



LOAN MANAGEMENT AND PERFORMANCE OF MICROFINANCE INSTITUTIONS IN RWANDA: A CASE MUSANZE DISTRICT (2015 - 2017)

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Abstract

The study analysed the effect of loan management on the performance of microfinance institutions in Rwanda. To achieve objectives, the population included 18 SACCOS in Musanze district three employees from each SACCO was purposively selected. This made the sample of the study to be 54. The data obtained were analysed using SPSS and some qualitative techniques describing categorical character of the responses from the respondents and quantitative methods were adopted using some descriptive, co-relational research design and other tabular representations to show how loan management contributes to the performance of SACCO. The results revealed that the credit risk management techniques adopted in SACCO include among others the capital analysis of the borrowers, character analysis of the borrowers, analysis of capacity to pay, collateral evaluation, analysis of project conditions and the loan management is more effective. The reduction of non-performing loans, increase of profits, increase of owners' equity and increase in reputation of organization are among the described indicators of performance as linked to loan management. There is a positive relationship between loan management and performance of the microfinance institutions and this is measured by the Pearson correlation coefficient of 0.73 (73%) which is high moderate positively, this explain that the better loan management in microfinance institutions the more performance and 53.3% of the variation of the performance is explained by loan management. Some suggestions concerning the microfinance institutions itself, the government and customers were also given accordingly.

Keyword: Loan management, performance, Risk management.

1.0 Introduction

The main function of microfinance institutions is to receive deposits from individuals who have savings these deposits are kept in various types of accounts opened in the bank. Then loan fund from those deposits to those in needs and charges interest. The loan portfolio is typically the largest asset and the predominant source of revenue. As such, it is one of the greatest sources of risk to a bank's safety and soundness. Effective management of the loan portfolio's credit risk requires that the board and management understand and control the bank's risk profile and its credit culture. They must be sure that the policies, processes, and practices implemented to control the risks of individual loans and portfolio segments are sound and that lending personnel adheres to them (Tucker & Miles, 2004). According to Joetta (2007), credit risk arises whenever a lender is exposed to loss from a borrower or counterparty who fails to honour their contracted debt obligation, as agreed, in a timely manner. For lenders who

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extend credit in the form of loans, credit risk is inherent in all their business activities and is an element in virtually every product and service that is provided.

This task is not easy as it involves detailed and elaborate analysis of the documentation provided by the applicants and their collateral mismanagement of bank resources will result in huge non-performing asset lending policies will determine the future of a country's economy as they channel funds to productive investment alternative. Therefore, there is a need for effective loan management where loans should be very well managed to minimize potential risks that may affect the bank's performance (Woolcock, 1999).

As with any financial institution, the biggest risk in micro-finance is lending money and not getting it back. Credit risk is a particular concern for MFIs because most micro lending is unsecured i.e., traditional collateral is not often used to secure microloans (Churchill & Coster, 2001). The people covered are those who cannot avail credit from banks and such other financial institutions due to the lack of the ability to provide guarantee or security against the money borrowed. Many banks do not extend credit to these kinds of people due to the high default risk for repayment of interest and in some cases the principal amount itself. Therefore these institutions required to design sound loan management that entails the identification of existing and potential risks inherent in lending activities.

Sound loan management is a prerequisite for a financial institution's stability and continuing profitability while deteriorating credit quality is the most frequent cause of poor financial performance and condition. According to Gitman (1997), the probability of bad debts increases as credit standards are relaxed. Firms must, therefore, ensure that the management of receivables is efficient and effective. Such delays on collecting cash from debtors as they fall due have serious financial problems, increased bad debts and affect customer relations. If payment is made late, then profitability is eroded and if payment is not made at all, then a total loss is incurred. On that basis, it is simply good business to put credit management at the front end by managing it strategically.

The sources and causes of problem loans cover a multitude of mistakes a bank may permit a borrower to make, as well as mistakes directly attributable to weaknesses in the bank's credit administration and management. Some well-constructed loans may develop problems due to unforeseen circumstances on the part of the borrower; however, bank management must endeavour to protect a loan by every means possible in order to preserve its performance (Basel, 2001). Generally, cooperatives being community institutions voluntarily and autonomously established and managed by the communities, and also give services to the local communities. As Alfred (2011), observed that Saving and Credit Cooperatives [SACCOs] in Rwanda had high exposure to credit risk which is the risk that borrowers are unable to pay or risk of delayed payments as well as operational risks.

However, some microfinance institutions are not performing well, characterized by management with poor corporate governance, weak information systems, important losses caused by the poor internal organization and mismanagement of their loan portfolio (Kantengwa, 2009). All these weaknesses culminated into the failure of nine micro-finance institutions in 2006 with total deposits of more than \$5.3 million, leading to a general panic (NBR, 2007). For times, good loan portfolio managers have concentrated most of their effort on prudently approving loans and carefully monitoring loan performance. Although these activities continue to be mainstays of loan portfolio management, analysis of past credit problems indicates high exposure to loan risk specifically in microfinance institutions. The major concern of this study was to find out if loan management is effective in microfinance institutions in Rwanda through some indicators, to evaluate the financial performance achieved by this bank in highlighting the role played by loan management on that performance.

2.0 Conceptual framework and theoretical framework of analysis.

The study was intended to establish the relationship between internal control and performance of commercial banks. The conceptual framework shows the relationship between the two variables such as independent variables and dependent variables.

