International journal of management and economics invention
||Volume||2||Issue||11||Pages-1092-1103||Nov-2016|| ISSN (e): 2395-7220
www.rajournals.in

Saccosmeter for Measuring Performance of Savings and Credit Co-Operative Societies in Tanzania

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ABSTRACT: ***Good and poor performing Savings and Credit Co-operative Societies (SACCOS) exist in Tanzania. Such existence results into having SACCOS which are doing well and others which are not doing well in terms of performance. The apparatus or tool for measuring the performance of SACCOS remains inadequately established. That was a knowledge gap on which the collected data for this paper focused on. The paper was intended to establish SACCOSMETER (SM) for SACCOS. The SM is an apparatus or tool which can be used by members, board members, management and other stakeholders to measure performance of SACCOS. The specific objectives were to develop SM and demonstrate application of SM by stakeholders of SACCOS. Primary data were collected using a questionnaire which was administered to one hundred and twenty SACCOS selected through stratified random sampling. Descriptive statistics and binary regression were used to establish SM of SACCOS. This was through enabling the author to establish fourteen performance indicators of SACCOS. The possession of the performance indicators were fifty percent of overall sample SACCOS scored more than seventy percent of performance indicators and therefore they were good performers. Others, fifty percent of the overall sample SACCOS scored seventy percent or less on performance indicators as poor performers. It is argued that SM of SACCOS should be developed, availed, maintained and applied by the stakeholders of SACCOS in order to have accurately measured performance of SACCOS in Tanzania. The accurately measured performance guides formulation of relevant intervention for improving SACCOS' performance.***

Key words: SACCOSMETER (SM), Performance, Savings and credit co-operative Society (SACCOS)

1.0 INTRODUCTION

Savings and Credit Cooperative Society (SACCOS) means a society established under applicable laws for co-operatives or other societies, whose principal objectives are to encourage thrift (using money carefully and wisely) among its members and to create a source of credit for its members (Mchujuko, 2007). SACCOS is a name given to Credit Unions (CU) in Tanzania. The CU is called by various names around the world. They are member-owned, not-for profit cooperatives that provide savings, credit and other financial services to members [http://www.woccu.org/about/creditunion]. In Tanzania, SACCOS is one type of microfinance institutions (MFIs) in Tanzania; other three types of (MFIs) are Non-Governmental Organizations MFIs, Commercial Microfinance Banks, and Donor Community MFIs (URT, 2000).

Financial and economic values of SACCOS influenced greatly increased formation and expansion of SACCOS in Tanzania since independence. For instance, after independence in 1961 there were 3 SACCOS but by March 2013 the number of SACCOS was 5559, total members 1 153 248, value of savings, shares and deposits TZA 463.5 billion and the value of total loan disbursed reached TZA 893.7 billion [http://tanzaniagovernment.blogspot.com/2013_16_01achieve.hotmail]. By March 2014 the number of SACCOS was 5478, number of members 935 121, total value of savings, shares and deposits was TZA 451.1 billion and the value of total loan disbursed by SACCOS was TZA 778.4 billion [http://ww.tanzania.go.tz/egov-uploads/documents/kilimo-swp].

The increase in number of SACCOS may not bring the intended results. Most of SACCOS were formed with objective of making people's particularly low income earners to access financial services from them (SACCOS) neither in difficult nor impossible situation. SACCOS are expected to accomplish this task. The accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed is referred as performance. In a contract, PERFORMANCE is deemed to be the fulfillment of an obligation, in a manner that releases the performer from all liabilities under the contract (www.businessdictionary.com/definition/performance.html).

International journal of management and economics invention
||Volume||2||Issue||11||Pages-1092-1103||Nov-2016|| ISSN (e): 2395-7220
www.rajournals.in

There are a number of said to be good performers SACCOS that have been able to reach many people who become their members and extend their financial services over a long time. However, there is no an instrument or a tool to measure the performance of SACCOS. Such a tool is required to enable SACCOS' stakeholders to test performance of their societies in a simplified manner and regularly. In this paper the instrument to measure performance of SACCOS is referred as SACCOSMETER (SM). The SM will work on SACCOS similarly to how a mirror can work on human being to enable him looking smart and hence performing well in achieving his/her objectives.

