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Influence of Loan Size, Collateral Value and Leaders' Creativity on Loan Repayment among Tanzanian Rural Savings and Credit Cooperative Societies

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Influence of Loan Size, Collateral Value and Leaders' Creativity on Loan Repayment among Tanzanian Rural Savings and Credit Cooperative Societies

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Abstract

The study investigated the effects of loan size, collateral value, and leaders' creativity on loan repayment in savings and credit cooperative societies (SACCOS) in the rural areas of Morogoro Region, Tanzania. The study employed an explanatory study design and the survey approach. The study population consisted of 4,200 SACCOS borrowers in Morogoro Rural District. A random sampling design was applied to select borrowers who had started repaying their loans. The structured questionnaire collected the primary data from 270 borrowers. The multiple regression technique was used to analyze the field data. The findings disclosed that loan size, collateral value and leaders' creativity promoted positively and significantly the repayment of loans in rural Tanzanian SACCOS. While most previous studies assessed the determinants of the loan repayment in Tanzania, none of them assessed how the loan size, collateral value and leaders' creativity promoted the repayment of loans in rural Tanzanian SACCOS. The study recommends the policy makers to enforce loan size, collateral value and leaders' creativity in SACCOS in Tanzania.

Keywords: *Loan Size, Collateral Value, Leaders' Creativity and Innovation, Rural SACCOS Loan Repayment, Tanzania*

1. Introduction

SACCOS, like any other cooperative, are operated democratically, independently, and autonomously, sharing resources and responsibilities (González & Popescu, 2025). Globally, scholars term the SACCOS and credit unions interchangeably (Chepkwei, 2018). Credit unions are essentially promoting financial services, particularly microcredit, savings and deposits, microinsurance, and remittances, to their clients (Huda et al., 2025). Credit unions help marginalized populations access financial services in both developed and developing countries. In Ireland, adult members accounted for 50 percent of credit union clients (Hyndman et al., 2004). SACCOS improves its clients' financial well-being by providing affordable, accessible financial services. SACCOS enable clients to save regularly and help build saving habits (Gogo & Oluoch, 2017). The SACCOS provide loans at relatively low interest rates compared to those charged by formal financial institutions, such as commercial banks (Kabung'a, 2021). The SACCOS loans promote clients to finance various social and economic activities. The loan is used as capital for small businesses, agricultural and livestock, artisans and other activities (Mwaipaja & Magali, 2024). The loan is also used to finance the education, health, housing, and emergency event

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charges such as funeral (Omona, 2021). By educating their clients on loan management, microinsurance, remittances, budgeting and saving, SACCOS promote financial literacy (Mwatondo & Wekesa, 2020). SACCOS foster mutual support and cooperation among the clients. SACCOS act as pioneers to encourage members' participation in social and economic activities (Bergomi, 2024). When the performance of SACCOS is good, SACCOS provide the surplus to their clients in the form of dividends (Vuhyah et al., 2022). The SACCOS promotes the livelihood of the clients by encouraging the increase of the clients' assets, the livestock, agriculture, artisans and other economic activities productivity. The livelihood is also promoted by increasing the number and quality of meals, enhancing assets, and improving clients' housing (Africano et al., 2024). Moreover, the SACCOS promote the national income by promoting financial inclusion, clients' livelihood, entrepreneurship, income, business growth and poverty alleviation (Omona, 2021).

However, globally, credit unions face various challenges, including stiff competition with other financial services providers, regulatory non-compliance, capital challenges, limited technology adoption, and lack of management and staff skills, poor loan repayment and retarded performance. According to Sharma et al. (2007), SACCOS in many countries face high competition and a failure to comply with formal operating regulations. These challenges also result in poor portfolio quality of SACCOS. Kozłowski (2016) reported that Polish credit unions faced poor loan portfolio quality due to competition from other financial institutions. French and Mangan (2017) reported that poor loan repayment hindered the performance and growth of credit unions in the United Kingdom. An unfavorable portfolio led to the sale of credit unions in Cyprus to other capable investors (Kleanthous et al., 2019). Poon (2012) reported the funds shortage challenge for the Hong Kong credit unions. Due to effective supervision and monitoring of credit unions in Canada, Losier (2021) reported that they remained resilient even after the 2016-2020 financial crises.

According to TCDC (2024), the 2023 SACCOS data show that the total number of registered SACCOS was 1,283, while the number of licensed SACCOS was 884. The members were 1,821,096, while savings and deposits totaled Tanzanian Shillings (TZS) 364,883,082. The data further indicated that total assets were TZS 499,245,283, while the sum of all loans was TZS 420,239,203. The data displayed Tanzania's members' penetration rate at 6%, compared with

14.7% and 13.9% for Africa and the global data, respectively. TCDC (2024) further asserted that the total SACCO's savings and deposits increased from TZS 871.30 billion to TZS 966.94 billion between December 2022 and 2023. The increase was catalysed by the utilization of the technologically innovative practices by the licensed SACCOs.