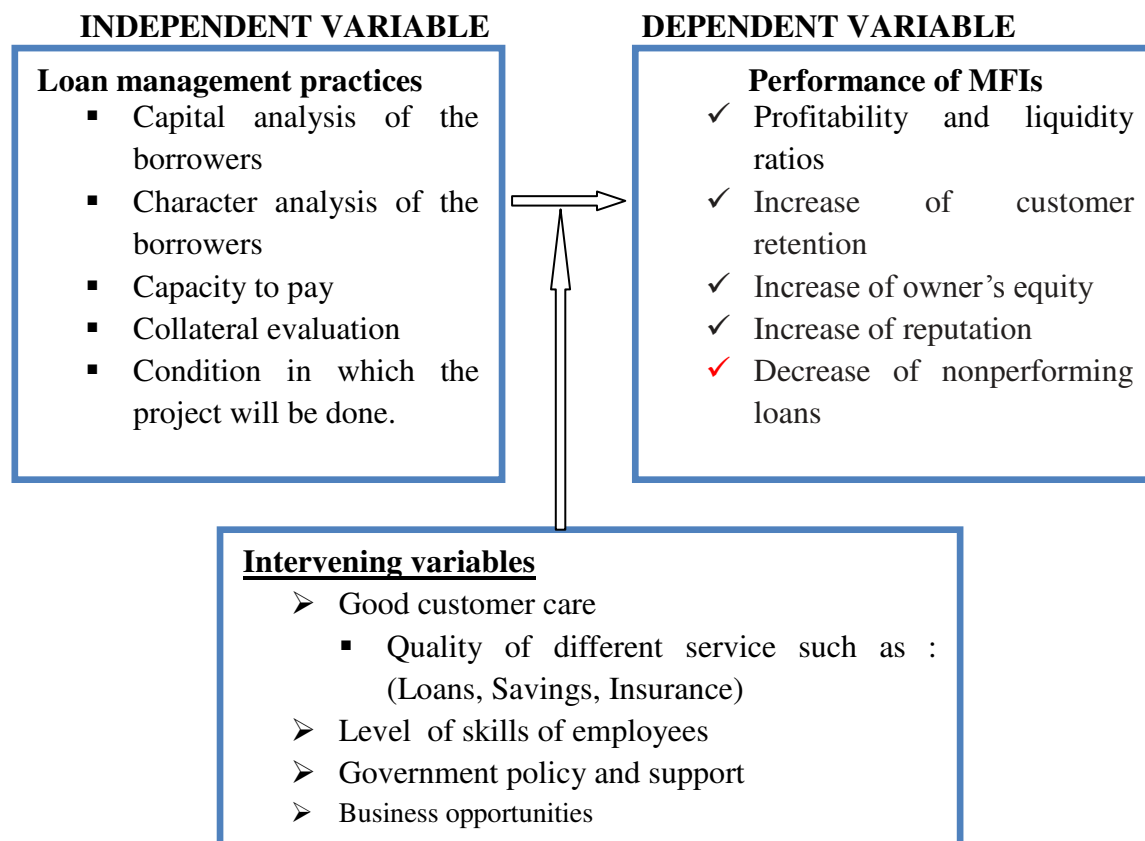


Figure 1: Conceptual framework of the study

Source: Researcher, 2018

The sketch showing the conceptual framework is indicating the theoretical relationship between dependent variable and independent variable with the intermediation of intervening variables. The independent variable which is loan management practices with its indicators which are capital analysis, collateral analysis, character and capacity to pay for the borrower then the condition in which the project implemented influencing the performance of microfinance institutions which is characterized by mainly profitability and liquidity ratios, increase in assets, increase in customer retention, increase in reputation, increase of owner's equity and decrease in non-performing loans. The intervening factors which come to emphasize or distort the relationship between loan management and performance of microfinance institutions and they are mainly good customer care, quality of various services like loans, savings and insurance, level of skilled manpower, government policy and support and business opportunities.

Nzotta (2004), opined that loan management greatly influences the success or failure of commercial banks and other financial institutions. This is because the failure of deposit banks is influenced to a large extent by the quality of credit decisions and thus the quality of the risky assets. He further notes that credit management provides a leading indicator of the quality of the deposit banks credit portfolio. A key requirement for effective credit management is the ability to intelligently and efficiently manage customer credit lines. In order to minimize exposure to bad debt, over-reserving, and bankruptcies, companies must have greater insight into customer financial strength, credit score history and changing payment patterns.



Loan management starts with the sale and does not stop until the full and final payment has been received. It is as important as part of the deal as closing the sale. In fact, a sale is technically not a sale until the money has been collected. It follows that principles of goods lending shall be concerned with ensuring, so far as possible that the borrower will be able to make scheduled payments with interest in full and within the required time period otherwise, the profit from an interest earned is reduced or even wiped out by the bad debt when the customer eventually defaults. Credit management is concerned primarily with managing debtors and financing debts. The objectives of credit management can be stated as safeguarding the companies' investments in debtors and optimizing operational cash flows. Policies and procedures must be applied for granting credit to customers, collecting payment and limiting the risk of non-payments.

It is an aspect of financial management involving credit analysis, credit rating, credit classification, and credit reporting. Nelson (2002), views loan management as simply the means by which an entity manages its credit sales. It is a prerequisite for any entity dealing with credit transactions since it is impossible to have a zero credit or default risk. The higher the amount of accounts receivables and their age, the higher the finance costs incurred to maintain them. If these receivables are not collectible on time and urgent cash needs arise, a firm may result in borrowing and the opportunity cost is the interest expense paid.