Despite that good performers and poor performers of SACCOS have been said to exist in Tanzania, the establishment of the SM for SACCOS remains inadequately worked out. Although there were some studies conducted on SACCOS, some areas were inadequately covered by those researches and papers in Tanzania. One area is the establishment of SM for measuring performance of SACCOS.

The main objective of the paper is to establish SM of SACCOS in Tanzania. The specific objectives are to develop SM of SACCOS and demonstrate application SM of SACCOS. In so doing the paper is guided by the following null operational hypothesis:

H1: Each of the hypothesized performance characteristics has no significant effect to performance measuring by SM of SACCOS.

2.0 THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Theoretical Framework

A theory guided this paper is namely, stewardship theory (Jarvis, 2013). According to Odera (2012) cited from Davis *et al*,. 1997 a stewardship protects and maximizes shareholders wealth through firm performance, because by so doing, the steward's utility functions are maximized. In this perspective stewards are managers working to protect and make profits of the stakeholders. Therefore, stewardship theory emphasize on the role of management being as stewards, integrating their goals as part of organization. The stewardship perspective suggests that stewards are satisfied and motivated when organization (SACCOS) good performance is attained. The managers and other stakeholders of SACCOS are expected to use the SM to measure the SACCOS performance and therefore act accordingly to contribute to improvement of the performance.

2.2 Literature Review

The first CU started in Europe in 1849, they spread to Canada in 1892. In Africa, the idea of SACCOS was first introduced in Ghana in 1955 (DID, 2005). SACCOS were initially introduced to Tanzania in 1960 (WOCCU, 2003). Since SACCOS is a part of MFIs they are affected by financial policies. The financial reform programme in 1991 has led to the following developments of National Microfinance Policy (NMP) (URT, 2000); Radhawa and Gallardo (2003). The NMP's overall objective is to establish a basis for evolution of an efficient and effective micro financial system. The system serves all (low, medium and high) income segments of the society, and thereby contributes to economic growth and poverty reduction (URT, 2000). SACCOS should work according to MFIs best practice. MFIs Best Practice provides that an MFI has a good performance if it attains among other things, a minimum annual repayment rate of 95%, 154 clients per staff member, and at least 88.8 operational self sufficiency Urio and Kessy (2006).

The performance indicators of SACCOS are based on level of outreach and sustainability of MFIs (Yaron, 1994; Sergial *et al.*, 2000; Zeller *et al.*, 2006). Many members depict outreach while savings, shares, deposits and loans show the level of sustainability of SACCOS. Therefore, in this paper the performance characteristics of SACCOS are referred to as the observable impact of SACCOS' services to its members and other stakeholders. They will be demonstrated by specific performance indicator for each characteristic.

Fourteen statements of performance indicators of SACCOS have been judged based on concepts of outreach and sustainability (Yaron, 1994; 2004); Sergio *et al*. (2000); Paxton and Cueves (2002); Zeller *et al.* 2006). These statements of performance indicators were origin of SACCOS; number of people in the common bond; repayment rate of loans in the SACCOS; ratio of number of members to that of staff; total number of active members; the value of total costs and total revenue of SACCOS; the members are gender participatory (female, male, young, old); number of services and products offered by SACCOS; the SACCOS offer services which assist the active poor people; areas which benefit from services offered to members of SACCOS; the SACCOS

International journal of management and economics invention
||Volume||2||Issue||11||Pages-1092-1103||Nov-2016|| ISSN (e): 2395-7220
www.rajournals.in

offer services to members regardless of their level of education (literate, semiliterate and illiterate); changes in members' life conditions as a result of getting financial services; the SACCOS practicing good governance (openness, equity, accountability and participatory); and changes in business of members after they use SACCOS services and products.

