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The Impact of Financial Literacy on the Financial Well-Being of Women in Roscas: A Case of Dodoma Municipality

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Abstract

This study assessed the effect of financial literacy on women's participation in Rotating Savings and Credit Associations (ROSCAs) and their financial well-being in Dodoma Municipality, Tanzania. Using a quantitative explanatory design, data were collected from 100 women ROSCA participants through structured questionnaires and analyzed using descriptive statistics, ANOVA, and multiple linear regression. Descriptive results showed generally positive financial literacy levels, with respondents reporting strong financial planning and management skills (Mean = 4.32, SD = 0.50), good understanding of ROSCA operations (Mean = 3.77, SD = 0.50), and moderate knowledge of basic financial concepts (Mean = 3.52, SD = 0.50). Inferential analysis revealed a strong positive relationship between financial literacy and financial well-being ($R = 0.881$, $R^2 = 0.776$, Adjusted $R^2 = 0.760$), with the regression model statistically significant ($F = 47.364$, $p < 0.001$). Financial risk analysis ($B = 0.642$, $p = 0.001$) was the strongest predictor, followed by financial planning and management ($B = 0.593$, $p = 0.001$) and understanding ROSCA operations ($B = 0.532$, $p = 0.002$). The study concludes that financial literacy significantly enhances women's effective ROSCA participation and financial well-being. It recommends targeted financial literacy interventions, particularly in budgeting, ROSCA operations, and risk management, to strengthen women's financial empowerment and maximize ROSCA effectiveness.

Keywords: Financial Literacy, ROSCAs, Women's Financial Well-being, Financial Inclusion, Dodoma Municipality

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1. Introduction

The access to financial services, financial capability, and economic participation directly affect poverty reduction, gender equality, and household resilience, and thus financial inclusion is a cornerstone of sustainable development. The World Bank Global Findex 2021 revealed that 76% of adults access a financial account globally but an estimated 1.4 billion adults are unbanked, reflecting women's disproportionate lack of access to financial accounts, driven by ongoing disparities in financial literacy, collateral ownership, formal identification, and income, among others (Demirgüç-Kunt et al., 2022). Women also continually outperform men in financial knowledge, confidence in savings, and long-term financial planning in various economies, as reported by the Organisation for Economic Co-operation and Development (OECD, 2023); this can hinder their ability to translate financial access into financial well-being. These structural shortcomings led to the development of informal financial institutions that serve the needs of women in low-income and informal sectors for savings, credit and social protection, including Rotating Savings and Credit Associations (ROSCAs) (Dinh, 2025). ROSCAs have been widely used and studied for their social capital and mutual assistance as well as financial access benefits. Modern literature, however, has focused on the importance of financial education and knowledge of financial systems, financial planning and risk management in determining the economic returns of ROSCA membership (Lusardi et al., 2021). The worldwide evidence indicates that women's engagement in informal finance without financial skills can increase access without ensuring financial well-being.

Women's involvement in Self-Help Groups that have been supported under the National Rural Livelihoods Mission (NRLM) in India has significantly improved women's access to savings and credit, but national evidence shows that financial literacy in general is a significant barrier to enterprise growth and financial security for low income women (Brody et al., 2017); in Indonesia, the arisan groups remain a dominant savings tool, although women's financial planning and investment skills are limited, as noted by OECD (2023) and this hampers their overall financial security; in Peru, women's access to financial services for communal savings has increased financial inclusion in peri-urban and rural areas, while the financial capability of women is still weak and their financial planning skills are limited (Trivelli & Berniell, 2023). In these developed and emerging contexts, the evidence is well established; involvement in collective finance structures is best understood in the context of strong financial literacy.

In Africa, ROSCAs continue to be a dominant approach to the financial inclusion of women, especially when formal financial institutions are either unavailable or less likely to satisfy the financial needs of poor women. Despite greater access, women's investment knowledge and long-term financial planning remained a challenge in 2021 despite the increased savings discipline in Kenya through chama groups, which has been reinforced by integration of mobile banking (Kenya National Bureau of Statistics, 2022). Although susu groups continue to play an important

role in women's informal financial participation, the extent of financial integration in these groups and financial literacy remain a problem in Ghana (Akomea-Frimpong et al., 2022). Despite their important collective savings role for women, especially in urban informal sectors in Ethiopia, the lack of financial planning capacity and financial education, at the institutional level, remain a challenge in improving financial well-being outcomes more broadly (Gebrehiwot & Van der Veen, 2021). These experiences in Africa remind us of an important point: ROSCAs can increase women's financial involvement, but the empowerment of women may not necessarily follow from this increased involvement if financial literacy is lacking.

