

## Internal Capabilities on Loan Recovery: Evidence from Selected Savings and Credit Cooperative Societies in Dar es Salaam

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### Abstract

*This study examined the influence of internal capabilities on loan recovery among Savings and Credit Cooperative Societies (SACCOS) in Tanzania. It particularly focused on assessing the influence of management capabilities, technology capabilities and staff capabilities on loan recovery among SACCOS in Dar es Salaam region. The study adopted an explanatory research design aiming at identifying the extent and nature of the underlying relationship between management capabilities, technology capabilities, staff capabilities, and loan recovery. It used primary data collected through structured questionnaires from 213 managers of SACCOS in Dar es Salaam region. Descriptive and multiple regression methods were adopted for data analysis. The results indicate that management capabilities and technology capabilities positively and significantly affect loan recovery performance among SACCOS. Conversely, it was observed that staff capabilities do not relatively affect the loan recovery performance of SACCOS. Furthermore, the findings lead to the conclusion that the resource-based theory and the early recovery model are appropriate for assessing internal capabilities of SACCOS with respect to loan recovery performance. It is therefore recommended that the government consider ingredients which are found in laws and regulations governing the operationalization of commercial banks to enhance management and SACCOS performance. The study also recommends the adoption of technology, as it greatly increases the efficiency of service delivery to members among SACCOS.*

### Introduction

The growth of the Savings and Credit Cooperative Societies (SACCOS) has been tremendous worldwide, especially in working places (Angaine & Waari, 2014). They mobilize funds from members as “savings” and extend loans to eligible members (Abamagal & Abamagal, 2019). Good performance loan repayment by members ensures financial sustainability and continual survival of the SACCOS (Jote, 2018). However, results of loan repayment have not been encouraging as loan defaults keep on increasing (Melese & Asfaw, 2020). Loan repayment involves a borrower’s act of making payment, whether lump-sum or in instalments, to the lender in respect of previously borrowed money (Addae-Korankye, 2014). There are various determinants affecting the loan repayment performance of the borrower. These determinants include educational level and training, annual income, loan size, multiple loans and family size (Angaine & Waari, 2014; Katula & Kiriinya, 2018; Mejeha et al., 2018; Melese & Asfaw, 2020; Mitei et al., 2016; Onyeagocha & Chidebelu, 2012). The assessment of factors affecting loan repayment is important in the achievement of profitability and sustainability of any financial institution.

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The existing literature shows two groups of factors: borrower-related and lending institution factors (Addae-Korankye, [2014](#)). The sustainability of loan offering financial institutions depends largely on their capability to collect their loans as efficiently and effectively as possible (Addae-Korankye, [2014](#)). With regards to borrowers' factors, the educational level and training are among the significant determinants affecting the loan repayment ability of borrowers. In this case, the borrowers offered with credit education and training prior of loan advancement, will understand how to carry out business and therefore improve their loan repayment performance (Asfaw & Melese, [2020](#); Assefa, [2002](#)). Also, borrower with a smaller number of household members will meet their loan repayment obligations better than those with a high number of household members (Angaine & Waari, [2014](#)). The number of dependants supported by borrower determines residual income, which could remain for settling the granted loan, and therefore it significantly affects the probability of loan repayment (Tnsue, [2011](#)). It is further argued that multiple loans affect loan repayment performance (Onyeagocha & Chidebelu, [2012](#)).

Despite the extensive studies on determinants influencing loan repayment performance by members of SACCOS as discussed above, there is limited knowledge concerning the extent to which lending firm-related factors, particularly internal capabilities, affect loan recovery among SACCOS. The studies conducted, particularly in Tanzania, so far have focused on determinants affecting the ability of the SACCOS members to repay their loans (Magali & Oiong, [2014](#); Makorere, [2014](#); Ndiege, Mataba, Msonganzila, & Nzilano, [2015](#); Thinyane & Mmari, [2019](#)). Moreover, these studies have been concerned with external factors affecting loan repayment while ignoring internal factors influencing the ability of SACCOS in recovering loans from borrowers. The internal factors can be assessed in terms of internal capabilities, including human capital resources, technology and organizational management (Becker, [1985](#); Tomer, [1987](#); Williamson, [1975](#)). Human capital resources include training, experience, judgement, intelligence and relationships, while organizational management includes organizational planning, formal reporting structure, coordinating systems and controlling. Like in other organizations, SACCOS may develop and implement competitive strategies and attain effectiveness and efficiency when carrying out the loan recovery function using internal capabilities they possess. Non-existence of effective internal capabilities may greatly affect loan recovery performance of the SACCOS. This knowledge gap forms the basis of this study to address the following objectives:

- i. To determine the influence of management capabilities on loan recovery among Savings and Credit Cooperative Societies in Dar es Salaam;
- ii. To determine the influence of technology capabilities on loan recovery among Savings and Credit Cooperative Societies in Dar es Salaam; and
- iii. To determine whether staff capabilities influence loan recovery among Savings and Credit Cooperative Societies in Dar es Salaam

### **Conceptualization of Internal Capabilities**

Internal capability refers to firm resources controlled by the organization (Barney, [1991](#)). In this context, internal capabilities include management capabilities, technology capabilities embedded within the organization and human resources capabilities (Becker, [1985](#); Tomer, [1987](#); Williamson, [1975](#)). Management capabilities include a firm's governance structure, planning, controlling, and coordinating systems (Barney, [1991](#)). Technology capabilities include technical know-how that facilitate efficiency running of organizational processes. While staff capabilities

include experience, judgement, intelligence, relationships and insight of individual managers and employees (Barney, [1991](#)). Birchal ([2008](#)) posits that firm's internal capabilities are "strengths of the firm that influences the success of the firm/company operations" which guided the study. Birchal (2008) provides three main perspectives of internal capabilities. The first is concerned with effectiveness of management in that how well managers manage and coordinate the activities of the organization. The second perspective relates to the adequate and appropriate human resources skills. This about the fact that an organization must hire employees with relevant skills to carry out assigned tasks. The final perspective relates to technology where a successful organization must possess efficient information technologies that facilitate the operations of the organization.

### **Conceptualization of Loan Recovery**

Loan recovery includes all measures undertaken to recover loans that are no longer serviced by borrowers (Gatimu et al., [2018](#)). These measures include, but are not limited to, loan restricting, guarantee policy, loan monitoring practices and loan recovery agencies (Gatimu et al., [2018](#)). According to Kroszner ([2016](#)), non-performing loans are defined as loans that are no longer being serviced by a borrower. The efficient management of non-performing loans depends on internal capabilities of the organization (Sam, 2015). The loan recovery measures have an impact on loan default and loan delinquency. Whenever the borrower fails to repay the loan in agreed terms (either interest or repayment time), the loan default is said to have occurred (Consultative Group to Assist the Poor (CGAP), 1999). Delinquency is determined because it provides information on amplified risk of loss, cautions of operational problems, and may assist in forecasting how much of the portfolio will ultimately be lost since it never gets repaid. There are three types of delinquency gauges. The first is collection rates, which assesses amounts actually paid against amounts that have fallen due. The second is about arrears rates, which evaluate overdue amounts against total loan amounts; and the third relates to portfolio at risk rates, which determine the loans' dues which are not being paid on time against the outstanding balance of total loans (CGAP, 1999).

Moreover, according to Vandel ([2006](#)), defaulting is "a risk level describing the point in the borrower's repayment history where the borrower does not pay not less than three instalments in a period of 24 months". However, this is different from the case when the borrower had ceased paying the loan completely and therefore been referred to collection or legal processes, or from an accounting perspective that the loan had been regarded as bad or doubtful, or actually written off. In the current study, the definition by Ntiamoah et al. ([2014](#)) that defaulting is "a borrower's failure in fulfilling her or his loan obligations when due" was adopted. Ntiamoah et al. ([2014](#)) explained that default happens when the borrower has failed to meet their legal responsibilities according to the loan agreements. For instance, the borrower has not paid an agreed instalment, or has violated the credit conditions of the loan agreement. In this case, a loan default arises when the debtor does not make expected payments or alternatively does not comply with the conditions set in a loan agreement (Murray, [2011](#)).

### **Theoretical Perspectives**

Resource Based View (RBV) theory and the Early Recovery model guided the current study. These theories highlight how internal capabilities affect loan recovery among SACCOS. The RBV theory was first propounded by Edith Penrose in [1959](#). She emphasized on the constructs of a firm's resources and dynamic capabilities as the fundamental determinants of a firm's

performance. Resources act as primary drivers for a firm's performance (Penrose, [1959](#)). The theory has had improvements from other scholars, including Barney, Rumelt, Wernerfelt and Teece, who have made great advancement to the theory (Barney, [1991](#); Rumelt, [1984](#); Teece & Pisano, [1994](#); Wernerfelt, [1984](#)). Ferreira and Fernandes ([2017](#)) define firm resources as all assets, capabilities, organizational processes, firm attributes, information, and knowledge controlled by the firm which enable the firm to improve its efficiency and effectiveness. Resources may also be defined as stocks of knowledge, physical assets, human capital, and other tangible and intangible factors owned or controlled by the firm (Teece et al., [1997](#)).