Asymmetric information theory

Information asymmetry refers to a situation where business owners or manager know more about the prospects for and risks facing their business than do lenders (Eppy, 2005). It describes a condition in which all parties involved in an undertaking do not know relevant information. In a debt market, information asymmetry arises when a borrower who takes a loan usually has better information about the potential risks and returns associated with investment projects for which the funds are earmarked. The lender, on the other hand, does not have sufficient information concerning the borrower (Edwards & Turnbull, 1994).

Binks et al (1992), point out that perceived information asymmetry poses two problems for the banks, moral hazard (monitoring entrepreneurial behavior) and adverse selection (making errors in lending decisions). Banks will find it difficult to overcome these problems because it is not economical to devote resources to appraisal and monitoring where lending is for relatively small amounts. This is because data needed to screen credit applications and to monitor borrowers are not freely available to banks.

Bankers face a situation of information asymmetry when assessing lending applications (Binks & Ennew, 1997). The information required to assess the competence and commitment of the entrepreneur, and the prospects of the business is either not available, uneconomic to obtain or difficult to interpret. This creates two types of risks for the Banker (Deakins, 1999).

Transactions costs theory

First developed by Schwartz (1974), this theory conjectures that suppliers may have an advantage over traditional lenders in checking the real financial situation or the creditworthiness of their clients. Suppliers also have a better ability to monitor and force repayment of the credit. That superiority may give suppliers a cost advantage when compared with financial institutions.

Three sources of cost advantage were classified by Petersen & Rajan (1997), as follows: information acquisition, controlling the buyer and salvaging value from existing assets. The first source of cost advantage can be explained by the fact that sellers can get information about buyers faster and at a lower cost because it is obtained in the normal course of business. That is, the frequency and the number of the buyer's orders give suppliers an idea of the clients' situation; the buyers' rejection of discounts for early payment may serve to alert the supplier of a weakening in the credit-worthiness of the buyer, and sellers usually visit customers more often than financial institutions do.



Loan management tools

When assessing the quality of credit risk management it is helpful to review a combination of various indicators. For example, a strong credit risk management framework will include the following indicators the board of directors and senior management's tolerance for risk is well-communicated and fully understood, the financial institution has a strong culture of risk awareness, credit analysis is comprehensive and timely, credit risk grading systems effectively stratify credit risk and are used as early warning tools or key risk indicators, management information systems (MIS) provide an accurate, timely and comprehensive view of the portfolio, concentration limits are set at reasonable levels to help diversify the portfolio and protect against the risk of correlated defaults, Strategic plans are consistent with the established risk appetite and promote an appropriate balance between risk and earnings growth.

In retail, one then commonly focused on the values of the 5 Cs of a custom character to measures the borrower's character and integrity (e.g., reputation, honesty. .), capital analysis to know the difference between the borrower's assets (e.g., car, house, land. . .) and liabilities (e.g., renting expenses . . .), collateral to measure the collateral provided in case payment problems occur (e.g., house, car, land..), capacity that measures the borrower's ability to pay (e.g., job status, income . . .) and condition which measures the borrower's circumstances (Gestel and Baensens, 2009).

Stewardship theory

Odhiambo (2012) asserts that a steward protects and maximizes shareholders wealth through firm performance because by so doing, the steward's utility functions are maximized. In this perspective, stewards are managers working to protect and make profits for the shareholders (Davis et al., 1997). Therefore, stewardship theory emphasizes the role of management being stewards, integrating their goals as part of the organization.

According to Odhiambo (2012), the theory recognizes the importance of governance structures that empower the steward and offers maximum autonomy built on trust (Donaldson & Davis, 1991). It stresses the position of the employee to act more autonomously so that the shareholders' returns are maximized. Indeed, this can minimize the costs aimed at monitoring and controlling employee behavior (Davis et al., 1997). This theory has a great link to the liquidity management of SACCOs in that managers must be competent since they are employed as stewards of the SACCOs. Also, they need to.

Empirical review

Pyle (1997), in his study on bank risk management, held that banks and similar financial institutions need to meet forthcoming regulatory requirements for risk measurement and capital. However, it is a serious error to think that meeting regulatory requirements is the sole or even the most important reason for establishing a sound, scientific risk management system. It was held, managers need reliable risk measures to direct capital to activities with the best risk/reward ratios. They need the estimate of the size of potential losses to stay within limits imposed by readily available liquidity, by creditors, customers, and regulators. They need mechanisms to monitor positions and create incentives for prudent risk-taking by divisions and individuals.

Nagarajan (2001), in his study of risk management for micro-finance institutions in Mozambique, found that risk management is a dynamic process that could ideally be developed during normal times and tested at the wake of risk. It requires careful planning and commitment on part of all stakeholders. It is encouraging to note that it is possible to minimize risks related losses through diligent management of portfolio and cash-flow, by building robust institutional infrastructure with skilled human resources and inculcating client discipline, through effective coordination of stakeholders.

Achou&Tenguh (2008), also conducted research on bank performance and credit risk management found that there is a significant relationship between financial institutions performance (in terms of profitability) and credit risk



management (in terms of loan performance). Better credit risk management results in better performance. Thus, it is of crucial importance that financial institutions practice prudent credit risk management and safeguarding the assets of the institutions and protect the investor's interests. This is also true for microfinance institutions. The method used by the researchers is a mixed research method.