However, the total number of SACCOs declined from 2,034 to 1,283 over the same period. The decline was caused by the de-registration of non-performing and untraceable SACCOs. The good news was that the number of licensed SACCOS rose to 884 in December 2023 from 759 in 2022, registering an increase of 14%. The TCDC data also indicate an increase in SACCO's fundamental capital from 151.05 to 180.4 TZS Billion. This is a sign of improving supervision efforts done by the TCDC. The total SACCOS outstanding loans increased to TZS 1.113 trillion from TZS 1.045 trillion in the previous year, representing a 6% rise. The number of clients increased to 1,814,803 in December 2023, from 1,805,424 in December 2022, representing a 0.52% Increment. The declining number of total SACCOs and the increasing amount of outstanding loans depict that SACCOs still face operational challenges that hamper their performance and sustainability (Karumuna & Akyoo, 2011; TCDC, 2024).

TCDC (2024) further listed some challenges that hindered the smooth operations of the SACCOs in Tanzania. Some of these challenges include employers' resistance to submitting employees' borrowers' loan deductions to the SACCOs appropriately. Lack of ethical adherence by SACCOs board members also threatened SACCOs' performance. Other challenges include poor recruitment of SACCOs staff, poor product design, and poor services offered by SACCOs to their customers. Poor ICT use and inability to respond to cybersecurity problems, lack of quality data management and concentration of assets by a few bigger SACCOs, and a high proportion of overdue loans were also listed by TCDC (2024). The study was conducted in Morogoro Rural District, which has a higher number of non-performing (16) SACCOs than functioning (5) SACCOs (Morogoro District Council, 2025). Magali (2013) also revealed that the district had a high number of non-performing loans and non-performing SACCOs. The findings also revealed that SACCOs were ineffective in appraising loans, and that some SACCOs accepted fake collateral, such as counterfeit motorcycle ownership cards.

1.2 Research Problem

According to TCDC (2025), only 28.63% of all SACCOs in Tanzania were registered by December 2024, which affected their compliance. In 2024, the savings and deposits declined by 15.37%. The Tanzanian SACCOs faced the challenge of skilled staff who were unable to operate their software systems effectively. The SACCOs also face challenges in making long-term investments, such as bonds, shares, and debentures. The SACCOs still faced a capital adequacy problem, with a ratio of 13.8%, contrary to the standard of 8%.

TCDC (2025) further disclosed that more than 50% of SACCOs received unpleasant audit opinions (qualified, disclaimer, or adverse), indicating operational malfunctions. Timely loan repayment has remained a major challenge for most SACCOs, with some SACCOs having outstanding loans of up to 180%. The outstanding loan balance for Tanzanian SACCOs increased by 8.11%, from TZS 1.11 trillion to TZS 1.20 trillion from December 2023 to December 2024. The increase in outstanding loans indicates a problem of non-repayment among most rural SACCO clients.

Studies on the determinants of loan repayment, such as Mwaipaja and Magali (2024), Teneng and Kehdinga (2024), Sangwan et al. (2020), and Kapukha and Makau (2023) concentrated on factors such as demographic and loan-related factors without considering the collateral value and leaders' creativity. Therefore, this study was devised to assess strategies to enhance loan repayment in rural SACCOs.

1.3 Research Objectives

The specific objectives of the study were to determine how loan size, collateral value, and leaders' creativity influenced loan repayment among rural SACCO clients in Tanzania

2. Literature Review

2.1 The role of Collateral in Loan Repayment

According to Atieno (2001), collateral assures the lender that the borrower will repay the loan. Diep-Nguyen and Dang (2020) found that the lack of collateral led SMEs to be denied access to credit from formal MFIs. Iqbal et al. (2023) stated that collateral value is among the factors that facilitate loan screening. Other factors include the loan amount, the loan interest rate, and the

borrower's qualifications and merit. The study further indicated that a mismatch between the loan size and collateral value was the primary reason for loan default. Balvanz et al. (2019) asserted that demand for physical collateral was a criterion for young men from Dar es Salaam, Tanzania, to borrow from the MFI. Other criteria include attending a 5-day training, participating in a baseline survey, and paying 10 USD as savings and loan processing fees. Cole et al. (2024) contended that the use of collateral not only determines the credit rationing but also enforces unscrupulous borrowers to repay their loans. James (2019) asserted that Kenyan commercial banks recovered collateral after borrowers failed to repay their loans. Narayanan and Mehrotra (2019) found that regular loan repayment schedules and collateral had a positive and significant influence on informal loan repayment in India.

Ravi (2014) asserted that formal financial institutions in Indonesia accepted collateral in the form of future crops, land, jewelry, and houses. Charles and Mori (2017) stated that some informal and semi-formal MFIs in Tanzania lend loans of \$100-\$30,000 based on collateral value, which is one of the five requirements of their lending policy. However, money lenders did not demand any collateral. Ioannidou et al. (2022) observed that in Bolivia, the collateral value increased credit demand and supply, while its depreciation had the opposite effect. Ioannidou et al. (2022) further asserted that riskier firms did not use collateral to secure investments as non-riskier firms did. However, pledging collateral mitigates the moral hazard problem by reducing the risk of default.

