Some Determinants of Success or Failure of Emerging SACCOS in Tanzania

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Abstract : This paper identifies and analyses factors associated with the success or failure of the emerging Savings and Credit Cooperative Societies (SACCOS) in Tanzania Mainland. Multi-stage sampling technique was employed to come up with four regions among ten purposively selected for the study. Four research questions were formulated to guide the study. 156 respondents participated in the study and data were analyzed using IBM SPSS Statistics version 20.0 software. Principal component analysis and logistic regression analysis were used in the analysis.

The study revealed that,lack of access to loans for individuals, a need of soft loans for business and non business; and pledges for loans from government, prominent politicians and other stakeholders were the main factors that led to the SACCOS inception. It was shown that accepting 'non members businesses, having and adhering to conflict management strategy, number of members at initial stage and employing fulltime professional management made a significant contribution to success performance of SACCOS.

Moreover, rural SACCOS have shown poor performance as compared to SACCOS operating in urban areas while education level has shown a positive relationship with SACCOS' performance. The findings also showed that lack of commitment to members, lack of patience, shifting to other areas and loan default were the major reasons for members' withdrawal from SACCOS.

This study recommended encouraging female members for SACCOS' leadership since they have shown success performance in most of the SACCOS they lead. Also, this study finding recommended giving priority to female members in borrowing.

Key Words: Cooperatives, SACCOS, Tanzania, loans, loans default, principal component analysis, logistic regression

Introduction

Cooperatives are "autonomous association of persons who unite voluntarily to meet their common economy and social needs and aspiration through a jointly owned and democratically controlled enterprise (ICA, 1995). They are established by like-minded persons to pursue mutually beneficial economic interest.

The four levels of cooperative movements are (i) Primary cooperatives (ii) Secondary cooperatives (iii) Apex and Federation (iv) Co federation. The then, Department of Cooperatives Development which is now The Cooperative Development Commission (TCDC) under the Ministry of Agriculture Food and Cooperatives has the promotional and regulatory authority for cooperatives development in the country. SACCOS is one among the types of primary cooperatives societies. It is a private and cooperative financial intermediary where membership is open and voluntary.

The present day dominance of SACCOS is thus a recent phenomenon that started after liberalization of financial services. SACCOS came to solve the problem of capital inadequacy for rural poor in the country. Since that period, the number of SACCOS has grown rapidly than other type of cooperatives.

An abruptly change was observed in early 2000s when the number of SACCOS increased from 948 in 2002 to 3,425 in 2006. The trend continued to 5,559 in 2014. However, the failure rate among the newly established SACCOS is high and thus SACCOS could not benefit their members as their main objective.

RESEARCH PROBLEM

One of the major problems with the cooperatives in Tanzania is the failure of the newly established Cooperative Societies especially SACCOS to achieve their principal objects of encouraging thrift among its members and to create a source of cheap credit to them at a proper rate of interest as well as to provide other financial and non financial services to its members.

However, in recent years an increase in number of newly formed SACCOS has been noted, the highly failure rate of these newly established SACCOS has also been observed. Despite various scholars assert that most SACCOS in Tanzania are inefficient, they are poorly operated and they are not sustainable, factors that contributed to these were not given.

Therefore, considering the importance of SACCOS, this paper seeks to identify and analyse factors that cause success or failure of the emerging SACCOS, so as to assist the regulatory authority and stakeholders in making decision on establishment and registration of successful Savings and Credit Cooperative Societies (SACCOS) in the country.

Also, the results from this study may be useful to the poor performers SACCOS to improve their performance and hence maintain their sustainability.

The main objective of this paperis to identify and analyse factors that cause success or failure of the emerging SACCOS so as to assist regulatory authority and stakeholders in making decision concerning the establishment of new SACCOS in the country. The specific objectives are:

i. To identify the socio-economic factors motivating SACCOS inception;
ii. To assess socio economic characteristics of the co operators;
iii. To identify factors leading to success of the emerging SACCOS; and
iv. To identify factors leading to failure of the emerging SACCOS.