Matu (2008), carried out a study on sustainability and profitability of micro-finance institutions and noted that efficiency and effectiveness were the main challenges facing Kenya on service delivery.

Soke&Yusoff (2009), in their study on credit risk management strategies of selected financial institutions in Malaysia the majority of financial institutions and banks losses stem from outright default due to the inability of customers to meet obligations in relation to lending, trading, settlement, and other financial transactions. Credit risk emanates from a bank's dealing with individuals, corporate, financial institutions or sovereign entities. A bad portfolio may attract liquidity as well as credit risk.

Orua (2009), did a study on the relationship between capital structure and financial performance of microfinance institutions in Kenya it revealed that short-term debt significantly impacted MFI outreach positively. Long term debt, however, showed a positive relationship with outreach but was not significant with regard to default rates, both short and long term debts showed expected results but were not significant indicating that maturity may not necessarily be of the essence. Generally, highly leveraged MFIs were found to perform better by reaching out to more clients. It was also revealed that such MFIs also enjoyed economies of scales and therefore were better able to deal with moral hazards and adverse selections which also enhanced their ability to manage risks.

3.0 Research methodology

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it, we study the various steps that are generally adopted in studying his research problem along with the logic behind them (Kothari, 2008). It is here a detailed explanation of the procedures and techniques that have been used while collecting, processing and analyzing data. This section of the study, therefore, describes the research design, target population and area, sample and sampling technique, data collection instruments, procedures, analysis management and the ethical considerations that the study used.

Research design

A research design is a plan and strategy of investigation conceived in order to obtain answers to research questions or problems. It is the complete scheme or program of the research (Kothari, 2004). For the present study, the research design was a qualitative case study but supplemented with quantitative methods. Again, the design of the study is analytic in nature; the analytic research design is a continuation of the descriptive research. The data collection format depends on the kind of data to be collected. However, in this particular study, both primary and secondary data were used. The methods of data collection were questionnaires and documentary evidence. These data are the first-hand data collected as a result of the investigation. They sprightly come from the population of interest. The various tools used in collecting the primary data were a questionnaire. The survey was basically conducted using questionnaire. The questionnaire contained open and closed-ended questions.

Secondary data refers to the information obtained from research findings, articles, books, etc. They have been obtained from documentation of different categories. This includes textbooks, journals, government reports, and other reports, newspapers, websites and other publications. The sources of the secondary data were from the records of SACCOs financial reports relevant to the research, textbooks, and articles. Due acknowledgment has been made to the sources where information was collected at the reference section.



Data collection techniques

Grawitz (1979) explained that “In terms of scientific research, the word “technique” means the entire process used to collect data for this subject. These techniques are selected according to the field of research”. In this research we have used the following techniques:

Research population

According to Mouton (1996), a population is a collection of objects, events or individuals having some common characteristics that is interested in studying. The population for a study is that group about whom we want to draw conclusions. The study population is the 18 SACCOs within Musanze district. These included fifteen Umurenge SACCO and three private SACCOs. However, the researchers targeted employees from three departments which were accounting, credit and the manager.

Sample size and sampling technique

According to Cooper & Schindler (2008), revealed that if the sample is properly selected, the information collected about the sample may be used to make a statement about the whole population. According to him, a sample is the portion of the total population to be studied. But reference made with central limit theorem as stated by Springer (1989), when the size of the population is below 30 individuals, it is advised to take the sample size which is equal to the population size holding other factors constant. For the sake of the present study to the conclusive results, it was deemed necessary to address questionnaire to the entire population by universal sampling where all elements of the population were having equal chance to be selected with a certain probability. For this end, the sample size of this research was 18 SACCOs by universal purposive sampling technique of data collection. However, three employees were selected from SACCO which made the sample to be 54 respondents.

Data processing and analysis

This means the classification of answers into meaningful categories in order to bring out their main patterns. It has been useful to show various tools to process data in more meaningful styles and those are here under described. Questionnaires were constructed on the computer then quantitative data to be collected by the questionnaire were summarized, edited, coded, tabulated and analyzed. Editing was done to improve the quality of data for coding. In the coding process, a coding sheet has to be constructed. Descriptive statistics were used where distribution (frequencies, percentages). Data were analyzed using a statistical package for social sciences (SPSS, 18.0). Editing involved going through the questionnaires to see if respondents responded to questions and see if there are blank responses. From financial reports, key financial performance indicators like ratios were computed and interpreted accordingly.

4. Results and Discussion

Table 4. 1: Respondents' views on whether capital analysis of the borrowers is a loan management practice in SACCOs

	Frequency	Percent
Strongly agree	33	61.1
Agree	11	38.9
Total	54	100.0

Source: Primary data, 2018



The table 4.1 shows the distribution of respondents according to their views on whether capital analysis of the borrowers is a loan management practice in SACCOS and the results are indicating that 11 respondents representing 61.1% are strongly agreeing to the assertion while the remaining seven respondents representing 38.9% have agreed to it.

Nzotta (2004), opined that loan management greatly influences the success or failure of commercial banks and other financial institutions. This is because the failure of deposit banks is influenced to a large extent by the quality of credit decisions and thus the quality of the risky assets. He further notes that, credit management provides a leading indicator of the quality of deposit banks credit portfolio. A key requirement for effective credit management is the ability to intelligently and efficiently manage customer credit lines. In order to minimize exposure to bad debt, over-reserving and bankruptcies, companies must have greater insight into customer financial strength, credit score history and changing payment patterns. This implies that before granting a credit to any borrower, the capital analysis is made before and the decision to give or not the loan is taken for better loan management.

