

# Deprivation of Access to Financial Capital Through Rural Organizations and Its Contribution to Multidimensional Poverty in Nyakagabagaba, South-western Uganda

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## Abstract

Financial capital refers to the financial resources that people use to achieve their livelihoods. This article presents an explanation of rural organisations as a strategy for accessing financial capital needed by rural dwellers to improve their livelihood. A study done in Nyakagabaga affirms that rural organisations play an important role in enabling members access financial capital needed to make use of other livelihood assets. Analysis of deprivation in livelihood capital components predicting influence of rural organisations in access to financial capital aids the discussion of income strategy employed upon access to the resource pool. Whereas majority of those deprived in human, physical and natural capital components are more likely to consider rural organisations not influential in access to financial capital needed to meet their livelihood needs, those deprived in social capital are less likely to consider rural organisations not influential in access to financial capital. All in all, it is concluded that rural organisation enhance access to financial capital deprivation of which contributes to multidimensional poverty.

**Keywords:** Financial capital, rural organisations, cooperatives, associations, multidimensional poverty

## 1. Introduction

Over the past decade, most research done in the context of improving agricultural production, wellbeing of rural dwellers and rural development in general commend access to finance as a means of enabling rural dwellers meet their needs. Financial cooperatives and associations whose aim is enabling rural dwellers meet their financial needs have in recent years increased in numbers due to the apparent need to fill the financial capital gap in rural areas. These rural organisations have played an important role in enabling members access financial capital needed to make use of other livelihood assets for a sustained livelihood.

Financial capital in the livelihood framework perspective refers to the financial resources that people use to achieve their livelihoods. Financial capital is important in such a way that when available, it can be transformed into other resources or capitals hence enabling people improve their livelihoods and overcome poverty (Simmons and Birchall 2008, Ansha 2014).

Like in many rural areas elsewhere, financial capital in rural Uganda is a rare resource mainly due to its versatility. Uganda's financial system is generally composed of formal, semiformal and informal institutions. Formal institutions serve a meager 14% of the rural population (Iwumbwe 2015) with an elevated interest rate on loans averaging 23.5% as of June 2016. The apparent high rate may be the reason for low level of credit. Uganda's National Financial Inclusion Strategy 2017-2022 indicate that 76% of adults in urban areas have access to financial service, whereas only 49% of the adults rural population (which is 71.5% of the national population<sup>1</sup>) have access to financial service. Uganda's rural financial system is mainly characterised by semiformal and informal institutions. Semiformal institutions include financial cooperatives like Savings and Credit Cooperative Societies (SACCOs) and other Microfinance institutions. Informal institutions on the other hand are mostly Village Savings and Loans Associations (VSLA), Rotating Savings and Credit Association (ROSCA) and Accumulating Savings and Credit Associations (ASCA).

Zhao (2010) expresses that "multi-rural financial service system based on cooperative finance is the effective measure to solve the supply insufficient problem in rural finance". Savings and Credit Cooperative Societies (SACCOs) were established to extend affordable financial services to the rural poor following the government's call for provision of affordable financial services to the poor in rural areas. Cooperatives in Uganda have since registered more and more members over the years with increased income increasing the likelihood of member participation (Mpiira et al. 2013).

According to the Finscope Report of 2013, some Ugandan's do not borrow due to fear of debt, high cost of loan and lack of collateral yet still lack of income and knowledge on saving excludes majority Ugandans from saving and investment. In line with Yeung, He, and Zhang (2017) recognition that limited funds unable to meet the demand for credit in rural areas resulted into informal loans substituting formal loans thus the rise of informal banking in China, Uganda's case is not very different since formal financial services can only be accessed by a few and mostly urban dwellers. The number of SACCOs in the country increased from 5601 in 2009 to 8455 as of 10th

<sup>1</sup> Uganda Bureau of Statistics. National Population and Housing Census 2014. Provisional Results.

July 2017. On the other hand, the number of VSLAs, ROSCAs and ASCAs with a savings and credit component has greatly increased to a figure not known due to the informal nature of these association.

Despite efforts made to achieve financial inclusion, financial capital needed by the rural dwellers is still wanting in terms of access and accumulation hence the low number of rural dwellers with access to finance. Increased number of, and membership in SACCOs and associations presents the strategy that rural dwellers are adopting to overcome the livelihood challenges emanating from limited access to and acquisition of financial capital to support both agricultural and non agricultural activities undertaken. Therefore, how rural dwellers are gaining access to financial capital and the income strategy for savings and credit accessed through rural organisations is the focus of this study. Do rural organizations enhance access to financial capital needed to reduce multiple deprivations? Research on financial cooperatives and associations is found lacking in terms of their role in enabling access to financial capital whose deprivation contributes to multidimensional poverty. Closely related studies assess the role of financial institutions in improving people's livelihood (Tenaw and Islam 2009) without regard to the multidimensional nature of poverty viewed in the lens of livelihood capital deprivations.

