

THE ROLE OF FINANCIAL LITERACY ON CLIENTS' PARTICIPATION IN VILLAGE COMMUNITY BANKS (VICOBA) ACTIVITIES IN KARAGWE DISTRICT, TANZANIA

By: Lameck Redson¹ and Joseph Magali (PhD)²

Abstract

This study examined the role of financial literacy on clients' participation in VICOBA's activities in the Karagwe district, Tanzania. Particularly, the study assessed how financial literacy affected the clients' loan borrowing, loan repayment and savings and deposits. This study used descriptive and explanatory survey designs and the data were collected using a structured questionnaire administered to 12 VICOBA groups and 205 clients located in the six villages. The random sampling and survey techniques were applied during the data collection. The data analysis was done using SPSS version 23. Data were analysed using descriptive statistics and multivariate analysis. The findings of the study indicate that financial literacy positively and significantly influenced VICOBA clients in borrowing, loan repayment and increase of the clients' shares and deposits. This study recommends that VICOBA members should be regularly be trained on various financial concepts to promote their financial wellbeing.

Keywords: Financial literacy, Client's Participation, Village Community Banks (VICOBA)

Introduction

Financial literacy is the individual skills, knowledge and attitudes that enable a person to spend money wisely (Metto, 2020). Financial literacy involves reading, analyzing managing and discussing various financial conditions for the economic welfare of the individuals (Schmidt et al., 2016).

Financial literacy education promotes the sustainability, economic empowerment and growth of the firm (Premarathne & Abeysekera, 2020). Mabula and Dong (2019) reported the low level of financial education for the young generation of the students who study in the primary and secondary schools in Tanzania. Their study emphasized that if these youth are trained in financial literacy, they automatically become literate adults. Norman (2020) argued that financial literacy is vital for encouraging saving, spending and investing wisely for both the government and individuals. Therefore, financial knowledge influences a wide range of financial behaviours such as accumulation of wealth, risk diversification, participation in

¹World Vision Tanzania, Kagera Cluster, P. O. Box 139 Bukoba, E-mail: lameckredson@yahoo.com, ORCID: <https://sandbox.orcid.org/0000-0001-6781-5616>

² Senior Lecturer, Faculty of Business Management, The Open University of Tanzania, P O Box 34705, Dare Es Salaam. ORCID: <https://sandbox.orcid.org/0000-0002-2519-3289>; Correspondence email: joseph.magali@out.ac.tz.

stock markets, asset allocation, debt management retirement plans, and sharpening the financial behaviour and financial decision making (Bakar et al. 2020; Khoirunnisaa, & Johan, 2020; Epaphra & Kiwia, 2021). Epaphra and Kiwia (2021) further asserted that investing in the financial market in Tanzania is influenced by the financial knowledge of the investor and not merely the education level.

The government through the Bank of Tanzania (BOT) aimed to improve the financial literacy of Tanzanians located in various locations. This was done by the establishment of the National Financial Education Framework 2016-2020 which targeted to spread the financial knowledge to the youth, rural communities and the poor (Finclusion, 2017). Moreover, despite the importance of MFIs in providing financial services such as microcredit, savings, insurance, the level of financial literacy is low not only in Africa but also worldwide (Refera et al., 2016; Mengesha et al., 2020).

Village Community Banks (VICOBA) are group-oriented local microfinance scheme that provides savings, microcredits and training services to their clients. A standard group of VICOBA comprises 30 members. VICOBA are formed to offer financial services and improve the livelihood of its clients. Both government and non-government organizations have strived to promote the spread of VICOBA in rural and urban areas to enable them to perform their roles. The availability of VICOBA in rural areas promotes the availability of informal financial services. Social Economic Development Initiative of Tanzania (SEDIT) pioneered the spread of VICOBA in Tanzania. Since 2002 SEDIT trained the early established VICOBA in savings and credit operations, regulations, conflict resolution and leadership (Magali, 2021).

Studies have assessed the influence of financial literacy in various sectors. For instance, its effects during the COVID 19 pandemic (Yuesti et al., 2020); university students (Kumar, et al., 2017); high schools students (Khoirunnisaa, & Johan, 2020). Other sectors include youth (Bakar et al., 2020), adults (Premarathne & Abeysekera, 2020), teachers (Matey, et al., 2021), entrepreneurs and Small and Medium Enterprises (SME) owners (Mashizha & Sibanda, 2017; Majule, 2018).

The influence on financial literacy on Microfinance Institutions (MFIs)'s activities covered the following variables: Outreach for Ugandan MFIs (Kakande et al., 2013), effects of low level of literacy for the Kenyan community (Kariuki, 2012), loan default for Kenyan SACCOS clients (Mori et al., 2016). Additionally, studies that focused on saving, spending and investment included Norman (2020), Mbwambo et al. (2020), Epaphra & Kiwia (2021). Furthermore, Mori, et al. (2016) assessed the influence of financial literacy on loan repayment. Lindahl and Mokvist (2020) articulated that financial literacy promoted the availability of MFIs services in Kenya such as microinsurance and microcredit and this ultimately enhanced the economic and socio-cultural empowerment of women.