Table 4. 2: Respondents' views on whether character analysis of the borrowers is a loan management practice in SACCOS

	Frequency	Percent
Strongly agree	9	16.7
Agree	39	72.2
Neutral	6	11.1
Total	54	100.0

Source: Primary data, 2018

The table 4.2 gives the distribution of respondents as classified according to their views on whether character analysis of the borrowers is the loan management practice and the results are indicating that 72.1% of the respondents have agreed to the assertion followed by three respondents representing 16.7% who have strongly agreed while the remaining two respondents representing 11.1% were neutral to the affirmation.

Nelson (2002) views loan management as simply the means by which an entity manages its credit sales. It is a prerequisite for any entity dealing with credit transactions since it is impossible to have a zero credit or default risk. The higher the amount of accounts receivables and their age, the higher the finance costs incurred to maintain them. If these receivables are not collectible on time and urgent cash needs arise, a firm may result to borrowing and the opportunity cost is the interest expense paid. The results imply that character analysis is done before giving credit so as to assess those borrowers who are said and judged to have bad characters as their probabilities of default would be higher compared to their counterparts with judged good character.

Table 4. 3: Respondents' views on whether capacity to pay of the borrowers is a loan management practice in SACCOS

	Frequency	Percent
Strongly agree	45	83.3
Agree	9	16.7
Total	54	100.0

Source: Primary data, 2018



The table 4.3 shows the distribution of respondents classified according to their views on whether capacity to pay of the borrowers is a loan management practice in SACCOs and the results are indicating that 45 respondents representing 83.3% have strongly agreed to the assertion while the remaining three respondents representing 16.7% have also agreed to the affirmation. Information asymmetry theory refers to a situation where business owners or manager know more about the prospects for, and risks facing their business, than do lenders (Eppy, 2005).

It describes a condition in which all parties involved in an undertaking do not know relevant information. In a debt market, information asymmetry arises when a borrower who takes a loan usually has better information about the potential risks and returns associated with investment projects for which the funds are earmarked. The lender on the other hand does not have sufficient information concerning the borrower (Edwards & Turnbull, 1994). The implication of the results is that the analysis of capacity to pay is also considered crucial for the loan management in SACCOS this is to mean before granting loan to a customer, there is need to analyze his or her capacity to pay to check if they will be probably able to repay the loan.

Table 4. 4: Respondents' views on whether collateral evaluation is a loan management practice in SACCOs

	Frequency	Percent
Strongly agree	27	50.0
Agree	27	50.0
Total	54	100.0

Source: Primary data, 2018

The table 4.4 gives the distribution of respondents classified according to their views on whether collateral security evaluation is a loan management practice in SACCOS and the findings are indicating that there is agreement of all the respondents towards the assertion as nine respondents representing 50.0% have strongly agreed to it while other remaining nine respondents representing also 50.0% have agreed.

Binks *et al* (1992), point out that perceived information asymmetry poses two problems for the banks, moral hazard (monitoring entrepreneurial behavior) and adverse selection (making errors in lending decisions). Banks will find it difficult to overcome these problems because it is not economical to devote resources to appraisal and monitoring where lending is for relatively small amounts. This is because data needed to screen credit applications and to monitor borrowers are not freely available to banks. Bankers face a situation of information asymmetry when assessing lending applications (Binks & Ennew, 1997). The information required to assess the competence and commitment of the entrepreneur, and the prospects of the business is either not available, uneconomic to obtain or difficult to interpret. This creates two types of risks for the Banker (Deakins, 1999). The meaning is that the collateral security given by the borrowers is to be evaluated strictly for SACCOs to grant credit to a particular borrower to keep minimum margin requirements in case of failure to payment.

Table 4. 5: Respondents' views on whether conditions of project is a loan management practice in SACCOs

	Frequency	Percent
Strongly agree	15	27.8
Agree	30	55.6
Neutral	9	16.7
Total	54	100.0



Source: Primary data, 2018

The table 4.5 represents the distribution of respondents classified according to their views on whether conditions of project is a loan management practice in SACCO and the results are showing that 30 respondents representing 55.6% have agreed to the affirmation followed by five respondents who represent 27.8% with strong agreement while the remaining three respondents representing 16.7% have kept neutral to the assertion. First developed by Schwartz (1974), this theory conjectures that suppliers may have an advantage over traditional lenders in checking the real financial situation or the credit worthiness of their clients. Suppliers also have a better ability to monitor and force repayment of the credit. That superiority may give suppliers a cost advantage when compared with financial institutions. Three sources of cost advantage were classified by Petersen & Rajan (1997), as follows: information acquisition, controlling the buyer and salvaging value from existing assets. The first source of cost advantage can be explained by the fact that sellers can get information about buyers faster and at lower cost because it is obtained in the normal course of business. That is, the frequency and the amount of the buyer's orders give suppliers an idea of the clients' situation; the buyers' rejection of discounts for early payment may serve to alert the supplier of a weakening in the credit-worthiness of the buyer, and sellers usually visit customers more often than financial institutions do. The findings imply that the project for which the credit is requested must firstly be analyzed to check on feasibility, profitability and the capacity to repay the credit granted in order to reduce the chance of misusing the loan.