3.0 THE STUDY APPROACH

The author discusses with key informants' to get their opinions about performance of SACCOS. Their opinions were linked with the literature by the author to enable the later to set up criteria and cut off point for good and poor performers among SACCOS. The sample of 120 SACCOS was selected through stratified random sampling. They were selected based on suggestion by key informants and hence comprised of 60 good performers and 60 poor performers. The sampled SACCOS' performance were tested through dichotomous or binary model of whether they posses or not possess the indicator.

The possession of few of number of those performance characteristics depicts poor performance on the other hand possession of more of these characteristics shows good performers. The cut off point was such that possession of more than 10 (71%) to 14 (100%) is a good performance. Such kind of performance is awarded grade A. The possession of 9.9 (70%) or less is poor performance. Such kind of performance is awarded 9 to 9.9 (65% – 70%) B^+, 8 to 8.9 (57% to 64%) B, 7 to 7.9 (50% to 56%) C, 4 to 6.9 (28 to 49%) D, 2 to 3.9 (14 to 27. 9) E or 0 to 1.9 (0% to 13%) F grade. This grading system borrows grading system of examination results in universities. However it is operating basing on the all or none principle guiding biologist. That is why either A (good performer) or others (poor performer).

The *H1, study* hypothesis was tested using binary logistic regression model since such a model is ideal for variables in which the dependent one is dichotomous like good performing SACCOS and poorly performing SACCOS. According to Hosmer and Lamesow (2000); Powers and Xie (2000); (Agresti, 2002); (Kayunze, 2008), the model was specified as follows:

$$\text{Logit (pi)} = \log (P/1\text{-}Pi) = b_0+b_1x_1+b_2x_2+ \text{----------}b_kx_k \text{----------} \quad (1)$$

Where:

Logit (pi) = In (odds/event), that is the natural log of the odds of an event occurring.

Pi = Prob (event), that is the probability that the event will occur

1-Pi = Prob (event), that is the probability that the event will not occur

b_o = constant of the equation

b_1 to b_k = Coefficients of independent/predictor/response variables

k = Number of independent variables

X_1 to X_k = independent variables entered in the model.

The dependent variable was a dummy of performance of SACCOS, whereby good performing SACCOS was 1 if a SACCOS had 10 to 14 out of 14 (71% to 100%) of performance characteristics and poor performing SACCOS was 0 if a SACCOS possessed less than 10 out of 14 (70% or less) of performance characteristics. The dependent variable was regressed on the above 14 independent variables to find the contribution of each of them on the dependent variable

4.0 RESULTS AND DISCUSSIONS

4.1 Development of SM for SACCOS

The development involved establishment of Performance indicators and cut off points for Good and Poor performers. Table 1 shows performance indicators and cut off points for Good and Poor performers. The research results revealed that a SACCOS is considered as a Good performer if it originates from members; if it offers three services namely savings, deposits and credit services; if it offers services to members regardless of their education level; if it offers services which improve the financial earning capacity of active poor people; if it has a total number of active members of ≥1000; if it has one staff for 154 or more

International journal of management and economics invention
||Volume||2||Issue||11||Pages-1092-1103||Nov-2016|| ISSN (e): 2395-7220
www.rajournals.in

members; if it has a total income which enables it to meet all expenditures; if it offers services which benefit people in rural areas; if it enables members to live in better life conditions; if it enables members to improve their businesses; if it has good governance if the number of people in the common bond is equal to or greater than 3000; if members are in gender participatory and if loan repayment rate is 95% and above.

On the other hand, a SACCOS is considered as a poor performing if SACCOS is originated from non-members; if the SACCOS does not offer one of the three services namely savings, deposits and credit services; if it is offers services by excluding some people due to their level of education; if it offers services which do not improve the financial earning capacities of active poor people; if it has total number of active members <1000; if it has one staff for less than 154 members; if its total income is less than the SACCOS' expenditures, if it offers services which do not benefit people in rural areas; if does not enable members to live in better life conditions; if it does not enable members to improve their businesses; if it does not have good governance; if the number of people in the common bond <3000; if the members are not in gender participatory; and if loan repayment rate is less than 95%.