According to Barney ([1991](#)), the theory is founded on four significant assumptions, namely heterogeneity, immobility, inimitability and non-substitutability of the resources. Heterogeneity means that skills, capabilities and other resources that organizations possess differ from one firm to another, while immobility means that resources are not mobile and do not move from firm to another, at least in the short-run. The resources must also be valuable in such a way that they offer value to the entity and rare so as to provide a sole strategy that is different from other competitors in the industry. Additionally, resources need not to be imitable by other firms in the industry (Barney, [1991](#)). The competitive edge of organization's resources under the RBV theory can be viewed under three aspects. The first is technology capabilities, which include physical IT equipment and technical know-how (Williamson, [1975](#)). Technical know-how is achieved through the application of software and automation of business processes. Technology enables organizations to optimize and control functions of operations for easy decision making. Through technology, errors in reports are significantly reduced, while reconciliation of numbers is made easy. Usually, a successful organization incorporates technology into its business strategy in order to achieve a competitive advantage over rivals.

The second aspect is human capital resources. This refers to competency, experience and judgement embedded among SACCOS' employees (Becker, [1985](#)). In this aspect, employees are considered to be a key ingredient for the successes or failures of the loan recovery performance of SACCOS. The employees are the centre of coordination of all resources within the aspect of loan recovery activities. Therefore, it is very crucial to determine the staff capabilities available within a financial institution. Staff capabilities are considered to be complex bundles of skills and accumulated knowledge which enable the SACCOS to coordinate activities and attain loan recovery efficiency (Lu et al., [2010](#)). These capabilities enable the SACCOS to combine, develop, and utilize its resources (both internal and external) in a way that promotes the competitive advantage and drives superior loan recovery performance (Lu et al. [2010](#); Teece et al., [1997](#)).

The last aspect is management capability which Tomer ([1987](#)) considers to be organizational capital resources. The management capability includes a SACCOS' formal reporting structure, organizational formal and informal planning, and controlling and coordinating systems. The efficiencies of these components are considered to be necessary in order to achieve efficient loan recovery performance. The management capability is normally assessed by how the non-performing loans (NPLs) decreases over a period of time. Odhiambo ([2012](#)) argues that managers in the SACCOS should protect and maximize owners' wealth through loan recovery performance efficiency and by so doing, the manager's utility functions are maximized. In this perspective, managers are working to protect and make profits for the owners (Davis et al., [1997](#)).

This study was also guided by the Early Recovery model introduced by Markowitz (1959). The model lies on financial institutions to provide flexible loans which allow a borrower to fully pay their loan early through options of bringing down the outstanding balance more quickly. The idea behind this is that the borrower should want to pay a loan as early as possible so that more money will be saved in terms of foregone interest. For instance, a borrower has taken a principal loan of TZS 100,000 over a term of 10 years at an interest rate of 6.50% per annum. Assuming all conditions remain unchanged, upon the 120<sup>th</sup> instalment payment, the borrower would have paid a principal amount of TZS 100,000 and approximately interest of TZS 36,257.57. However, if the borrower had paid the loan within 5 years, then the total interest would be TZS 17,396.89. Therefore, the crucial issue in relation to this model is how borrowers should be alerted to make repayment when the scheduled payments are due.

Furthermore, the loan recovery issue has become a matter of great concern globally among financial institutions (Kaveri, 2016; Sah, 2015). The loan recovery is more complicated in poor and developing countries, including Tanzania and specifically among Savings and Credit Cooperative Societies than other financial institutions (Chen et al., 2019; Rehman et al., 2016). The complication is seen more to be attributed to applicant appraisal procedural weaknesses, loan securities scrutinization procedural weaknesses, technology application weaknesses and loan portfolio management weaknesses, which are evident in many SACCOS in developing countries (Kimasar, 2014; Sarma & Borbora, 2014). For the loan recovery to be implemented, SACCOS need to ensure they have in place solid policies, through which guidelines and procedures emanate (Marini et al., 2017; Osunde & Mayowa, 2012). Markowitz (1959) suggests that loan recovery measures should be dictated by the value that the loan has added to the existing total loan portfolio of the financial institution. Financial institutions are considered to recognize how loan recovery measures can adversely affect the performance of financial institutions, and therefore, they should aggressively employ different approaches to loan recovery.

### **Hypotheses Development and Conceptual Model**

A conceptual framework is the basic structure of research, which contains the basic concepts and ideas which a researcher intends to investigate (Krishnaswami & Ranganatham, 2007). The conceptual model in [Figure 1](#) portrays the nexus between the predictor variables (i.e., management capabilities, technology capabilities and staff capabilities) and the criterion variable (i.e., loan recovery). Therefore, this study identified management capabilities, technology capabilities and staff capabilities as internal determinants influencing loan recovery among SACCOS. Wambua and Karimi (2017) asserted that SACCOS managers play a significant role in the coordination of activities within the cooperative. They further explained that, beyond playing a role of stewardship of the members' funds, the managers are responsible in training and educating their members on basic financial skills in order to manage the loans properly. In this case, it can be concluded that management capabilities are crucial for loan recovery as stated in the first hypothesis (*H<sub>1</sub>*).