Based on the specific objectives of this study, the research addressed the following questions:

i. What are the socio-economic factors motivating the establishment of the SACCOS?
ii. What are the socio economic characteristics of the co-operators in the study area?
iii. What are the critical factors influencing the success of the SACCOS? and
iv. What are the factors that cause the failure of the SACCOS?

Literature Review

SACCOS is member based a democratic organizational model. The members decide on voluntary basis to join the organization of their choice with common goals of achieving both economic and social objectives. Normally the members are owners and users of the services bonded together under a common bond such as associational, professional or residential (Fried, 1993).

This uniqueness and voluntary model of SACCOS imply that the objectives of a typical cooperative may not necessarily reflect the typical profit maximization objective under neoclassical theory of the firm (Fried, 1993). This means that profit maximization may not be the main objective of financial cooperatives (Fried, 1993). Therefore in this study, SACCOS will be treated as they are seeking to fulfil their principal objectives of encouraging thrift and creating sources of cheap credits to their members.

In view of the fact that success is related to sustainability and performance, some scholars did studies on the sustainability and performance of SACCOS and came out with some observations and recommendations. For example, Magali and Lang'at (2013) studied the influence of the corporate governance on the efficiency and sustainability of the rural SACCOS which have relatively good financial performance in Tanzania.

In their paper theyuse the descriptive and qualitative analysis to compare the three best rural SACCOS in Morogoro, Dodoma and Kilimanjaro regions in order to obtain the overall best rural SACCOS and outline reasons for the overall best performance.

.They recommended that the least performers rural SACCOS should apply the corporate governance principles and imitate some strategies of the overall best rural SACCOS to improve their efficiencies and promote their sustainability and should not rely on external funding and grants.

Kushoka (2013) did regression analysis on the sustainability and the ability of an employee-based SACCOS to meet its members' needs. The main objective of the study was to understand whether SACCOS are able to respond to members' needs and to examine sustainability of SACCOS. The findings of his report indicated that employee-based SACCOS had insufficient funds to meet members' requirements. The credit needs are left unmet and thus to a large extent discourage members.

On the other hand, different scholars stated that SACCOS in Tanzania face problems of poor corporate governance, fraud and lack of skilled staff (Bibi 2006; Hakikazi 2006;

Maghimbi 2010). These problems have lead to poor performance and low efficiency of SACCOS which affects their sustainability (Magali and Pastory 2013). Furthermore, some scholars have shown that poor structures of SACCOS especially those operating in the rural areas of Tanzania and in other developing countries is the reason for SACCOS' inefficiency (Dong and Featherstone 2004; Tesfamariam et al 2013; Nyankomo and Aziakpono 2013).

Furthermore, some other few existing empirical literature on the performance and sustainability of microfinance offers varied results. For example the findings from Namibia concluded that almost all microfinance is not sustainable (Adongo and Stork, 2005). A study on Nepal microfinance showed that most of rural microfinance institutions are not sustainable (Acharya and Acharya, 2010). Thapa (2006) using Mix data set found that MFI in all the developing regions except Africa were sustainable. Nyamsogoro (2010) found that out of 424 observations 80.2% of the microfinance in Tanzania were financial sustainable.

Based on these results there is a signal that the microfinance sector in Tanzania is relatively healthy. The current study will add to the limited empirical literature is this area by exploring the sustainability of saving and Credit Cooperatives which is almost at the lower end of the microfinance pyramid.

Based on the history, the literature indicates that improper management, frauds, inadequate capital, business misconduct and Non Performing Loans (NPL) are the problems facing cooperatives and SACCOS in Tanzania (TFC 2006; Bibby 2006; Maghimbi 2010; Magali and Qiong 2014).