Kimario (2014) revealed that the factors that influenced the application of financial literacy were peer pressure and locality living standards. Lotto (2020) and Mengesha, et al. (2020)

concentrated on demographic factors. According to Goyal and Kumar (2020), the current studies on financial literacy concentrate on financial capability, inclusion, gender gap, tax, digital financial education and insurance literacy. The literature indicates that to the best of the authors' knowledge, despite mentioning that VICOBA played an essential role in providing financial literacy to their clients (Ahlen, 2012; and Bakari et al., 2014; Magali, 2018; Massawe, 2020); none of the studies has examined the role of financial literacy in VICOBA clients' financial activities.

Bank of Tanzania (BOT- 2016) declared that 27.4% of the adult population in Tanzania had been excluded from formal financial services. This gives a chance for informal MFIs such as VICOBA to provide informal financial services to curb the problem of exclusion. World Vision Tanzania (2021) showed that there was a problem of outstanding loans for VICOBA clients in the Karagwe district. Therefore, this study was done to assess how the financial education provided to 3701 members promoted the loan borrowing, repayment and increase of clients' shares and deposits.

Literature Review

This section presents both theoretical and empirical reviews of variables related to this study.

Social Learning Theory

Bandura and Ross (1989) suggested that available information and advice from others shape individual behaviour. Individual social interactions may affect behaviour in different situations including financing decisions. Greenspan (2002) revealed that the retired peer interactions affected savings decisions in the USA. This was also confirmed by university of Dodoma students in Tanzania (Kimario, 2014) where consumption was influenced by peer pressure.

Financial literacy makes the trained individual apply the variables of intuition and cognition to facilitate financial decision making. While the former is based on the way an individual perceives, the latter is fostered through teaching and learning (Glaser & Walthe, 2013). In this study, the intuition is reflected in the personal financial knowledge while the cognition is mirrored through the training of VICOBA's clients in financial literacy.

The literature shows that financial literacy influences the MFIs clients on saving, borrowing, spending, investment, loan repayment and other financial decisions (Majule, 2018; Norman et al., 2020; Mbwambo et al. 2020; Epaphra & Kiwia, 2021). The previous studies on financial literacy concentrated on non-MFIs participants such as students, SMEs and teachers. Moreover, they focused on MFIs which are either full formalized such as commercial banks or partially formalized such as SACCOS.

This study focused on informal MFIs (VICOBA). The linkage between the training and assessment of the improvement of the financial services for the VICOBA clients is essential because VICOBA serve the majority of citizens who are excluded from formal financial

services. Hence, knowing their reactions in financial activities is important for designing the areas for improvement. The study tested whether the social learning theories work for VICOBA clients living in rural areas of Tanzania.

Empirical Literature Review

The review comprises the financial literacy studies conducted to assess the determinants of financial literacy, variables of financial literacy in different sectors and variables of financial literacy in the microfinance institutions. Then we present the studies done in VICOBA and the empirical gaps to be fulfilled by this study.

Determinants of Financial Literacy

Factors that determined the financial literacy for the Indian engineering students were financial knowledge, attitude, and influence from the family and pressure from the peer group. The data were analyzed using Structured Equation Modelling (SEM) and 253 students (Thomasa & Subhashree, 2020). The regression analysis study from 113 high schools students in Indonesia indicated that financial behaviour was positively and significantly influenced by financial attitude, knowledge and behaviour (Khoirunnisaa & Johan, 2020). Bakar et al. (2020) by using SEM and 140 youths revealed that financial education did not mediate financial attitudes, literacy and socialization in Malaysia.

Mengesha et al. (2020) maintained that while the education level positively and significantly influenced the households' financial literacy in Ethiopia, the influence of gender and age were not significant. Lotto (2020) disclosed that demographic factors such as age, gender, income and education levels influenced the financial literacy of the households. Kimario (2014) using the descriptive, content analysis and 105 students revealed that University of Dodoma students were knowledgeable on the fundamental financial concepts such as budgeting, spending and saving but peer pressure and locality's living standards influenced them.

Influence of Financial Literacy on the Performance of various sectors

The financial literacy studies have been conducted in various sectors, focusing on diverse variables. For instance, Yuesti et al.(2020) demonstrated that financial attitudes and behaviour positively affected the level of financial literacy and wellbeing of the households' heads during the COVID 19 pandemic in Indonesia. Kumar et al., (2017) unveiled that financial literacy positively and significantly affected the financial behaviour and decision amongst President university students. The study applied SEM and 337 students. Felipe et al. (2017) by using SEM exposed that there was a low level of financial literacy for university students in the north of Mexico. However, the study did not confirm the association between attitudes, behaviour and knowledge and financial literacy. Despite the financial literacy promotes savings culture, spending, investment and family livelihood, teachers in Ghana were having a low level the financial literacy (Matey et al., 2021).

Mashizha and Sibanda (2017) found a lack of association between the financial literacy and use of financial products for SMEs owners in Zimbabwe. However, the study concluded that

Zimbabwean SME owners did not possess the required level of financial literacy. Engström and McKelvie (2017) showed that financial literacy predicted the financial growth of SMEs in Ecuador. Siekei et al. (2013) by using the descriptive analysis and 82 equity SMEs beneficiaries signified that the financial skills enhanced borrowing wisely and repayment of loans in Kenya.