**H<sub>1</sub>:** Management capabilities have a positive influence on loan recovery among SACCOS in Tanzania.

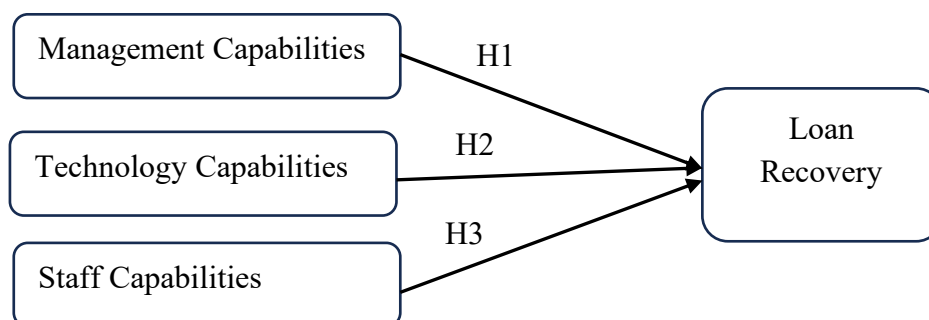
On the other hand, Ngugi and Afande (2015) investigated the extent to which information technology capacity affects the operation of the SACCOS. They found that information and communication technology (ICT) plays a great role in the success of the SACCOS. However,

they observed that ICT capability of many SACCOS is inadequate. Wakyiku and Adong (2018) report that many SACCOS do not have digital Management Information Systems (MIS) and as a result they suffer from a lack of oversight, high operating costs, high risk of fraud and process inefficiencies. They further report that with digitization comes greater productivity, efficiency in managing operations, transparency, accountability and improved reporting. It is on this basis the second hypothesis ( $H_2$ ) was about the influence of technology capabilities and loan recovery among SACCOS.

**H<sub>2</sub>:** Technology capabilities have a positive influence on loan recovery among SACCOS in Tanzania.

Furthermore, among other challenges, various studies have reported that employees of SACCOS contribute to the challenges of managing affairs of the co-operative societies (Baka, 2013). He argued that employees of SACCOS greatly affect the performance of financial management, governance and leadership. Many co-operative societies are faced with a lack of professional employees and therefore fail to properly ascertain the credit worthiness of prospective borrowers (Mengesha & Takele, 2018). It is because of such contributions stated by some scholars that the current study examined the influence of staff capabilities and loan recovery among SACCOS and thus it was necessary to be hypothesized as follows:

**H<sub>3</sub>:** Staff capabilities have a positive influence on loan recovery among SACCOS in Tanzania.



**Figure 1: Conceptual Model**

Source: Synthesised from literature

## Methodology

This study adopted an explanatory research design aiming at identifying the extent and nature of underlying relationships between predictor variables (including management, technology and staff capabilities) and outcome variable (loan recovery). The study was conducted in Dar es Salaam Region, which is a commercial centre of Tanzania and has enough representation of SACCOS in Tanzania. From the registered SACCOS, the sampling frame consisted of 631 units from which a sample of 245 units was drawn. In this case the unit of enquiry was managers of the SACCOS. The study adopted a simple random sampling technique, which provide an equal chance for each member of the target population to be selected when forming the sample size (Kothari, 2004), because the population was known and also to get equal representation of the population. Furthermore, each member of the population is identifiable, and all members were statistically independent of one another. Under this technique, all units of the target population were listed, assigned specific numbers from 001 to 631, and therefore a *Pretty Randomization*

*Application* was used to randomly pick 245 (that is, sample size) from the population. Since the population was finite, the researcher applied Slovin's formula for determining the minimum desirable sample size, which is appropriate (Israel, 1992). The confidence level of 95% implies that there are 95 chances of the results being representative of the larger population, but 5 per cent being otherwise. The sample size was therefore calculated using Slovin's formula (Israel, 1992) as follows:

$$n \geq \frac{N}{1 + Ne^2}$$

Where

$n$  is the minimum desired sample size of registered SACCOS

$N$  is the total population of registered SACCOS.

