit management and sustainability in the selected SACCOs.

FINDINGS

The main issue attempted in this study was to establish whether credit management significantly influences the level of sustainability in the selected SACCOs of KVS, SACCO-CYATO, KANJONGO SACCO, WRS and AMS. To fulfill this study purpose, four study objectives were formed and the first research objective determined the profile of respondents as regards to their gender, age group, education level and lastly, the number of year the respondents had taken or spent in SACCO; the next one determined the level of credit

management in these selected SACCOs; then, third objective determined the level of sustainability in these selected SACCOs; and the last objective established whether there was a significant relationship between the level of credit management and level of sustainability in the selected SACCOs.

In reference to the respondents profile, as regards their gender most of them were men since there were 54 (52.94%) of the respondents while women were 48 (47.06%) of the respondents. So, the respondents' points of view were collected from both male and female as far as respondent gender is concerned. The following respondents profile was their age interval which was also determined by the findings. It was revealed that most of the respondents were at the age of 21 to 35 because there were 58(56.86%), followed by the age group of 36 to 65 whereby there were 43 (42.16%), lastly the age interval of 66 and above where as they were 1 (0.98%).This diversity was very important in sharing experiences on the research variables. Another respondents profile, it was their education level whereby the majority of the respondents were those with secondary level whose respondents number is 75 (73.53%); this was followed by those who were attained primary level 18(17.65%) and lastly, those with university level who were only 9 (8.82%). This means that respondents were capable of understanding the concepts under credit management and sustainability easily based on the level of their literacy. Lastly the working experience was also the respondents profile investigated in this study; findings revealed that the majority of the respondents was 52(50.98%) who had spent from 2 to 3 years because the SACCO sector in Rwanda is still young , they were followed by those who had 3 years and above whose number is 37 respondents, means (36.27%); these ones had probably work in the SACCO in the previous time when the SACCO sector was not regulated enough, but they must have a clear record on matter of not leading or managing the collapsed ones; and lastly, those who had less than one year of experience 13(12.75%). This has the implication of revealing relevant information about the study variables based on their level of experience in the selected SACCOs as administrators and employees.

As regards to the level of credit management in the selected SACCOs, from the group of twelve items explored under loan application analysis (appraisal), loan disbursement, loan recovery and loan repayment, they were explored by three items each; By use of frequency and arithmetic average (or the mean). They were compiled then findings revealed that the degree of the credit management in the selected SACCOs as it has been undertaken through use of mean, whereas it was 3.33. In relation with this research finding on the degree of credit management with those analyzed in the literature, it can be noted that the findings are in agreement with those of Beffeda B. K. (2007), Kagaba S. (2010) , Pandey J.K. (2006), Nteziyaremye et al. (2001), Fernando (2006), Otero and Rhyne (1994) ; who in their various

studies ascertain that Credit management is the whole process and systems through which the lending operations strive to Offer services which meet the demands; to Operate as efficiently as possible by minimizing costs; to Charge interest rates and fees, which are sufficient to cover all costs, to Motivate clients to repay loans as per agreed terms in order to Achieve sustainability of operations through high degree of efficiency exercised; and so more frequent repayment schedule generates a higher effective interest rate, a weekly payment schedule should be negatively (positively) associated with financial unsustainability (sustainability).

As far as the degree of sustainability of selected SACCOs is concerned from the group of nine items explored under HR, market and legal environment were explored by three items each in order to compile them and know the degree of the sustainability in the selected SACCOs on one hand from primary data here by the use of frequency and arithmetic average (or the mean) findings revealed that it was 3.44; on the other hand secondary data were used to determine the degree of sustainability in terms of financial sustainability form the compiled financial statements of the year 2011 (balance sheets and income statement) of the selected SACCOs; so the findings revealed that financial sustainability of the selected SACCOs through the use of Altman Z_score it was 0.093. Relating this research finding on the degree of sustainability in the selected SACCOs with those analyzed in the literature, it can be noted that the findings were in line with those of Rosengard (2001), Adongo and Stork (2005), Robinson M. (2001), Norgaard (2001) who cited in that the development of products and delivery systems that meet client needs, at prices that cover all costs providing t financial services which is determined by the amount of loans disbursed which is in turn is theoretically expected to be negatively (positively) related to financial unsustainability (sustainability) because it reduces per unit cost of the lending; and so the institutions are not sustainable primarily because their interest rates on loans are too low for full cost recovery; and then Using the indicator of financial sustainability, the study could find out whether the institution is in a comfort zone or not.

CONCLUSIONS

To conclude the researcher carefully stood on the research problem after following up the purpose of the study; which was to test hypothesis aimed to find out the relationship between the credit management and the sustainability of selected SACCOs namely KVS, SACCO-CYATO, KANJONGO SACCO, WRS and AMS; In addition it was also to approve or disprove the theory of sustainability. So, in conclusion there was no new information generated since all the findings were in agreement with other researchers articulated in the literature review. The finding on the credit management was in agreement with some of the findings of Beffeda B. K. (2007), Nteziyaremye et al. (2001) among others; the findings on the level of sustainability was

in agreement with those of Adongo and Stork (2005), Norgaard (2001) among others. Lastly, the findings on the significant relationship between credit management and sustainability were in agreement with those of Pierce (1992), Diane Rusell (1995) among others;

RECOMMENDATIONS

To ensure the better credit management match with the high sustainability, the following series of recommendations must be focused on, followed and implemented within the organizations as well as SACCOs:

The SACCOs should regularly provide training to the members on credit issues, and use tools like their credit policy and make members' assessment based on 5C's technique in loan application analysis, then diversify the credits products according to the members' needs as individuals and also to the group of individuals because the peer pressure that group members exert on each other should lead to lower default rates on the number of loans disbursed;

They should conceive appropriate recovering policies and make the continuous monitoring of inefficiency recovery policies by properly elaborating the loan categorization report basing on time of payment; then penalize delinquent loans and make sure that there is zero tolerance for members with loan in arrears whereby they should be effective follow-up measures of loan repayment; They should write off non repaid loans according to the regulators' rules and regulations if necessary take the defaulter members into court.

They should continue to recruit competent employees basing on labor law and SACCO's recruiting policies; then provide training, seminars and conferences on timely basis by properly applying effective and efficient incentives to retain them as they will be satisfied with their jobs in SACCOs.

They should provide various products which respond to their members' needs and make their awareness to all members by use of different intelligence means for market sustainability through monitoring and evaluation of their products on timely basis.

They should have Cooperative law, BNR rules and regulations and also strong internal rules, policies and procedures, then comply with them by properly making the supervision on compliance issue whereby report on this matter should be regularly submitted to the regulators.

They should include in their financial statement reports, sensitive rations of financial sustainability by use of various model such as Altman's Z Score Model among others, so as they could know proactively if they are really Operate as efficiently as possible by minimizing costs; by properly Charging interest rates and fees, which are sufficient to cover all costs in order to achieve sustainability.

Area of Future Research

To encourage the future research on the matter of SACCOs' sustainability the following topics have been proposed for further researches:

1.   Outreach and SACCOs' sustainability;

2.   Government support and SACCOs' sustainability;

3.   Savings mobilization and SACCOs' sustainability.

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