Research Methodology

A multi-stage sampling technique was used to select a sample of SACCOS from which data were collected. At the first stage, four regions were randomly selected from a list of ten regions which have shown both characteristics of having successful and failure emerging SACCOS. Mtwara, Lindi, Kigoma and Tabora regions were selected.
At the second stage, from each selected region two districts were randomly selected to form a total of eight districts. The selected districts were Kasulu and Ujiji from Kigoma region, Kilwa and Lindi from Lindi region, Masasi and Mtwara from Mtwara region and Nzega and Tabora districts from Tabora region.

Since the study considered all SACCOS established from the year 2005 as newly SACCOS, then at third stage, allSACCOSformed from year 2005 onwards were selected from the list of all SACCOS in the selected districts. From each SACCOS, a member, staff or board member was randomly selected as respondent to fill in the questionnaire. A total of 156 SACCOS were identified and found suitable for the study.

Sources of Data

Structured questionnaires were administered to collect primary data from the respondents who were members / ex members, staff or board members of each selected SACCOS.

Respondents were asked to complete questionnaires designed to identify the economic factors motivating the SACCOS' inception and key factors to its subsequent success or failure. In filling the questionnaires the participations of staff members was encouraged since some of the SACCOS' basic information was somehow well-known to them. Secondary data for assessing the socio economic characteristics of the co-operators were collected from SACCOS' records, statistical reports and literature reviews.

Evaluating SACCOSPerformance

Once SACCOS has been established, members must judge its performance to determine if the organization is, in fact, accomplishing the objectives that led to its formation. So, SACCOSs' performance was evaluated based on the objectives that led to its inception. Respondents were asked to rate the performance of the SACCOS if it accomplishes the objectives that led to its inception.

Also, members were asked if they are better off with the cooperative's establishment or not. This was judged by assessing the members' economic well-being before and after the cooperative's establishment as well as the economic well-being of non-members.

The Success Rating

The research's respondents were asked to rate their recently formed SACCOS' performance as very good, good, fair, poor or very poor. Although respondents were given these five success/failure categories, these categories were condensed into two categories: success and failure for the purpose of binary logistic regression analysis. SACCOS

which was rated as very good or good or fair was placed in the success category(assigned the value 1) and all other responses were put into failure category (assigned the value 0).

Data Analysis

Data analysis involved the use of excel, IBM SPSS Statistics version 20.0. Principal Component Analysis was used to reduce the determinant factors for SACCOS' performance to three principal components named: membership, organizational and operational factors.

Logistic regression was used to assess the factors that contributed to the success or failure of the SACCOS. Threemodelswere used to assess the major successvariables to each group of determinants.

Thus, Model I related the probability of major success to several membership factors, model II included several organizational factors and model III covered the role of operational factors in the probability of major success.The most significant determinants from the modelswere used to come up with a best model.

Principal Component Analysis (PCA)

"Principal Component Analysis (PCA) is the general name for a technique which uses sophisticated underlying mathematical principles to transforms a number of possibly correlated variables into a smaller number of variables known as principal components"Som Raj T, Vinay T and Naman S (2015). In principal component analysis, the main objective is to maximize the variance of a linear combination of the variables. Thus, these principal components can account for most of the variance in the observed variables.

PCA can be carried out on either the variances or co variances along with the m variables or their correlations. PCA generates 'n' new variables, the principal components (PCs), by forming linear combinations of the original variables,

$X = (X_1, X_2, X_3, \ldots X_n)$ as:

$PC_1 = b_{11}X_1 + b_{12}X_2 + b_{13}X_3 + \ldots + b_{1n}X_n = Xb_1$

$PC_2 = b_{21}X_1 + b_{22}X_2 + b_{23}X_3 + \ldots + b_{2n}X_n = Xb_2$

$PCn = b_{n1}X_1 + b_{n2}X2 + b_{n3}X_3 + \ldots + b_{nn}X_n = Xb_n$

Where Xi have mean zero.