$e$  is the level of precision

Thus,

$$n \geq \frac{631}{1 + 631(0.5)^2} = 244.8 \approx 245$$

In this study, a structured questionnaire was used to collect information from selected, respondents. The questionnaire consisted of open and closed-ended questions and was printed, and its copies were distributed to selected respondents for them to answer the questions as instructed. The use of the questionnaire was preferred because the study had a relatively large sample size, and respondents were knowledgeable about the purpose of the study. In addition, the technique provided adequate time for respondents to give well-thought-out answers (Kothari, 2004). A five-point Likert scale was used to measure the variables of this research. They were measured using a 5-point Likert type scale approach ranging from 1 = Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree to 5= Strongly Agree. The researcher constructed six questions for management capabilities, seven questions for technology capabilities, six questions for staff capabilities and three questions for loan recovery. The measurement is effective when a questionnaire has been used as a tool for data collection. This was the reason for selecting the questionnaire in this study. Apart from descriptive analysis on the demographic profile of the respondents, the multiple regression technique was used to examine the relationship between internal capabilities and loan recovery. The following general model was adopted.

$$LR = \beta_0 + \beta_1 MC + \beta_2 TC + \beta_3 SC + \mu$$

Where;

$B_i$  – Coefficients

LR – Loan Recovery

MC – Management Capabilities

TC – Technology Capabilities

SC – Staff Capabilities

$\mu$  – Error Term

$B_0$  – Constant

### Validity and Reliability of Collected Data

Validity measures the degree to which the study results accurately reveal what is actually happening in a particular situation (Welman et al., 2005). It also explains a research instrument which provides assurance that the process adopted to collect data has actually successfully gathered the expected data.

For this particular research study, several procedures were taken to guarantee that the data assembled were valid. An in-depth literature review was carried out to determine the suitable methods for carrying out quantitative research to assemble data from managers (Babbie & Mouton, 2001; Bryman & Bell, 2007; Field, 2009; Welman et al., 2005). The development of the instrument started with the grouping of statements from theoretical literature review, empirical review, the conceptual framework and necessary improvements were made based on literature review. The questionnaire statements were formulated in such a way as to ensure they are easily understood by the respondents and with inclusion of directives that enabled full completion of the questionnaire. The questionnaire was piloted using managers from selected SACCOS to ensure the data collected were valid. The objective of the research study was clearly clarified to the respondents, and general matters of concern were highlighted in the questionnaire subsections. Lastly, respondents were given assurance of data confidentiality, as their personal identities were not relevant to the research. This assurance motivated them to fill out the questionnaire. These procedures also guaranteed that the copies of the questionnaire were completed under conditions favourable to respondents, and the environment was suitable for respondents. Therefore, the whole data collection process ensured the validity of the data.

Reliability is the consistency of a research study or investigation technique (Krishnaswami & Ranganatham, 2007). Reliability indicates the extent to which a tool consistently determines whatever it is measuring (Lunenburg & Irby, 2008; Welman et al., 2005). Therefore, it symbolizes a situation in which identical outcomes will be realized whenever the same tool is repeated to do the same study after a particular period of time (Babbie & Mouton, 2001). The reliability of the data collection tool was achieved through determining internal consistency. It was assessed by calculating the Cronbach's alpha coefficient. This coefficient evaluates how all items on a tool relate to all other tool items and to the total tool as well. It is suggested that the computed Cronbach's alpha should lie between one (representing perfect internal reliability) and zero (representing no internal reliability) of the tool (Bryman & Bell, 2007). To assess the internal consistency of the variable measures, the researcher computed a Cronbach's Alpha using Statistical Package for the Social Sciences (SPSS). The study results indicate a minimum Cronbach's alpha coefficient for each item statement was 0.761, which implies the data collection tool was reliable (Field, 2009). Overall, the internal consistency coefficient of above 0.7 as depicted in Table 1 for 22 statements implied that the data collected were mainly reliable, and conclusions drawn from findings can therefore be relied upon. Table 1 depicts the summary of the reliability of the research study.

**Table 1: Reliability Statistics**

Variable	No. of Items	Cronbach's Alpha
Management capabilities	6	0.761
Technology capabilities	7	0.777
Staff capabilities	6	0.988
Loan Recovery	3	0.843

## Findings and Discussions

### Profile of the Respondents

It is essential to consider the characteristics of study respondents. This shows whether the target population was fully represented by the sample used in the study. This information is established on gender, age, number of years worked in SACCOS, education level and membership type of the SACCOS. [Table 2](#) portrays details on the characteristics of the respondents. The descriptive statistics of respondents showed that 53.1 per cent of the respondents, were males and equivalent 46.9 per cent, were females. This indicates that males were a dominant gender among respondents involved in the study. This composition reveals that most of the people employed in SACCOS, whether in the private or public sector, are men as compared to women. This finding is historically oriented since, from a historical point of view, the male gender has been dominating employment in both the private and public sectors (Hearn, [2019](#)). It is a very important variable in the analysis as it reflects the composition of citizens/population in certain geographical areas (Kothari, [2004](#)). According to the data collected from the sample of the study, it showed that, 10 respondents, equivalent to 4.7 per cent, were aged below 20 years old, while 68 respondents, equivalent to 31.9 per cent, were aged between 21 - 30 years old, 88 respondents, equivalent to 41.3 per cent, were aged between 31-40 years old and 33 respondents equivalent to 15.5 per cent, were aged between 41-50 years old. Further, 14 respondents, equivalent to 6.6 per cent, were aged between 51 years old and above. These figures point out that most respondents fell in the age range of 21 to 50 years.