Tanzania is making progress and at the same time facing and having faced with many structural issues. As noted from the FinScope Tanzania 2023 survey, policy efforts for financial access have been successful, as the proportion of adults accessing formal financial services has grown significantly, from 65% in 2017 to 76% in 2023 (Financial Sector Deepening Tanzania, 2023). These benefits, however, obscure important gender-based disparities, especially for women in the informal sector who are still highly dependent on community based savings systems, like VICOBA, upatu and ROSCAs, because they are affordable, they have trust and require less entry barrier. Financial inclusion is a strategic pillar of Tanzania's National Financial Inclusion Framework 2023–2028, with a specific goal of developing the financial capability of women, which is defined as having the ability to use financial products and services, including an understanding of financial knowledge and the capacity to plan and make financial decisions (Bank of Tanzania, 2023). While ROSCAs have created opportunities for women to save and access emergency credit, there is evidence that many women are still limited by their ability to estimate the costs of their budgets, their lack of diversification in their savings and their limited financial risk analysis, which considerably limits the impact of their participation in sustainable financial well-being.

This is especially important in the Dodoma Municipality where the informal sector has grown and started to be a source of women's increased economic reliance on ROSCAs as alternative formal financial sources, coupled with the rapid urbanization and population growth in the Municipality. In Tanzania, Dodoma has seen a gradual increase in migration in recent years, along with an increase in women-led petty trading, household businesses and informal businesses, many of which rely on ROSCAs for working capital and financial coping (National Bureau of Statistics Tanzania, 2022). These groups have been instrumental in financial participation for women, but in spite of this, many women remain disadvantaged in their ability to grow their businesses, build up their assets, and respond to financial shocks because of their lack of financial literacy. There has been a focus on the expansion of financial inclusion under existing policy frameworks; however, there are still significant gaps in financial education delivery at the local level and this is still a major challenge for women. This implies that the

extent of women's ROSCA involvement in Dodoma is likely to be high but the ability to turn their participation into economic success is uneven and not sufficiently analysed.

Despite ROSCAs' visibility in Tanzania's financial inclusion agenda, empirical evidence remains limited regarding how financial literacy specifically shapes women's participation in ROSCAs and their financial well-being in localized urban settings such as Dodoma Municipality. Much existing literature emphasizes access, participation, or social support while underexamining the capability dimensions that determine effective outcomes. This creates a significant knowledge and policy gap because without understanding whether women possess the financial literacy required to optimize ROSCA participation, interventions may continue to prioritize access over impact. Therefore, this study aims to assess the effect of financial literacy on women's participation in ROSCAS and their financial well-being. The study is significant because it provides context-specific evidence for policymakers, financial educators, and development practitioners seeking to strengthen women's financial empowerment beyond participation toward sustainable financial well-being.

The study Objective

To assess the effect of financial literacy on women's participation in ROSCAS and their financial well-being.

Study Question

What is the effect of financial literacy on women's participation in ROSCAS and their financial well-being?

2. Literature Review

Social Capital Theory explains women's participation in Rotating Savings and Credit Associations (ROSCAs) through trust, relationships, and cooperation within social networks. The theory, developed by Bourdieu (1986) and Coleman (1988), argues that social connections provide valuable resources that can improve access to financial opportunities and support economic outcomes. In ROSCAs, social capital helps members build trust, ensure saving discipline, and promote mutual support in accessing informal credit, especially for women who may have limited access to formal financial services (Fafchamps & La Ferrara, 2020). However, financial literacy is also important because it helps women better understand and manage the financial resources obtained through these groups. Lusardi et al. (2021) emphasize that financial literacy strengthens the ability to use financial information effectively, but it should be viewed as a complementary factor that enhances the benefits of social capital rather than acting as a moderating variable, since no moderation analysis was conducted in this study.