2.2 The role of Social Collateral

Most empirical studies examine the role of social collateral in enhancing loan repayment. Charles and Mori (2016) revealed that only a few borrowers met the requirement for immovable assets as collateral for informal lending in Tanzania. The findings further displayed that social collateral played a great role in fostering loan repayment. Hadi and Kamaluddin (2015) reported that, for Malaysian MFIs, social collateral comprised elements such as group pressure and training, as well as trust and networks. The training and social pressures encouraged loan repayment. The social collateral guided the borrowers and assessed their capability to repay the loans. Besley and Coate (1995), who regarded group lending as social collateral, found that it incentivizes group members to repay loans during a business venture's poor performance. The findings showed that ground lending mitigated the need for physical collateral, as it was often used as social collateral. Parmeter

and Sarangi (2020) contended that MFIs group lending substituted credit history, physical collateral and cash flow assessment for informal lenders in Jordan. Hill and Sarangi (2012) contended that collateral requirements and credit rationing exclude poor borrowers from accessing the credit market. Individual loans require physical collateral and three guarantors, whereas group loans use social collateral as a substitute. Social collateral is sometimes treated as joint liability.

2.3 Integrative factors in the Collateral research

Rafay et al. (2024) found that social collateral characteristics, such as loan referrals and the relationship between the borrower and guarantor, positively influenced the loan repayment performance of Akhuwat MFI clients in Pakistan. Wenner (1995) asserted that many countries lack physical land collateral because title deeds do not exist. In this case, they used the group credit as social collateral. Bhatt and Tang (2002) demonstrated that group microcredit practices overcome the moral hazard challenges caused by the nonexistence of physical collateral. Community unity, trust, and mutuality have substituted for the physical collateral used by informal lenders in inner cities in the United States. Liu et al. (2020) reported that tangible collateral is not necessary to secure Peer-to-Peer unsecured loans. Small, poor borrowers are attracted by uncollateralized loans because they lack the tangible collateral. Hence, the social collateral is often used. However, uncollateralized loans assess loan risk using group information that also guarantees fellow borrowers. Ravi (2014) reported that savings were substituted for collateral among Indian self-help group members and Bank Rakyat Indonesia clients. Charles and Mori (2017) stated that informal lenders in Tanzania placed little importance on collateral for regular borrowers.

According to Barro (1976), loan default poses a threat to collateral loss. Schiantarelli et al. (2020) demonstrated that Italian firms delayed payment to banks due to poor collateral recovery, which was caused by inadequate legal enforcement. Bad farming conditions threatened farmers' ability to lose bank collateral in India. Cole et al. (2024) asserted that the use of collateral denied 3% of loan applications from UK small- and medium-sized businesses. Nagarajan and Meyer (1995) asserted that the lack of physical collateral hinders access to bank credit in rural settings. Brehanu and Fufa (2008) reported that a lack of collateral restrained the small-scale farmers from accessing loans from semi-formal MFIs in Ethiopia. Chapman and Dearden (2017) asserted that the lack of collateral made US commercial banks unwilling to lend to university students.

Bhattacharjee and Rajeev (2013) reported that setting a high interest rate promoted loan repayment among MFIs in developing countries and reduced collateral demand. Aivazian et al. (2015) asserted that scant studies have assessed the impact of collateral and interest rates on firm performance and decisions. Setting collateral persuades firms to invest in non-risky projects. However, a high value of the collateral is compatible with a high loan amount and hence poses a high risk to the firm. The empirical literature indicates that none of the studies assessed how the value of collateral influences loan repayment in semi-formal institutions such as SACCOs.

2.4 Loan size and Loan repayment

Kassegn and Endris (2022) found that loan size positively and significantly influenced loan repayment among smallholder farmers' MFI clients in Ethiopia. Rohmana and Wulandari (2024) revealed that loan size, repayment scheme, tenure and business practices positively and significantly influenced the repayment of loans in Indonesia. The multiple regression results by Abimbola and Kolawole (2021) revealed that loan size negatively and significantly influences loan repayment at microfinance banks in Nigeria. Loreño and Teves (2023) revealed that loan size did not significantly influence agricultural loan repayment in the Philippines. The study used the regression analysis. The empirical literature review indicates that previous studies have produced diverse results on the influence of loan size on loan repayment in MFIs.

Some studies linked the loan size with other variables. Sangwan and Nayak (2021) demonstrated that higher microfinance intermediation costs led to larger loan sizes for borrowers in India. The study employed the regression technique. Pamuk et al. (2022) revealed that the indicators of the group's social tie, such as the same hamlet relatives, members from other social groups, youth members, and the rate of participation in meetings, did not affect the size of the loan for the village community banks or savings and loan associations in Tanzania. Domanban et al. (2023) found that loan amount positively and significantly influenced the sources of credit in Ghana. The literature indicates that studies integrating loan size, collateral value, and leaders' creativity in loan repayment in SACCOS are lacking.

2.5 Creativity/innovation and Loan repayment

There are scant studies that assessed the role of innovation and creativity in the MFIs context. Rotich *et al.* (2016) considered the group lending approach as an innovative lending strategy that increased loan repayment rates among MFI clients in Kenya. The study used the correlation technique. Makuya (2024) revealed that the need for achievement significantly broadens creativity, which ultimately influences the financial performance. Ahmad and Rahim (2023) found that mobile phone-based loan repayment innovation has a positive effect on loan repayment for MFIs in Malaysia. The empirical literature review shows that the study has examined how leaders' creativity and innovation influence loan repayment in SACCOS.