Financial capital deprivation does not proxy poverty and access to financial capital alone cannot solve the poverty problem. In order to assess the access of financial capital (one of the livelihood assets) accessed through rural organisations and the contribution of financial capital deprivation to multidimensional poverty, this study dwells on concepts borrowed from the DFID Livelihoods Framework. The contribution of financial capital deprivation to multidimensional poverty is determined using the AF method (Alkire Foster method) as part of the assessment of the contribution that each livelihood asset deprivation makes to multidimensional poverty. Income or return from livelihood activity was considered as one of the financial capital component due to the established relationship between income poverty and multidimensional deprivation (Ayala, Jurado, and Perez-Mayo 2011).

Using both qualitative and quantitative data collected, this study also expounds on the loan products offered by rural organisations and the income allocation strategy adopted by members to illustrate how the financial capital accessed through rural organisations is transformed into other livelihood capitals. The study employs a mixed method in a nested manner as the exploration of contribution of financial capital deprivation to multidimensional poverty is embed in the explanation of rural organisations as a livelihood strategy for accessing financial capital needed by rural dwellers to improve their livelihood.

## 1.1 Rural financial system in Uganda

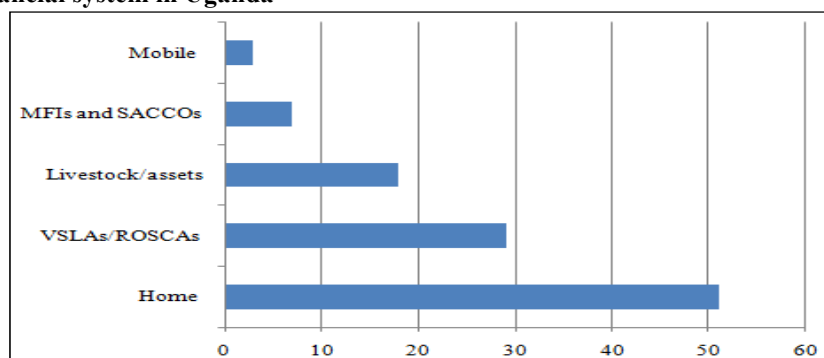


Figure 1: Forms in which savings were made in 2013<sup>1</sup>

Majority Ugandans especially rural dweller do not have bank accounts because they lack money to save and more rural dwellers are excluded from both the formal and informal financial system as compared to their urban counterparts. In line with Yao and Liu (2011), (Yaron, Benjamin, and Piprek 1997) expression of the need to promote and support the development of an integrated rural financial market for the development of rural economy, the government through the current National Financial Inclusion Strategy 2017-2022 intends to create an environment for the development of financial institutions aimed to improve the rural financial system. Informal financial institutions are best-positioned to ease financial exclusion in rural areas due to the current inadequate infrastructure in remote areas to support formal financial institutions. The National Financial Inclusion Strategy 2017-2022 indicates that rural adults are twice as likely to dwell on informal groups for financial services as compared to their urban counterparts and are 1.7 times more likely to be completely excluded from financial services.

## 1.2 Importance of financial rural organisations

### 1.2.1 Access to capitals

Previous research highlights the important role played by financial institutions in particular financial cooperative

<sup>1</sup> Adopted from the National Financial Inclusion Strategy 2017-2022

regarding: agricultural technology adaptation (Abate et al. 2016, Gashaw Tadesse et al. 2015); health financing (Feng et al. 2014); financial services (Sen 2006); food security and human productive and income capacity (Schrieder and Heidhues 1995).

### 1.2.2 Reduce poverty

Rural financial institutions especially microfinance and financial cooperatives have for long been considered crucial for fighting poverty in rural areas. Development organisations and government agencies partner with local cooperatives to help people improve their wellbeing and reducing poverty (Wang and Xin 2010, Worz and Engel 1998). Gomina and Ngari (2015) confirm that increased access to income is central to reducing poverty and urge non-governmental organisation and local government council to further boost income diversification through creating and enabling environment that supports and enhances farmer participation in SACCOs

## 2 Data and procedure

The study employed a mixed methods with no sequential data collection procedure as both qualitative and quantitative data was collected concurrently but analyzed separately. Priority of this study is skewed towards a qualitative discussion of how rural organizations enhance access to financial capital needed to reduce multiple deprivations. The quantitative inquiry on the contribution of financial capital deprivation to multidimensional poverty is embedded in the elaboration on how access to financial capital through rural organisations has improved the livelihoods of rural dwellers in Nyakagabagaba.