Moreover, Majule (2018) through the regression analysis and 100 equity banks clients in Dar es Salaam, Tanzania, indicated that financial literacy influenced the entrepreneur's performance. The study assessed how the capacity to recognize different loans sources and their affordability improved the performance of the business before and after the training. However, the study found that the influence of debt management and savings were not significant. Nonetheless, the study was silent on the influence of financial literacy on loans, borrowing, repayment and increased shares and deposits. Mbwambo et al. (2020) by using 271 Tanzanian government employees and logistic regression analysis confirmed that financial literacy influenced investment and savings decisions.

Financial Literacy and MFIs Performance

Premarathne and Abeysekera (2020) witnessed that 35% of Sri Lankan adults were having financial literacy education in 2014. The study through content analysis further publicized that the MFIs methods of delivering the financial literacy skills in Sri Lanka were seminars, social mobilization, training programmes, credit societies and community committees. Baidoo et al. (2020) by using the probit regression model divulged the positive and significant association between financial literacy and the repayment of loans of the commercial banks' borrowers in Ghana. Gaudence et al. (2018) established the influence of financial literacy on budgeting, debt management, bookkeeping and loan repayment of the Rwandan Inozamihigo SACCOS. In their study, correlation and regression analyzed the data from 178 SMEs owners.

Metto (2020) exhibited a low level of SACCOS clients' financial literacy in Kenya. The study used content and regression analysis and 384 clients and it proved that bookkeeping, budgeting, debt management and savings were associated with financial literacy. However, there was an absence of a correlation between outreach and financial literacy of the MFIs clients in Uganda (Kakande et al., 2013). Kariuki (2012) using the descriptive and correlation analysis, realized a low level of financial literacy for MFIs clients in Kenya. The study further observed that a low level of financial literacy forced the MFIs clients to consult group members and friends for financial decision making. Furthermore, the study attested that lack of financial literacy promoted the poverty levels among the MFIs clients.

The probit regression analysis noticed that financial literacy positively and significantly influenced the investment choices of the households in Tanzania (Lotto, 2020). Mori et al.(2016) by using 200 SACCOS' beneficiaries and regression model substantiated a low level of financial literacy for rural borrowers in Tanzania. The study established that a low level of financial literacy promoted the loan default.

Financial Literacy and VICOBA Performance

The empirical literature shows that there are scanty financial literacy empirical studies done on VICOBA. For instance, Ahlen (2012) asserted that one major function of the VICOBA is to provide business education and training. The training aims at increasing the financial literacy of its clients. Moreover, Massawe (2020) reported that apart from VICOBA providing financial literacy to its clients, they also provide raw materials, insurance, and business capital. Also, Magali (2018) and Bakari et al. (2014) recognized the role of VICOBA in providing financial literacy training to their clients. However, none of the studies had analyzed how training promoted the clients' financial services such as borrowing, loan repayment and increase of the shares and deposits. This gap has necessitated the conduction of this study.

Research Methodology

The study used descriptive and explanatory survey designs. The study involved only VICOBA clients who were coordinated by the World Vision Project (WVP) in the Karagwe district. The project operated in seven villages and consisted of 80 groups. The research was done in six villages with 3,701 clients. The Kafunjo village was not included in the survey because it is located 32 kilometres away. The sample size was calculated using by formula proposed by Singh and Masuku (2014).

$$n = \frac{N}{1 + N(e)^2}$$

Where

n = Minimum sample size

N = Total number of population

e = sampling error on this research (estimated to be 5%).

Therefore, the expected number of respondents was 339. The clients were selected using the systematic random sampling technique. The data were collected using the questionnaire during the survey. The five Likert scale which are, 1=Strong disagree, 2= Disagree, 3= Not sure, 4=Agree and 5= Strongly agree were used to rate the statements from the three variables. Financial literacy variables comprised the personal financial knowledge and trained financial knowledge.

The response rate was 60.5% which aligns with Hair et al. (2018) who proved that a response rate of 30% or more is acceptable for data analysis. The questionnaire was constructed carefully by considering both internal and external validity. The researchers ensured that the variables from the questionnaire correspond to the ones outlined by previous literature. The questionnaire was pretested to 15 VICOBA clients to check the relevance of the questions and administration time. The reliability of the questionnaire was tested using the test-retest method. The Cronbach alpha coefficients were generated from the SPSS software to measure the reliability of the questionnaire. The reliability analysis showed that the mean value of the Cronbach alpha statistics was 0.778, signifying that the data were reliable.

The collected data were screened to check the omissions and presence of outliers. Then were numbered and coded in the SPSS software. Subsequently, the data were analysed using descriptive and multivariate analysis. The researchers adhered to important ethical issues such as consent seeking, anonymity, citing all references, data fabrication and falsification as suggested by Arnold (2021).