Table 1: Performance indicators and cut off points for Good and Poor performers

S. N	SACCOS' performance indicators	Level of performance (cut off points)	
		Good	Poor
1	Origin of SACCOS	Originated by members	Originated by non members
2	Number of people in the common bond (NP)	NP ≥3000	3000>NP
3	Repayment rate of loans in the SACCOS	95% and above	Less than 95%
4	Ratio of number of members to staff	154 or more	Less than 154
5	Total number of active members	≥1000	Less than1000
6	The total revenue enough enable SACCOS to meet all costs	Revenue ≥Costs	Revenue <Costs
7	The member are gender participatory	Female members ≥30%	30% >Female members
8	Number of services and products offered by SACCOS	Three or more offered	Less than three offered
9	The SACCOS offer services which build economic capacity to active poor people	Enabled poor members to start earn 1US$/day	Some members earn less than 1US$/day
10	The SACCOS offer services which can benefit people in rural areas	Services benefit rural areas	No benefit to rural areas
11	The SACCOS offer services to members regardless of their level of education (literate, semiliterate and illiterate)	Members of at least two levels of education	All members are of only one level of education
12	Members live in better life conditions as result of change in income	Income increased	Income decreased
13	The SACCOS practice governance (openness, equity, accountability and participatory).	Governance practiced	Governance not practiced
14	Changes in Business of members after they use SACCOS services and products	Positive	Negative

Furthermore establishment of Scores of SACCOS on cut off points of performance indicators was conducted. Table 2 shows distribution of studied SACCOS for this paper by scores on performance indicators. It was found that scores ranged from two to 14 out of 14. There was only one respondent SACCOS (0.83%) which was scored 14 out of 14. The SACCOS was, Turiani SACCOS in Morogoro region. The respondent SACCOS which were scored 13 out of 14 were 10 in number (8.3%). These were Bunju Community SACCOS, Kitunda SACCOS and TANESCO Employees SACCOS in Dar es Salaam Region. Another one was Dodoma Municipal Teacher's SACCOS in Dodoma Region. Other SACCOS were ELCT ND SACCOS, Mashati SACCOS, Wazalendo SACCOS, Same Kaya SACCOS and Nshara SACCOS in Kilimanjaro Region. Another one was Kinole SACCOS in

International journal of management and economics invention
||Volume||2||Issue||11||Pages-1092-1103||Nov-2016|| ISSN (e): 2395-7220
www.rajournals.in

Morogoro Region. Other SACCOS scored as per frequencies in Table 2. However there was no any respondent SACCOS which scored one or zero.

The SACCOS which scored high (71% to 100%) were characterized with highly motivated management operating in good governance. The staff of those SACCOS scored low appeared to be not motivated. These findings supported the relying on the theory of stewardship as a theoretical framework to guide this paper.

Table 2: Distribution of SACCOS by scores on performance indicators

Scores out of 14	Percentage of scores	Grade	Frequency	Cumulative Frequency	Percent	Cumulative Percent
2	14	E	1	1	0.8	0.8
3	21	D	2	3	1.7	2.5
4	29	D	5	8	4.2	6.7
7	50	C	5	13	4.2	10.8
8	57	C	20	33	16.7	27.5
9	64	B	27	60	22.5	50.0
10	71	A	18	78	15.0	65.0
11	79	A	17	95	14.2	79.2
12	88	A	14	109	11.7	90.8
13	93	A	10	119	8.3	99.2
14	100	A	1	120	0.8	100.0
Total			**120**		**100.0**	

Furthermore, 60 SACCOS (50% of overall sample SACCOS) scored more than 70% of success characteristics and therefore they were determined to be good performing SACCOS. These were Grade A SACCOS. Other 60 SACCOS (50% of overall sample SACCOS) scored 70% or less performance characteristics and they were therefore determined to be poor performers. These were Grade B^{+}, B, C, D, E and F SACCOS. These findings support two aspects. The first aspect is that 60 SACCOS (50%) were good performers and 60 SACCOS (50%) were poor performing SACCOS in this paper. The second aspect is the confirmation of a good performers being a SACCOS which had more than 70% scores and poor performers being a SACCOS which had 70% or fewer scores on performance characteristics. Table 3 shows confirmation of SACCOS being either good or poor performing SACCOS using the field data.