**Table 2: Profile of the Respondents**

Demographic Variable	Attribute	Frequency	Per cent (%)
Gender	Male	113	53.1
	Female	100	46.9
Age	Below 20 years	10	4.7
	21 - 30 years	68	31.9
	31 - 40 years	88	41.3
	41 -50 years	33	15.5
	51 years and above	14	6.6
Number of years worked in SACCOS	1-5 years	158	74.2
	6-10 years	35	16.4
	10-15 years	15	7
	More than 15 years	5	2.4
Level of education	Certificate	21	9.9
	Diploma	65	30.5
	Undergraduate degree	81	38
	Postgraduate degree	40	18.8
	Tertiary	6	2.8
Types of SACCOS	Employees based	120	56.3
	Others	93	43.7

Source: Field Data

Also, the descriptive statistics of respondents based on their education level showed that 21 respondents, equivalent to 9.9 per cent, had an education at certificate level, while 65 respondents, equivalent to 30.5 per cent, had a diploma level of education and 81 respondents, equivalent to 38.0 per cent, had an undergraduate degree level of education. Further, 40 respondents, equivalent to 18.8 per cent, possessed a postgraduate level of education, whereas 6 respondents, equivalent to 2.8 per cent, had a tertiary level of education. These results reveal that most of the respondents had reasonable knowledge to provide appropriate responses to the items in the questionnaire. In addition to that, the total number of respondents, as per the number of years of which they had worked in SACCOS, indicated that 158 respondents, equivalent to 74.2 per cent, had experience of 1 year to 5 years while 35 respondents, equivalent to 16.4 per cent, had experience of 5 years to 10 years, and 15 respondents, equivalent to 7.0 per cent, had experience of 10 years to 15 years. Further, 5 respondents, equivalent to 2.4 per cent, had experience of more than 15 years. These results reveal that at least each respondent had experience of 1 year of working with SACCOS, providing reasonable assurance that each respondent knew how SACCOS operates in such a way that appropriate responses were given on proposed research questions. Lastly, the descriptive statistics on the gathered data and information indicated that 120 respondents, equivalent to 56.3 per cent, were working in SACCOS with employee-based membership, while 93 respondents, equivalent to 43.7 per cent, were working in SACCOS other than employees-based membership.

### Relationship Between Internal Capabilities and Loan Recovery

To test the influence of Internal Capabilities on Loan Recovery statistically, the collected data were subjected to multiple linear regression analysis. Specifically, ordinal logistic regression was adopted since the dependent variable was measured at an ordinal level using a 5-point Likert type scale approach. This ranged from 1= Strongly Disagree to 5= Strongly Agree. Tests were performed on assumptions, including the multicollinearity test and proportional odds. A multicollinearity test was conducted to assess whether two or more independent variables are highly correlated with each other. The study adopted the Variance Inflation Factor (VIF) to conduct a test of multicollinearity. As a rule of thumb, when the value of VIF is greater than 10, then independent variables are highly correlated and indicate there is a problem of multicollinearity (Everitt & Skrondal, 2010). Results in [Table 3](#) indicate that the values for VIF are 1.144, 1.075, and 1.068 for management capabilities, technology capabilities and staff capabilities, respectively. This means the variables are not correlated and therefore there is no multicollinearity problem.

**Table 3: Multicollinearity Test Results**

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Management capabilities	0.874	1.144
	Technology capabilities	0.930	1.075
	Staff capabilities	0.936	1.068

a. Dependent Variable: Loan Recovery

Source: Field Data

The proportional Odds Test assumes that the effects of any explanatory variables are consistent across different thresholds (Everitt & Skrondal, 2010). The study adopted the test of parallel lines to confirm the appropriateness of the proportional Odds assumption. When comparing the ordinal model with one set of coefficients for all thresholds labelled with Null Hypothesis to model with a model labelled “General” in Table 4, there is no statistical evidence that the general model offers a significantly better fit to the data than an ordinal model (i.e.  $p > 0.05$ ). Therefore, it caused the researcher to fail to reject the assumptions of proportional odds.

**Table 4: Parallel Lines Test Results**

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	151.348			
General	130.319 <sup>b</sup>	21.030 <sup>c</sup>	13	.072

a. Link-function

b. The value of the log likelihood can't be increased after the maximum number of step halving.

c. The Chi-Square statistic is obtained based on the log-likelihood value of the last iteration of the general model. Validity of the test is uncertain.