Data was collected from 5 villages selected at random out of 13 villages in Nyakagabagaba parish. Key informants including Local Council (LC) chairpersons of the 5 villages and 2 cooperative managers of the only 2 financial cooperatives in the parish were engaged in an in-depth interview. The two cooperatives are Rukiga SACCO (Rwamucucu branch) and Kihanga SACCO. 20 respondents (10 males and 10 females) from each of the 5 villages were interviewed making a total of 100 respondents. The sample was statistically significant and emphasis was given to qualitative depth of information collected. Great emphasis was put on access to the resource pool and decisions that members take in relation to using the resource pool for loan, consumption, reproduction, acquiring more assets, and reinvestment into the pool. Hence the income strategy, allocation of accumulated resources to competing demands was investigated. Semi-structured interviews were used to collect information on assets possessed and accessed, activates undertaken, intended use and allocation of resource pool, previous allocation of pooled resources in addition to social and demographic information.

### 2.1 Alkire Foster(AF) measure and variables

The Alkire Foster multidimensional methodology identifies the poor using a 'dual cutoff' method (Alkire and Foster 2011). The AF method is applied, to evaluate the contribution of financial capital deprivation to multidimensional poverty in Nakagabagaba. Whereas the livelihood framework treats each livelihood outcome (5 capitals) separately, the AF method provides an aggregate measure of multidimensional poverty.

The 7 dimensions adopted are derived from the 5 capitals and the 16 indicators used are adopted using the DFID Guidance Sheets' subsequent sections on the information required to analyze the various capitals. The indicators are chosen considering information relevant to this study. Having determined the deprivation cutoff (poverty line) for each indicator, the poverty line was applied and personal achievement replaced with their respective status with respect to each cutoff in terms of 1 for deprived and 0 for nondeprived. The study does not assume equal weights as some indicators are considered more important in the wellbeing of people. Having assigned weights to all indicators, the number of deprivations per person was established. A second cutoff,  $k$ , was then set at 40% (after a robust analysis) giving the number of dimensions in which a person must be deprived in order to be considered multidimensionally poor. Cutoff  $k$  was applied to obtain the set of multidimensional poor persons and all nonpoor data was then censored. Focusing on the profile of the poor and the dimensions in which they are deprived enabled calculation of the Headcount (H), the Average Poverty Gap (A), and the Adjusted Headcount (M0). Adjusted Headcount Ratio =  $M0 = H * A$ . The M0 was later decomposed by village to compare financial capital indicators across sampled villages in Nyakagabagaba and broken down by dimension to study the contribution of each indicator to multidimensional poverty. For this study, focus is put on financial capital indicators.

Exploring the explanation of rural organisations as a pathway to obtaining financial capital needed to access other livelihood capitals components needed by rural dwellers for their wellbeing, the focal variable is the censored deprivation score ( $n=96$ ), the multidimensional deprived sample. Inference is made to rural organisational influence in access to financial capital components (indicators in the multidimensional poverty measure) with response categories of 0 for rural organisations influential in access to financial capital component and 1 for rural organisation not influential in access to financial capital component (in other words 1 denotes: deprived in access to financial capital component through rural organisations). The financial capital components referred to are: 1) earning and remittances (income); and 2) control over earning. Analysis of deprivation of access to financial capital through rural organizations and its contribution to multidimensional poverty entails assessment of likelihood that

the deprived in a given livelihood capital (or capital components) consider rural organisations not influential in access to financial capital.

#### 2.1.1 Earning and remittances (income)

Income is the regular inflow of money entailing returns from livelihood activity engaged in, in addition to remittances received and savings in form of cash or liquid assets in monetary terms at the end of the year. This indicator was awarded weight of 1/10. An individual is deprived if his/her regular inflow of money is less than UGX 500,000. Analysis of earnings and remittances in relation to their access through rural organisations entails comparison between the deprived and non deprived in regular inflow of money against influence of rural organisations in acquisition of this financial capital component assessing whether the non deprived report rural organisations influential in access to earning and remittances.