2.6 Microcredit Theory

The microcredit theory, introduced by Muhammad Yunus in the early 1980s, explains what happens when microcredit is offered to the marginal population (Haque, 2012). Agyemang *et al.* (2019) reported that microcredit provision is associated with improved livelihoods and the alleviation of poverty for poor and excluded groups. Awaworyi (2014) acknowledged the role of microcredit in promoting the increase of the income, assets and generally, promoting the livelihood of the poor borrowers. Scholars such as Amran and Mwasiaji (2019) and Baskaran *et al.* (2022) have acknowledged the role of improving clients' livelihoods. The scholars recognize the role of microcredit in creating employment opportunities (Tria *et al.*, 2022). Microcredit further enhances the impact of business sales and profitability on enterprises (Ceballos Gomez *et al.*, 2025).

The microcredit is exacerbated by the uneven debt nature, poverty line assessment procedure and its performance, the lack of inequality (Heller, 2021). Some scholars, such as Cepeda *et al.* (2021) and Williams *et al.* (2025) challenged microcredits due to their potential to cause violence among the women. Blanco-Oliver *et al.* (2023) also asserted that granting a loan that is too small may increase the risk of non-repayment. However, the study did not confirm a trade-off between the loan size and financial performance. The theoretical gap is the lack of previous studies that integrate loan size, collateral value, and leaders' creativity in loan repayment.

Microcredit theory posits that small loans with simple collateral can empower the most disadvantaged population economically. Therefore, the microcredit theory does not support the

banking theory that a loan should be secured with collateral to promote its repayment. The theory emphasizes that, to promote clients' sustainable independence and self-reliance, collateral should not be an obstacle to borrowing (Parmeter & Sarangi, 2020). Contrary to employing the theory in informal and small loans, this study considers the application of the theory in semi-formal institutions, such as SACCOS, which operates at the middle layer between formal commercial banks and informal microfinance institutions, including village community banks and savings and credit cooperative societies.

SACCOs are considered semi-formal financial institution because the Bank of Tanzania regulates them through the Tanzania Cooperatives Development Commission (TCDC). The TCDC regulations guide the structure of governance, registration procedures, the minimum number, the leadership structures, the reporting procedures, the operating guidelines and the penalty for non-compliance. However, the regulations lack key procedures, such as regulated credit risk management guidelines, which makes SACCOS vulnerable to non-performing loans (Haule & Magali, 2020). The microcredit theory is relevant to this study because the majority of SACCOs clients have low incomes, and only a few have relatively high earnings (Nshimiyimana & Nkurunziza, 2023). Therefore, despite SACCOs being semi-formally regulated, their clients are like those of informal MFIs. The following sections outline the relevance of microcredit theory to this study.

The theory of microcredit posits that loan repayment is more likely when the loan size is commensurate with the borrower's capacity to repay it (Iqbal et al., 2023). The theory posits that the loan should be carefully screened to justify the size of the loan granted to a borrower. Formally, when microcredit theory emerged, the loan size was approximated for group lending. However, SACCOs are semi-formal financial institutions that lend to individuals rather than groups. Given the nature of loans in SACCOs, a semi-formal financial institution, loan appraisal should be carefully conducted. While the theory emphasizes a small number of loans to reduce default risk, it places less emphasis on relatively large loans for MFIs that have graduated from informal to semi-formal status, such as SACCOs (Al-Azzam & Charfeddine, 2022). In the SACCOs context, the loans are intended to be relatively large, aiming to produce the desired impacts for clients who have graduated from small loans in informal microfinance institutions. The study on collateral is

essential here, as the loan is approaching a relatively large amount, and it should be secured to reduce the risk of default. However, the leaders' creativity is essential, because as loans grow and more members borrow, more effort is required to safeguard the loans and follow up on repayments before they become due. Even more effort is required to ensure the loans' recovery. However, this study focuses on assessing how loan size influences loan repayment performance.

The microcredit lending emphasizes using group cohesion as collateral. Hence, collateral-free lending is the foundation of microcredit theory (Hadi & Kamaluddin, 2015). Contrary to the idea of free **collateral lending** used for informal rotation MFIs groups, such as VICOBA, SACCOs demand collateral to secure loans. This practice is what makes lending in SACCOs tricky. Since the lender must balance the need for free collateral against the physical collateral, altering the collateral value will deter loan repayment and encourage loan default, as the collateral secures the loan in the event of default. Bearing this in mind, the study aimed to assess how the collateral value influences the loan repayment in SACCOs. Assessing collateral value is vital because lax assessment will endanger loan repayment in SACCOs. Most previous studies assessing the determinants of loan repayment in SACCOs have examined how collateral value influences loan repayment in these institutions. The study examined how collateral value enhanced loan repayment in SACCOs.

