Global Advanced Research Journal of Management and Business Studies (ISSN: 2315-5086) Vol. 2(6) pp. 328-341, June, 2013 Available online http://garj.org/garjmbs/index.htm
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Full Length Research Paper

# Credit rationing and loan repayment performance: the case study of victoria savings and credit cooperative society

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Accepted 30 May 2013

The main objective of this study was to examine the contribution of credit rationing in loan repayment performance. A case study design was adopted in which Victoria Saving and Credit Cooperative Society (SACCOS) was selected as a case study. Research data were collected through semi structured questionnaires that were distributed to members and interviews that were administered to SACCOS's manager, credit officers and credit committee members. The overall findings revealed that major factors used by SACCOS for credit rationing were Savings, deposits, group guarantee, asset collateral, quarantors, sex and age. The study also found out that among the factors that were used for credit rationing in SACCOS age influenced loan repayment performance. From the findings, it was concluded that SACCOS's credit rationing process was weak since it failed to discriminate between credit worthy and non-credit worthy borrowers and thus resulting into poor loan repayment performance. Credit rationing system need to take into account the factors that influence loan repayment performance when rationing loan applicants. Based on research findings, the study recommends members' training in proper loan utilization and business management skills so as to invest in profitable business ventures and improve their loan repayment performance. The government also should provide sufficient financial and human resources to cooperative department so that it can extent its supportive roles to SACCOS to improve its service delivery to members.

**Keywords:** Credit, rationing, loan, performance, cooperative society

## INTRODUCTION

SACCOS required to meet their member's socioeconomic objectives at the same time maintaining its financial viability. Its success/failure in members financing as well as its financial position therefore relies on its loan recovery performance. A study conducted in USA 2007

## **ABBREVIATIONS AND ACRONYMS**

SACCOS: Savings and credit cooperatives; WOCCU: World council of credit council; MFIs: Microfinance institutions; SEALS: Social emergency loan scheme; SPSS: Statistical package for social science; URT: United Republic of Tanzania

indicates that SACCOS that participated in the World Council of Credit Union (WOCCU) technical assistance program served 88,503,758 members; they had US \$

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646,819,707,715 in savings account and US \$ 538,602,825,361 outstanding in loans (CGAP 2009). A total of 4631 out of 8269 SACCOS equal to 56% failed and its sustainability and profitability were affected with loan delinquency and defaults from borrowers. They could not withstand the combined pressure of rising interest costs on their deposits as well as their huge investment into old fixed-rate and low-yielding mortgage. Their profits plummeted and eventually turned into substantial losses (Kaleshu 2006). In Africa context, the problem of loan delinquency and defaults in SACCOS has a long history. Studies conducted by United States Agency for International Development (USAID) in 18 Uganda's SACCOS revealed that Uganda's SACCOS had weak financial system for screening credit worthy borrowers as well as tracking delinquent loans at loan officer level, aging arrears at the management level and authorisation bad debt write -off at the board level (USAID 2006). In Tanzanian context, we have experienced SACCOS institutions being formed, growing, thriving and then collapsing (ACOSCA 2000). According to the Ministry of Agriculture, Food Security and cooperatives (2008) shows that by December 2008, there were 5,230 registered SACCOS in Tanzania serving members with savings worth 119,512,546,118.00, shares of Tshs 30,020,952,124.00, loans issued were Tshs 354,670.593.368.00 and loans outstanding were Tshs 136,964,269,717.00. It has also been recognized that some of these SACCOS were weak in credit rationing and in making follow up on loan repayment at the right time especially those in rural areas, thus resulting into loan delinquency and hence affecting profitability and sustainability of SACCOS (ICA 2001. The default problem mentioned above leads us to pose the question of whether the SACCOS's screening criteria are efficient in screening credit worthy borrowers as well as in determining the appropriate loan size, terms and conditions that takes into account the repayment capacity of the borrower. It also necessitates the need for making an empirical investigation on the factors behind the default problem so that the lending unit in SACCOS could make an appropriate precaution in its lending decision as well as revise its screening criteria in order for potentially credit worthy borrowers not to be rationed wrongly, to ensure that organization's finance are utilized productively.

# Statement of the research problem

SACCOS help those who have been excluded from accessing financial services from formal financial institutions and also contribute to reduce negative impacts of local money lenders in the areas where they operate.

Although the performance of SACCOS in Tanzania has been impressive since their establishment, they

are experiencing default problems as can be observed in their declining repayment rates, as indicated in the previous section. Hunte (1996) argues that default problems destroy lending capacity as the flow of repayment declines, transforming lenders into welfare agencies, instead of a viable financial institution. He also adds that default problems incorrectly penalize creditworthy borrowers whenever the screening mechanism is not efficient.

