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The impacts of financial linkage on sustainability of less-formal financial institutions: Experience of savings and credit co-operative societies in Tanzania

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ABSTRACT

The developing economies are experiencing a growing trend of financial Linkage between formal and less-formal financial institutions. Normally, less-formal financial institutions receive loanable funds from formal financial institutions as an approach to meet their financing deficit, while formal financial institutions engage in linkage as a mean to expand business. The main concern of stakeholders regarding this practice is how such linkage can affect the performance of the less-formal financial institutions. In Tanzania, the Savings and Credit Co-operative Societies (SACCOS) are the most used less-formal financial institutions which are also highly involved in financial linkage. In this study therefore, we used Tanzania SACCOS' financial statement data, for the period of 2004–2011, and panel data regression model to examine the relationship between financial linkage (measured as financial dependency ratio) and sustainability (measured as Operational Self Sufficiency) of less-formal financial institutions. The findings suggest that the higher the level of financial linkage the more the SACCOS become unsustainable. Implying that, to be sustainable institutions, the SACCOS should try keep away from the use of external funds in their loan portfolio.

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1. Introduction

Both formal and less-formal[2] financial institutions are vital and required in the economic development of the Low Income Countries (LICs) (Aryeetey, 2008). In Tanzania, the National Financial Inclusion Framework (2014–2016) which was released in 2014 reveals that, both formal and less-formal institutions have played an important role in the National Financial Landscape. Also it shows that the impacts of formal and less-formal institutions in financial inclusion have been growing. For instance, the formal financial institutions services reached 16% and less-formal institutions services reached 27% of the population in 2009. Consequently, they have a mutual role in financial system development and economic growth (Kaleshu & Temu, 2012; Qin & Ndiege, 2013). In this situation therefore, the growth and survival of formal as well as less-formal financial institutions in Tanzania is important and thus is the focus of this study.

Despite the recent fair improvements made in financial sector of Tanzania, which are mentioned in literature to be the outcome of financial reforms that started by the enactment of the Banking and Financial Institutions Act of 1991 (Kaleshu & Temu, 2012; Satta, 1999; Simpasa, 2011), both formal and less-formal financial institutions have challenges that seems to limit their individual ability to expand financial services (Kaleshu & Temu, 2012; Randhawa & Gallardo, 2003) as should have been. For example, while the immediate effects of financial reforms were the development of the formal sector (Satta, 1999; Simpasa, 2011) it has not reached reasonable population (Bee, 2009; Kaleshu & Temu, 2012). In general, poor majority who are residing in rural settings are the most excluded in formal financial system (Kessy & Urio, 2006).

Perhaps there are various reasons for these and here we just describe the main two. Firstly, most of the formal financial

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[1] The Moshi University College of Co-operative and Business Studies has recently changed the name and now it is known as Moshi Co-operatives University.

[2] The less-formal financial institutions are all semiformal and informal financial institutions most of which are rural financial institutions and serve the poor. So in some explanation the word is synonymy to microfinance. Moreover, contrary to the formal financial institutions like commercial banks, less-formal financial institutions are not regulated by the Bank of Tanzania.

institutions are located in urban areas, hence inaccessible among the majority of population (more than 70%) who are in rural areas (Kessy & Urio, 2006). In this case, literature states that in the absence of less-formal financial institutions, there is more liquidity in urban than in rural areas because formal institutions like commercial banks fear rural financial market due to high financial risks (Kaleshu & Temu, 2012; Sebhatu, 2012). Secondly, commercial banks demand for the worth collaterals from their clients as a way to minimize financial risks (Bee, 2009), which in most cases poor people do not afford as a result of widespread poverty and informal ownership of the assets like land. Again in this case less-formal institutions are superior because they can work without physical collaterals as they have other means to reduce financial risks for example using group lending methods (Okura and Zhang, 2012).