In matrix notation, $P = (PC_1, PC_2, \ldots, PC_n) = X(b_1, b_2, \ldots, b_n) = Xb$

Variable Reduction

Principal component analysis is a variable reduction procedure. It is useful when you have obtained data on a large number of variables, and believe that there is some redundancy in those variables. Here, redundancy means that some of the variables are correlated with one another, may be because they are measuring the same construct. So, it is possible to reduce the observed variables into a smaller number of principal components that will account for most of the variance in the observed variables.

Constructing Principal Components

The first task of "Principal Component Analysis-PCA" is to identify a new set of orthogonal coordinate axes through the given data. The first principal component is the linear combination with maximal variance; the second principal component is the linear combination with maximal variance in a direction orthogonal to the first principal component, and so on.

Relationship to Factor Analysis

Factor analysis as it is principal component analysis is a variable reduction technique; it identifies the number of latent constructs and the underlying factor structure of a set of variables. Principal component analysis looks for linear combinations of the data matrix that are uncorrelated and of high variance. Factor analysis seeks linear combinations of variables, called factors that represent underlying fundamental quantities of which the observed variables are expressions. More precisely, the manifest variables are linear combinations of the factors, plus unique (or specific) factors (Alvin C. Rencher).

Components to Retain

The decision must be made on how many components to be retained in order to summarize the data. The guideline of retaining components whose eigenvalues are greater than the average (a correlation matrix, this average is 1) of the eigenvalues is widely proposed compared to other procedures. This method is widely used and it is a default in many software packages. Since the eigenvalues serve as variances of the principal components, the principal

components with greater eigenvalues are retained to summarize and simplify the data.

The Logistic Regression Model in SPSS

Since the dependent variable is dichotomous, logistic regression employs binomial probability theory in which there are only two values to predict; that is 1 and 0.

The aim is to correctly predict the category of outcome for each case using the model. Therefore, logistic regression can be used to provide knowledge of the relationship and strength among variables.

Likelihoodratio test: This is another way of assessing the goodness of fit of the model the sample results are examined to see how 'likely' actually is, given the parameter of estimates.

If the results show the H-L goodness of fit test statistic is greater than 0.05, then this implies that the model fits well. This corresponds to the conclusion that *non significance* means the model adequately fits the data, which indicates that model prediction is not significant different from the observed values.

On the other hand, as the sample size is increased, Hosmer-Lemeshow (H-L) statistics tends to come up with a smaller difference between the observed and model predicted values to be significant

Results and Discussion

Response Rate

156 questionnaires were collected and found usable for analysis. The majority of the respondents were staff, who were75 (48.08 percent) out of 156 while members and board members were 24 (15.38 percent) and 57 (36.54 percent) respectively.

Area of Operation

As regards to area of operation of the surveyed SACCOS, Table 4.3 showed that 81 SACCOS equivalent to 51.92 percent operate in urban while 48.08 percent operate in rural areas. Furthermore, the research report revealed that 56 percent of SACCOS operating in rural areas were dormant or inactive. On the other hand, some scholars revealed that the location of the SACCOS is not an obstacle for successful performance (Magali and Lang'at 2013).

The results indicate the relationship between sustainability of SACCOS and location or area of operation. This agreed with scholars Dong and Featherstone 2004; Nyamsogoro 2010; Masood and Ahmad 2010; Tesfamariam et al 2013: they revealed that location affects the efficiency of SACCOS and microfinance institutions in China, India, Tanzania and Ethiopia.

Table 1: Area of operation of surveyed SACCOS

Status	Area of Operation of the Society		
	Urban	Rural	Total
Active	32(52.5%)	29(47.6%)	61(100%)
New	16(80%)	4(20%)	20(100%)
Dormant	33(44%)	42 (56%)	75(100%)
Total	81 (51.9%)	75 (48.1%)	156 (100%)

Reasons for Members' Dormancy or Withdrawal from the Societies

Moreover, the study results showed that lack of commitment (18.34 percent), lack of patience (17.58 percent), shifting to other areas (16.64 percent) and loan default (16.07 percent) have been the major reasons for members' dormancy or withdrawal from the societies

Members' withdrawal from SACCOS has been one of the major problems that makeSACCOS to become inactive or dormant. A lot of researches on SACCOS have been conducted including assessing their sustainability.Kushoka (2013) assessed the sustainability of employee based SACCOS in Tanzania.