Arene (1992) argues that, whether default is random and influenced by erratic behavior or whether it is influenced by certain factors in a specific situation, there is a need for an empirical investigation so that the findings can be used by micro financing institutions to manipulate their credit programs for the better.

This study attempted to analyze the impact of loan screening mechanism on loan repayment performance by taking the case of Victoria SACCOS operating in Mwanza District.

# Objective of the study

# **General objective**

The general objective of the study was to assess the contribution of credit rationing on loan repayment performance.

#### **Specific objectives**

The study pursued the following specific objectives:-

- 1. To identify the major factors used as a means of credit screening in SACCOS.
- 2. To study whether the factors used for credit screening also influence loan repayment.

# Research questions

This research paper tackled the problems by addressing the following questions:

- 1. What are the major factors used as a means of credit screening?
- 2. Are the factors used for credit rationing in Victoria SACCOS influence loan repayment?

# Significance of the study

The research output will be helpful for Victoria SACCOS and other SACCOS to evaluate its screening criteria and revise it accordingly in favor of credit worthy borrowers so as to alleviate loan repayment constraints.

Research findings will also help SACCOS to identify the major characteristics that distinguish credit worthy borrowers and defaulters so that it could act accordingly for future screening purpose. Moreover, an analysis of factors affecting loan repayment performance of SACCOS's borrowers would help policy makers to formulate successful credit policies and programmes that enable them to allocate scarce financial resources to the development of basic sectors of the economy.

#### Literature review

# **Definition of key Concepts**

1. Credit rationing: Credit rationing is broadly defined as a situation where the demands for loans exceed the supply of loans at the going interest rate. Different types of credit rationing have been examined in the literature.

Padmanabhan, (1981) saw it from the angle of loan size where borrowers receive a lesser amount of loan than they requested at a given loan rate. Credit rationing as defined by Jaffee (1971) as the difference between the quantity of loans demanded and loans supplied at the ruling interest rate.

Jaffe and Stiglitz (1990) further broadened the classification and identified three types credit rationing. These are; a) A situation where a borrower may receive a loan of smaller amount than desired; b) A situation where some individuals cannot borrow at the interest rate they consider appropriate based on what they perceive to be their probability of default and c) A situation where a borrower may be denied credit, when a lender thinks of not being able to obtain its required return at any interest rate.

The concept that will be addressed in this study is the first type of rationing where a borrower receives a loan of smaller amount than desired.

2. Credit: The terms loan and credit are used interchangeably. The study adopts the credit definition of Aryeetey (1995) who defined credit as an arrangement in which a lender gives money to a borrower, and the borrower agrees to repay the money, usually along with interest, at some future point(s) in time.

He also adds that, there is a predetermined time for repaying a loan, and generally the lender has to bear the risk that the borrower may not repay a loan.

3. Credit default: The study adopts the definition of Abel and Eberly (2004) who defined credit default as the failure of the borrower to repay loan in accordance with the terms of the lender.

#### The need for credit rationing

Lending institutions are faced with four major problems in the course of undertaking credit activity: a) to ascertain what kind of risk the potential borrower is (adverse selection), b) to make sure the borrower will utilize the loan properly once made, so that he will be able to repay it (moral hazard), c) to learn how the project really did in case the borrower declares his inability to repay and d) to find methods to force the borrower to repay the loan if the borrower is reluctant to do so (enforcement). (Ghatak and Guinnane, 1999).

The key elements of effective credit management therefore are well developed credit policies and procedures; strong portfolio management; effective credit controls and the most crucial of all, a well trained staff that are qualified to implement the system (Vigano, 1993).

#### Loan repayment performance

Arene (1992) outlines the main factors that determine loan repayment performance as loan size, enterprise size, income, age, number of years of business experience, distance between home and source of loan, education, household size, adoption of innovations, and credit needs.

Von Pischke (1980) identified two problems as major causes of poor loan recovery performance: credit project design problems and credit project implementation problems.

Credit project design problems include debt versus equity, realism versus aspiration (how realistic the projection of the project designer is), expected value versus dispersion (detailed consideration of the variety of results which occur in the field), book keeping convenience versus borrower cash flow patterns, collection mechanism, institutional scope or range of services offered and interest rates. Credit project implementation problems include low service levels, coordination, access (i.e. information problem and lack of decision making experience in lending to specific target groups) and financial recording (ibid)

The findings above revealed that the probability of loan repayment depends on the borrowers' specific characteristics (i.e. age, education, experience, sex, household size, loan utilization), loan contract terms (i.e. repayment installment, collateral, frequency of maturity, grace period, loan volume, interest rate, number of disbursement) and other factors such as political influence, technical advice, level of social cohesion (for micro enterprises).