#### 2.1.2 Control over earning and remittances

This financial capital component entails the respondent's ability to decide on the income strategy adopted. Analysis of control over income in relation to rural organisation influence focuses on access to the resource pool and decisions that members take in relation to using the resource pool. The overall importance of rural organisation in financial capital accumulation expressed through rating (1-5, 5 being financial capital mostly accessed through rural organisations) and control over earning and remittances is studied. This aids the elaboration on things that consumed a big proportion of earnings and/or remittances or forced the respondent to seek financial services in form of loan.

## 2.2 Financial system and saving behaviour in study area

### 2.2.1 Savings and Credit Cooperative Societies (SACCO)

There are only two cooperatives operating in Nyakagabaga and majority residents are members in one of them that is nearer. Rukiga SACCO, Rwamucucu branch is more accessible to villagers in the study area since in addition to being nearer to the villages under study, it also opened up a savings office in a trading center serving the 5 villages selected. Just a handful of residents are members in Kihanga SACCO hence the monopolization of Rukiga SACCO and the lack of financial market competition to enhance innovation in financial services extended to members. Financial services offered are:

**Member training** in agricultural production and financial literacy. Member training is offered by both SACCOs in the Parish and trainers are sourced by the cooperatives. Trainings are funded by the SACCOs using the fund set aside as per the cooperative societies regulations. As for Rukiga SACCO, some trainings are provided to members for free by AGRITERA a development organisation in collaboration with Micro Finance Support Center.

**Loans** with loan products including: commercial business loan; agricultural loan; emergency loan; school fees loan; home improvement loan; Bodaboda loan; and character loan are offers to members. Whereas all other loans are offered by both SACCOs in the study area, character loans and bodaboda loans are not offered by both. Character loans are only offered by Rukiga SACCO, and Bodaboda loans are offered by Kihanga SACCO. All these loans have different requirements that are to be met by members. Character loans are offered to women groups of 10 members with no collateral. Whereas emergency loans offered by Kihanga are interest free but repayable in only 1 month, emergency loans for Rukiga SACCO are charged 5% interest and also repaid in one month.

**Mobile money services** are offered by Rukiga SACCO for free to ease receipt of remittances for members. This service helps members receive large amount of money that is not always readily available with local mobile money agents who in most cases have limited cash flow.

**Agricultural inputs** were previously given to members by both cooperatives but this service was stopped as the cooperatives received continuous complaints about the quality of seed provided. Both cooperatives resolved that members be given cash loans to buy inputs of their choice.

### 2.2.2 Village Savings and Loan Associations (VSLA)

There are quite a number of VSLA locally known as "*Bika guza*" literally meaning save and borrow. Most of these are informal financial institutions in that majority are registered locally at Parish level. Most VSLAs have accounts with the SACCOs but some pool money and lend money out of the collected amount to members in need of credit priority given to those with most pressing needs. All associations have a safe kept by the treasurer in which money collected but not lent out to members is kept. The local associations operate more less like cooperatives but these are not registered by the registrar of cooperatives. The associations democratically elect their leaders and have bye-laws that govern their operations. The main aim of VSLAs is to enable members contribute to the pool through savings in addition to obtaining short term loans at an interest rate of 2.5% with seasonal repayment. Association members understand good principles of credit use, and they obtain credit from the associations in order to access and or accumulate other capitals vital for their wellbeing.

### 2.2.3 Rotating Savings and Credit Association (ROSCA) and Accumulating Savings and Credit Associations (ASCA)

There are other several associations with a savings and loan component in Nyakagabagaba mainly formed depending on the livelihood activities and interests of residents. These include but are not limited to:

**Women farm labour groups:** these are formed by a couple of women who provide garden preparation, planting, weeding and harvesting services to village residents at a fee. They charge a flat fee depending on the farm size and the kind of service offered. Weeding is charged less than tilling the land. The more complex the task the higher the amount of money charged. These farm labour groups work the land and are paid during harvest season after the farm owner has sold the produce. These associations operate this way in order to ease service delivery providing prepaid services to nonmembers who might not be in position to pay in planting season due to limited financial resources. This is also used as a saving mechanism as the associations keep their would be payments with the farm owners convicted that the farm owners will pay when time is due. In case of bad harvest, members are at risk of sharing part of the loss since they have to be lenient to the farm owner. This mechanism allows the labour groups to collect a large amount of money due to them during the harvest period and this is saved and can be borrowed by members with a an interest of 2.5%. The savings are shared among members at the end of the year and all members have control over the money earned.