Table 4. 6: Calculation of profitability ratios of SACCOs in Musanze

Years	Ratio formulas	Calculated ratio
	<ul style="list-style-type: none"> Return on Assets Ratio (RAR) = Net Profit/Total Asset or NP/TA*100 Return on Equity Ratio (RER) = Net Profit/Total Equity or NP/TE*100 	Return on Assets Ratio Return on Equity Ratio
2015	RAR=11,740,402/83,615,729 RER=11,740,402/26,962,102	14.0% 43.54%
2016	RAR=19,809,637/138,032,108 RER=19,809,637/36,580,137	14.35% 54.15%
2017	RAR= 30,680,273/224,132,242 RER=30,680,273/51,053,058	13.68% 60.09%

Source: Primary, 2018



These calculated ratios in table 4.6 provide information about the ability of management of Sacco to control the expenses and for gaining a reasonable return on the resources committed to the company.

Return on assets ratio provides a standard for evaluating how efficiently financial management employs the average money invested in the firm’s assets, whether the money came from investors or creditors. It’s in this context the above information shows that the bank has had an increase from 14.0% in 2013 to 14.35% in 2014 but it had a slight decrease in 2015 where return on asset ratio became 13.68% and policy implications are therefore needed.

Return on equity is a measure of a corporation’s profitability that reveals how much profit a company generates with the funds shareholders have invested. As the figures show, the bank has gained an over increasing rates from 43.54% in 2013 to 54.15% in 2014 and 60.09% in 2015 and this enhances the findings about the performance of Sacco.

The relationship between loan management and performance of SACCOS

In order to arrive at the general objective of the study and to respond the third research question at the same time verifying the corresponding research hypothesis, to find out the relationship between loan management and performance of SACCOS by reviewing the respondents perspectives and computation of Pearson correlation coefficient highlighting the relationship’s nature and its magnitude otherwise the effective loan management assessed and performance of the micro finance institution obtained could.

Table 4.7: Correlation coefficient between loan management practices and performance of SACCOS

		The respondents view of whether loan management in SACCOS is effective		The respondents view on the performance of SACCOS
The respondents view of whether loan management in SACCOS is effective	Pearson Correlation	1	.730	
	Sig. (1-tailed)		.392	
	N	54	54	
The respondents view on the performance of SACCOS	Pearson Correlation	.730	1	
	Sig. (1-tailed)	.392		
	N	54	54	

Source: Primary data, 2018



With the help of SPSS, through the table 4.7 showing the Pearson correlation coefficient has arrived at the strong positive relationship between loan management and performance of SACCO to compliment with the table 4.7 which was giving subjective opinions of respondents on that nature of relationship and the results in current table are indicating the Pearson correlation coefficient of 0.73 which is strong on the scale because the coefficient lies between -1 and +1 with strong positive relation on scale being above +0.5 and in our case we are having luckily 0.73 emphasizing the positive nature of relationship between loan management and performance of micro finance institutions reference made to SACCO.

Achou&Tenguh (2008), also conducted research on bank performance and credit risk management found that there is a significant relationship between financial institutions performance (in terms of profitability) and credit risk management (in terms of loan performance). Better credit risk management results in better performance. Thus, it is of crucial importance that financial institutions practice prudent credit risk management and safeguarding the assets of the institutions and protect the investors' interests.