# Theoretical perspectives on loan default problems

There are several factors that have been attributed to the high default rates in saving and credit institutions. At one hand, there are those who argue that characteristics of small-scale enterprises make the cost of administering credit very high compared to the return on the loans.

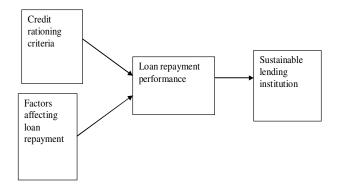


Figure 2.1: Proposed conceptual model: The impact of credit rationing on

Ioan Repayment

Source: Researcher's Model (2012)

Small scale enterprises possess shallow management, often with little experience and training; they are usually undiversified, one product firms, they are sometimes new businesses with little track record, and poor financial recording; they may have a new unproven product; they have little to offer by way of security to a lender; they may be reluctant to raise outside equity capital for reasons of expense, loss of control and increased disclosure requirements.

These characteristics of small-scale enterprises provide little incentive for any aggressive loan recovery mechanisms (Beker and Dia, 1987).

On the other hand, there are those who argue that the failure of lending agencies in playing their roles in loan disbursement and recovery process is a major contribution to loan default (Vigano, 1993).

Different authors recommend tackling the problems raised on the side of borrowers, lending institutions and government as solution to the default problem attributed to small-scale enterprises in developing countries (Stiglitz and Weiss, 1981).

This study also attempts to address the issue of loan default problems in terms of a lending institution to ascertain the efficiency and effectiveness of credit screening mechanism to ensure timely loan repayment at Victoria SACCOS.

# Credit rationing in SACCOS

SACCOS in Tanzania are regulated by the Cooperative societies act number 20 of 2003. The act provides guidance for the formation, constitution, registration and operation of cooperative societies and for other matters incidental to or otherwise connected with those purposes (URT, 2004). According to section 69(1) (e) of the Cooperative Societies Act, the funds of a registered society including SACCOS includes savings and deposits collected from its members. The savings and deposits are ultimately returned to members in terms of loans.

According to section 71(1), SACCOS are allowed to issue loans only to its members (ibid).

The cooperative societies rules, 2004 (made from Cooperative Societies Act 2003) provides general guidelines criteria for credit rationing in SACCOS. However the credit committee members are given the mandatory to set specific credit rationing criteria for loans in their particular SACCOS (URT, 2004)

According to section 88 of the Cooperatives Societies Rules 2004, the set out criteria for credit rationing in SACCOS are; loan purpose, security, character, financial conditions and guarantor (ibid).

## Conceptual framework and research model

Figure 2.1 illustrates the impact of credit rationing on loan repayment. Credit rationing criteria (Asset collateral ,Guarantors ,Group guarantees, savings, deposits) and the factors that affect loan repayment(loan size, enterprise size, income, age, number of years of business experience, distance between home and source of loan, education, household size, adoption of innovations, and credit needs) as independent variables, affects loan repayment performance as a dependent variable. Improved loan repayment performance is hypothesized o lead into the sustainable lending institution that covers both financial and operational cost and thus depends on repaid loan to offer credits sustainably.

# **Empirical literature**

Hunte (1996) examined the credit rationing technology of lenders and the repayment behavior of borrowers at a rural financial institution based on 504 sample observations.

Loan rationing equation and loan repayment equations estimated employing tobit model using survey data at Guyana Cooperative Agricultural and Industrial Development Bank revealed that only 33% of the criteria

utilized identified credit worthy borrowers implying that the screening technology was not efficient and needed to be repaired. The results also indicated that tightening the loan contract terms by reducing the grace period on loans and rejecting applications which had long processing times enhanced the pool of credit worthy borrowers. Female borrowers were also not rationed differently than male borrowers, nor were they worse re-payers than male borrowers (i.e. the variable sex was insignificant in both equations), but wealthy borrowers were bad credit risks as their repayment performance were poor. In general, the study showed that only four out of twelve explanatory variables (fishing, males in food crops and livestock, credit experience and sugar cane) enhance creditworthiness, while other variables especially grace period, delays, and joint borrowers contribute significantly to the default problem.

A study made on loan repayment determinants under the Social Emergency Loan Scheme (SEALS) in Nigeria by Njoku and Odii (1991) employing multiple regression model based on 300 sample beneficiaries (9.3% of the total population) indicated that poor loan repayment performance was due to late release of loan funds, cumbersome loan application and disbursement procedures and emphasis on political considerations in loan approvals.