In fact it appears that, inability of formal financial institutions to serve properly the rural financial markets has been the strengths of less-formal financial institutions, because less-formal institutions appears to be the solutions to most of the formal financial institutions' challenges. On the other hand, the main challenge of the less-formal financial institutions is inadequate finance and poor managerial ability (Kaleshu & Temu, 2012). That means even with their ability to reach many people at one time, they have less to give to meet the real demand for financial services especially loans. As such the solution is to get commercial loans from formal financial institutions. So, less-formal and formal financial institutions seem to require each another to improve their financing activities (Kaleshu & Temu, 2012; Randhawa & Gallardo, 2003), the phenomenon which is referred as financial linkage[3] in this paper.

SACCOS[4], which are co-operative based microfinance institutions are the most used less-formal institutions in Tanzania (Bee, 2009; Maghimbi, 2010; Wangwe & Lwakatare, 2004). SACCOS (also known as credit unions in other countries) are principally developed to meet financial services specifically savings and credit to support the lower and middle class income earners so as to be economically active (McKillop & Wilson, 2011). They are owned by members and serve the same. SACCOS reach many people because they are easily formed basing on the field of membership like same occupational, residential or religion (Fried, Knox Lovell, & Eeckaut, 1993). Due to their deep ability to reach poor majority that formal institutions have failed to serve, SACCOS have become attractive to the commercial banks and other formal financial institutions to make linkage with, as a way to exploit rural market at a low cost. Thus, formal institutions engage in this relationship by providing commercial loans to the SACCOS which disbursed to the members. In general, through linkage with SACCOS formal financial institutions greatly increase the volume of small loans which is useful to increase financial inclusion in rural areas (Aryeetey, 2008; Jones, Sakyi-Dawson, Harford, & Sey, 2000; Piprek, 2007) and improves liquidity balances between rural and urban areas (Sebhatu, 2012). Also through linkage formal financial institutions enjoy high repayment rates and high profit. For instance, Kaleshu and Temu (2012) found that the bank loan portfolio to the SACCOS has zero rate delinquency.

On the other side, in SACCOS the main source of loan portfolio is members' savings (Qin, Ndiege, & Pastory, 2013) which is usually less than loan demanded (Ndiege, Haule, & Kazungu, 2013). For instance, according to the SACCOS statistical reports published by Ministry of Agriculture Food Security and Co-operatives through the department of Co-operative development, in 2011 the total savings was 447,664.73 million Tanzania shillings and credit was 741,049.64 million Tanzania shillings, which indicates that demand for funds from SACCOS was exceeding the members' savings. As a solution to this problem therefore, in most cases the limited supply of funds from internal sources is covered by means of commercial loans especially from commercial banks (Ndiege & Pastory, 2012). As such, due to the inability to meet the loan demands of their members, SACCOS have found an access to loanable funds from formal financial institutions to be a solution for financial deficit (Ndiege et al., 2013). Consequently, for the reason of gains from both sides, there has been a growing financial linkage between SACCOS and other financial institutions especially commercial banks (Kaleshu & Temu, 2012; Ndiege et al., 2013; Ndiege & Pastory, 2012; Temu & Ishengoma, 2010).

Thus the co-operation between formal financial institutions and SACCOS might be a good practice particularly in intensifying financial inclusion. However this practice need good understanding and control depending on the traits of SACCOS which are co-operative based less-formal financial institutions. The issue here is that, while linkage is appearing as the solutions for the challenges of both the SACCOS (as a less-formal) and formal institutions, the available literature appears to have no worry about the fact that linkage is useful on the side of formal financial institutions. However, some problems have been noted in the case of the less-formal institutions performances. For instance, the expansions of formal credits worsen the terms faced by less-formal borrowers (Floro & Ray, 1997), weaken the operations of SACCOS (Fiorillo, 2006) and also while the SACCOS philosophy is "savings and credit" linkage reduces the savings behavior among members (Ndiege et al., 2013). Consequently, while linkage has been considered as a potential practice for the financial inclusion development, no doubt it will be meaningful if it is sustainable practice that encourages the growth and survival of the institutions involved. But from these previous observations already there are indications that linkage may have also negative effects on the growth and survival of SACCOS, thus more studies are required to give broad understanding on the impacts of linkage on the performance of SACCOS, thus is the focus of this study.