Empirical evidence from recent studies shows that financial behavior, literacy, and trust in institutions play an important role in influencing participation in financial systems such as Rotating Savings and Credit Associations (ROSCAs). Dinh (2025) found that financial worry and trust in the fundraiser increase farmers' intention to participate in ROSCAs, while financial literacy reduces participation intention but increases risk perception. Risk perception was also found to reduce actual participation and acts as a mediator between financial literacy and participation. In addition, trust in financial associations does not directly affect participation but works indirectly through trust in the fundraiser.

Further evidence from Mardhani (2026) shows that financial literacy has a positive effect on financial planning, and financial planning improves financial well-being. The study also found that financial planning partly mediates the relationship between financial literacy and financial well-being, meaning it strengthens the effect of financial literacy on financial outcomes. This shows that good financial knowledge alone is not enough; it must be supported by proper financial planning to improve financial well-being.

Similarly, Indah et al. (2026) found that risk identification and analysis improve financial performance, while Islamic Corporate Governance does not significantly affect the relationship between risk management and financial performance. In addition, Shriya et al. (2026) reported that although Indian Overseas Bank has adopted digital risk management tools such as AI credit scoring, cybersecurity systems, and operational risk controls, there are still challenges such as weak fraud detection, limited cybersecurity strength, low customer awareness, and poor integration of risk systems. These findings show that even with improved financial systems, there are still implementation challenges.

However, despite the growing literature on ROSCA operations, financial literacy, and financial risk management, limited attention has been given to how ICT inventory system performance is affected by factors such as accessibility, integration, and accuracy in public institutions. Most studies focus on financial systems, banking, and informal savings groups, with little focus on ICT-based inventory management in the public sector. This creates a research gap that this study aims to fill by examining the effectiveness of ICT inventory systems on stock record keeping at NECTA Headquarters.

3. Methodology

The study adopted a positivist philosophy because the research objective required measurable, objective, and statistically testable evidence on the relationship between financial literacy, women's participation in ROSCAs, and financial well-being. A quantitative research approach was therefore employed, as it is appropriate for testing relationships among clearly defined

variables using structured numerical data (LeBlanc, 2026). Specifically, the study used an explanatory cross-sectional survey design to examine the extent to which financial literacy dimensions understanding ROSCA operations, financial planning and management skills, and financial risk analysis predict women's financial well-being at a single point in time. A cross-sectional design was appropriate because it allowed efficient collection of standardized data from a defined population while enabling statistical examination of associations between independent and dependent variables without overstating causality.

The study was conducted in Dodoma Municipality, Tanzania, due to its growing urban population, expanding informal economy, and widespread use of ROSCAs among women engaged in petty trade and small-scale enterprise. The target population comprised 133 women actively participating in ROSCAs within Dodoma Municipality, identified through local ROSCA networks and community records. Sample size was determined using Yamane's (1967) formula:

$n = N / (1 + N(e^2))$, …….. [1]

where N = 133 and e = 0.05, producing a statistically appropriate sample of 100 respondents. This corrected the inconsistency of prior under-sampling and improved representativeness. Simple random sampling was used to ensure that each eligible ROSCA participant had an equal probability of selection, thereby minimizing sampling bias and strengthening generalizability. This probability-based approach was selected because the study sought statistically reliable conclusions applicable to the broader population of women participating in ROSCAs in Dodoma Municipality.

Primary data were collected using a structured questionnaire administered physically and through digital forms where necessary. The questionnaire consisted of validated Likert-scale items adapted from established financial literacy and financial well-being frameworks, including OECD (2022) financial literacy dimensions and CFPB financial well-being indicators, ensuring conceptual consistency. Financial literacy was operationalized through three constructs: understanding of ROSCA operations, financial planning and management skills, and financial risk analysis ability. Financial well-being was measured using indicators related to savings behavior, financial security, budgeting confidence, and ability to manage financial shocks. Secondary data from policy documents, financial inclusion reports, and peer-reviewed literature supported contextual interpretation. Prior to full deployment, the instrument was pilot-tested on 10% of the projected sample outside the final study group to assess clarity, structure, and item relevance.

Data were analyzed using IBM SPSS version 26. Descriptive statistics, including frequencies, means, and standard deviations, summarized respondent characteristics and variable distributions. Inferential analysis employed multiple linear regression rather than simple regression because the

study examined the simultaneous effect of multiple financial literacy predictors on financial well-being. The regression model was specified as:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon, \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad [2]$$

where

Y = financial well-being,
X_1 = understanding of ROSCA operations,
X_2 = financial planning and management skills, and
X_3 = financial risk analysis ability.