Innovative and creative, SACCOs leaders foster loan repayment by introducing relevant insights to encourage repayment (Ahmad & Rahim, 2023). The leaders can devise stringent loan appraisal practices. Moreover, he can convince the flexible loan size and repayment schedules (Ba-Tri *et al.*, 2024). SACCOs leaders can also be champions in promoting digital loan appraisal and repayment systems. Innovative and creative leaders also play a crucial role in devising loan products that are easily payable. Innovative leaders can devise the most effective way to assess collateral and recognize its true value, thereby facilitating loan recovery in the event of default (Detthamrong *et al.*, 2023). The innovative leaders are pioneers to keep the relationship between the clients, employees and staff. These leaders are proactive and establish mechanisms to resolve issues before they become a reality. Innovative leaders are keen on analyzing the risks that threaten the sustainability of SACCOs. As far as the study is concerned, innovative leaders are keen to ensure that the loan size reflects the borrowers' capacity and the collateral value matches the loan

size (Alharbi, 2021). Therefore, creative and innovative leaders are essential to improving loan repayment performance among SACCOs. This study examined how the creativity and innovativeness of SACCOs leaders influence the repayment performance of SACCOs loans, accounting for both loan size and collateral value. Despite the previous studies assessing the role of collateral and loan size in promoting the SACCOs or MFIs loan performance, none of the studies has assessed collectively the roles of loan size, the collateral value and leaders' creativity in determining how the microcredit theory is integrated to explain the loan repayment performance in the semi-formal MFIs such as SACCOs.

3. Methodology

3.1 Research Design, Sample size, and procedures for Data collection

According to Saunders *et al.* (2019), the explanatory design assesses the influence of independent variables on the outcome variables. Therefore, the study employed an explanatory research design to investigate the cause-and-effect relationships among loan size, collateral value, and the creativity of SACCOs leaders in the Morogoro rural district. Using a population of 4,200 borrowers in Morogoro rural district who repaid their loans, The Cochran formula was used to compute the population at the level of confidence of 95%, an error margin of 5%, with the population proportion of 20% as recommended by Bullen (2014), that 10% of the population and above may be considered as a sample size in the business and social science research. Therefore, the sample size is written as follows:

The sample size (n) is calculated according to the formula: $n = [z^2 * p * (1 - p) / e^2] / [1 + (z^2 * p * (1 - p) / (e^2 * N))]$ Where: $z = 1.96$ for a confidence level (α) of 95%, $p =$ proportion (a decimal), $N =$ population size, $e =$ margin of error; $z = 1.96$, $p = 0.25$, $N = 4200$, $e = 0.05$; $n = [1.962 * 0.25 * (1 - 0.25) / 0.052] / [1 + (1.962 * 0.25 * (1 - 0.25) / (0.052 * 4200))]$; $n = 288.12 / 1.0686 = 269.624$ $n \approx 270$.

Hence, the sample size (with the finite population correction) is 270. The sampling frame consisted of all borrowers, while the sampling unit was a borrower who had repaid the loan. The simple random sampling technique was used to identify the sample size. Firstly, the list of all borrowers in Morogoro Rural District was obtained from the district cooperative officer. Then, all borrowers were assigned an identification number as their code, with each borrower's number written on an individual piece of paper. Then, the papers for all borrowers who had repaid their loans were folded

and selected one by one until a sample size of 270 borrowers was obtained. The survey technique was employed to collect primary field data using a structured questionnaire. The questionnaire was cleaned by identifying the accuracy, the missing values and outliers. Fortunately, no outliers were found. The outliers were also identified using the Mahalanobis distance in SPSS, as recommended by Rafiq et al. (2023). A P-value of 0.00 indicates the presence of an outlier. Kim (2015) found that skewness and kurtosis of ± 2 indicate that the model data are approximately normally distributed. The data in Appendix 1 met this requirement. The data were collected from June 17th to June 30th, 2025.

3.2 Measurements of Variables and Descriptions

The loan size and the value of the collateral were measured in Tanzanian Shillings (TZS). The leaders' creativity and innovative behaviour were measured using a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly agree). Table 1 summarizes the variables and their sources.

Table 1: Variables and Measurements

Variables	Type of variable scale	Measurement type	Source
Loan size	Ratio (converted into Log loan size)	TZS	Kassegn and Endris (2022); Sangwan and Nayak (2021)
Collateral value	Ratio (converted into Log collateral value)	TZS	Iqbal et al. (2023); Ioannidou et al. (2022)
Leaders' creativity and innovative behaviour	Ordinal Indicators: effective loan appraisal, Flexible repayment schedules, Digital repayment scheme, borrowers' financial literacy, collateral risk assessment	Five-Likert scale	Ahmad & Rahim (2023).

Source: Empirical Literature Review (2025)

3.3 Research Tool Validity and Reliability

The validity of the research tool was thoroughly enhanced. The research tool was constructed based on the variables under study. Experts from SACCOS and microfinance institutions were consulted to cross-check the relevance of the questions. Moreover, the variables used in the study were drawn from previous studies. The pre-testing of the questionnaire was done on 20 SACCOS borrowers who were not the respondents of the study and their responses were used to refine the

questionnaire. The reliability of the research tool was assessed using Cronbach's alpha, particularly for leadership creativity and innovative behavior. The test yielded a Cronbach's alpha of 0.7 or above. Hence, the research tool was found to be reliable based on the Cronbach's alpha coefficient.