**Beef groups and Rice groups:** these two groups operate separate but are similar to in operation. Group members pool money monthly and the money saved is given to members in need of credit as a mechanism of profit accumulation through interest on loans. At the end of the year, the beef group buys beef and the rice group buys rice for members to feast on during the Christmas season.

**Home improvement groups:** whereas some home improvements associations usually made up of women pool money weekly to buy household items on the open market day, others composed of both men and women open up an account with the SACCOs on agreement that the cooperative will buy the association members items agreed on. In all home improvement associations, money is pooled for members to obtain needed household items. Things that the SACCOs have bought on behalf of members in given associations include mattress, blankets, chair cushions among others.

**Catering service provider associations** are made up of majority women and a few men. These mainly provide catering services at social events in the villages. These groups save all the money earned from the service provided and also lend out to members at a low interest rate. The money pooled over the year is shared among members at the end of the year.

**Welfare associations** that provide welfare services to members and their dependants. These associations include: 1) *kwezika* associations that helps foot all the burial function expenses. In case more money is needed, the association borrows money from the SACCOs on behalf of the bereaved family. The association maintains a minimum balance below which money cannot be lent out to members for the association to have money in case of any emergency. 2) *Mbaho* groups that mainly accumulates money to buy burial materials like timber for making coffin and white cloth for covering the coffin in case a member or their beneficiaries die. This saves the bereaved family some burial expenses to give their loved one a decent burial. 3) *Ngozi* or *kweheka* associations provide traditional or local ambulance services using a stretcher and or motorcycle or car to help transport sick members or their beneficiaries to hospital. Members in these associations meet monthly and contribute UGX 500 to the pool on every meeting. The resource pool is meant to facilitate the association's functions regarding transportation of the sick to hospital. Money pooled is also lend out to members in need for the association to gain interest increasing their current asset.

**Security associations** are more recent and are registered at parish level. There are only two security related associations *viz.* *mbwa* (dog) and *batungi bahingi* (farmers and herders). Members in these groups pool money to hire a police dog in case of theft. This association has help reduce the number of theft cases in Nyakagabagaba.

## 3 Descriptive statistics of the data

### 3.1 Access of financial capital through Rural organisations

When asked to rate access of financial capital through rural organisations on a scale of 1-5, 5 being financial capital mostly accessed through rural organisations, 96% of the sample rated access to financial capital through rural organisations 4 and above implying that only 4% of the sample do not consider rural organisations influential in access to the financial capital needed for their livelihood. 57% of the sample was multidimensionally poor with more women (59%) than men (41%). Only 2% of the multidimensionally poor did not access their financial capital through rural organisations.

### 3.2 Contribution of financial capital deprivation to multidimensional poverty

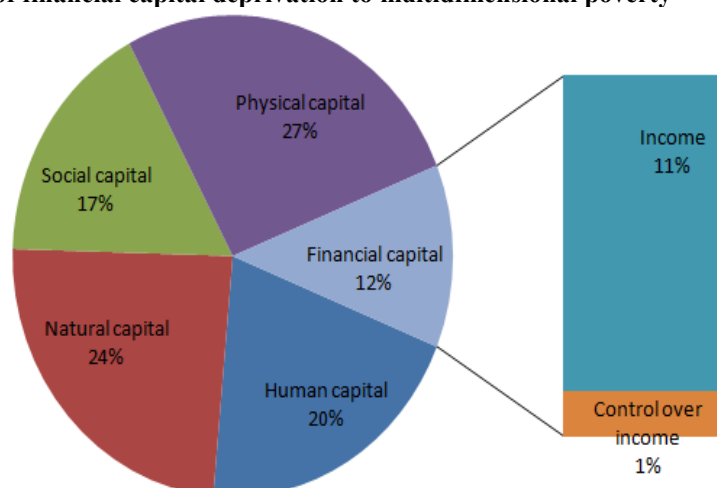


Figure 2. Contribution of livelihood assets deprivation to multidimensional capital

Financial capital deprivation contributes the least (12.4%) to multidimensional poverty with 11.8% deprivation on income and only 1.5% deprivation in control over income. While 36% of the multidimensionally poor (96 % of the sample) are deprived in income, only 5% of the poor have no control over their income. All those deprived in income consider rural organisations influential in access to financial capital while 3% of the non deprived in income (61% of the multidimensionally poor) do not consider rural organisations influential in access to the income they behold. Also, none of those with no control over their income reported that rural organisations are not influential in access to financial capital.