In Ethiopia an econometric estimation was conducted by Mengistu (1997) based on survey data, on the determinants of loan repayment performance and efficacy of screening mechanism in urban Ethiopia, taking the case of Awassa and Bahir Dar towns. The estimation result using binomial probit model revealed that for Awassa, the number of persons employed and weekly installment repayment period are significantly and positively related with repaying loan in full while loan diversion is significantly and negatively related. In terms of the probability of falling in either of the groups, it was found that there was 53% probability of repaying loan in full. In the case of Bahir Dar, loan expectation and number of workers employed had a positive relation with full loan repayment while loan diversion and availability of other sources of credit have a negative impact. The predicted probability of full loan repayment in this case was 78%. He employed 352 sample beneficiaries for the case of Awassa and 409 for Bahir Dar.

Concerning the Loan Rationing Mechanism, for the case of Awassa, seven out of nine variables were statistically significant. Loan size, supervision visits, weekly repayment period and loan diversion were positively related with loan rationing ratio. In the case of Bahir Dar, loan size, expectation for another loan and availability of other credit sources were positively related with loan rationing ratio while number of workers employed, supervision visits and loan diversion had negative impact.

The results from the two equations implies that for the case of Awassa, literate and aged borrowers were

incorrectly rationed despite being good payers while loan diverters and large loan applicants were not rationed but they were actually non-creditworthy borrowers.

#### RESEARCH METHODOLOGY

# Study area and justification

The study was conducted at Victoria SACCOS Ltd located in Mwanza Municipal. Victoria SACCOS is among the prosperous saving and credit institution in the District in terms of members, profit, lending experience and loan portfolio management. However, the SACCOS was experiencing loan default problems. The SACCOS was preferred since it offers loans to individual members who are self employed in formal and informal sectors whose loan repayments comes from undertaken projects other than monthly salary from formal employment. In this regard, SACCOS's management is motivated to assess the borrowers effectively to ensure timely repayment. SACCOS that offer loans to members who have formal employment, their loan repayment mainly depends on their salary and not from the undertaken project and thus they were not suitable for the study.

#### Research design

The study adopted the case study design whereby Victoria SACCOS was used as a case study. A case study was adopted since the study aimed at an in-depth and comprehensive study of credit rationing and loan repayment performance variables in a SACCOS.

# Research sampling plan

#### Population of the study

Population of the study comprised of two (2) Credit officers, three (3) credit committee members, a SACCOS manager and one hundred and fifty (150) SACCOS members who had borrowed from the SACCOS whose repayment periods were due.

# Sample size

The study sample size comprised of the SACCOS manager, 2 credit officers, 3 credit committee members who were selected purposively and 81 borrowers who were selected by a means of stratified sampling. The sample size adopted was due to scatteredness of members and limited resources. Some researchers had employed similar sample size in similar studies. For example, Okorie (1986) provided empirical evidence and

quantification of the extent to which some factors influence loan repayment among smallholder farmers in developing countries with particular reference to Ondo state small holders in Nigeria based on 54 sample small holder farmers.

# Sampling techniques

The study adopted stratified simple random sampling and purposive/judgmental sampling to select study respondents.

# Stratified sampling

Simple random sampling method was used to get borrowers from SACCOS. From the SACCOS's loan register, borrowers were divided in five sub-groups according to their economic activities such as farming, animal husbandry, housing, education and small business.

A simple random sampling was then applied to these sub-groups to obtain a total of 20 borrowers from each sub-group making a sample of 100 borrowers though only 81 borrowers returned dully filled questionnaires.

#### Purposive or judgmental sampling

Purposive selection aided the researcher to select all SACCOS's officers who were directly involved in credit management who were SACCOS's manager, credit officers and credit committee members. These respondents were purposively selected since they were involved in day to day credit processing, screening and delivery and thus researcher believed they had pertinent loan information.

# DATA COLLECTION METHODS/TECHNIQUES

In this study, data collection methods were done through interviews, questionnaires and documentary sources. Two sets of data were employed for the empirical analyses, primary and secondary data.

The primary data were collected through field questionnaire administration and interview while the secondary data were obtained from SACCOS's documents.

#### Interview

This technique was used to interview the SACCOS manager, three credit committee members and the loan officers. Information collected from these officials

included; Credit information of the enterprise such as loan amount, loan requested, approved and disbursed. Other information included, repayment period, number of disbursement installments, collateral coverage, loan demand and grace period. Also, information regarding type of collateral, borrower's assessment criteria, loan size, number of borrowers and the degree of economic diversification as proxy by number of economic activities and loan portfolio information were collected through interview.

#### Questionnaires

A set of questionnaires were administered to selected 81 borrowers whose repayment period had matured.

Information collected through questionnaire included: borrower's characteristics such as age, sex, marital status, level of education, household size, business experience, loan utilization and implementation of the project as well as information on income sources for loan repayment.