According to Zeller and Meyer (2002), the performance of microfinance is measured in terms of outreach, efficiency and sustainability. In attempts to understand the effects of linkage on SACCOS performance, few previous studies attempted testing the effects on outreach of SACCOS (Kaleshu & Temu, 2012; Ndiege et al., 2013; Temu & Ishengoma, 2010). No empirical analyses were found testing the effects of linkages on other two elements that is, on efficiency and sustainability of SACCOS. Thus, this study is set to add knowledge on the relevance of financial linkage by examining whether financial linkage ensures greater sustainability for the SACCOS. The study used Operational Self Sufficiency (OSS) as a proxy measure for sustainability. OSS Signifies the ability of an institution to cover costs of operations through internally generated income whereby an increasing ratio is encouraged (Ledgerwood, 1998; Nawaz, 2010; Okumu, 2007; Tehulu, 2013). For the case of financial linkage the study has used the financial dependency ratio (DPR) as the proxy measure.

The study therefore, increases understanding on how linkages affect the performance of less-formal financial institutions and therefore it widens the discussion on linkage. Also the findings in this study are useful for SACCOS industry policy advocacy in Tanzania and other related country and thus are important in improvement of ongoing practices and decision making, particularly in using commercial loans in their portfolio.

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[3] Normally linkage stands for financial linkage and facilitating linkage (Pagura & Kirsten, 2006), but the financial linkage is the one which is significant in SACCOS industry (Kaleshu & Temu, 2012), and is what this paper referred to. A financial linkage, is the flow of funds between formal the less-formal financial institutions (Pagura & Kirsten, 2006).

[4] According to the Bank of Tanzania (BOT) report in the national financial inclusion framework, in 2012, SACCOS contributed 5% out of 22% of the proportion of the population formally included in financial system and thus important in national financial system development as well as economic growth.

2. Review of previous empirical literature

Generally, there are few empirical studies on the financial linkage between SACCOS and formal financial institutions. As also said by Kaleshu and Temu (2012), less has documented about linkage because it is a new practice in Tanzania. In particular, the works found on linkage between formal financial institutions especially commercial banks and SACCOS are Ndiege et al. (2013), Kaleshu and Temu (2012), Temu and Ishengoma (2010) and Fiorillo (2006). Kaleshu and Temu (2012) discussed the relevance of linkage between the two parties. The analysis was basically influenced by the noticeable growth of external funds to the SACCOS. Their analysis was more qualitative which complemented with simple descriptive statistics. Their conclusion was that commercial banks as well as SACCOS are incomplete in financial market, so they insisted for the joint actions between SACCOS and formal financial institutions especially commercial banks to be undertaken. The implication is that, less-formal financial institutions and commercial banks are supplementing each other and therefore partnerships should strengthen their operation (Piprek, 2007).

In Uganda, Fiorillo (2006) analyzed the impact commercial loans on the weak SACCOS. The study asserted that external funds do not help weak SACCOS become strong. The study concluded that, the external credit in weak SACCOS changes the orientation of the institution from savings-led to simply apparatus for the disbursement of external funds, which then in long run results in deterioration of loan portfolio quality. In similar observation in Tanzania, Temu and Ishengoma (2010) studied on whether there is difference in performance between SACCOS which had accessed loans from commercial banks and SACCOS which had not received. They found that there were no significant differences in the performance of those SACCOS which received loans from those which did not. However, they asserted that linkage increases interests on loans, consequently affect SACCOS performance negatively. That means, the relationship that leads to the expansion of formal credits may worsen the operations of informal institutions (Floro & Ray, 1997).

Ndiege et al. (2013) used regression to analyse how financial linkages affect outreach of SACCOS. The study asserted that linkage affects the operations of SACCOS by diverting from their principles.[5] That, if there is acute flow of loanable funds to SACCOS, which then need to be disbanded on time, the conditions for getting loans should be kept minimum which then will attract non members to join and take loan. For instance, savings which are the most important determinant of the amount of loan to be given to an individual borrower (Qin et al., 2013) will not be considered. From such arguments the expectations are that this creates negative effects in future like high credit risks which therefore lower the sustainability of SACCCOS. This observation based on the previous discussion like Goel (2013), that, unless co-operatives have stayed on these principles, they would not deliver enough for their members and communities as a whole. So according to Ndiege et al. (2013), as the possibilities of receiving commercial loans increase for the SACCOS, these institutions no longer insist on savings but concentrate on giving loans. That is, SACCOS are increasingly becoming "credit" institutions instead of "savings and credit" institutions and gradually more becoming agents of commercial banks, which at first interferes with the autonomy and independence principle.