His study findings showed that lack of capital to meet member' requirements, small size of loan offered and higher interest rate were the most limitations for SACCOS'sustainability. Now days, there are banks and microfinance institutions that provideloans with the same interest rate as that charged by SACCOS.
Members may choose to withdraw from SACCOS and borrow from these financial institutions where their requirements will be restricted to loan service. This may hinder SACCOS' sustainability.

Table 2: Reasons for Members' Dormancy

Reasons	Frequencies (Responses)	Percentages (%)
'loan default'	85	16.07
'lack of commitment and vision'	97	18.34
'lack of patience'	93	17.58
'conflict between members'	49	9.26
'lack minimum requirements'	65	12.29
'shifting to other areas'	88	16.64
'Joined other SACCOS'	52	9.83
Total	529	100.00

Factors Mostlylead to the Establishment of SACCOS

The study results came up with the fact that 'Individual lack of access to loans' was the major factor (19.6 percent of the responses) that led to the formation of SACCOS followed by a need of 'Soft loans for businesses' which was 17.2 percent of the responses. Furthermore, 16.1 percent of the responses illustrate that pledges ofloans or grants from Government and Stakeholders was the importantfactor for SACCOS' inception as shown in Table 3.

Table 3: Factors Lead to SACCOS' Establishment

Factor	Responses	
	N	%
Individual lack of access to loans	145	19.6
Loans/Grants from Government and Stakeholders	119	16.1
Soft loans for business	127	17.2
Soft loans for non business	121	16.4
For savings	87	11.8
For safety purpose	51	6.9
Copying from others	89	12

Communalities

The extracted communalities reflect the common variance in the data structure as shown in Table 4. The suggested factors are as in Table 4. Therefore, 62.1 percent of the variance associated with variable 1 ('feasibility study') was common or shared variance;37.6percentof the variance associated with variable 2 ('full time professional management') was common or shared variance;76.1percentof the variance associated with variable 3 ('financial management') was common or shared variance;79.3 percent of the variance associated with variable 4 ('loan management') was common or shared variance;53.4 percent of the variance associated with variable 5 ('Good Governance') was common or shared variance;57.8 percent of the variance associated with variable 6('Grants/prizes') was common or shared variance; 53.6 percent of the variance associated with variable 7 ('Number of Initial members') was common or shared variance;73.9 percent of the variance associated with variable8('Members' commitment and vision') was common or shared variance; 49.4 percent of the variance associated with variable 9 ('Non members business') was common or shared variance;62.7 percent of the variance associated with variable10 ('Loan interest rate') was common or shared variance;72.9percent of the variance associated with variable11('Open membership strategy')was common or shared variance;78.0percent of the variance associated with variable12 ('conflict management strategy') was common or shared variance; and lastly is the 52.1percent of the variance ssociated with variable13 ('Reliable source of income to members') was common or shared variance as shown in the output table 4 below.

TABLE 4: COMMUNALITIES

	Initial	Extraction
1. 'feasibility study'	1.000	.621
2. 'full time professional management'	1.000	.376
3. 'financial management'	1.000	.761
4. ' loan management'	1.000	.793
5. 'good governance'	1.000	.534
6. 'grants and prizes'	1.000	.578
7. 'number of initial members'	1.000	.536
8. 'members' commitment and vision'	1.000	.739
9. 'non members business'	1.000	.494
10. 'loan interest rate'	1.000	.627
11. 'open membership strategy'	1.000	.729
12. 'conflict management strategy'	1.000	.780
13. 'reliable source of income to members'	1.000	.521

Extraction Method: Principal Component Analysis.

Total Variance Explained: Thirteen linear components were identified before extraction. After extraction, three components were identified, first component explained 44.768 percent of the total variance, the second component explained 9.283 percent of the total variance and the third component explained 8.177 percent of the total variance. The cumulative total variance explained was 62.228 percent. All three components retained were able to explain 62.228 percent of the total variance (see table 5 below).