Table 3: Confirmation of SACCOS being either Good or Poor performers from field data using SM

Scores on success indicators	Frequency	Percent	Cumulative Percent
Scored 10 to 14 scores out of 14 and therefore are good performers (Scored more than 70%)	60	50.0	50.0
Scored 0 to 9 out of 14 and therefore are poor performers (Scored 70% or less)	60	50.0	100.0
Total	**120**	**100.0**	

Binary logistic regression outputs for performance indicators of SACCOS was conducted to test the null hypothesis which stated that, *Each of the hypothesized performance characteristics has no significant effect to performance measuring by SM of SACCOS.* The binary logistic regression was based on the variables in equation (1). Table 4 shows the independent variables entered in the Binary Logistic regression model. The regression was made in order to come out with outputs to enable the test to take place. The important outputs of the model among others were Case processing summary, Omnibus test of the coefficients

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||Volume||2||Issue||11||Pages-1092-1103||Nov-2016|| ISSN (e): 2395-7220
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of the model, Model summary, explanatory variables, B coefficients, correlations and Odds ratios [Exp (B)] as they are explained below.

Table 4: Independent variables entered in Binary Logistic regression model

	Independent variable	Types of variable	Explanation of variables
X_1	Origin of SACCOS (ORS)	Dummy	Originated by members = 1, Originated by non-members = 0
X_2	Number of people in the common bond (NPC)	Continuous	NPC ≥3000 = 1, 3000>NPC = 0
X_3	Repayment rate of loans in the SACCOS (RRL)	Continuous	95% and above =1, Less than 95% = 0
X_4	Ratio of number of members to staff (RMS)	Continuous	154 or more = 1, Less than 154= 0
X_5	Total number of active members (NAM)	Continuous	≥1000 = 1, Less than1000 = 0
X_6	Total revenue enough to enable SACCOS to meet all costs (TRC)	Dummy	Revenue ≥Costs = 1, Revenue <Costs = 0
X_7	The members are gender participatory (female, male, young, old) (GND)	Dummy	Female members ≥30% = 1, 30% >Female members = 0
X_8	Number of services offered by SACCOS (NSO)	Dummy	Three or more offered =1, Less than three offered = 0
X_9	The SACCOS offer services which build economic capacity to active poor people (SAP)	Dummy	Enabled poor members to start to earn 1US$/day = 1, Some members earn less than 1US$/day = 0
X_{10}	The SACCOS offer services which can benefit people in rural areas (SBR)	Dummy	Services benefit rural areas = 1, No benefit to rural areas = 0
X_{11}	The SACCOS offer services to members regardless of their level of education (literate, semiliterate and illiterate) (SAL)	Dummy	Members of at least two levels of education= 1, All members are of only one level of education= 0
X_{12}	Members live in better life conditions as a result of change in income (MBL)	Dummy	Income increased = 1, Income decreased = 0
X_{13}	The SACCOS practise governance (openness, equity, accountability and participatory). (GNP)	Dummy	Governance practiced = 1,Governance not practiced= 0
X_{14}	Changes in business of members after they use SACCOS services and products (MBP)	Dummy	Positive = 1, Negative = 0

Case processing summary

The case processing summary was one of important outputs of the binary logistic regression model. The case processing summary is presented in Table 5 and shows that 100% of the 120 cases were included in the analysis, 60 good performing cases and 60 poor performing cases. This situation depicts that all of the study SACCOS fit well to this analysis.