3. Data and method of analysis

This study is built on the assumption that the contribution of microfinance into sustainable economic development depends on how far they are sustainable (Nyamsogoro, 2010). The study is set to test whether linkage in SACCOS affects their sustainability. To test this hypothesis we used financial statement for the year 2004–2011 of 60 audited SACCOS in Kilimanjaro region in Tanzania. All information was gathered from Co-operative Audit and Supervision Corporation (COASCO) reports. According to the Ministry of Agriculture, Food Security and Co-operatives (MAFC), in 2011 there were 219 SACCOS in Kilimanjaro (82 in urban and 137 in rural) and 80,704 members.

We treated sustainability as the dependent variable while financial linkage is the independent variable. The proxy measure for sustainability was adopted from previous literature like (Ledgerwood, 1998; Nawaz, 2010). As indicated in introduction section of this paper, the sustainability indicator is Operating Self Sufficiency (OSS) which calculated as total financial revenues divided by the expenses times hundred percent. In case of financial linkage we used the financial dependency ratio (DPR) as the proxy measure. We defined financial dependency ratio as external sources of funds divided by assets. External fund is divided by assets and not outstanding loan because possibly not all funds are channeled into the loan portfolio but some can be invested. Together with the defined variable we included other financial ratios that improved the goodness of models and can give more information. Table 1 presents the summary of variables used.

Data were analyzed using panel data regression model. The general panel data regression model[6] is identified as:

$$Y_{it} = \beta_{0i} + \beta_1 X_{1it} + \ldots \beta_k X_{kit} + \epsilon_{it} \tag{1}$$

where $i = 1\ldots N$ and $t = 1\ldots T$

$E(\varepsilon_{it}) = 0$
$\mathrm{Var}\,(\varepsilon_{it}) = \delta^2$
$E(\varepsilon_{it}\,\varepsilon_{i't'}) = 0$ if $i \neq i'$ or $t \neq t'$
$E(X_{jit}\,\varepsilon_{it}) = 0$ for all j, i, t

From Eq. (1), Y_{it} is explained variable, X_{kit} are explanatory variables (this means k regressors (X_s) varies across both individuals (i) and time (t)), β_{0i} is unknown intercepts and ε_{it} are error terms. Then the research model is as in Eq. (2).

$$
\begin{aligned}
(\mathrm{OSS})_{it} =\ & \beta_{0i} + \beta_1(\mathrm{DPR})_{1it} + \beta_1(\mathrm{ROA})_{2it} + \beta_3(\mathrm{FCR})_{3it} \\
& + \beta_4(\mathrm{ACR})_{4it} + \beta_5(\mathrm{LPR})_{5it} + \beta_2(\mathrm{OCR})_{6it} \\
& + \beta_6(\mathrm{YEAR})_{7it} + \beta_8(\mathrm{INFN})_{8it} + \beta_9(\mathrm{ETL})_{9it} \\
& + \beta_{10}(\mathrm{TLA})_{10it} + \beta_{11}(\mathrm{CAL})_{11it} + \beta_{12}(\mathrm{CTA})_{12it} \\
& + \beta_{13}(\mathrm{LTA})_{13it} + \epsilon_{it}
\end{aligned}
\tag{2}
$$

Then in each case we tested the hypotheses that:

$H_0 = \beta_1 = \beta_2 = \beta_3 = \ldots \beta_{13} = 0$

$H_1 = \beta_1 \neq \beta_2 \neq \beta_3 \neq \ldots \beta_{13} \neq 0$

(H_0 and H_1 are not opposite, i.e. the opposite of H_0 is H_1: $\beta_i \neq 0$ for any $i \in \{1, 2, \ldots, 13\}$ (not all $i \in \{1, 2, \ldots, 13\}$)).