Table 5: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.820	44.768	44.768	5.820	44.768	44.768	5.483	42.179	42.179
2	1.207	9.283	54.051	1.207	9.283	54.051	1.322	10.169	52.347
3	1.063	8.177	62.228	1.063	8.177	62.228	1.284	9.881	62.228
4	.910	7.002	69.230						
5	.857	6.594	75.824						
6	.674	5.181	81.005						
7	.596	4.581	85.587						
8	.512	3.939	89.525						
9	.430	3.308	92.834						
10	.341	2.622	95.456						
11	.226	1.742	97.198						
12	.195	1.500	98.697						
13	.169	1.303	100.000						

Extraction Method: Principal Component Analysis.

The scree plot, aFigure 1 can be used to choose the number of components to be retained. Here, three components with Eigen values greater than 1 are shown, these were all components which lie above the point from the plot level off to a linear decreasing pattern were retained.
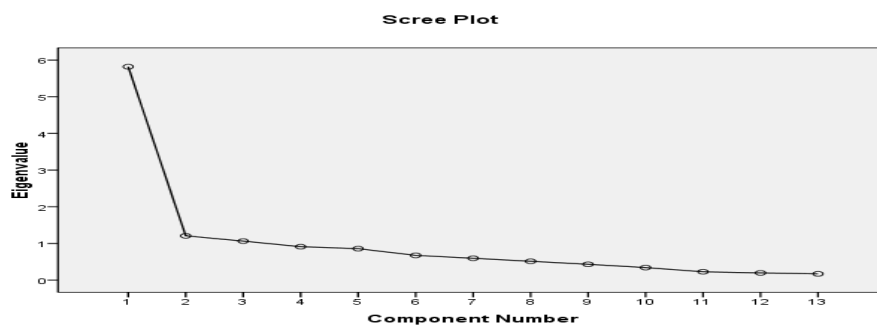
Figure 1: Scree Plot

Rotated Component Matrix: This matrix contained the loadings of each variable onto each component (see table 6 below), It is also referred to as the loadings; it contains estimates of the correlations between each of the variable and the estimated components. The correlations can also be negative. Factor loadings less than 0.34 have not been displayed because we decided to omit them since they are meaningless. Suppressing the loadings less than 0.30 made interpretation easier.

The results show that nine variables were strongly loaded onto component 1, which I name as membership/management factor; two variables loaded strongly onto component 2, called organizational; and another two variables, operational factor in component 3.

Table 6: Rotated Component Matrix

	Component		
	1	2	3
'feasibility study'	.751		
'full time professional management'			.572
'financial management'	.843		
' loan management'	.865		
'good governance'	.605	-.313	
'grants and prizes'		.738	
'number of initial members'		.613	.339
'members' commitment and vision'	.846		
'non members business'	.641		
'loan interest rate'			.789
'open membership strategy'	.838		
'conflict management strategy'	.863		
'reliable source of income to members'	.649	-.315	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 4 iterations

In summarizing, the analysis resulted into three components from thirteen variables. The components were:

- Membership or managementfactor: feasibility study, financial management, loan management, good governance, members commitment and vision,non members business, open membership strategy, conflicts management strategy and reliable source of income;

- Organizationalfactor:number of initial members and grants and prizes;

- Operational factor: full time professional management and loan interest rate.

Statistical Model of the Factors for SACCOS' Success

A two stage approach wasadapted to the estimation of the variables that led to the success of aSACCOS.

In stage one; components obtained from principal components analysis were used toclassify the factors according to whether they were membership, organizational or operational variables.Equations were estimated to relate the success or failure variables to each group of factors.

Therefore, in this stage three models were obtained.For statistical purposes, the responses 'major factor', 'minor factor' and 'not a factor' were condensed into two; 1.0 for major factor and 0.0 otherwise.