#### **Documentaries review**

Secondary data for the study were collected from various sources which included audited financial reports which were Profit and loss account and balance sheet, SACCOS's loan portfolio report, loan performance reports, internal monthly financial statements and SACCOS's Credit policy. The secondary data were solicited from the audited financial statements for the past five years that were 2006/2007, 2007/2008, 2008/2009, 2009/2010 and 2010/2011.

The above mentioned documents contained pertinent information regarding loans issuing criteria, loan repayment performance status, loan repayment period for each borrower, borrower's name, loan purpose and collateral requirements.

The documents also revealed the total loan applied by members and the total loan issued to members.

#### Data analysis and presentation

Qualitative and quantitative data were collected. Both types of data were analysed by means of Statistical Package for Social Science Software (SPSS). Qualitative data were analysed descriptively to give clear interpretation and they were analysed and presented in forms of tables, figures, and graphs.

# Scope and limitation of the study

There are a lot of problems facing SACCOS in Tanzania regarding the general management, operations and credit management just to mention a few.

Table 4.7: Credit Rationing Process in SACCOS

Credit Rationing Steps	Ranking
Inspecting borrower's loan application form	1
Visiting borrower's business premises	2
Checking borrower's guarantor capacity	3
Investigating borrower's repayment background	4
Checking borrower's saving and deposit capacity	5
Examining borrowers loan objectives	6
Getting borrower's information from relatives or neighbors	7
Visiting borrower's loan collateral	8

Table 4.8: Amount of Loan Borrowed by Individual Members

Financial Year	Loan Application Received	<b>Loan Amount Disbursed</b>
2006/2007	50,526,000	44,210,000
2007/2008	99,010,000	89,830,368
2008/2009	100,212,000	99,056,520
2009/2010	120,100,000	105,357,929
2010/2011	150,660,000	132,120,329

Source: Field Data (2012)

The finding of the research would have been more satisfactory if it were able to cover these problems in all SACCOS in Mwanza District. The following were the limitations of the study;

 Scarcity of resources such as time and money and scatteredness of the members, the study was limited to Victoria SACCOS.

# PRESENTATION AND DISCUSSION OF RESEARCH FINDINGS

#### Credit rationing in SACCOS

Credit rationing process in SACCOS: The study found out that credit rationing in SACCOS composed of the following steps; inspecting borrowers loan application forms, visiting borrower's business premises and make evaluation and checking the capacity of borrower's guarantors. Other steps in credit rationing process were investigating borrower's repayment background and determining borrower's ability through savings and deposit as well as examining borrower's loan objectives and getting borrower's additional information from either relatives or neighbors. The final step in credit rationing process was to visit borrower's loan collateral.

The savings of members also were regarded as collateral that enabled members to borrow from SACCOS according to his/her savings capacity. The capacity of borrower's guarantor and investigation of borrower's repayment background techniques were given equal weight to be the most important techniques in assessing

borrower's capacity to repay loan to SACCOS. Table 4.7 summarizes the credit rationing process in SACCOS.

#### Amount of loans applied and received by members

Table 4.8 shows the amount of loan applied and disbursed to members. The table reveals that the amount of loan released was less than loan applications received implying that SACCOS applies some criteria to ration loans applied by members. What is observed in table 4.8 is thus credit rationing where all applicants could not be eligible for the loan and even those who are eligible get less amount than the amount requested. In the fiscal year 2006/2007 out of the sum of Tanzanian shillings (Tshs) 50, 526,000 that were applied by members as loans only 44,210,000 equivalents to (87%) of total applied loans were disbursed to members. This implies that 13% of credit applications were rationed out .For the year 2007/2008 out of Tshs 99, 010, 000 that were applied only Tshs 89, 830,368 equivalents to 90% of total applied loans were disbursed. During the fiscal year 2008/2009, 2009/2010 and 2010/2011, 99%, 88% and 87% of total applied loans were respectively disbursed to members. Victoria SACCOS mainly applied a type of credit rationing whereby eligible loan applicants get less amount of loan than loan amount desired.

Figure 4.1 further illustrates the trend of the loan amount received over preceding years. The trend shows a continuous increase for the last five years. This was mainly due to large numbers of applicants who were ambitiously applying for loans for the purpose of

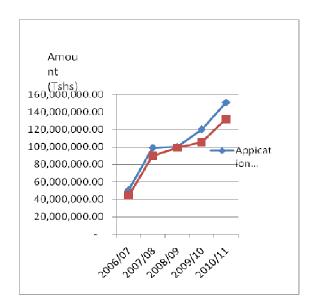


Figure 4.1: Loan Amount Received and Borrowed by Individual Members Source: Field Data (2012)

Table 4.9: Loan Repayment performance of Borrowers

Year	Amount Disbursed	Amount Collected	Default Loan
2006/2007	44,210,000	37,111,560	7,098,440
2007/2008	89,830,368	84,870,150	4,960,218
2008/2009	99,056,520	83,730,250	15,326,270
2009/2010	105,357,929	97,380,750	17,977,179
2010/2011	132,120,329	108,980,000	23,140,329

alleviating poverty. Also the trend in loan disbursement showed a continuous increase over the last five years.