### 3.3 Savings behaviour and credit access

Both association and cooperative members save money with the rural organisations they belong to. SACCO members save more compared to association members. Whereas most association members just pool the minimum amount required in the stipulated time, SACCO members who in most cases have a reliable regular flow of income buy more shares and save more since they in most cases have intentions to borrow from the SACCO to support their livelihood activities and cannot borrow more than saved. Most rural dwellers belong to more than three associations and most associations have shares in SACCO where they save the money pooled. Almost all associations have a saving and credit component (bika guza) hence members are able to borrow from various associations that they belong to. Some associations whose main aim is to buy specific items enable members to save and buy things that they cannot afford to get money at once to buy. All rural organisation with a savings component encourage members to save more since the more they save, the larger the portion they get at the end of the year. Good savings enable members to invest and or buy substantial things like goats, land, cattle, solar among others.

Money borrowed can easy be transformed into any livelihood capital component like tools and farm inputs. Generally, money is borrowed to pay school fees, medical bills, and solve several minor emergencies that involve spending. Only small amounts of money can be borrowed from the associations since associations have limited savings from members and some associations have to maintain a given amount of money for disposal when need arises. Only small amount of money can be borrowed hence there is not a single association that lends money enough to buy things like land. Rural organisations also encourage members to borrow and support their economic activities which not only benefit members but the organisation as well as money borrowed is charged interest. Sometimes members fail to pay back the loans. All rural organisations require that borrowers have security and/or guarantor(s) to aid loan recovery in case a borrower fails to pay back the loan. With no security, members cannot borrow more than they have saved.

All rural organisations with a savings and credit component close at the end of the year. All money borrowed have to be paid back before end of the year. For SACCOs, dividends are shared depending on the number of member's shares. Other associations share the pooled resources among individual members who either decide how they spend their money or according to the association aim, obtain the item(s) saved for.

## 4 Findings and discussion

Heidhues, Belle-Sossoh, and Buchenrieder (2002) concurs with previous research that the transaction costs in group lending are lower than those in individual lending. This is true for both Kihanga and Rukiga SACCO dealing with both groups and individuals in extending credit and collecting savings. The two SACCOs concur that while dealing with groups, loan recovery becomes easy as each of the group member contributes to the loan defaulted

by a member. Members also help in the decision making process as to how much their member in need of loan is able to handle knowing well that failure to repay the loan affects each individual member. This helps reduce loan processing transition costs as Loans Officers are helped by the group to make decisions regarding loan application hence saving the cooperative costs associated with transport and communication in remote areas with poor infrastructure. Heidhues, Belle-Sossoh, and Buchenrieder (2002) conclusion that micro finance organisations that lend directly to individuals perform better than those using groups to offer financial services does not consider gender groupings. Rukiga SACCO recently started lending to women groups even without collateral basing on their widely known trustworthy nature and greater social impact (Aggarwal, Goodell, and Selleck 2015)

Table 1: Sample size, percentage, Fisher's exact, and Cramer's V test on Financial capital variables

Financial capital variables	RO influential in access to financial capital component	RO not influential in access to financial capital component	Fisher's exact	Cramer's V
<b>Income</b>			0.532*	-0.1105
Non deprived of income				
Yes (n)	59	2		
Yes%	96.75	3.28		
Deprived of income				
Yes (n)	35	0		
Yes%	100	0		
<b>Control over income</b>			1	-0.0342
Have no control over income				
Yes (n)	89	2		
Yes%	97.8	2.2		
Have control over income				
Yes (n)	5	0		
Yes%	100	0		

P<0.5

All those deprived in income consider rural organisations important for their livelihood and only 3.3% of those not deprived in income consider rural organisations not influential in access to financial capital. Likewise, none without control over income considers rural organisations not influential in access to financial capital and about 98% of the multidimensionally poor have control over their income and agree that rural organisations are important in as far as access to financial capital is concerned. This denotes that rural dwellers in Nyakagabagaba consider rural organisations key in enabling access to financial capital. As non of the male had no control over income, access to financial capital through rural organisations has enabled rural dwellers especially women engage actively in various livelihood activities enhancing their control of returns from their production or labour in confirmation with (Igbedioh 1996, Shapiro et al. 2000) that increased access to income and control over income enables optimal use of household resources for the wellbeing of household members. People deprived in income were twice likely to consider rural organisations not influential in access to financial capital and also had 17.2 times the odds of being multidimensionally poor than the non deprived in income. Gomina and Ngari (2015) emphasis on the need to support rural organisations for increased income and poverty reduction is confirmed.