Model one relates the probability of success to several of the membership factors; *Feasibility study*, set to 1.0 for SACCOS that reported conducting feasibility study and 0.0 otherwise;*financial management*, an indicator variable set to 1.0 if was a major factor and 0.0 otherwise; *loan management*, an indicator set to 1.0 if it was a major factor and 0.0 otherwise; *good governance*, set 1.0 if SACCOS has governance tools and 0.0 otherwise; *members' commitment and vision*, an indicator variable was set to 1.0 if it is the major factor and 0.0 otherwise; and*non members business*,

an indicator variable set to 1.0 if SACCOS accepted non member business, set to 0.0 otherwise; *growth coefficient*, which measures growth in membership, an indicator variable was set to 1.0 for SACCOS with open membership strategy and 0.0 otherwise; *conflict management strategy*, set 1.0 for the presence of the strategy and 0.0 otherwise and *Reliable source of income*, set 1.0 for presence and 0.0 otherwise.

Model two includes several of the organizational factors:*number of members at initial stage*, an indicator is set to 1.0 for major factor and 0.0 otherwise; and *Grants and prizes*, set 1.0 for SACCOS that obtained one or more grants/prizes and set 0.0 otherwise;

Model three covers the role of operations factors including management in affecting the success or failure outcome. The variables included: *full time professional management,* set to 1.0 for SACCOS with full time professional management or if the respondent was part of management and 0.0 otherwise and *loan interest rate*, set 1.0 for a major factor and 0.0 otherwise.

Results and Interpretation onLogistic Analysis

Logistic regression was used to estimate each of the three stage one models, membership, organizational and operational. The results from estimating these three stage one models are presented in table7 below.

Table 7: Stage I Logistic Analysis of Success Probability

Model/Variable	Estimated Coefficients	Exp(B)	*P*- values
1. Membership			0.000
1. Feasibility study	0.121	1.129	0.885
2. Financial management	-1.064	0.345	0.321
3. loan management	1.896	6.66	0.054
4. Good governance	0.677	1.968	0.362
5. Members' commitment and vision	1.04	2.83	0.236
6. Non members business	1.96	7.097	**0.005***
7. Open membership strategy	1.069	2.912	0.218
8. Conflict management strategy	1.989	7.31	**0.044***
9. Reliable source of income	-0.441	0.644	0.608
Constant	-3.627	0.027	0.000
2. Organizational			0.000
1. number of members at initial stage	0.669	4.391	**0.000***
2. Grants and prizes	1.479	1.953	0.057
Constant	-1.099	0.333	0.001
3. Operational			0.000
1. Full time professional management	1.589	4.9	**0.000***
2. Loan interest rate	0.753	2.123	**0.039***
Constant	-1.131	0.323	0.001

Note: *show significant variables

The estimated coefficient measures each variable's effect on the probability of success based on the data. Variables with positive coefficients are associated with an increasing probability of success, while those with negative coefficients show association with decreasing probability of success. These estimated coefficients are normally used to create a predictive model equation of logistic regression.

'p' values present information on the amount of confidence to be placed in estimated coefficients. In general, p values less than or equal to 0.05 are statistically significant, that is the true effect is not zero with 95 percent confidence.

The results from stage I logisticanalysis was used in stage II logistic analysis of success probability to come up with the general and final model. Variables chosen from stage I models werenon*members' business* and *conflict management strategy* as membership factors; *grants and prizes* as organizational factors; and *full time professional management* and *loan interest rate* as operational factors:. These variablesfrom the three components were all significant, since their 'p' values are less than 0.05.

Results of Stage II Logistic Regression

Table 8 below shows the estimation results for the Stage II 'best' predictors model of the success probability. Four variables met the statistical significance cut off and they are all associated with an increasing probability of Success. One independent (loan interest rate) is dropped out from the model since its effect is not statistically significant.