Data Analysis

The data were analysed by using descriptive and multivariate analysis. Multivariate Analysis of Variance (MANOVA) and Discriminant Analysis were used to analyze the association between the multiple dependent and independent variables. The multivariate analysis combined the findings from the MANOVA, discriminant analysis and canonical correlation (CCA) of linear combinations between variables. Que, et al. (2020) maintained that CCA establishes the level of correlation of different variables from groups and subgroups. This technique maximizes the correlation between the set of variables than the Spearman correlation coefficients. MANOVA requires the assumptions of multivariate independence, linearity, normality, and homogeneity of variance-covariance matrices.

Therefore, we used MANOVA to test the existence of mean differences on a linear combination and the discriminant analysis to describe the intensity of the combination. Furthermore, the homogeneity nature of the variance-covariance matrix was tested by Box-M and Levene's Test of Equality of Error Variances analysis in SPSS (Denis, 2019).

As adopted from Que et al. (2020), the CCA matrix for a set of random variables can be written as:

$$\begin{cases} X = (x_1, \dots, x_p)' \\ Y = (y_1, \dots, y_q)' \end{cases}$$

We write the covariance matrix of X and Y as follows:

$$\Sigma = \begin{bmatrix} X \\ Y \end{bmatrix} = \begin{bmatrix} \Sigma_{11} & \Sigma_{12} \\ \Sigma_{21} & \Sigma_{22} \end{bmatrix}$$

Where:

$\Sigma_{11} = \text{cov}(X)$ is a $p \times p$ matrix; $\Sigma_{22} = \text{cov}(Y)$ is $q \times q$ matrix; and $\Sigma_{12} = \text{cov}(X, Y)$ is $p \times q$ matrix

The SPSS analysis computed the sets of canonical correlation between sets of variables to reveal which sets of functions defined well the association between independent and dependent variables (Denis, 2019). In this study, we observed the association between the sets of independent and dependent variables by looking at the significance level of Pillai's Trace and Wilks' Lambda coefficients. The Eigenvalues and structure matrix explained the intensity of the relationship between the functions and variables respectively (Que et al., 2020).

Results and Discussions

The results and discussion section consist of demographic variables and the influence of financial literacy on VICOBA's borrowing, loan repayment and increase of shares and deposits.

Demographic Variables

The results from Table 1 show that minimum participants' age ranged from 18 to 60 years and above whereas the maximum age range was 50 years and above. The presence of diversity in ages implies that clients themselves can share experiences on various matters related to borrowing, loan repayment and savings and deposits. Mengesha et al. (2020) revealed that age positively and significantly influenced financial literacy in Ethiopia.

The data on gender showed that women comprised the majority (58%) of the clients. Masawe (2020) established that the majority (54.1%) of the VICOBA clients in Tanzania were females. The findings imply that when the majority of women are trained; they can easily spread the financial literacy education to their colleagues, including men. Lotto (2020) and Mengesha et al. (2020) maintained that gender influenced the transfer of financial literacy skills in Tanzania and Ethiopia respectively.

The married clients comprised the majority (90.7%) of clients. It implies that married couples may share their financial literacy skills and improve borrowing, loan repayment and depositing shares. The widows/widowers were the least among the respondents. These results were very similar to those found by Ahmed et al. (2021) who revealed that marital status did not directly influence financial literacy despite the married partners had an opportunity to discuss various financial issues.

The findings further revealed that 65.9% of the VICOBA clients stayed in VICOBA for 2-5 years. The data suggest that the majority of clients had an opportunity to acquire the financial literacy training provided by the WVP. Usually, the project offered financial literacy training immediately after the formation of VICOBA groups. Van Rooij et al. (2011) asserted that frequent participation in the stock market results in an increased level of financial literacy.

Table 1: Demographic characteristics of the VICOBA clients

Age of respondents	Frequency	Percent
18-35	78	38.0
36-50	97	47.3
50 and above	30	14.6
Sex		
Male	86	42.0
Female	119	58.0
Marital Status		
Single	11	5.4
Married	186	90.7
Divorced	3	1.5
Widow/widower	5	2.4

Membership in Years		
Less than 1	39	19.0
2-5	135	65.9
More than 5	31	15.1
Total	205	100.0

Loan Borrowing and Repayment Information

The results from Table 2 indicate that the majority (53.2) % of the VICOBA clients borrowed loans from Tanzanian Shillings (TZS) 10,000 to 100,000. The data shows that majority were able to borrow a small amount of loans probably due to poor financial literacy to manage large loans. The data also show that majority of clients managed to repay their loans. Luckily, the findings indicate that majority of the clients invested their loans. This was because 85.9% of the clients were trained in financial literacy. Siekei et al. (2013) revealed that financial skills enhanced borrowing and repayment of loans for SMEs beneficiaries in Kenya. Similarly, Baidoo et al. (2020) found a positive and significant association between financial literacy and the repayment of loans of the commercial banks' borrowers in Ghana.