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Table 1: Case Processing Summary

Un-weighted Cases (n = 120)		N	Percent
Selected Cases	Included in Analysis	120	100.0
	Missing Cases	0	0.0
	Total	120	100.0
Unselected Cases		0	0.0
Total		**120**	**100.0**

Omnibus test of the coefficients of the model

The omnibus test is a test of capacity of all predictors (independent variables) in the model jointly to predict the response (dependent variable). A finding of significance means that there is adequate fit of the data to the model and that at least one of the predictors is significantly related to the response variable (Garson, 2008; Kayunze, 2008). Basing on this explanation, and by looking at the results in the Table 6, which shows that there was significance at the 0.001 level (p = 0.000), the data entered in the model adequately fitted the model. Furthermore, at least one of the predictors is significantly related to the response variable.

Table 6: Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
Step 1	Step	96.043	14	0.000
	Block	96.043	14	0.000
	Model	96.043	14	0.000

Model summary

The summary shows Cox & Snell R Square and Nagelkerke R Square as shown in Table 7. This was chosen as an important output of the binary logistic regression model. The Cox-Snell R^2 and Nagelkerke R^2 are attempts to provide a logistic analogy to R^2 in the Ordinary Least Square (OLS) regression; hence are called pseudo R^2. Nagelkerke R^2 is a modification of Cox-Snell R^2 to assure that Cox- Snell R^2 varies from zero to one, as does R^2 in the OLS regression. The maximum value of Cox- Snell R^2 is usually less than 1; making it difficult to interpret. Therefore, Cox-Snell R^2 must be modified.

Table 7: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	70.312	0.551	0.734

Nagelkerke R^2 is normally higher than Cox- Snell R^2 and is the most-reported of the pseudo R^2 estimates (Garson, 2008). Therefore, based on the results in Table 7 which showed that Nagelkerke R^2 was 0.734, it means that the independent variables entered in the model explained 73.4% of variance in the dependent variable.

Explanatory variables, B coefficients and correlations

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||Volume||2||Issue||11||Pages-1092-1103||Nov-2016|| ISSN (e): 2395-7220
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In order to be certain that the explanatory variables are significantly important in affecting the variance of the response variable, both the B values and the correlations should be significant. The requirement helps to contain the problem whereby sometimes logistic regression coefficients are found to be insignificant when the corresponding correlations are found to be insignificant, and vice versa (Garson, 2008; Kayunze, 2008). The disparity of that nature is due to three main reasons, which are: (a) logistic regression coefficients are partial coefficients, controlling for other variables in the model, whereas correlation coefficients are controlled; (b) logistic regression coefficients reflect linear and nonlinear relationships, whereas correlation coefficients reflect only linear relationships; and (c) a significant parameter estimate B means there is relationship of the independent variable to the dependent variable for selected control groups, but not necessarily overall (Garson, 2008). Based on this knowledge, the ratio of number of members to number of staff that had the highest Wald statistic (15.392), which was significant at the level of significance ($p \leq 0.001$) as seen in Table 8, while the correlation between the same variable and the dependent variable was also highly significant ($p \leq 0.001$), was the most explanatory variable.

If the decision to determine the importance of the predictor variables was based only on correlation results, origin of SACCOS, repayment rate of 95% of loans in the SACCOS, ratio of number of members to staff, number of active members of the SACCOS, the total revenue enough to enable SACCOS to meet all costs, the members being gender participatory (female, male, young, old people), SACCOS offering services to members regardless of their level of education, members living in better life conditions as a result of change in income, the SACCOS practising governance, and positive changes in business of members after they use SACCOS services and products.

The effect, which can be negative or positive, of an independent variable on the dependent variable is denoted by sign (negative or positive) of individual logistic regression coefficients (B values) for the independent variable that is generated concomitantly with the Wald statistics. A negative sign associated with a B coefficient shows that the particular variable decreases the logit of the dependent variable that is it decreases the probability that the event (in this case Successful SACCOS) will be realized, and vice versa. For example in Table 8, ratio of number of members to staff, the total revenue enough to enable SACCOS to meet all costs, the members are gender participatory, number of services offered by SACCOS, the SACCOS offer services which build economic capacity to active poor people and the SACCOS offer services which can benefit people in rural areas reduce chances of performance characteristics of SACCOS to describe good performing SACCOS since their B values are associated with negative signs. By the same token, the other variables increase chances of SACCOS to be good performing SACCOS since they bear positive signs. If there was a variable which bears a B value equal to 0 then that variable would have no effect as a characteristic for performance of SACCOS. Therefore, all independent variables in the model had effect to performance of SACCOS. It means that all the fourteen variables hypothesized had contribution as performance characteristics of SACCOS. Therefore, this enabled to reject the second null hypothesis of this study.