#### 4.1 Financial capital transformation and Current levels of savings and loans

Financial capital being a versatile capital in that it can be transformed into other capitals, this section elaborates how access to financial capital through rural organisations enables members in various rural organisations access other capitals or assets needed for their livelihood.

##### 4.1.1 Financial access and human capital

Table 2: Regression analysis for deprivation in human capital components (Knowledge and skills; hospital and healthcare access; and child education) predicting influence of rural organisations in access to financial capital

RO not influential in access to financial capital	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
Knowledge and skill satisfaction	0.057543	0.040303	1.43	0.157	-0.02244 0.137524
Longstanding illness and in severe pain	0.062708	0.03898	1.61	0.111	-0.01465 0.140061
Hospital visit & access to preventative healthcare	0.000984	0.083702	0.01	0.991	-0.16512 0.167087
cons	-0.03148	0.038191	-0.82	0.412	-0.10727 0.044313

P<0.5

Regarding the relationship between access to financial capital through rural organisations and access to or deprivation of human capital components (human capital indicators) used in the multidimensional poverty measure of this study, the more people are deprived in human capital, the more they are likely to consider financial capital access through rural organisations not significant. In other words, people who were deprived in knowledge and skills, and those with longstanding illness or in severe pain in addition to those that were deprived in hospital visit and access to preventative healthcare (although this indicator was not statistically significant at  $p < 0.5$ ) indicated that rural organisations are not influential in access to financial capital needed to meet their human capital needs. Whereas those deprived in knowledge and skills are 5 times likely to consider rural organisations not influential in access to needed financial capital compared to their nondeprived counterparts, those with longstanding illness or in severe pain are twice likely to consider rural organisations not influential in access to financial capital. This confirms the need to enhance and support access to financial capital through rural organisations especially in rural areas where this largely important yet not readily available resource is highly needed to support people's wellbeing. Key to human capital, healthcare for instance is supported through the welfare fund only accessible to rural organisation members enabling them cover urgent health expenditure allowing them to pay back in a given period of time usually with no interest charged. Rural organisations therefore come in handy since health expenditure for chronic diseases is agreed to impoverish rural families with a chronic patient more twice the proportion in families without a chronic patient (Jiang et al. 2012).

#### 4.1.2 Financial access and physical capital

With reference to table 3, whereas the rest of the physical capital indicators are not significant, people deprived in: access to water and sanitation; and sufficient inputs are less likely to consider rural organisations not significant in access to financial capital. In other words, those deprived in the said two physical capital indicators consider rural organisation very influential in access to the financial capital needed to access these physical capital needs.

Similar to Pushpangadan and Murugan (1997) who found that cooperative action had several advantages in the provision of potable water, Rukiri<sup>1</sup> village residents borrow from rural organisations to fund construction of tanks for rain water harvesting. 100% of the multidimensional poor in Rukiri village are deprived of water and sanitation and all the poor sample consider rural organisations influential in access to finances needed to meet their water needs. There is an association whose main aim is saving for water tank construction. Residents in need of a water tank, register with this association and pool money towards both buying construction materials and payment for construction labour. Water tanks are constructed for members that meet the saving target. Those that fail to meet the target wait for a another round of construction since materials are bought in bulk to build for the members who meet the targeted amount for the whole construction process.

98% of those without sufficient inputs needed for coproduction among the multidimensionally poor consider rural organisations influential in access to financial capital needed to meet their input needs. Let alone associations that were formed to register with the National Agricultural Advisory Services (NAADs) whose aim was to provide farm inputs like seeds, goats, cows among others but challenged with limited resources to meet the needs of all rural farmers, associations that provide credit and SACCOs have played an import role in meeting member's need for farm inputs. Rural organisation members borrow from their respective associations and SACCOs to buy inputs needed for agricultural production at a low interest rate hence majority residents find rural organisations influential in access to financial capital needed to access farm inputs.