Table 2: Amount of loan borrowed, repaid and loan purpose

Amount borrowed in TZS	Frequency	Percent
10,000-50000	51	24.9
51000-100000	58	28.3
101000 – 150000	26	12.7
151000 – 200000	33	16.1
Above 200000	11	5.4
Amount repaid in TZS		
1-50000	83	40.5
51000-100000	23	11.2
101000 – 150000	19	9.3
151000 – 200000	12	5.9
Settled	42	20.5
Loan purpose		
Investment	175	85.4
Other purposes	30	14.6
Training on financial literacy		
Yes	176	85.9
No	29	14.1
Total	205	100.0

Financial literacy on borrowing, loan repayment and increase of shares and deposits

The study found that the majority of (90.7%) of the clients agreed that they had been trained on the importance of loan borrowing and the proper amount of loan to borrow. The findings further show that 90.2% of them were trained on how to use the loan properly, 92.2% on risk management and 94.6% to borrow with wisdom. Moreover, findings unveiled that 90.8% had been trained on the importance of loan repayment, 89.2% enabled to pay the loan according

to the contract and 87.8% of on the importance of buying the shares and making deposits. The findings further revealed that 90.7% of the VICOBA clients agreed that the financial knowledge and skills have helped them to deposit reasonable shares and deposits.

The findings further indicate that to the large extent, clients were having the financial skills on borrowing, loan repayment and increment of shares and deposits. The findings also show that clients utilized the acquired skills to increase the performance of the three financial services. The findings are concurrent with Majule (2018), Mbwambo, et al. (2020) and Epaphra and Kiwia (2021) who affirmed that financial literacy promotes borrowing, spending and savings.

Table 3: Financial literacy on borrowing, loan repayment and increase of shares and deposits

Financial literacy on borrowing						
I have been trained on the importance of loan borrowing	F	9	5	5	116	70
	%	4.4	2.4	2.4	56.6	34.1
I have been trained on the proper amount of loan to borrow	F	5	7	7	116	70
	%	2.4	3.4	3.4	56.6	34.1
Before receiving the loan I have been trained on how to use my loan properly	F	7	4	9	101	83
	%	3.4	2.0	4.4	49.5	40.7
I have been trained to consider risk management before borrowing	F	5	5	6	113	76
	%	2.4	2.4	2.9	55.1	37.1
The financial literacy I have has helped me to borrow wisdom	F	4	4	3	107	87
	%	2	2	1.5	52.2	42.4
Financial literacy on loan repayment		SD	D	N	A	SA
I have been trained on the importance of loan repayment	F	5	7	7	100	86
	%	2.4	3.4	3.4	48.8	42
The financial literacy I have has helped me to repay the loan according to the loan contract	F	6	11	5	95	88
	%	2.9	5.4	2.4	46.3	42.9
Increase of shares and deposits		SD	D	N	A	SA
I have reasonable shares and deposits in my VICOBA Group	F	7	8	10	100	80
	%	3.4	3.9	4.9	48.8	39
I have been trained on the importance of depositing shares and deposits	F	9	8	5	111	72
	%	4.4	3.9	2.4	54.1	35.1
The financial knowledge and skills I have, helped me to deposit the reasonable shares and deposits	F	5	6	8	87	99
	%	2.4	2.9	3.9	42.4	48.3

Key: SD=strongly disagree D= Disagree N=Not Sure A=Agree SA=strongly agree

Results from the Multivariate Analysis

The results from the multivariate analysis show that the value of Pillai's Trace, Wilks' Lambda, Hotelling's Trace and Roy's Largest Root are significant for all variables. This implies that there is an association between financial literacy and clients' borrowing, loan repayment and increase of shares and deposits. The values of Pillai's Trace for the three variables are 0.502, 0.278 and 0.085 respectively. The data implies, the financial literarily

contributed more to loan borrowing compared to other variables. The value of the adjusted R-square is 0.7 and 0.68 respectively. The data imply that there is an association between the independent and dependent variables. Since the values are positives it signifies that the financial literacy contributed to loan borrowing, loan repayment and increase of deposits and shares positively and significantly. Siekei et al. (2013) and Baidoo et al. (2020) revealed that financial skills enhanced borrowing and repayment of loans for SMEs beneficiaries in Kenya and commercial banks' borrowers in Ghana respectively. However, they did not examine how financial literacy influenced savings and deposits.

The Canonical Discriminant function data indicate that the first function explains the relationship by 85% and its canonical correlation value is 0.737. The Wilks' Lambda of function one is also significant. This implies the first pair of variables adequately describes the relationship between the independent and dependent variables. This also is reflected in the structure matrix where variable one contributes largely to the model than the other two variables. Box's M results from Table 6c indicates that testing of null hypothesis about the homogeneity of covariance matrices is disconfirmed. Similarly, the null hypothesis using Levene's test of equality of error variances (Table 6d) also is not confirmed. Therefore, we certify that there is homogeneity of covariance matrices and equality of error variances.