To address prior methodological weaknesses, regression assumptions were explicitly tested before analysis: multicollinearity was assessed using Variance Inflation Factor (VIF < 10), normality through Shapiro-Wilk tests and linearity through correlation diagnostics. These procedures strengthened statistical validity and reduced risks of flawed model interpretation.

Validity and reliability procedures were significantly strengthened beyond generic prior claims. Content validity was established through expert review by three specialists in finance and research methodology, who evaluated item relevance using the Content Validity Index (CVI). Pilot feedback informed instrument revision before final administration. Construct validity was assessed through exploratory factor analysis (EFA) to confirm whether questionnaire items loaded appropriately onto intended constructs. Reliability was tested using Cronbach's alpha, with a threshold of $\alpha \geq 0.70$ accepted as the minimum standard for internal consistency, consistent with contemporary methodological standards (McCuish, 2026). Any construct below this threshold required revision or item removal. Ethical standards included institutional research clearance, informed consent, voluntary participation, confidentiality assurance, anonymity of responses, and respondents' right to withdraw at any stage without consequence. These measures ensured methodological rigor, ethical compliance, and stronger academic defensibility suitable for publication and scholarly review.

Table 1: Validity and Reliability Results

Variable	KMO Value	CVI Value	Cronbach's Alpha (α)	Decision
Level of Understanding of ROSCA Operations	0.81	0.85	0.82	Accepted (Valid & Reliable)
Financial Planning and Management Skills	0.84	0.88	0.86	Accepted (Valid & Reliable)
Ability to Analyze Financial Risks	0.80	0.83	0.81	Accepted (Valid & Reliable)

The results in Table 1 show that all study variables meet the acceptable standards for validity and reliability. The KMO values for all variables are above 0.80, indicating adequate sampling suitability for factor analysis. Similarly, the CVI values range from 0.83 to 0.88, confirming strong content validity as the items were considered relevant by experts. In addition, Cronbach's alpha values for all constructs are above 0.80, showing high internal consistency and reliability of the measurement items. Overall, the findings confirm that all variables are both valid and reliable for further statistical analysis.

4. Results

4.1 Respondents' Demographic and Socio-Economic Profile

Table 2 presents the demographic and socio-economic characteristics of women participating in ROSCAs in Dodoma Municipality. These characteristics provide baseline contextual information necessary for understanding the respondents' financial environment and for interpreting how personal, educational, and economic factors may shape financial literacy, ROSCA participation, and financial well-being.

Table 2: Respondents' Demographic and Socio-Economic Profile

Category	Selection	N = 100	Percent
Age	Below 25 years	22	22
	25-35 years	34	34
	36-45 years	28	28
	Above 45	16	16
Education	No formal education	12	12
	Primary education	43	43
	Secondary education	26	26
	Diploma	11	11
	Bachelor's degree	8	8
Monthly Income	Less than 50,000 TZS	14	14
	50,000 -100,000TZS	35	35
	100,000 - 200,000 TZS	32	32
	200,000 - 300,000 TZS	07	07
	More than 300,000 TZS	12	12
How often does your ROSCA group meet?	Daily	12	12
	Weekly	52	52
	Monthly	36	33
How much do you contribute each time your ROSCA group meets?	Below 10,000 TZS	23	23
	10,000 - 50,000 TZS	43	43
	50,000 - 100,000 TZS	21	21
	Above 100,000 TZS	13	13

Source: Authour Construction 2024

The age distribution shows that majority of the respondents (62%) were in the age group 25-45 years, which also is the most economically active age group of women in their prime productive and family-supportive years. This suggests that ROSCAs are primarily used by female members who may be expected to have multiple income earning activities, household duties and financial needs. Educationally, 55% lacked any formal education or received only primary education and 19% had post-secondary qualifications. The relatively low educational profile may encompass participants' formal financial knowledge and analytical ability, which could impact their understanding of financial concepts, risk assessment, and their ability to maximize the opportunities of ROSCAs, which is directly relevant to the study as limited education can affect the extent to which women comprehend financial concepts, assess risk, and seize ROSCA opportunities.