3.4 Data Analysis

The data analysis was conducted using both descriptive and multiple regression analysis. The descriptive analysis provided information on the demographic variables to illuminate the characteristics of the respondents in the study. A multiple regression analysis was used to assess the relationship between loan size, collateral value, and loan repayment performance among rural SACCOs borrowers in Morogoro District. The regression assumptions of normality, heteroscedasticity, autocorrelation, multicollinearity, and outliers were tested, and the results indicated that the model did not violate any of the assumptions. The regression box plot indicates that the data in the regression model follow a normal distribution. The Breusch Pagan value was $0.870 \times 270 = 234.9$, which falls at a 0.1 p-value, which is insignificant, indicating that the assumptions of the homoscedasticity were met, as suggested by Zach (2020). The Durbin-Watson statistic was 1.962, within the recommended range of 1.5-2.5 (Beulah *et al.*, 2025). The multicollinearity problem was also not evident, as the VIF values were less than 5 and the tolerance values were greater than 0.1, as per Larasati *et al.* (2025). The multiple regression model was written as:

$Y = \beta_0 + X_1\beta_1 + X_2\beta_2 + \beta_3X_3 + \mu$; where Y=dependent variable, β_0 =Y intercept, β_1 - β_3 =Beta coefficients of the independent variables, X1-X3 are the coefficients of the independent variables; μ =error term.

3.5 Research Ethical Issues

The researcher considered all important ethical issues such as clearance letter seeking, consent seeking, confidentiality, anonymity, privacy, and avoidance of data fabrication, falsification and plagiarism. Verbal consent from research participants was sought. During the research, as also supported by Tanzania's context, community members preferred verbal consent to written consent. This was due to literacy challenges among a few community members. Moreover, most

Tanzanians lack a culture of writing. Unfortunately, the research did not record the verbal consent. However, the researcher explained the study's purpose and assured participants that no individual information would be disclosed. Therefore, the Respondents agreed to participate in the research voluntarily, without coercion.

4. Results

4.1 Analysis of the Demographic variables

The findings (Table 2) indicate that the majority of clients (60.4%) were male, while the female clients comprised 39.6%. The findings indicate that, in rural areas, males are more motivated to join SACCOS than females. Hence, sensitization of the female clients is needed to promote the gender balance in rural SACCOS in Tanzania. The findings (Table 2) further show that the majority (74%) had primary-level education, while a few had secondary education, and a small number held tertiary-level certificates, diplomas, and degrees. The findings further indicate that the majority (77%) and a few were single, widows and divorced. The results further indicate that most (78.1%) were involved in agricultural activities and, hence, the majority (66.1%) borrowed to finance them. The demographic factors (Table 2) also indicate that the majority (52%) used their farm plot as collateral. The client age range was 20 to 82 years, indicating a diverse age group. Moreover, the number of dependents, the loan duration in months and the loan interest in percentage were between 1 and 25, 26 and 40% respectively. The minimum and maximum amounts of loan borrowed, paid, and collateral value were Tanzanian Shillings (abbreviated as TZS) 30000 and 8200000, 10000 and 7600000, and 80000 and 20000000, respectively. The demographic findings (Table 3) indicate that the chosen segment of SACCOS clients was qualified to explain the influence of loan size, collateral value, and leaders' creativity and innovative behaviour on loan repayment in Tanzanian rural SACCOS.

Fassett *et al.* (2022) asserted that the demographic variables justify the inferential analysis variables by explaining the nature of the study's respondents. Hence, the demographic variables give a clear picture of whether the generalization of the findings can be justified. By presenting the demographics of the respondents, one can justify the study's accuracy and make replication of the study unlikely. In this study, demographic variables provide the prerequisites for rural

SACCOs clients, offering insights into loan size, collateral value, and the types of leaders who can facilitate loan repayment in SACCOs.

Table 2: Demographic Characteristics

Sex	Frequency	Percent
Male	163	60.4
Female	107	39.6
Education level		
Primary	200	74
Secondary	59	22
Certificate	2	1
Diploma	8	3
Degree	2	1
Marital status		
Single	24	9
Married	209	77
Widow	25	9
Divorced	12	4
Major occupation		
Agriculture	211	78.1
Employee	8	3.0
Livestock	15	5.6
Business	34	12.6
Craftsmanship	2	.7
Loan Activities		
Agriculture	165	61.1
Business	68	25.2
Livestock	15	5.6
Social activities (school fees, health etc.)	15	5.6
Craftsmanship	2	.7
House Construction	5	1.9
Collateral Type		
House	89	33.0
Farm	127	52.0
Livestock	28	10.4
Savings	12	4.4
Leaders' creativity fosters loan repayment?		
Yes	204	75.6
No	66	24.4
Total	270	100.0
Loan Duration in Months	1	26
Loan Interest in Percentage	1	40
Amount of loan borrowed	30000	8200000
Amount of Loan Paid	10000	7600000

Collateral Value	80000	20000000
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Source: Field Data (2025)

The data (Table 2) shows that the minimum loan amount was so small, i.e., TZS 30,000. The findings demonstrate that in rural areas, some clients cannot borrow the loan amount that reflects the capacity of semi-formal institutional clients. However, the maximum loan (TZS) of 8,200,000, despite its large size for rural people, is not too big to reflect the clients of the semi-formal MFIs. The minimum and maximum loan amounts, i.e., TZS 10,000 and TZS 7,600,000, also indicate that rural SACCOs clients paid their loans within the specified payment ranges. The minimum collateral values of 80,000 and 20,000,000 indicate that SACCOs had clients of varying wealth levels, and therefore, their collateral values reflected their wealth status. The findings demonstrated that 75.6% of SACCOs clients acknowledged that their leaders' creativity contributed to loan repayment. The high level of agreement indicates the role leaders played in promoting loan repayment in SACCOs.