When dealing with panel data the researchers must choose between fixed effects (FE) and random effects (RE) model by

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[5] Co-operative principles are defined by the International Co-operative Alliance (ICA), 1995. They are Voluntary and open membership, democratic member control, members' economic participation, autonomy and independence, education, training and information, cooperation among Co-operatives and concern and community.

[6] See econometric literature like Gujarati (2004).

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Table 1
Descriptive statistics of variables used in models.

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Operating Self Sufficiency (OSS)	399	−24.40	599.72	141.6302	65.48173
Dependency ratio (DPR)	399	0	0.8226214	0.0880053	0.1632708
Operating Cost Ratio (OCR)	399	0.00	0.42	0.0898	0.05730
Return On Assets (ROA)	399	−0.19	100.00	14.1138	10.74192
Financial cost ratio (FCR)	399	0.00	0.11	0.0142	0.02003
Administration cost ratio (ACR)	399	0.00	0.40	0.0635	0.04630
Loan provision ratio (LPR)	399	0.00	0.09	0.0125	0.01313
Year	399	2004	2011		
Internal funds (INF)	399	1,032,048.00	1.67E9	1.5114E8	2.27237E8
Equity/total liabilities (ETL)	399	−0.54	54.89	0.6476	4.30647
Total liabilities/current assets (TLA)	399	0.07	3.76	0.9418	0.28001
Current assets/current liabilities (CAL)	399	0.27	13.93	1.2032	1.04803
Cash/total assets (CTA)	399	0.00	0.96	0.1711	0.16156
Loan/total assets (LTA)	399	0.02	1.00	0.7093	0.20463

Table 2
Model specification tests.[a]

H_0: That random effect would be consistent and efficient			
	Chi-square	Probability of chi-square	Decision
OSS model	52.03	0.000	Reject H_0

Autocorrelation test
H_0: No serial correlation

	$F(1, 57)$	Prob > F	Decision
OSS model	15.437	0.0002	Reject H_0

Heteroskedasticity test
H_0: Constant variance

	LR Chi^2 (57)	Probability of chi-square	Decision
OSS model	79.79	0.0004	Reject H_0

Unit root test
H_0: Unit root

	Chi-square	Probability of chi-square	Decision
OSS model	390.6591	0.000	Reject H_0

[a] Fisher Test for panel unit root uses "xtfisher depvar" syntax while likelihood-ratio (LR) test uses "lrtest hetero homosk, df('df')", Wooldridge test uses "xtserial" and Hausman test "Hausman FE RE". Reader can see all these stata commands in Sanchez (2012).

applying Hausman test.[7] Therefore, we performed Hausman test with a null hypothesis that both two estimation methods are good enough and they yield similar coefficients and, therefore, we are supposed to use random effects model. The alternative hypothesis is that the fixed effects estimation is satisfactory and the random effects estimation is not. Chi-square distributions guided the researchers to reject or not to reject null hypothesis.

Also, panel data regression analysis requires that the values of dependent variable to be different from each other at two different periods (Nyamsogoro, 2010). If the regression is conducted while the values have a unit root the results lack economic meaning. Then unit root was tested using Fisher test for panel unit root which is use an augmented Dickey-Fuller test (Sanchez, 2012). Moreover, serial correlation in linear panel-data models biases the standard errors and causes the results to be less efficient (Drukker, 2003). Also when heteroskedasticity is present the regression coefficient estimates will be consistent but the estimates will not be efficient (Baltagi, 2008). Thus, the researcher identified autocorrelation and heteroskedasticity. In case of autocorrelation Wooldridge test was used. The null hypothesis tested is that there is no first order-autocorrelation. Heteroskedasticity was tested

[7] See econometric literature like Gujarati (2004).

using likelihood-ratio (LR) test, which tests for null hypothesis that there is constant variance in all panel data.

The Hausman test results chose fixed effect models as summarized in Table 2. Moreover, from the table the OSS model suffers both autocorrelation and heteroskedasticity problems. As such we chose to apply Standard error robust as correction measure (Sanchez, 2012). In case of the unit root test, null hypothesis was rejected in all models, indicating that the independent variables were stationary.