**Source:** Field Data

### Model Summary and ANOVA

The variables were subjected to a model summary to determine the model fitness and an Analysis of Variance (ANOVA) to determine the significance of the model. Table 5 provides the model summary and ANOVA details. The R value of 0.826 implies that predictor variables have a good prediction on the criterion variable. In other words, there is a strong and positive relationship between internal capabilities and loan recovery. Moreover, the goodness of fit of the model, as shown by the R Square value of 0.510, suggests that about 51 per cent of the variations in loan recovery among SACCOS are explained by the predictor variables. On the other hand, the remaining 49 per cent is explained by other factors outside the model not covered in the analysis.

Furthermore, the Durbin Watson statistic shows a score of 1.711. This score implies that the variables under analysis are positively auto-correlated and thus that there is a positive relationship between the variables under the study. Therefore, it can be concluded that the predictor variables were good in predicting the loan recovery performance among SACCOS in Tanzania. Likewise, the ANOVA was conducted focusing on presenting and indicating the significance of the model used in the study (Babin & Anderson, 2014). This analysis helps to determine the effects of internal capabilities on loan recovery. The information in Table 5 shows that the fitted model was further diagnosed and found to be statistically significant at 5% level of significance ( $p < 0.05$ ), indicating that the data fit the model developed. Specifically, the value obtained indicates that the linear regression model produced provides a better fit to the data than a model that contains no independent variables.

**Table 5: Model Summary and ANOVA Results**

Model Summary					ANOVA						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson		Sum of Squares	Df	Mean Square	F	Sig.
1	.826 <sup>a</sup>	0.510	0.370	0.471	1.711	Regression	5.047	4	1.682	3.733	.012 <sup>b</sup>
						Residual	94.192	209	0.451		
						Total	99.239	213			

a. Predictors: (Constant), management capabilities, technology capabilities and staff capabilities

b. Dependent variable: Loan Recovery.

**Source:** Field Data

As depicted in [Table 6](#), unstandardized coefficients reveal how the criterion variable varies with each independent variable when other independent variables are kept constant. The study findings on management capabilities showed a positive influence on loan recovery among SACCOS. The findings show that the unstandardized coefficient ( $\beta$ ) for the management capabilities variable is equal to 0.111, equivalent to 11.10 per cent. This implies that a unit increase in management capabilities results in an increase in loan recovery by 11.10 per cent. Furthermore, it is statistically significant in explaining the loan recovery with ( $t=1.944$ ,  $p>0.10$ ). From these results, it can be concluded that management capability is a significant determinant of the loan recovery among SACCOS in Tanzania. It can also be noted from Table 6 that management capabilities have a positive coefficient. This implies that as management capabilities improve, the loan recovery performance among SACCOS improves. These findings are consistent with the results by Okumu and Oyugi (2016), who studied factors affecting the financial performance of Savings and Credit Cooperative Societies in Kisumu County Kenya. The results revealed that, among other issues, there is a high positive correlation between management efficiency and the performance of SACCOS. They further revealed that a proper management team in place ensures profitability and sustainability of SACCOS. Also, Mwanja et al. (2014), in their study on effect of corporate governance on performance of SACCOS in Kakamega, concluded that effective management has significant positive effect on the performance of SACCOS. Thus, they recommended measures should be put in place for SACCOS to embrace right culture, as well as learning and right organizational structures in order to have effective management.

**Table 6: Multiple Regression Analysis Results**

Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	1.678	0.272		6.166	0.000
	Management capabilities	0.111	0.057	0.135	1.944	0.0253
	Technology capabilities	0.132	0.064	0.142	2.065	0.0240
	Staff capabilities	0.006	0.005	0.088	1.286	0.2000

a. Dependent Variable: Loan Recovery:

**Source:** Field Data

The unstandardized coefficient ( $\beta$ ) for the technology capabilities variable is equal to 0.132, which is equivalent to 13.2 per cent. This signifies that a unit increase in technology capabilities leads to a unit change in loan recovery by 13.2 per cent. This indicates that technology capabilities have a positive influence on loan recovery among SACCOS in Tanzania. Furthermore, it is statistically significant in explaining the loan recovery with ( $t=2.065$ ,  $p<0.10$ ). However, it can also be noted from [Table 6](#) that technology capabilities have a positive coefficient. This entails that as technology capability is enhanced, loan recovery also improves. These findings are consistent with the study of Wakyiku and Adong ([2018](#)), who conducted research digitization of SACCOS in Uganda. The results showed that digitization equally has a positive effect on profitability because SACCOS that digitize observe a significant decrease in the cost- to- income ratio, an increment in revenues, and net profit margin. They further concluded that integration with mobile money is one of the biggest drivers of sustainability, as members can easily access services anywhere and anytime, while at the same time, when a member relocates from SACCOS location, they do not have to worry about an interruption in the access to SACCOS products.