4.2 Regression results and Analysis

The regression analysis (Table 3) indicates that the independent variables predict the dependent variable with high accuracy. The R-square of 0.874 designates that the independent variables of loan size, the collateral value and the creativity of gather leaders influenced the loan repayment in 87.4% and the remaining 13.6% is influenced by the other factors that are not specified in the model. The F-value is 631.210, which is very high, indicating that the independent variables have a significant influence on the outcome variables. The findings, moreover, indicate the F-p-value of 0.000, confirming the highly significant relationship of the model. The Durbin-Watson coefficient is 1.962, which falls within the acceptable range of 1.5-2.5, indicating that multicollinearity is not a problem in the regression model. Detailed explanations of the model's variables are provided. The test of normality (Figure A1) and the test of outliers' existence using the Mahalanobis distance (Figure A2 in the appendices) show that the regression model does not exhibit normality and the' problem

4.2.1 The influence of the Loan size on the Loan repayment Performance

Managing personal finances is essential for promoting loan repayment. A person with financial discipline can also handle and manage SACCOs loans. The loan size reflects the borrowers' capacity to manage the loans (Kassegn & Endris, 2022). Providing large loans to borrowers with

limited loan management capacity risks loan repayment. Since loan management also depends on the borrowers' ability to manage their personal finances effectively. The findings (Table 3) indicate that loan size positively and significantly influences loan repayment performance among SACCOs clients. The analysis of the findings indicates that loan repayment improved when the loan size increased. The analysis demonstrates that clients who borrowed relatively large loans had better loan management capacity, thereby promoting loan repayment. Although the analysis of the findings has not investigated the reasons for taking out large loans, the findings suggest that for the SACCOs to improve its repayment performance, it should prioritize lending to borrowers who wish to take out large loans. However, the loan appraisal should be adequate to ensure that the large loan is borrowed justifiably. As previous studies on large cases have shown, SACCOs clients may borrow large loans that they do not deserve (Anania & Gikuri, 2015).

Table 3: Ordinary Least Squares Regression results

Predictors	OLS regression findings
Constant	0.670 (0.000) ***
Logloan size	1.021(0.000) ***
Log collateral value	0.047(0.046) **
Leaders' creativity	0.087(0.002) ***
R ²	0.874
Adjusted R ²	0.870
F statistics	631.210 (0.000) ***
Durbin Watson	1.962

Source: Field Data (2025)

Note: **, ***Symbolize statistical significance at the 5% and 1% levels of confidence, respectively. parentheses figures present the computed probability coefficients.

Moreover, the Dar es Salaam SACCOs external audit report for 2020 indicates that some clients borrowed without adhering to SACCOs regulations (TCDC, 2024). The report indicates that some clients borrowed more than three times from their savings, which also created difficulties with loan repayment. Also, some SACCOs lent to non-members. Hence, the report indicated that the SACCOs that violated loan lending regulations faced non-repayment challenges. Magali (2018) indicated that some SACCOs in the Morogoro and Dodoma regions violated the minimum loan size regulation, especially among the leaders, which hindered loan repayment.

4.2.2 The effect of the Collateral value on Loan Repayment

The findings from the regression analysis (Table 3) indicate that the value of the collateral has a positive effect on the amount of the loan repaid. The findings show that borrowers with high-value collateral also repaid their loans more fully than those with low-value collateral. The findings emphasized the use of collateral criteria to promote loan repayment for SACCOs clients. The findings further suggest that it is prudent to assess the value of collateral before offering loans to SACCOs clients, as it is a key factor in promoting loan repayment. Hence, a stringent evaluation of the collateral is recommended to ensure the loan repayment. Failure to assess the value of collateral clearly puts the loans at risk. The collateral value represents the amount of the loan that can be recovered in the event of non-payment failure. This is particularly true for rural SACCOs, where placing high-value collateral also serves as a reminder to the borrower of the potential loss that may occur during the default period. Hence, the value of the collateral guarantees the loan repayment during the default period (James, 2019). The assessment of collateral requires the integrity of the loan committee staff who evaluate its value. Because the integrity is lower, the loan collateral may not accurately reflect its true value. The assessment also depends on the assessor's level of education. If the assessor's level of education is lower, the assessor may be misled about the real value. Magali (2014) found that the value of collateral for SACCOs in the Morogoro and Dodoma regions was not effectively assessed. This tendency led to a higher rate of loan non-repayment. Moreover, due to a lack of knowledge of the collateral's true value, some clients presented fake certificates for the collateral and managed to obtain loans from the SACCOs. The findings further indicated that some leaders borrowed amounts exceeding the value of their collateral, contrary to the value of their collateral. Therefore, the findings indicate that collateral value promotes loan repayment among rural SACCOs.