Odds ratios [Exp (B)]

Another vital output was Odds ratios [Exp (B)]. Unlike the odds that are mere probabilities of an event occurring, the odds ratio is the natural log base, e, to the exponent, B, where B = parameter estimate. For example, in Table 8 the odds ratio Exp (B) for number of people in the common bond that is 1.203 has been obtained from the following relationship: $e^{0.185} = 2.718^{0.185} = 1.203$. In Table 31, the "Exp (B)" column is SPSS's label for Odds ratios of the row independent variables vis-à-vis the dependent variable (performance of SACCOS). The odds ratio is the predicted change in odds for a unit increase in the corresponding independent variable. Odds ratios less than 1 correspond to decreases in the odds; odds ratios more than 1.0 correspond to increases in the odds; an odds ratio equal to 1.0 means that the respective independent variable has no effect on the dependent variable and an odds ratio close to 1.0 means that the respective independent variable almost has no effect on the dependent variable (Kayunze 2008).

The odds ratio for a given independent variable represents the factor by which the odds (event, in this research good performing SACCOS) change for one unit change in the independent variable. In this example, each additional person in the common bond (because B is positive) increases the odds of being good performing SACCOS (because 0 = poor performing SACCOS and 1 = good performing SACCOS) by a factor of about 1.203, controlling for other variables in the model.

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Table 8: Variables in the Equation

	B	S.E.	Exp(B)
Origin of SACCOS	2.393	1.653	10.952
Number of people in the common bond	0.185	0.824	1.203
Repayment rate of loans in the SACCOS	1.200	0.852	3.320
Ratio of number of members to staff	-3.386	0.863	0.034
Total number of active members	-3.506	1.090	0.030
The total revenue enough to enable SACCOS to meet all costs	-0.663	0.767	0.515
The members are gender participatory (female, male, young, old people)	-2.064	1.571	0.127
Number of services offered by SACCOS	-0.016	1.075	0.984
The SACCOS offers services which build economic capacity to active poor people	-0.170	1.095	0.844
The SACCOS offers services which can benefit people in rural areas	-0.228	0.889	0.796
The SACCOS offers services to members regardless of their level of education (literate, semiliterate and illiterate)	-0.743	0.763	0.476
Members live in better life conditions as a result of change in income	0.806	1.007	2.238
The SACCOS practise governance (openness, equity, accountability and participatory)	-0.614	0.775	0.541
Changes in Business of members after they use SACCOS services and products	-2.326	1.460	0.098
Constant	14.067	3.768	1286382

4.2 Application of SM for SACCOS

Utilization of SM for SACCOS is as shown Table 9. Firstly, is to put 1 if YES, 0 if NO beside each of the performance indicator basing on the field data. Then count if scores are 0 to 9 (0% to 70%*)* out of 14 (100%) then the SACCOS is poor performer SACCOS, count if 10 to 14 *(71%* to *100%)* out of 14 (100%) then the SACCOS is a good performer SACCOS.

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Table 9: Application of SM by SACCOS

No	Performance indicators	1 or 0
1	Origin of SACCOS was founder members	
2	The SACCOS have active members ≥ 1000	
3	The SACCOS have one staff for 154 or more	
4	The SACCOS offer services to active poor people	
5	Number of people in the common bond (NP) is 3000 or more	
6	The total revenue enable the SACCOS to meet all costs	
7	The SACCOS offer services in rural and urban areas	
8	There is 95% and above repayment rate of loans in the SACCOS	
9	The member are gender participatory -female, male, young, old	
10	The SACCOS practice good governance	
11	The SACCOS offer services to members of different levels of education	
12	The SACCOS offers savings, deposits and credit services	
13	The SACCOS enable members to improve their businesses	
14	The SACCOS enable members to live in better life conditions	
	Total scores *a* divide by 14	*a*/14
	Percentage = a/14*100	100a/14

Application of the SM to data collected from the 120 of SACCOS showed that one SACCOS namely TURIANI SACCOS Ltd in Morogoro region scored 14 out of 14 (100%). The results are as shown in Table 10 and they as shown in Table 2.