Table 8: Stage II Logistic Analysis of Success Probability

Variable	Estimated Coefficients	Exp(B)	P values
1. non members business	2.503	12.223	**0.000**
2. conflict management strategy	4.118	61.459	**0.000**
3. number of members at initial stage	1.836	6.268	**0.007**
4. full time professional management	1.923	6.844	**0.006**
5. loan interest rate	1.31	3.706	0.056
Constant	-5.404	0.004	**0.000**

Predictive equation for success is as shown below:

$$P = \frac{Exp^{(z)}}{1 + exp^{(z)}}$$

Where:
Z= (-5.404 + 2.503(NoMB) +4.118(CMS) +1.836(NMI) +1.923(FTP)
NoMB: Non members' business
CMS: Conflict management strategy
NMI: Number of members at initial stage
FTP: Full time professional management

The research findings identified five factors that mostly led to the success performance of a SACCOS. The results show that, accepting 'non members' business' in a SACCOS increases the odds (Probability) of success 12.23 times greater than denying. That is, the odds of success for SACCOS are 12.23 times greater for a SACCOS that accept non members' business than those which deny. The results concurred with the study by Richard J. Sexton and Julie Iskow whose results showed that accepting non members' business in cooperatives was the success-determinant factor for cooperatives societies.

Proper conflicts management has shown a greater contribution in the success performance of SACCOS, this is supported by the study results which show that , the odds for a success forSACCOS are 61.46 times greater for SACCOS with 'a proper conflict management strategy in place' than the one without the strategy.

Membership has also shown its vital contribution in the success of these cooperative societies. The results revealed

that the odds for a success of a society are 6.27 times greater for SACCOS which starts with greater number of members at the initial stage than the one that starts with fewer. The results indicate that the greater the number of members at initial stage, the more likely is the success. The results agreed with other studies (Richard J. Sexton and Julie Iskow) whose findings pointed out that number of members at initial stage was the success-determinant factor for cooperatives.

In addition, the research results support the importance of having full-time professional management in this business entity. This is because the results illustrate that the odds for a success for any SACCOS are 6.84 greater for the one managed by a full time professional management than others. This agreed with the study by Richard J. Sexton and Julie Iskow whose findings revealed that the presence of full-time professional management was the key success-determinant factor for emerging cooperatives in USA.

Loan interest rate is positively correlated with the success, but it is not statistically significant to the success of the SACCOS. The survey results illustrate that, the odds for a success for SACCOS are 3.71 times greater for SACCOS with low loan interest rate than others. The study by Kushoka (2013) who assessed the sustainability of employee based SACCOS in Tanzania also identified high interest rate as among the most limitation for SACCOS' success and sustainability.

Conclusion and Recommendations

'A logistic regression analysis was conducted to identify factors critical to the success of emerging SACCOS in Tanzania mainland. Firstly, PCA was employed to reduced variables to three artificial variables membership, organizational and operational factors known as components; these models were obtained in this stage, the models relating the probability of success to the several factors from each component.

Exp (B) values signify that when SACCOS accepts non members business the odds ratio is 12.22 times as large and thus SACCOS is 12.22 more times likely to succeed; when SACCOS has and use a conflict management strategy, the odds ratio is 61.46 times as large and thus this SACCOS is 61.46 more times likely to succeed; when SACCOS starts with large number of members at initial stage, the odds ratio is 6.27 times as large and thus this SACCOS is 6.27 more times likely to succeed; when SACCOShas full time professional management, the odds ratio is 6.84 times as

large and thus this SACCOS is 6.84 more times likely to succeed.

Based on the research findings, lack of access to loans for individuals was the main factor that led to the SACCOS inception. Furthermore, it was concluded that political influence has a negative effect on establishing strong cooperative societies in Tanzania.

- Non members' business should be encouraged and accepted by SACCOS for their successful performance;
- Proper conflict management strategy should be prepared and distributed to the societies, also board members should be provided with trainings on good governess and conflicts management; this may assist in reducing disputes among members, staff and board members;

- SACCOS should employ full time professional management as it has been shown as the key success determinant factor for emerging SACCOS;

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