Moreover, the unstandardized coefficient ( $\beta$ ) of staff capabilities is equal to 0.006, which is equivalent to 0.6 per cent. These results portray that a unit increase in staff capabilities leads to increase in loan recovery by 0.6 per cent. However, the findings on staff capabilities revealed a none- influence on loan recovery among SACCOS in Tanzania. Furthermore, it is not statistically significant in explaining the loan recovery with ( $t=1.286$ ,  $p>0.10$ ). It can also be noted from [Table 6](#) that improvement of staff capabilities will not enhance loan recovery among SACCOS. The findings are inconsistent with the study conducted by Koch and McGrath (2016) in... who found that staff capabilities have a significant influence on SACCOS' performance. In their study, they found that most SACCOS have an adequate number of employees with relevant skills and are subjected to regular training aiming at enhancing their capabilities. It was also noted that these trainings contribute to employees meeting customers' expectations as well as the organization's expectations. Also, Koch and McGrath ([2016](#)) assert that human resources help organizations improve their organizational behaviour in such areas, including competency, staff commitment, and flexibility, which also lead to improved staff capabilities. They further argue that human resource is mainly concerned with how employees are managed within the firms. They also concluded that organizations must take note that managing human resources is cumbersome in today's complex world, and therefore, management of human resources should be supported by rigorous management practices.

### **Summary of Hypothesis Testing and Results**

[Table 7](#) summarizes hypotheses testing results for the study. On the hypothesis that management capabilities have a positive influence on loan recovery performance, the researcher failed to reject the hypothesis since it has a significance value of less than 0.1. The results also show that the researcher failed to reject the hypothesis that technology capabilities have a positive influence on loan recovery among SACCOS, since the significance value is less than 0.1. This implies that the variable is significant in influencing loan recovery performance. Furthermore, the hypothesis that staff capabilities have influence on loan recovery was rejected because the level of significance value of the variable staff capabilities is greater than 0.1. This implies that loan recovery performance in SACCOS is not influenced by staff capabilities.

**Table 7: Summary of Research Hypotheses**

Item	Research Hypothesis	Results
H <sub>1</sub>	Management capabilities have a positive influence on loan recovery	Fail to reject
H <sub>2</sub>	Technology capabilities have a positive influence on loan recovery	Fail to reject
H <sub>3</sub>	Staff capabilities have a positive influence on loan recovery	Rejected

**Source:** Field Data

### Conclusions and Recommendations

This study examined the influence of firms' internal capabilities on loan recovery among SACCOS in Tanzania. The findings revealed that management capabilities and technology capabilities have a positive influence on loan recovery among SACCOS. According to Resource Based Theory, a firm's resources are measured in terms of physical capital resources, human capital resources, and organizational capital resources. The model reveals these resources are fundamental determinants of a firm's performance, including SACCOS. It is from this point of understanding that management capabilities, technology capabilities and staff capabilities were extracted. Therefore, the model had successfully predicted internal capabilities influencing loan recovery among SACCOS. In this case, management skills (managerial skills) were found important, especially in the coordination of activities within SACCOS. Managerial decisions are fundamental to achieving better performance in loan recovery.

It is also revealed that sound policies implementation depends on human resources competencies. Thus, hiring is crucial because it dictates and decides the availability of qualified management staff within SACCOS. It further revealed that information technology greatly enhances service delivery efficiency. Therefore, the government needs to consider these issues when establishing a policy concerning SACCOS supervision. Through effective management in place, SACCOS ensure that strategic decision making assures better performance of loan recovery. Managerial decisions greatly impact the growth of SACCOS. It is therefore important for SACCOS to have managerial staff with the right skills to ensure the smooth running of daily operations. The adoption of technology is very crucial for any organization that wishes to succeed, including SACCOS. The deployment of technology will facilitate the adoption of an automated business processes mentality to serve their customers efficiently. The adoption of technology helps in avoiding long queues of customers awaiting attention, and publicly listed telephone numbers go unanswered or are continuously engaged.

### Recommendations

From the study findings and the objectives, it is clearly observed that the management capabilities and technology capabilities influence loan recovery performance among SACCOS. It is because of these results that various recommendations are proposed. First, the Savings and Credit Cooperative Societies should review the management functions affecting their identity and operations division to formulate reliable structures that improve loan recovery performance within SACCOS. Furthermore, the SACCOS are advised to assess managerial capabilities and assemble valuable information and insights in creating the loan recovery strategy. Additionally, the SACCOS management is advised to involve members and other stakeholders in making

decisions on the effective implementation of loan recovery measures. Lastly, the SACCOS management is advised to adopt and use available new technologies that can improve the financial management and reporting of accurate and reliable loan information. This adoption of the technology will help in effective service provision, as well as in having better loan recovery.

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