Table 10: Application of SM by SACCOS, TURIANI SACCOS LTD

No	Performance indicators	1 or 0
1	Origin of SACCOS was founder members	1
2	The SACCOS have active members ≥	1
3	The SACCOS have one staff for 154 or more	1
4	The SACCOS offer services to active poor people	1
5	Number of people in the common bond (NP) is 3000 or more	1
6	The total revenue enable the SACCOS to meet all costs	1
7	The SACCOS offer services in rural and urban areas	1
8	There is 95% and above repayment rate of loans in the SACCOS	1
9	The member are gender participatory -female, male, young, old	1
10	The SACCOS practice good governance	1
11	The SACCOS offer services to members of different levels of education	1
12	The SACCOS offers savings, deposits and credit services	1
13	The SACCOS enable members to improve their businesses	1
14	The SACCOS enable members to live in better life conditions	14
	Total scores *a* divide by 14	14/14
	Percentage = a/14*100	100

Furthermore the results for other SACCOS are that ten of them scored 13 out of 14

(93%). This is as shown in Table 11. Other information is as summarized in Table 2.

International journal of management and economics invention
||Volume||2||Issue||11||Pages-1092-1103||Nov-2016|| ISSN (e): 2395-7220
www.rajournals.in

Table 11: Application of SACCOSMETER to measure performance of SACCOS

No.	Name of SACCOS and region	SCORE out of 14	Performance percent	Performance indicators not yet achieved
1	Turiani SACCOS Ltd in Morogoro region	14	100	None
2	Bunju Community SACCOS Ltd in Dar es Salaam region	13	93	Repayment rate of loans below 95%
3	Kitunda SACCOS Ltd in Dar es Salaam region	13	93	Repayment rate of loans below 95%
4	TANESCO Employees in Dar es Salaam region SACCOS Ltd	13	93	Repayment rate of loans below 95%
5	Kinole SACCOS Ltd in Morogoro region	13	93	Repayment rate of loans below 95%
6	ELCT ND SACCOS Ltd in Kilimanjaro region	13	93	Repayment rate of loans below 95%
7	Mashati SACCOS Ltd in Kilimanjaro region	13	93	Repayment rate of loans below 95%
8	Nshara SACCOS Ltd in Kilimanjaro region	13	93	Repayment rate of loans below 95%
9	Same Kaya SACCOS Ltd in Kilimanjaro region	13	93	Repayment rate of loans below 95%
10	Wazalendo SACCOS Ltd in Kilimanjaro region	13	93	Membership below 1000 active people
11	Dodoma Municipal Teacher's SACCOS Ltd in Dodoma region	13	93	Membership below 1000 active people

5.0 CONCLUDING REMARKS

The main objective of the paper is to establish SM of SACCOS in Tanzania. The specific objectives are to develop SM for SACCOS and demonstrate application of SM for SACCOS.

Basing on the results presented and discussed, the SACCOSMETER has been developed through establishing statements of performance. The statements of performance enabled the author to establish performance indicators for performance of SACCOS. Summation of the scores on the performance indicators of the SACCOS enabled the author and therefore other stakeholders of SACCOS to measure the exactly prevailing performance of SACCOS at a particular time. The application of SM was coming up successfully to the sample SACCOS.

It is recommended that SM of SACCOS should be developed, availed, maintained and applied by the stakeholders of SACCOS in order to have increasing performance of SACCOS in Tanzania. The increased performance will cause formation of relevant intervention to SACCOS' performance.

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International journal of management and economics invention
||Volume||2||Issue||11||Pages-1092-1103||Nov-2016|| ISSN (e): 2395-7220
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