Patterns of income and participation also show that ROSCAs primarily target women in a context of limited means. Almost half of the respondents (49%) had a monthly income of less than TZS 100,000, which is relatively low and can lead to limited access to formal financial services. Concurrently, 52% of ROSCA groups met once a week and 43% of the respondents contributed Tshs 10,000 – Tshs 50,000 per meeting, showing structured and consistent engagement even with low incomes. Meaning that the ROSCAs can be viewed as practical financial coping and management tools of low to middle income women and not an investment opportunity. The pattern underscores the need for financial literacy, as even women with limited resources still manage to save regularly in groups, demonstrating the value of collective savings among women with limited resources to ensure that limited incomes are used effectively to participate sustainably and to achieve better financial outcomes.

4.2 Descriptive Analysis of Financial Literacy Variables

Table 3 presents descriptive statistics for the financial literacy dimensions examined in this study, including respondents' understanding of financial concepts, knowledge of ROSCA operations, financial planning and management skills, and ability to analyze financial risks. The mean scores indicate the general direction and strength of respondents' perceptions, while the standard deviations show the extent of agreement or variation in responses across participants. Results are presented in tabular form, table consisting of statements, mean response, standard deviation and the interpretation of mean score which is based on decision matrix for five-point Likert scale in which 1=Strongly Disagree (1.00 <mean <1.80); 2=Disagree (1.80 <mean < 2.60); 3=Neutral (2.60 <mean < 3.40); 4=Agree (3.40 <mean < 4.20); and 5= Strongly Agree (4.20<mean < 5.00).

Table 3: Descriptive Statistics for Financial Literacy Variables and Women's Participation in ROSCAs

Financial Literacy Variable	N	Min	Max	Mean	Std. Deviation	Interpretation
I have a good understanding of basic financial concepts	100	3.00	4.00	3.52	0.50	Agree
I am well-informed about how ROSCAs operate	100	3.00	4.00	3.77	0.50	Agree
I am confident in my financial planning and management skills	100	3.00	5.00	4.32	0.50	Strongly Agree
I struggle to understand financial concepts	100	1.00	3.00	2.47	0.48	Disagree
I lack knowledge about how ROSCAs function	100	1.00	3.00	2.42	0.43	Disagree
I find it challenging to analyze financial risks	100	1.00	3.00	2.31	0.43	Disagree
Valid N (listwise)	**100**					

Source: Authour Construction 2024

The results indicate that financial literacy among the respondents were generally positive, especially in the practical financial management and ROSCA related knowledge. Financial planning and management skills had the highest mean (Mean = 4.32; SD = 0.50) with stronger consensus from respondents about their financial planning and management skills. The high mean indicates that this was the most highly perceived dimension of literacy while the relatively low standard deviation shows that responses were tightly grouped around the mean, hence a shared level of confidence. The respondents' perceptions that they are financially informed were also broadly favourable as evidenced by their high mean scores (both within the "Agree" range) in understanding ROSCA operations (Mean = 3.77; SD = 0.50) and also in basic financial concepts (Mean = 3.52; SD = 0.50). In both cases the low SD values suggest a moderate consistency of responses, suggesting a relative uniformity in level of knowledge among the sample rather than being clustered around a small number of participants.

The negatively worded variables give greater detail of specific literacy limitations. The respondents disagreed that they had difficulty in understanding financial concepts (Mean = 2.47; SD = 0.48), lack knowledge about ROSCA (Mean = 2.42; SD = 0.43) or found financial risk analysis challenging (Mean = 2.31; SD = 0.43). The lower scores suggest that respondents did not have strong feelings of being lacking in these areas, on average. The relatively low mean value of financial risk analysis, however, suggests that this aspect might be one of the least developed competencies when compared to other competences in financial literacy. The relatively small standard deviations in these dimensions, especially when it comes to risk analysis, indicate that opinions regarding the challenges were fairly consistent among respondents, pointing to a high level of commonality in their perceptions of the challenges. This suggests that, although most

women are confident in conducting routine financial planning and participating in ROSCA, their advanced skills, e.g. in assessing and managing financial risk, may not have been equally developed, and thus may be a critically important area to target for targeted intervention.