4. Empirical results and discussion

The researchers started by looking on the nature of linkage in Tanzanian SACCOS as in Fig. 1. The graphs of DPR (which is external loans divided by assets) and savings divided by assets indicate that: firstly, because we study the same SACCOS between 2004 and 2011 the number of SACCOS involved in linkage is growing with time (for example, compare the red line for the year 2004 and 2011). Secondly, the commercial loans do not complement savings in loan portfolio (the main assets of SACCOS is loan disabused) but rather substitute. This is because at any point when the DPR is sharp upward the savings per assets is sharp downward.

Also because Fig. 1 shows that financial linkage increases with time we went forward by looking if the size of SACCOS has relationship with level of linkage.

Fig. 2 shows the changes in the size of SACCOS measured in asset size. From the figure, if you compare the year 2004 and 2011 one can see that the assets are growing with time. Moreover, Fig. 1 shows that linkage is higher in 2011 than in 2004. Such that both figures together show that external sources of finance have significant size in SACCOS assets, which is normally a determinant of the size. The implication here is that perhaps at large the growths of SACCOS reflect growth of flow of money from formal institutions and not by increasing savings.

Then Table 3 is the summary of the regression results for financial linkage and sustainability.

The results indicate that the relationship between DPR and OSS is negative and highly significant. This shows that the expansion of external funds lowers sustainability of SACCOS. So, while we agree with Kaleshu and Temu (2012) that linkage has increased liquidity in rural areas in recent years, this finding indicates that the phenomena might be a short term strategy because the institutions would not be sustainable if the linkage will be left uncontrolled by both policy makers and practitioners. The reasons seem to be moral hazard and interest risk problems. In the first problem, expansion of financial linkage in SACCOS reduces savings motives because there are always enough funds in the institution and more importantly formal funds must be disbursed as soon as they are received to avoid loss (as we focus on financial costs). So this
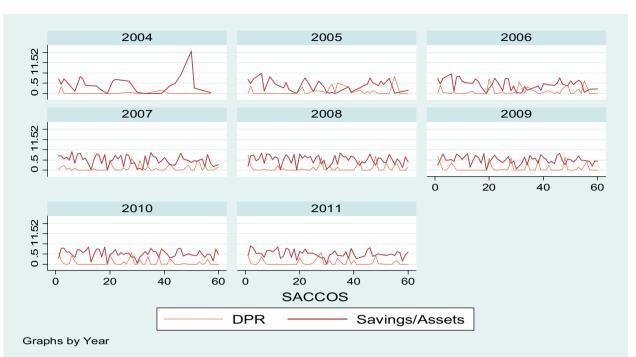
Fig. 1. The growth and financial linkage in SACCOS. (For interpretation of the references to color in text, the reader is referred to the web version of this article.)

results in two things; one, while the expectations are that through members co-operation SACCOS motivate savings which is principally the source of loanable funds (Nyamsogoro, 2010; Okumu, 2007) and the means for credit rating (Absanto & Aikaruwa, 2013), the push toward reducing savings motives eventually endangers their loan recovery processes and financial performances. Two, there is always a possibility of misallocating or deviating funds to unplanned projects, because there is increasing possibility of poor evaluating borrowers capacities as money is lent under pressure.

This obstructs the operations of SACCOS and possibly if it continues for long time, it is possible that debt burden would grow to be unbearable hence hinder their future development.

In the second problem, the expectation is that through co-operation members receive less expensive financial services particularly loans. But when SACCOS borrow from other financial institutions they charge additional interest rates on top of the one required by the lenders of SACCOS (Fiorillo, 2006; Temu & Ishengoma, 2010). This means prices of loan from external sources
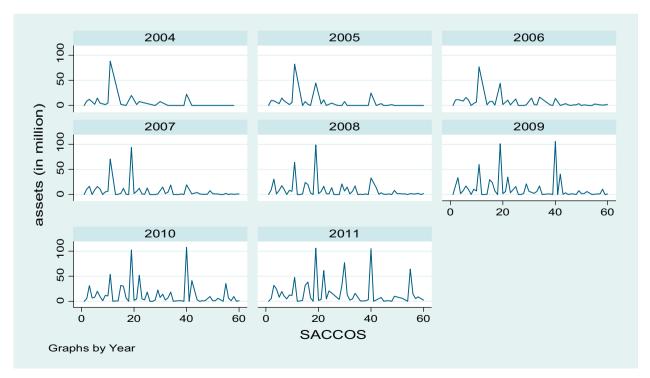

Fig. 2. The SACCOS assets size growth.