# Loan repayment performance of borrowers

Table 4.9 shows loan repayment performance of borrowers. According to the table there was continuous increasing trend in the amount of loan disbursed to borrowers over the last five years.

From the financial year 2006/2007 to 2010/2011 there was an increase of amount of loan disbursed by 199% which is almost twice loan amount disbursed in 2006/2007.

However, the trend in amount of loan collected showed an increase but in a decreasing rate. For example, in the financial year 2006/2007 to 2007/2008 there was an increase in the amount of loan collected by 129% but during the financial year 2007/2008 to 2008/2009 amount of loan collected decreased by 1%. From the fiscal year 2009/2010 to 2010/2011 there was an increase in loan amount collected by 12%.

The amount of default loan on the other hand also showed a continuous increase over the past five years. In the fiscal

year 2007/2008 to 2008/2009 loan default amount increased sharply by 2008% which is almost twice amount as compared to preceding fiscal year 2007/2008. Generally in the fiscal year 2006/2007 to 2010/2011 default loan amount increased by 226% that was almost more than two times loan default amount in fiscal year 2006/2007. These statistics revealed that SACCOS's credit rationing mechanism was not efficient in assessing the borrower's credit worthiness since some borrowers failed to repay loan amount as scheduled in loan contract. If credit rationing mechanism in SACCOS were efficient it was expected that with an increase in loan disbursement over the past five years, there would have been an increase in amount of loan collected.

Figure 4.2 further illustrates the trends of loan amount disbursed, collected and loan default amount.

#### Variables for credit screening in SACCOS

Table 4.10 shows factors used for credit rationing in SACCOS. In order to ascertain the factors used for credit rationing in SACCOS, credit committee members, manager and credit officers were given a list of variables

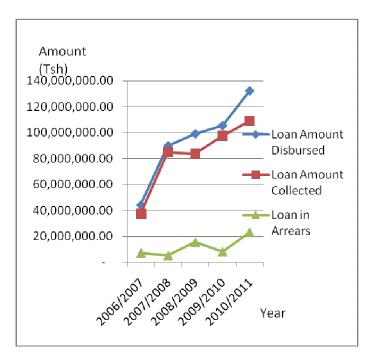


Figure 4.2: Loan Repayment Performances of Borrowers Source: Field Data (2012)

Table 4.10: Variables for Credit Rationing in SACCOS

Variables for Credit Screening	Frequency
Asset Collateral	6
Guarantors	6
Group Guarantee	2
Savings	6
Deposit	6
Age	2
Education	0
Project Running Experience	0
Alternative source of Income	0
Sex	2

and asked to indicate factors used by SACCOS for credit rationing. They were also given the room to indicate other factors in case they were not listed.

As indicated in Table 4.10, Asset collateral, Guarantors, Savings and Deposits were indicated by 6 respondents (100%) to have being used as factors for credit rationing. Group guarantee, sex and age were indicated by 2 respondents (33%) as factors for credit rationing.

Factors like alternative source of income, education, project experience were not indicated as factors for credit rationing. This implied that during credit rationing process in Victoria SACCOS, education of individual loan applicant, his experience in running economic project and

his alternative sources of income were not considered that is to say, credit rationing mechanism rationed equally illiterate and educated borrower. Moreover, credit rationing in Victoria SACCOS did not distinguish new loan applicants and experience ones and also applicants with single source of income were ranked equally with multiple-source of income loan applicants. Arene (1992) outlined the main factors that determine loan repayment performance among others alternative source of income, education and numbers of years of business experience. From Arene's view point, credit rationing in Victoria SACCOS is said to be weak since it ignores important factors like education, members experience and

Table 4.11: Factors influencing Loan repayment performance of borrowers

Factors	Response	Members	SACCOS Mgt and Employees	Frequency	Percentage (%)
Business Management	Agree	73	6	79	91
Skills	Disagree	8	0	8	9
	Total	81	6	87	100
Alternative source of	Agree	58	5	63	72
Income	Disagree	23	1	24	28
	Total	81	6	87	100
Unfavorable weather	Agree	76	6	82	94
Condition	Disagree	5	0	5	6
	Total	81	6	87	100
House hold size	Agree	62	4	66	76
	Disagree	19	2	21	24
	Total	81	6	87	100
Late Loan delivery	Agree	72	4	76	87
,	Disagree	9	2	11	13
	Total	81	6	87	100
Distance between the	Agree	63	4	67	77
Project and SACCOS	Disagree	18	2	20	23
	Total	81	6	87	100
Number of years of	Agree	70	3	73	84
project running	Disagree	11	3	14	16
experience	Total	81	6	87	100
Age	Agree	49	2	51	59
	Disagree	32	4	36	41
	Total	81	6	87	100
	Total	81	6	87	100
Loan Diversion	Agree	74	6	80	92
	Disagree	7	0	7	8
	Total	81	6	87	100
	Agree	54	1	55	63
Credit Rationing	Disagree	27	5	32	37
	Total	81	6	87	100

alternative source of income that affects loan repayment performance.