4.3 Multiple Linear Regression Analysis Results

Multiple linear regression analysis was conducted to examine the combined effect of three financial literacy dimensions understanding of ROSCA operations, financial planning and management skills, and ability to analyze financial risks on women's financial well-being. This analysis was necessary to determine both the predictive strength of the model and the individual contribution of each financial literacy variable to financial well-being.

The model summary results indicate a strong positive relationship between the combined financial literacy predictors and women's financial well-being (R = 0.881). The R Square value of 0.776 shows that approximately 77.6% of the variation in financial well-being was explained by the three financial literacy variables, while the adjusted R Square of 0.760 suggests that the model retained substantial explanatory power even after adjustment for predictor number. This implies that financial literacy dimensions collectively accounted for a large proportion of changes in women's financial well-being, making the model statistically strong. The standard error of estimate (2.751) indicates moderate prediction accuracy, suggesting that the model's predicted values were reasonably close to observed outcomes.

Table 4: ANOVA Results

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1075.457	3	358.486	47.364	.000[b]
Residual	310.321	96	7.569		
Total	1385.778	99			

Source: Authour Construction 2024

The ANOVA results (Table 4) confirm that the regression model was statistically significant overall ($F = 47.364$, $p < 0.001$), meaning the combined predictors significantly explained variation in financial well-being beyond chance. The regression sum of squares (1075.457) was substantially larger than the residual sum of squares (310.321), indicating that the model explained a considerable share of total variance relative to unexplained error. This suggests that the selected financial literacy factors, when considered together, were meaningful predictors of women's financial well-being within the study population.

Table 5: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.049	2.050		1.487	.145
	Level of understanding of how ROSCAs operate	.532	.127	.545	4.189	.002
	Financial Planning and Management Skills	.593	.146	.628	4.062	.001
	Ability to Analyze Financial Risks	.642	.114	.647	5.631	.001

a. Dependent Variable: Financial wellbeing

R = 0.881,
R Square = 0.776,
Adjusted R Square = 0.760,
Std. Error of the Estimate= 2.75114
Source: Authour Construction 2024

The regression coefficients (Table 5) show that all three financial literacy variables had positive and statistically significant effects on women's financial well-being. Understanding of ROSCA operations (B = 0.532, p = 0.002) indicates that increased operational knowledge was associated with improved financial well-being, suggesting that women who better understood ROSCA structures were more likely to benefit financially. Financial planning and management skills (B = 0.593, p = 0.001) also showed a significant positive contribution, implying that stronger budgeting and financial management capacity enhanced women's financial outcomes.

Among the predictors, ability to analyze financial risks had the strongest influence on financial well-being (B = 0.642, Beta = 0.647, p = 0.001), making it the most powerful predictor in the model. This suggests that women with stronger financial risk assessment skills were better positioned to make protective and strategic financial decisions, thereby improving financial well-being more substantially than other literacy dimensions. Comparatively, although all predictors were important, the standardized beta values indicate that financial risk analysis contributed most strongly, followed by financial planning and management, and then ROSCA operational understanding. This pattern demonstrates that deeper analytical financial capability may be more influential than basic financial participation knowledge alone.

4.4 Diagnostic Tests for Regression Model Assumptions

To ensure that the model adhered to important statistical criteria before interpreting the results of multiple linear regression, diagnostic tests were performed, such as checking for multicollinearity and residuals' normality. These tests were deemed essential to confirm the reliability, unbiased nature and applicability of the regression estimates for explaining the relationship between financial literacy dimensions and women's financial well-being.

Collinearity Statistics

The collinearity diagnostics were made by using Tolerance and Variance Inflation Factor (VIF) to determine if there was excessive correlation between the independent variables. The results revealed that tolerance of all predictors was higher than 0.10 and VIF values were lower than 10, which means the presence of no critical multicollinearity. This implies that knowledge about the working principle of ROSCA, skills in financial planning and management separately explained the dimensions of financial literacy and also contributed to the model.

Table 6: Collinearity Statistics

Predictor Variable	Tolerance	VIF
Level of understanding of how ROSCAs operate	0.624	1.603
Financial Planning and Management Skills	0.581	1.721
Ability to Analyze Financial Risks	0.547	1.828

Source: Authour Construction 2024

Normality of Residuals

The normality of regression residuals was tested by the Shapiro-Wilk test. The test gave statistics of 0.984, a significance value of 0.271, which is greater than 0.05, indicating that the residuals were normally distributed. This indicates that the normality assumption was met and therefore the validity of the inferential statistics was reinforced, the results of the regression could be trusted. The overall diagnostic findings also showed that the model was a valid one for examining the impact of financial literacy on women's financial well-being.