Table 4: Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.908	865.883 ^b	2.000	176.000	.000
	Wilks' Lambda	.092	865.883 ^b	2.000	176.000	.000
	Hotelling's Trace	9.840	865.883 ^b	2.000	176.000	.000
	Roy's Largest Root	9.840	865.883 ^b	2.000	176.000	.000
Borrowing	Pillai's Trace	.502	14.821	8.000	354.000	.000
	Wilks' Lambda	.543	15.691 ^b	8.000	352.000	.000
	Hotelling's Trace	.757	16.565	8.000	350.000	.000
	Roy's Largest Root	.624	27.613 ^c	4.000	177.000	.000
LoanRep	Pillai's Trace	.278	7.157	8.000	354.000	.000
	Wilks' Lambda	.731	7.476 ^b	8.000	352.000	.000
	Hotelling's Trace	.356	7.793	8.000	350.000	.000
	Roy's Largest Root	.317	14.028 ^c	4.000	177.000	.000
Share+deposits	Pillai's Trace	.085	1.963	8.000	354.000	.050
	Wilks' Lambda	.916	1.983 ^b	8.000	352.000	.048
	Hotelling's Trace	.092	2.004	8.000	350.000	.045
	Roy's Largest Root	.085	3.741 ^c	4.000	177.000	.006

a. Design: Intercept + Borrowing + LoanRep + sharedeposits

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Table 5: Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	I have personal knowledge of the financial matters	105.610 ^a	26	4.062	19.231	.000
	I have been trained on financial matters	116.119 ^b	26	4.466	17.584	.000

Intercept	I have personal knowledge of the financial matters	255.819	1	255.819	1211.190	.000
	I have been trained on financial matters	244.707	1	244.707	963.479	.000
Borrowing	I have personal knowledge of the financial matters	12.542	4	3.135	14.845	.000
	I have been trained on financial matters	24.000	4	6.000	23.624	.000
LoanRep	I have personal knowledge of the financial matters	7.901	4	1.975	9.352	.000
	I have been trained on financial matters	9.653	4	2.413	9.501	.000
Share+deposits	I have personal knowledge of the financial matters	3.154	4	.788	3.733	.006
	I have been trained on financial matters	.629	4	.157	.619	.649

a. R Squared = .739 (Adjusted R Squared = .700)

b. R Squared = .721 (Adjusted R Squared = .680)

Summary of Canonical Discriminant function

Table 6a: Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	1.190 ^a	85.1	85.1	.737
2	.207 ^a	14.8	99.9	.414
3	.001 ^a	.1	100.0	.031

a. First 3 canonical discriminant functions were used in the analysis.

Table 6b: Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 3	.378	113.319	9	.000
2 through 3	.828	22.006	4	.000
3	.999	.109	1	.742

Table 6c: Structure Matrix

	Function		
	1	2	3
The financial literacy I have has helped me to repay the loan according to the loan contract	.815*	-.563	-.134
The financial literacy I have has helped me to borrow with wisdom	.735*	.667	.125
I have reasonable shares and deposits in my VICOBA Group	.678*	-.367	.637

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions Variables ordered by absolute size of correlation within function.

*. Largest absolute correlation between each variable and any discriminant function

Table 6d: Box's M results

Box's M	16.748
Approx.	2.111
F	6
df1	1157.949
df2	.350
Sig.	

Tests null hypothesis of equal population covariance matrices.

a. Some covariance matrices are singular and the usual procedure will not work. The non-singular groups will be tested against their own pooled within-groups covariance matrix. The log of its determinant is .536.

Dependent Variable: I have been trained on financial matters

Table 6e: Levene's Test of Equality of Error Variances^a

F	df1	df2	Sig.
1.518	26	177	.061

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Borrowing + LoanRep + sharedeposits + Borrowing * LoanRep + Borrowing * sharedeposits + LoanRep * sharedeposits + Borrowing * LoanRep * sharedeposits

Conclusion and Recommendations

The descriptive analysis displayed that financial literacy promoted the VICOBA clients' loan borrowing, loan repayment, buying shares and making deposits. The multivariate analysis indicated that financial literacy promoted loan borrowing, loan repayment and increase of shares and deposits both significantly and positively. The study calls for regular training of financial literacy to VICOBA members. The policy makers should formulate policies that will facilitate regular training for the VICOBA clients. Also, they should facilitate capturing of financial literacy courses in the primary and secondary schools syllabus as recommended by Mabula and Dong (2019).

Contribution of the Studies to theories and the Limitations of the study

The study collaborates with Social Learning Theory by revealing that training is important for changing the VICOBA clients' behaviour. The findings from the study confirmed the financial literacy training given by WVP helped the VICOBA clients to borrow, save and repay loans according to the contract. However, the previous studies used the social learning theory in the education and psychology sectors. This study used it for VICOBA clients which are informal MFIs. Furthermore, this study focused on the informal financial services provided by VICOBA which are savings, borrowing and loan repayment. Since VICOBA are informal MFIs are not operated based on the regulated procedures which might play a role to prevent malpractice in loan borrowing, savings and deposits. Hence, training them to facilitate their active participation in VICOBA's activities is of paramount importance. However, this study was limited by small coverage and it used only quantitative analysis and involved only VICOBA MFIs. Therefore, future studies should consider expanding the study's coverage and using mixed methods and advanced data analysis.