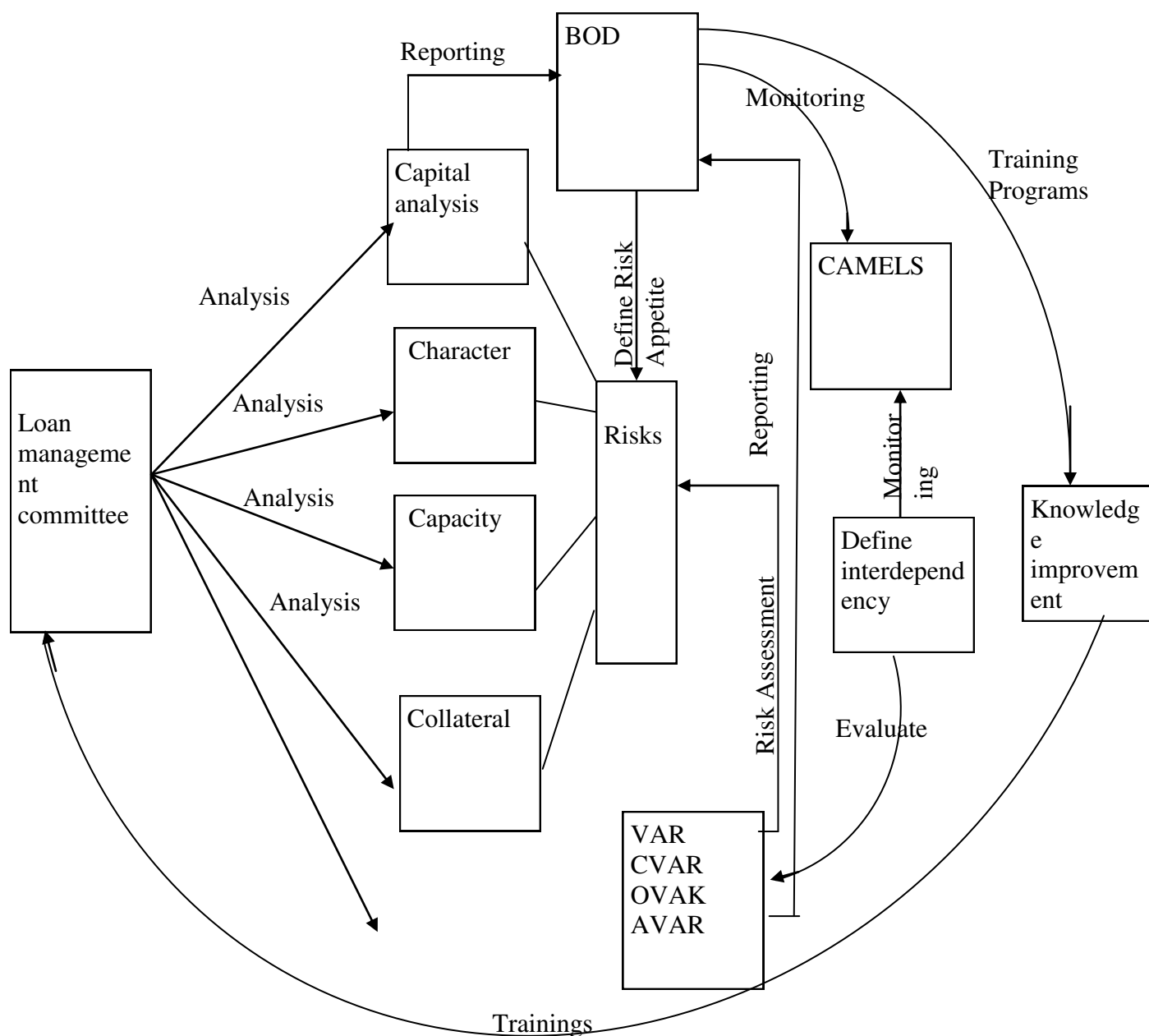
5.0 Conclusion and recommendations

It was found that before granting a credit to any borrower, the capital analysis is made and the decision to give or not the loan is taken for better loan management. The results have shown that character analysis is done before giving credit so as to assess those borrowers who are said and judged to have bad characters as their probabilities of default would be higher compared to their counterparts with judged good character. And that the analysis of capacity to pay is also considered crucial for the loan management in Sacco this is to mean before granting loan to a customer, there is need to analyze his or her capacity to pay to check if they will be probably able to repay the loan. In addition, the collateral security given by the borrowers is to be evaluated strictly for SACCO to grant credit to a particular borrower to keep minimum margin requirements in case of failure to payment while the project for which the credit is requested must firstly be analyzed to check on feasibility, profitability and the capacity to repay the credit granted in order to reduce the chance of misusing the loan.

Loan management model (LMM)

Loan management requires analysis of various facet which include conditions (C), collateral (CI), capacity (Cp), character (ch) and capital (Ct). The main reason for this analysis is to ensure that the risks associated with loan are minimised. However, for the process to be effective, the Board of directors of SACCOs must define the risk limit and communicate them to the relevant management committees. The managements of SACCOs must provide continuous reports (R) to the members of the board. This means that effective loan management requires also active members of the board of directors to continuously monitor (M) the activities of the SACCOs. However for the process to be effective, the management should provide reports to the board of directors. The board of directors should continuously monitor the capital, asset quality, management efficiency, earnings, liquidity and the sensitivity to the market of SACCOs (CAMELS).

In order to enable the board of directors to be able to monitor the activities of the SACCOs, a need for training in the various activities of the SACCOs especially in risk management and the CAMELS framework is required. In addition to the training of the members of the board, all employees should be continuously trained in the risk management since risks are not statistically significant.



Source: Researchers 2018

The LMM recognises that the loan performance (LP) is a function of the traditional 5Cs as mentioned above plus the active reporting procedures (R), active board members (B) and continuous trainings (T).

$$LP = f(C, CL, CP, CH, CT, R, B, T)$$

$$LP = \beta_0 + \beta_1C + \beta_2CL + \beta_3CP + \beta_4CH + \beta_5CT + \beta_6R + \beta_7B + \beta_8T + \alpha$$



REFERENCES

- Achou, E., & Tenguh, V. (2008). *Implementing Value at Risk*. Chichester: Wiley.
- Alfred, B. (2011). *Cooperatives for sustainable increase in living conditions for rural populations*. Singapore: SengLec Press
- Basel, S. (2013). *Risk Averse behavior for sustained businesses*. New York: USA Press
- Best, P. (1999). *Basics of Financial Management*. London: International Thomas Press. pp 321-324
- Binks, M., & Ennew, P. (1997). *Implementing Value at Risk*. Chichester: Wiley.
- Brian, Y. (2001). *Méthodologie de la recherche*. Springer: Verlag Berlin Heidelberg Press.
- Brick, T. (2006). *Enterprise-wide risk management*. Southern African Treasurer.
- Brown, A. (1996). *Business Research Methods*, Oxford University Press. New York.
- Cathy, G. (2005). *Length of the Solar Cycle: An Indicator of Solar Activity Closely Associated with Climate*. Nairobi: Acts Press
- Churchill, M., & Coster, C. (2001). *Risk Seeking by Troubled Firms*. Cambridge: CUP.
- Cool, K., & Dierickx, I. (1987). *Negative Risk Return Relationships in Business Strategy: The case of U.S. Pharmaceutical Industry*. Oxford: OUP.
- Cooper, R., & Schindler, P. (2008) *Business Research Methods: International Edition*, The McGraw-Hill Companies Inc., New York
- Davis, W., Bonneville, L., & Dewey, B. (1997). *A Risk/Return Paradox for Strategic Management*. Cambridge: CUP
- Deakins, B. (1999). *Financial instruments*. Washington DC: World Bank.
- Dixon, M. (1990). *Relevance for risk aversion personality in middle income firms*. London: Thompson Business Press
- Donaldson, F., & Davis, O. (1991). *Risk Management*, New York: McGraw Hill.
- Drucker, M. (2003). *The assessment of corporate risk management*. Chichester: Wiley.
- Edwards, U., & Turnbull, P. (1994). *The Psychology Behind Common Investor Mistakes*. AAI Journal: 2- 5.
- Edwards, C. (1993). *Risk Grade your Investments: Measure your Risk and Create Wealth*. John Wiley & Sons: Hoboken, NJ.
- Eppy, N. (2005). *Risk management by financial intermediaries*. Quoin Institute Limited: Cape Town.