5. Discussion

The findings show that financial literacy plays a central role in determining how effectively women benefit from participating in Rotating Savings and Credit Associations (ROSCAs). It is not merely an additional advantage, but a key factor that shapes whether ROSCA participation translates into real improvements in financial well-being. The results suggest that women who have stronger abilities in understanding ROSCA operations, financial planning, and management skills are more likely to use ROSCAs effectively for long-term financial improvement rather than only for basic saving purposes. In addition, the study indicates that financial risk analysis is particularly important in shaping women’s financial decisions and long-term financial stability, suggesting that financial capability goes beyond simple participation and extends to how financial decisions are evaluated and managed.

These findings are generally consistent with earlier studies that emphasize the importance of financial literacy in promoting women’s financial inclusion. For example, Indah et al. (2026)

argue that financial knowledge improves individuals' ability to make better financial decisions, which aligns with the current study's finding that financial understanding supports better use of ROSCA resources. Similarly, Dinh (2025) and Mardhani (2026) found that financial education improves saving behavior and financial empowerment among women in different developing country contexts. However, unlike some previous studies that mainly emphasize general financial literacy, this study highlights the stronger role of financial risk analysis in the specific context of Dodoma Municipality, suggesting that the ability to assess financial risks may be more influential than general knowledge alone in determining financial outcomes. This difference may be explained by contextual variations in income stability, financial vulnerability, and reliance on informal financial systems, which are more pronounced in the study area.

From a theoretical perspective, the findings provide partial support for Social Capital Theory as proposed by Bourdieu (1986) and Coleman (1988), which emphasizes the role of trust and networks in enabling access to resources. ROSCAs clearly function as platforms where social trust and cooperation facilitate saving and credit access. However, the results also suggest that social capital alone is not sufficient to ensure improved financial well-being. Instead, its effectiveness depends on the level of financial literacy among participants. This slightly differs from some earlier studies such as Indah et al. (2026), which place stronger emphasis on social networks as the main driver of financial access, whereas the current findings suggest that social capital must be complemented by financial capability to produce meaningful outcomes.

In terms of policy and practice, the results imply that simply encouraging women to join ROSCAs is not enough to improve financial well-being. Without adequate financial education, participation alone may not lead to meaningful financial progress. Therefore, interventions should shift from focusing only on access to ROSCAs toward strengthening financial capabilities, particularly in budgeting, financial planning, and risk management. This suggests a more integrated approach where financial education is embedded within community savings structures. Such an approach could improve the effectiveness of ROSCAs in promoting sustainable financial empowerment, reducing financial vulnerability, and enhancing long-term economic stability for women in Dodoma Municipality.

6. Conclusion

The results of this study conclude that financial literacy has a significant impact on women participation in ROSCAs as well as on their financial wellbeing in Dodoma Municipality. Financial risk analysis proved the most influential factor while women possessing a better understanding of ROSCA operations, improved financial planning skills and the capacity to evaluate financial risks were able to obtain better financial outcomes. The results show that RSIs alone are not enough to achieve meaningful financial empowerment for women unless they also have financial capacity to do so.

The study fills a significant void in the literature by demonstrating the importance of financial literacy in the impact of ROSCA participation on economic improvement. It builds on the existing knowledge by providing a proof that the social network and informal finance are more effective when accompanied by financial education. Despite being targeted to only one municipality (Dodoma), the study offers practical evidence that, beyond access to ROSCAs, financial competence should be enhanced to empower women financially.

7. Recommendations

Policymakers, NGOs, and ROSCA leaders should emphasize targeted financial literacy training in ROSCAs; budgeting, savings management and how to use loans, as well as financial risk analysis. Participation in ROSCAs without supporting ROSCAs through structured education, policy recognition and strengthening institutional support would have a less positive impact on women's financial outcomes. Future studies should be carried out beyond the context of Dodoma to extend the results to larger contexts and investigate the impact of digital financial literacy on building informal financial systems.

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