# Factors influencing loan repayment performance.

In order to find out the factors that influence loan repayment respondents were asked to indicate the extent to which they agree or disagree with the statement regarding the factors influencing borrowers' loan repayment performance.

Table 4.11 shows the percentage of respondents with their views regarding the factors that influenced loan repayment performance. Each item in the table was analysed independently.

The findings in table 4.11 indicated that 79 respondents (91%) said that business management skills influenced loan repayment performance and 63 respondents (72%) said that alternative source of income influenced loan repayment performance. The findings also indicated that 82 respondents (94%) said that loan repayment

performance was influenced by unfavorable weather conditions especially for loans utilized for farming activities and 66 respondents (76%) said that loan repayment performance was influence by house hold size. Table 4.11 further revealed that 76 respondents (87) said that late loan delivery influenced loan repayment performance, 66 respondents (77%) said that loan repayment performance was also influenced by the distance between the SACCOS and the member's project.

These research findings are in line with the findings of Arene (1992) who outlined the main factors that determine loan repayment performance as alternative source of income, age, number of years of business experience, distance between home and source of loan, education, household size, adoption of innovations, and credit needs.

Research findings in Table 4.11 Also shows that73 respondents (84%) said that number of years of project running experience influenced loan repayment performance and 51 respondents (59%) said that age

Table 4.19: Credit Rationing Status of Members' Loan

Status of Credit Rationing	Frequency	Percentage (%)
Rationed Loans	38	47
Un-rationed Loans	43	53
Total	81	100

influenced loan repayment performance. The other factor that was mentioned by respondents that influenced loan repayment and supported by 80 respondents (92%) was loan diversThese finding are in line with that of Mwakilema (2006) who studied the role of SACCOS in provision of financial services in rural areas in Arumeru and concluded that loan repayment performance of borrowers in the studied SACCOS was influenced by some borrowers who diverted loan to activities other than those intended for such as solving household social problems.

He also adds that loan that was invested in agricultural activities was not repaid due to drought that affected production of crops.

Table 4.11 also shows that 55 respondents (63%) said that credit rationing influenced loan repayment performance and 32 respondents (37%) disagreed that credit rationing influenced loan repayment performance.

# **Credit rationing**

Table 4.19 shows the status of credit rationing in the studied SACCOS. The table revealed that out of 81 loans that were issued 38 loan applications (47%) were rationed while 43 loan applications (53%) were not rationed.

Loan applications that were rationed means that loan applicants received less amount of loan that the amount applied in loan application forms.

Credit rationing in SACCOS was done in two major steps which the first step involved by careful scrutiny of loan applications by credit officers to find out whether borrowers adhered to basic requirements for credit as per SACCOS's credit policy. The second step involved further scrutiny by credit committee members whereby the committee is required to satisfy themselves about the credit worthiness of the loan applicant including assessment of borrower's actual credit needs and ability to use credit. Credit needs of loan applicants may be assessed by examining applicant's project financial statements such as cash flow and income statement.

Applicant's ability to utilize credit was done through considering borrowers experience in borrowing and repaying loans as per repayment schedule. Credit committee members also are required to visit loan applicant's project premise as a proof of the existence of the project.

Credit rationing also has both negative and positive impacts on loan repayment performance.

When credit rationing is done effectively, borrowers will receive adequate loan amount as per their credit needs and ability to utilize credit and therefore they are expected to have high repayment performance.

On the other hand, when credit rationing system is weak, borrowers may receive loan amounts that are contrary to their credit needs and their ability to utilize credit

# Comparison of the factors used for credit rationing and loan repayment

In order for screening mechanism to be efficient it has to consider the factors that influence loan repayment performance. For the purpose of assessing the effectiveness of SACCOS screening mechanism, the researcher aimed at comparing the factors used for credit rationing and the factors that influence loan repayment performance.

Table 4.21 Provides analysis the factors used for credit rationing and factors that affect loan repayment performance. Factors that affect loan repayment performance such as unfavorable weather condition, late loan delivery and loan diversion were not compared since they cannot be predicted in advance before issuing loan.