4.2.3 The influence of SACCOs leaders' creativity and innovation in loan repayment

The creativity and innovation of SACCOs leaders are essential to promoting loan repayment, as they can predict and devise strategies to encourage it. Hence, the leaders' creativity determines loan repayment by setting strategies that enhance it. The leaders' creativity and innovation set the strategies for robust loan appraisal, follow-up techniques, and recovery strategies. The findings indicate that leaders' creativity and innovation positively and significantly determine loan repayment in rural SACCOs. The findings (Table 3) demonstrate that loan repayment was high when rural SACCOs' leaders were sufficiently innovative and creative. The creative and

innovative leaders promote loan repayments by setting proactive strategies rather than being reactive to the situations that arise. They usually time the loans to coincide with a default signal and devise mechanisms that promote repayment before the loans become overdue. These leaders usually offer creative, innovative ideas for lending to less risky borrowers. They also regularly assess the risk of default and provide implementation recommendations to the loan committee and staff responsible for loan appraisal, disbursement, and recovery. Therefore, it is emphasized that, in addition to considering educational qualifications, innovative and creative behaviour is vital for SACCOS to promote timely loan repayment. Reports by scholars such as Mwaipaja and Magali (2024) and TCDC (2024) indicate that the majority of SACCOS in Tanzania face the challenge of non-performing loans. However, the studies did not assess how the leaders' creativity and innovative behaviour promoted loan repayment in the rural SACCOs.

The regression findings (Table 3) show that the demographic variables of age, years of education, number of dependents, loan duration in months, loan interest rate in percentage, marital status (being male), and loan activity did not significantly influence loan repayment. The findings indicated that loan repayment performance was affected by factors beyond demographics. Various scholars, as demonstrated by Mwaipaja and Magali (2024), studied how demographic factors influence loan repayment in SACCOS and other microfinance institutions. The findings expose both positive and negative, significant and insignificant findings. The current study lacks a detailed analysis of demographic factors, as this is beyond its scope.

5. Discussion

The findings (Table 3) revealed that loan size is essential for promoting loan repayment in SACCOs. The findings indicate that offering a reasonable loan size to rural farmers promotes loan repayment. The findings suggest that it is justifiable to sensitize rural SACCOs' clients to borrow larger loans to promote loan repayment. Hence, there should be strategies to prompt most of the rural clients to borrow a relatively large. The findings are consistent with Kassegn and Endris (2022), who found that loan size promoted loan repayment among MFIs in Ethiopia. However, Abimbola and Kolawole (2021) found that loan size negatively affects loan repayment for MFIs in Nigeria. Moreover, Loreño and Teves (2023) found that loan size did not significantly affect loan repayment among MFIs in the Philippines.

The findings (Table 3) further revealed that the collateral value significantly promoted the loan repayment. The findings indicate that the loan payment was satisfactory, depending on the collateral's value. If the collateral was of high value, the repayment was high. Hence, the findings indicated that rural SACCOs should be strict in assessing collateral for loans, as laxity in collateral assessment endangers loan repayment. Here is the sign that the rural SACCOs feared that if they refused to repay their loans, their collateral would be sold to recover the loans. Hence, the borrowers opted to repay their loans to prevent losing their collateral. Iqbal *et al.* (2023) stated that collateral value is among the factors facilitating loan screening in Pakistan. However, the study did not empirically assess how the collateral value influenced the loan repayment. Narayanan and Mehrotra (2019) found that regular loan repayment schedules and collateral had a positive and significant influence on informal loan repayment in India. Aivazian *et al.* (2015) asserted that a high value of collateral is compatible with a high loan amount and thus increases the firm's risk. Liu *et al.* (2020) reported that tangible collateral does not attract poor borrowers because they often use social collateral instead. However, the uncollateralized loans increase the risk to the borrowers and MFIs.

The findings (Table 3) further revealed that the leaders' creativity and innovative behaviour promoted loan repayment in rural SACCOs. The findings indicate that loan repayments were higher where rural SACCOs leaders exhibited innovative and creative behaviour than where they did not. The innovative behaviour helped SACCOs leaders devise effective loan appraisal, loan repayment schedules, loan follow-up, and loan recovery processes. The findings are consistent with those of Rotich *et al.* (2016), who found that lending using a group approach was an innovative strategy that increased loan repayment among MFI clients in Kenya. Ahmad and Rahim (2023), revealed that the innovation, especially in paying loans using mobile phones, positively influences the loan repayment for MFIs in Malaysia. However, the two studies did not assess how the leaders' creativity and innovation influenced the loan repayment in MFIs.

6. Conclusion

The findings disclosed that the loan size, the value of collateral and the SACCOs leaders' creative and innovative behaviour promoted the loan repayment in SACCOs. The findings emphasize that

to promote loan repayment in rural SACCOs, it is better to ensure that SACCOs lend clients the appropriate loan size, that collateral is thoroughly assessed and valued, and that leaders are creative and innovative.

6.2.1 Practical implications

The study emphasizes the size to ensure the disbursement of proper loan size, assess comprehensively the loan collateral, and promote the rural SACCOs leaders' creativity, and this will promote the repayment of loans in rural SACCOs.

6.2.2 Policy implications

The findings call for the policy makers to devise a policy that ensures proper disbursement of the loan based on borrowers' capability, proper assessment of collateral and recruitment of the qualified staff.

6.2.3 Theoretical implications

The study contributes to microcredit theory by assessing how the appropriate loan size in SACCOs, when supplemented by proper collateral valuation and leaders' creativity, promotes loan repayment. The previous studies have not considered this integration of variables.

6.2.4 Limitations and directions of the future studies

This study is limited to a narrow concentration in one district and the application of only three variables and it employed the quantitative techniques. The future studies should be comprehensive by applying the mixed method design to explain deeply how the size of the loan, the value of the collateral and the leaders' creative and innovative behaviour promote the loan repayment in SACCOS. Future studies may also include more variables.

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