Table 3
Coefficients of relationship between linkage and sustainability.

Variable	Operating self sufficiency (OSS)
Dependency ratio (DPR)	−39.749 (−2.43)**
Operating cost ratio (OCR)	−534.173 (−2.69)*
Return on assets (ROA)	2.173462 (3.09)*
Financial cost ratio (FCR)	−63.957 (−0.25)
Administration cost ratio (ACR)	50.75939 (0.20)
Loan provision ratio (LPR)	−698.14 (−1.90)***
Year	−4.976773 (−2.75)*
Internal funds (INF)	1.98e-08 (1.56)
Equity/total liabilities (ETL)	0.1510636 (0.17)
Total liabilities/current assets (TLA)	66.32089 (1.42)*
Current assets/current liabilities (CAL)	2.197739 (0.49)
Cash/total assets (CTA)	111.8381 (1.59)
Loan/total assets (LTA)	119.5935 (2.15)**
Constant	9990.507 (2.77)*
Observations	399
No. of groups	60
R-square	0.28
$F(13,59)$	5.01
Prob. $> F$	0.0000

Note: t-values are in parenthesis. *, **, and *** indicate significant level at 1%, 5% and 10% respectively.

are higher than that from internal sources. As such, commercial funds from formal financial institutions increase costs of borrowing in SACCOS, the situation that might increase the financial risks. But again there is competition in rural financial markets in which SACCOS are involved (Belgrave, Craigwell, & Moore, 2002; Emmons & Schmid, 2000; Gachora, 2012; Yussuf, 2013). So as SACCOS use much of commercial loans in loan portfolio, they become less privileged in the market because of higher loan prices charged (Auka & Mwangi, 2013).

Moreover, total liability current assets ratio, cash-total assets ratio and loan-assets ratio are positive and significantly affect the level of sustainability of SACCOS. These are indicating the need for SACCOS to allocate much of its assets in current assets than in fixed assets. If more money is given as loan, it could be more productive than if it is invested in fixed assets. Moreover, internal funds, equity-total liability ratio show positive influence on sustainably though they are not significant enough to explain variability of sustainability in SACCOS. Similar to the observation by Nyamsogoro (2010) and Tehulu (2013) the positive sign found in these variables indicates the relevance of SACCOS dependence on internal growth rather than external forces.

5. Conclusion

The objective of this paper was to show whether financial linkage has significant impact on sustainability of less-formal financial institutions. The study used SACCOS data from Tanzania, which therefore takes into account the co-operative institutions characteristics. The results indicate that the higher the level of financial linkage the lower the sustainability of SACCOS. As such, firstly the study contributes knowledge on relationships between financial linkage and the performance of less-formal financial institutions. Secondly the practical significance of this study is that the Tanzania government recognizes SACCOS as one of the strategies for the national development and poverty reduction, for instance it has been mentioned in national development programs like National Strategy for Growth and Reduction of Poverty (NSGRP) and Zanzibar Strategy for Growth and Reduction of Poverty (ZSGRP). That means the sustainability of SACCOS is much relevant in ensuring economic development. As such this study shed the light on the possible effects of the current co-operation between formal financial institutions (especially commercial banks) and SACCOS. Thus the observation made in this

study is important in improving regulations and supervisions of SACCOS.

The researchers suggest that, policy makers should determine the maximum amount of external funds that could be received by SACCOS as commercial loans which cannot affect the future growth of SACCOS. For this suggestion therefore, more studies are required to determine the thresholds level of external funds which SACCOS can borrow from formal financial institutions while remaining sustainable or increasing its sustainability. Also the SACCOS members and their officials through their management organs like General Meeting (GM) should discourage dependency on commercial loans especially from commercial financial institutions. In fact, SACCOS should not move away from the philosophy of "save then borrow", which actually have made them unique institutions. That, by depending on internal sources of funds SACCOS will have slow but steady growth.

Acknowledgment

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