Left hand side of table 4.21 shows the factors influencing loan repayment performance while the right hand side shows the factors used by SACCOS in credit rationing. Table 4.21 showed that, only one factor that was age appeared on both sides. This implied that age as a factor that affected loan repayment performance was the only factor that was considered by SACCOS in credit rationing and the rest of the factors that affects loan repayment performance were not considered in credit rationing.

Table 4.21 further revealed that among the six factors that were used by SACCOS in credit rationing, only one factor affected loan repayment. This shows that credit rationing mechanism could not ensure loan recovery since it did take into consideration the factors for loan repayment. For a credit rationing to be sound, it has to take into consideration among other factors, the factors that affect loan repayment performance.

Factors	Factors used for credit rationing in SACCOS							
influencing	Saving	Deposit	Group	Guarantors	Alternative	Asset	Age	Project
Loan repayment			Guarantee		source of Income	collateral		Running Experience
Business Management					moone			Experience
Skills								
Alternative source of Income								
House hold size								
Distance between the Project and SACCOS								
Number of years of project running experience								
Age								

**Table 4.21:** Comparison of the factors for credit rationing and loan repayment

# SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATION

# Variables for credit rationing

The findings from the studied SACCOS as in table 4.10 indicated that major factors used by SACCOS for credit rationing were Savings, deposits, group guarantee, sex, guarantors, age, and asset collateral.

# Factors influencing loan repayment performance

The study found that the factors that affected loan repayment performance in Victoria SACCOS were business management skills, alternative source of income and unfavorable weather conditions as indicated in table 4.11. Other factors that were found to influence loan repayment performance were, house hold size of the borrower, late loan delivery and distance between the SACCOS and the project (table 4.11)

Research findings in Table 4.11 Also indicated that number of years of project runs experience, age, credit rationing and loan diversion influenced loan repayment performance.

# Comparison of the factors for credit rationing and loan repayment

The study found out in table 4.21 that among the six factor that were used for credit rationing in SACCOS which were, asset collateral, guarantors, savings, deposits, group guarantee age and sex only one factor which was age influenced loan repayment performance

# **Conclusions**

#### Loan repayment performance of borrowers

Generally, the evidence from the findings revealed that loan repayment performance of borrowers was very low since the amount of default loans had shown an increasing trend over the past five years in Victoria SACCOS.

## Credit rationing mechanism in victoria SACCOS

Research findings indicated that credit rationing mechanism used by SACCOS was weak since it failed to

ensure timely loan repayment. Credit rationing system of SACCOS was also concluded to be weak since it took into account only one factor that influenced loan repayment performance.

Credit rationing mechanism to be effective, it needs to take into account among others factors, the factors that influence loan repayment performance when screening loan applicants.

#### **RECOMMENDATIONS**

# **Recommendations to SACCOS management**

Based on the findings, discussion and conclusion drawn in the study, researcher recommends as follows; there is a need to develop tailor made financial products particularly credit products that suit majority of the members in rural areas taking into consideration the nature of their economic activities. In most rural areas the major economic activity is agriculture. For effective production, farmers are to be facilitated with farm implements and inputs. In this case, SACCOS need to offer demand driven products credit products are in line with member's requirements.

In order to develop effective credit rationing system, credit committee members are recommended to visits borrower's business premises, verify borrower's asset collateral and enquire borrower's additional information during rationing process so as to ensure that only credit worthy borrowers are granted loans.

It is also recommended that SACCOS's management should offer training on proper loan utilization and business management skills to members so as to enable them to manage their loans and business profitably and thus be able to repay their loans on time.

Training is also recommended to SACCOS's staff and credit committee members on credit management and designing of effective credit rationing mechanism so that they can be able to identify creditworthy borrowers from non-creditworthy borrowers.

## **Recommendations to the Government**

In order for the rural people to have access to financial services and engage in economic activities to alleviate poverty, they should be sensitized to form SACCOS in their residential areas where they can access financial services easily.

The government also needs to allocate sufficient financial and human resources to the cooperative department order to facilitate training and capacity building to SACCOS so as to improve loan recovery.

In order to monitor increased loans default rates to SACCOS, the legal framework and court practices should be revised to expedite the rulings of SACCOS' loan

default cases. Similarly, the regulatory frame work should be able to take legal action including seizing of personal properties of SACCOS' leaders who mismanage SACCO's resources for their personal benefit.

#### **ACKNOWLEDGEMENT**

We are very much indebted to all those who facilitated my access to data and information. We are deeply thankful to the management of Victoria SACCOS especially the manager Mr. Constantine Mayala.

We are equally grateful to SACCoS's credit committee members and SACCoS's members for information they shared with me that made this study successful.

Despite such contributions from different people, We are solely responsible for the study contents and facts.

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