References

- Ahlen, M. (2012). *Rural Member-Based Microfinance Institutions- A field study assessing the impacts of SACCOS and VICOBA in Babati district, Tanzania*. Bachelor's Thesis, Södertörn University.
- Ahmed, Z., Noreen, U., Ramakrishnan, S. A., & Abdullah, D. F. B. (2021). What explains the investment decision-making behaviour? The role of financial literacy and financial risk tolerance. *Afro-Asian Journal of Finance and Accounting*, 11(1), 1-19.
- Arnold, D.G. (2021). Universal research ethics and international business studies. *J Int Bus Stud* <https://doi.org/10.1057/s41267-021-00418-1>
- Baidoo, S.T., Yusif, H. & Ayesu, E. K. (2020). Improving loan repayment in Ghana: Does financial literacy matter? *Cogent Economics & Finance*, 8(1), 1787693, DOI: 10.1080/23322039.2020.1787693
- Bakar, M. Z. A., Bakar, S. A., & Ayub, S. H. (2020). Financial Education as Moderating Influence in Prudent Financial Management Practices among Malaysian Youth. *International Journal of Academic Research in Business and Social Sciences*, 10(2), 1–11
- Bakari, Magesa, & Akidda (2014). Mushrooming Village Community Banks in Tanzania: Is it really making a difference? *International Journal of Innovation and Scientific Research*, 6(2), 127-135
- Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development*. Vol. 6. Six theories of child development (pp. 1-60). Greenwich, CT: JAI Press.
- Denis, D. J. (2019). *SPSS Data Analysis for Univariate, Bivariate, and Multivariate Statistics*. Wiley & Sons, Inc., USA
- Engström, P., & McKelvie, A.(2017). Financial literacy, role models, and micro-enterprise performance in the informal economy. *International Small Business Journal: Researching Entrepreneurship*, 35(7) 855–875. <https://doi.org/10.1177/0266242617717159>
- Epaphra, M. & Kiwia, B.P. (2021). Financial literacy and participation in the financial markets in Tanzania: An application of the logit regression model. *Journal of Economic and Financial Sciences* 14(1), a545. <https://doi.org/10.4102/jef.v14i1.545>
- Felipe, I. J. dos S., Ceribeli, H. B., & Lana, T. Q. (2017). Investigating the level of financial literacy of university students. *RACE - Revista De Administração, Contabilidade E Economia*, 16(3), 845–866. <https://doi.org/10.18593/race.v16i3.13458>

- Finclusion (2017). Tanzania April 2017 wave 4 report FII tracker survey. Retrieved from: https://finclusion.org/uploads/file/reports/Tanzania%20Wave%204%20Report_11-May-2017.pdf, on 17/05/2021
- Gaudence, M., Patrick, M., & Deny, M. (2018). Effects of Financial Literacy on loan Repayment among Small and Medium Entrepreneurs of Microfinance Institutions Case Study of Inozamihigo Umurenge Sacco in Nyaruguru District. *IOSR Journal of Business and Management*, 20(5), 19-37
- Glaser, M., & Walthe, T. (2013). Run, Walk, or Buy? Financial Literacy, Dual-Process Theory, and Investment Behavior. Retrieved on 9/6/2021 from: https://cfr-cologne.de/download/kolloquium/2013/GlaserWalther_RunWalkOrBuy.pdf
- Goyal, K., & Kumar, S. (2020). Financial literacy: A Systematic Review and Bibliometric Analysis. *International Journal of Consumer Studies*. doi:10.1111/ijcs.12605
- Greenspan, A. (2002). Financial literacy: A tool for economic progress. *The Futurist*, 36(4), 37-41
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2018). *Multivariate data analysis* (8th ed.). United Kingdom: Cengage Learning.
- Kakande, A.R., Bazinzi, N., Nakabuye, Z., & Agasha B.A.E.(2013). Examining the levels of financial literacy and outreach of microfinance institutions in Uganda. *Issues Bus. Manag. Econ.* 1(7), 193-199
- Kariuki, J. K. (2012). *Influence of financial literacy on financial decisions of micro finance institution clients in Embu county*. Master Thesis, University of Nairobi
- Khoirunnisaa, J., & Johan, I. R. (2020). The Effects of Financial Literacy and Self-Control towards Financial Behavior among High School Students in Bogor. *Journal of Consumer Sciences*, 5(2), 73-86. <https://doi.org/10.29244/jcs.5.2.73-86>
- Kimario, A. F. (2014). *Financial literacy of undergraduate students and its impact on spending and saving behavior: A case study of the University of Dodoma*. MBA Dissertation, University of Dodoma
- Kumar, S., Watung, C., Watung, C., Eunike, N. J., & Liunata, L. (2017). The Influence of Financial Literacy Towards Financial Behavior and its Implication on Financial Decisions: A survey of President University Students in Cikarang – Bekasi. *Firm Journal of Management Studies*, 2(1), 169-179