- Gestel, M., & Baesens, C. (2009). *Financial risk management*. Chicago: University of Chicago Press
- Gibson, M. (2006). *Modern Methods and Loan Management*. Oxford: OUP.
- Gitman, P. (1997). *Risk Aversion and Personality Type*. Design House, Limbe.
- Grawitz, M. (1979). *Social Science Research; Conception, Analysis & Methodology*. London: Thompson Reuters Ltd.
- Hitt, C., Murthy, N., Mehtre, B., Rao, K., Ramam, G., Harigopal, N., & Babu, K. (1996). *An analysis of bank risk management and its relevance for non-bank corporate sector*. New York: Thousand Oaks CA
- Huseyin, D. (2011). *Risk management for executives*. London: Prentice Hall.
- Irengere Sacco (2015). *Annual report*
- Jensen, R. (1986). *Corporate Financing and Investment Decisions When Firms merge*. Design House, Limbe.
- Joetta, T. (2007). *Financial risk management: Domestic and international dimensions*. Massachusetts: Blackwell.
- Kantengwa, E. (2009). *Enhancing credit risk management practices in financial markets*. London: Pitman Publisher
- Kendall, R., (1998). Organizational Forms and Investment Decisions. San Francisco: McGraw-Hill Brook Co. *Journal of Financial Economics*, pp. 101-120.
- Kothari, V. (2004). *Research Methodology. Methods and Techniques*. New Age International. Italy: Harte & Lawrence publisher.
- Kotler, G., & Gary, C. (2005). *The fundamentals of risk measurement*. New York: McGraw-Hill
- Manheim, J.B. (1995). *Empirical Political Analysis, Research Methods in Political Science*. New York: Longman
- Matu, B. (2008). *Analyzing banking risk. Theory and Practices*. New Jersey: Althos publishing.
- Mouton, I. (1996). Social Science Research; Conception, Analysis & Methodology. New York: Prentice Hall. *Journal of Financial Economics*, 46(2). 187-222.
- Myers, M., & Brealey, Z. (2003). *The determinants of corporate risk management*. Oxford: OUP.
- Nagarajan, M. (2001). *A systematic Information and Financial Crises: A Historical perspective in Glen Hubbard*. Chicago: University Press.
- NBR, (2007). *Microfinance Unit Training Manual*. Central Bank Review
- Neale, C. (1999). *Financial Markets and Financial Crises*. Chicago: University Press.



- Nzotta, M. (2004). *Financial institution management: a modern perspective*. Boston: Irwin/McGraw-hill.
- Odhiambo, R. (2012). *Modern Methods and Loan Management*. Oxford: OUP.
- Orua, Z. (2009). *A systematic Information and Financial Crises: A Historical perspective in GlenHubbard*. New York: Thousand Oaks CA
- Peters, N. (2007). *Banking industry in modern world*. Washington: United press,
- Petersen, C., & Rajan, F. (1997). *Assessment of bank risk management for non-bankable. A modern perspective*. Boston: Irwin/McGraw-hill
- Pyle, M. (1997). *Study material based on NCERT Text Book*. London: Pitman Publisher
- Scheufler, K. (2002). *Financial Markets and Financial Crises*. Chicago: University of Chicago Press
- Schwartz, I. (1974). *Financial institution management: a modern perspective*. Boston: Irwin/McGraw-hill
- Sindani, D. (2012). *Determinants of risk management for cooperatives*. Nairobi: Pauline Publications Africa.
- Soke, H., & Yusoff, E. (2009). *Approaches to corporate risk management*. New York: Express press.
- Sollenberg, W., & Anderson, Y. (1995). *The financial risks of a global business. Treasury Management International*. New York: Harper & Row Publishers.
- Springer, A. (1989). *Case Study Research: Design and Methods*. California: Sage Publications.
- Stoner, B. (2003). *Derivatives and financial instruments*. Pretoria: Kagiso Inc.
- Tucker, U., & Miles, E. (2004). *The theory and principles of loan management*. San Francisco: Von Hoffman Press Inc.
- Turyahebya, P. (2013). *The theory and principles of risk management*. Johannesburg: Heinemann.
- Wangechi, A. (2012). *Analyzing banking risk: a framework for assessing corporate governance and financial risk management*. Washington DC: World Bank.
- Woolcock, S. (1999). *Enterprise-wide risk management*. Southern African: Treasurer.