Table 3: Regression analysis for deprivation in physical capital component predicting influence of rural organisations in access to financial capital

RO not influential in access to financial capital	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
Access to information	0.011075	0.040753	0.27	0.786	-0.06991 0.092063
Access to water and sanitation	-0.03644	0.032137	-1.13	0.26	-0.1003 0.027429
Access to main road	-0.00123	0.03193	-0.04	0.969	-0.06468 0.062227
Adequate shelter	0.001469	0.034604	0.04	0.966	-0.0673 0.070236
Clean energy	0.023218	0.036248	0.64	0.523	-0.04882 0.095253
Sufficient tools	0.007381	0.035603	0.21	0.836	-0.06337 0.078134
Sufficient inputs	-0.03256	0.042659	-0.76	0.447	-0.11733 0.05222
_cons	0.038469	0.049119	0.78	0.436	-0.05914 0.136082

P<0.5

#### 4.1.3 Financial access and natural capital

Results in table 4 indicate that the more people are deprived in sufficiency and control over natural resources and also the more people had not improved their natural resources the more they considered rural organisations not influential in access to financial capital. Over 99% of those who had improved their natural resources indicated

<sup>1</sup> the village with the highest rate of water deprivation in Nyakagabagaba



that rural organisations were influential in access to financial capital need. Those who had not improved their natural resources were 8 times more likely to consider rural organisations not influential in access to financial capital than their counterparts who had improved their natural resources.

As far as sufficiency and control over natural resources in concerned, not a lot of money can be borrowed by members since associations have very limited funds to serve members to their satisfaction. This is due to the limited resource pool as member savings in rural areas are very low. Cooperative members equally cannot borrow much due to the stringent loan requirements that do not allow members to borrow above a certain fee or more than their savings.

Table 4: Regression analysis for deprivation in natural capital component predicting influence of rural organisations in access to financial capital

RO not influential in access to financial capital	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
Sufficiency and control over natural resource	0.059284	0.057558	1.03	0.306	-0.05492 0.173492
Improvement of natural resource	0.084652	0.041367	2.05	0.043	0.002571 0.166732
_cons	-0.03907	0.056678	-0.69	0.492	-0.15153 0.073391

P<0.5

#### 4.1.4 Financial access and social capital

According to results in table 5, those deprived in social capital indicators of: participation in social and community activities; and feeling of isolation are less likely to consider rural organisations influential in access to financial capital. In other words, those that do not freely participate in social and community activities and also those who feel isolated in the community they leave in, all agree that rural organisations are influential in access to financial capital.

Table 5: Regression analysis for deprivation in social capital components predicting influence of rural organisations in access to financial capital

RO not influential in access to financial capital	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
Participation in social and community activities	-0.04502	0.04499	-1	0.319	-0.13429 0.044248
Feeling of isolation	-0.03152	0.039704	-0.79	0.429	-0.1103 0.047259
_cons	0.067203	0.028495	2.36	0.02	0.010663 0.123743

P<0.5

Considering social capital as the ability to secure benefits by virtue of membership in social networks constructed through relationships of trust (Portes 1998), access to financial capital enhances participation in social and community events as the financial resources are used to facilitate one's participation enhancing their social ties beneficial in production and marketing processes. Khaki and Mohiuddin (2016) found that financial inclusion has a positive impact on socio-political indicators, attendance of community meetings inclusive. Social capital in turn is proved to enhance access to financial capital.

## 5 Conclusion

Majority, both multidimensionally poor and non poor having reported that rural organisations are influential in access to financial capital, it can be concluded that rural organisation enhance access to financial capital needed to improve people's wellbeing in as far as enabling access to other capitals is concerned. In line with Jing (2011) recommendation for a more diversified rural financial system coupled with improved supporting service to provide the market with more competitors, better service and more loans, increase in loan products and scaling up attracting nonmembers will enhance inclusive financial access enabling rural dwellers overcome their deprivations thereby improving their livelihoods. Nyakagabagaba having only semiformal and informal financial institutions, there is need to reach out to residents who for one reason or the other are not members in the financial cooperatives and associations in the area. This can be done through extending financial literacy training to all residents for an inclusive rural financial system.

Since direct support to financial capital in terms of handing out money to people is not a sustainable way of supporting the deprived, development agencies should provide access to financial capital through increasing the productivity of existing savings and income. Productivity of savings can be achieved as the rural organisations invests member savings to increase surplus and dividends shared at the end of the year. Support of people's livelihood activities through training in efficient and effective production is needed to enable rural dwellers put their financial capital to good use.

As experienced in rural areas elsewhere, residents in the study area are constrained by inappropriate

transforming structures and process in terms of market infrastructure controlled by middlemen. There is need to build or reform structures and process that represent rural dwellers to enhance their benefits from the livelihood activities they pursue. There is also an evident need for the government to investment in infrastructure to ease access to financial institutions and to reduce the transaction costs incurred by financial institutions in extending financial services to rural dwellers.

In light of the above, there is need to sensitize people about the important role played by rural organisations to have non members consider joining established rural organisations and or formulate new ones according to their needs, interests and livelihood activities engaged in for a living.

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