- Lindahl, P., & Mokvist, L.(2020). *Assessing microfinance through financial literacy A Case Study of Hand in Hand Eastern Africa's Operations in Kenya*. Master Thesis, Umea University
- Lotto, J. (2020). Towards Improving Households' Investment Choices in Tanzania: Does Financial Literacy Really Matter? *Int. J. Financial Stud.* 2020, 8, 29; doi:10.3390/ijfs8020029
- Mabula, J. B. & Dong, H. (2019). *Characterizing Financial Literacy in light of Primary and Secondary School Syllabus in Tanzania*. Advance. Preprint. <https://doi.org/10.31124/advance.7854923.v1>
- Magali, J. (2021). The role of village community banks (VICOBA) microcredits in promoting sustainable micro and small scale industrialization in Kilimanjaro region, Tanzania. *Business Education Journal*, 10(1), 1-12
- Magali, J.J. (2018). Comparative Analysis of Strengths and Challenges of SACCOS, VICOBA, NGO MFIs and Mobile Money Transactions in Tanzania. *International Journal of Management Science and Business Research*, 7(5), 1- 10
- Majule, S.J. (2018). *Assessment of the effectiveness of financial literacy trainings on entrepreneurship performance in Tanzania. A case of entrepreneurs trained by Equity bank (T) Limited, Dar es salaam*. Unpublished MBA Dissertation, Mzumbe University.
- Mashizha, M., & Sibanda, M. (2017). The Link Between Financial Knowledge, Financial Product Awareness and Utilization: A Study among Small and Medium Enterprises in Zimbabwe. *International Journal of Economics and Financial Issues*, 7(6), 97-103.
- Massawe, J.J.(2020). *The role of VICOBA in improving livelihood among low income earners: A case of selected wards in Arusha district*. Unpublished MBA Dissertation, Institute of Accountancy Arusha.
- Matey, J., Duut, J.Y. & Kombian, M. F.(2021). Financial literacy education: Implication on the economic and social life of the teacher in Ghana. *International Research Journal of Multidisciplinary Scope*, 2(1), 14-27. DOI: 10.47857/irjms.2021.v02i01.046
- Mbwambo, H., Gasper, L., Mwasha, N., & Magoma, A. (2020). *Effects of Financial Literacy on Investment and Savings Decisions Among Government Institutions' Employees in Mwanza City, Tanzania*. Retrieved from: <http://dspace.cbe.ac.tz:8080/xmlui/handle/123456789/571>

- Mengesha, Timbula, T. M. A., Mekonnen, Y. Kebede, & Matewose (2020). Financial literacy and its determinants among households in Jimma zone. *International Journal of Commerce and Finance*, 6 (1), 102-112
- Metto, W. K. (2020). The relationship between member financial literacy and loan repayment in savings and credit co-operative societies in Uasin-Gishu County, Kenya. *International Journal of Community and Cooperative Studies*, 8(1), 9-22.
- Mori, N., Nyantori, T., & Olomi, D. (2016). Effects of clients' literacy on default and delinquency of savings and credit co-operative societies in Tanzania. *Business Management Review*, 19 (2), 1-12
- Norman, A. S.(2020). Importance of financial education in making an informed decision on spending. *Journal of Economics and International Finance*, 2(10), 199-207
- Premarathne, W.G.I.D & Abeysekera, R. (2020). Exploring Financial Literacy Programmes Delivered by the Sri Lankan Microfinance Institutions: A Case Study Approach. *Kelaniya Journal of Management*, 08 (02), 92-112.
- Que, S., Luo, H., Wang, L., Zhou, & Yuan, S. (2020). Canonical Correlation Study on the Relationship between Shipping Development and Water Environment of the Yangtze River. *Sustainability* 2020, 12, 3279; doi:10.3390/su12083279
- Refera, M. K., Dhaliwal, K. N. & Kaur, J.(2016). Financial literacy for developing countries in Africa: A review of concept, significance and research opportunities. *Journal of African Studies and Development*, 8(11), 1-12.
- Schmidt, O., Niwaha, M., & Tumuramy, P.(2016). Financial literacy and development - experimental insights from rural micro- and small entrepreneurs (MSEs) in Western Uganda, *International Journal of Development Research*, 6(2), 6758-6764
- Sieki, J., Wagoki, J. & Kalio, A. (2013). An Assessment of the role of financial literacy on Performance of Small and Micro Enterprises: Case of Equity Group Foundation Training Program on SMEs in Njoro district, Kenya. *Journal of Economics & Finance*, 1(7), 250-261
- Singh, A. S., & Masuku, M. B.(2014). Sampling techniques & determination of sample size in applied statistics research: an overview. *International Journal of Economics, Commerce and Management*, II(11),1-22
- Thomasa, B., & Subhashree, P. (2020). Factors that Influence the Financial Literacy among Engineering Students. *Procedia Computer Science*,172 (2020), 480–487

- Van Rooij, M. C., Lusardi, A., & Alessie, R. J. (2011). Financial literacy and retirement planning in the Netherlands. *Journal of economic psychology*, 32(4), 593-608.
- Yuesti, A., Rustiarini, N.W., & Suryandari, N.N.A. (2020). Financial literacy in the COVID19 pandemic: pressure conditions in Indonesia. *Entrepreneurship and Sustainability Issues*, 8(1), 884-898. [http://doi.org/10.9770/jesi.2020.8.1\(59\)](http://doi.org/10.9770/jesi.2020.8.1(59))