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THE IMPACT OF MICRO SAVINGS MOBILIZATION AND LOAN DEPLOYMENT ON COMMUNITY LIVELIHOOD IN NORTHERN UGANDA

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ABSTRACT

Various microfinance institutions have sprouted at the community levels and continue to operate in the Acholi sub-region during the insurgency and in the aftermath. Their roles have been to carry out financial intermediation functions of mobilizing savings and deployment of loans. A number of studies have been carried out on the contributions of MFIs on community livelihood with mixed results. Some studies upheld that microfinance interventions have achieved significant improvements in terms of increased business incomes and improved livelihood means. Others asserted that there was less evidence to support a positive impact of microfinance especially on health, nutrition and education. The objective of this study was to establish the effects of microfinance loans in the promotion of livelihood of the beneficiaries. The study was based on a cross sectional design in which a sample of individuals were drawn from districts of Gulu, Kitgum and Agago. Econometric methods were used to determine and discriminate the impact of loans, savings and capitals on livelihood means of beneficiaries and non-beneficiaries. The results showed that in the eight livelihood means considered, the average assets holding of beneficiaries were higher than those of non beneficiaries. However, through further statistical analysis, two strands of livelihood means emerged, namely; those that were structurally stable and those that were not. The structurally stable categories were household holdings in animal husbandry at $p = 0.14$, housing stock at $p = 0.21$ and transportation means at $p = 0.16$. Hence, statistically there were no differences between beneficiaries and non beneficiaries in those livelihood themes. A total of five categories were structurally unstable, namely; household holdings in communication means at $p = 0.03$, crop production at $p = 0.05$, education expenditures at $p = 0.02$, media means at $p = 0.00$ and medical treatments at $p = 0.00$. Hence there were structural differences between beneficiaries and non beneficiaries in those livelihood themes. Thus microfinance loan deployment in the community could have led to those higher holdings with the beneficiaries than with the non-beneficiaries besides other sources of financing.

INTRODUCTION

Microfinance is defined in many ways. From the point of view of a financial system, microfinance is a financial institution (FI), a financial product and a financial process of accessing financial services. As an FI, microfinance institutions (MFIs) are relatively small depository financial institutions. They accept checkable deposits in small quantum and similarly give out loans in small quantum for a relatively short duration of less than one year to poor individuals and microenterprises. As financial products, microfinance refers to micro savings, micro credits or microloans and micro insurance.

As a process of accessing financial services, the related terms to microfinance are micro banking, microcredit, micro savings, microloan, micro lending, micro insurance, rural credit, rural lending, social enterprise, social entrepreneurship, and social ventures. Microfinance is characterized by a unifying smallness in size of the institutions, amount of savings, loan amount and insurance amount.

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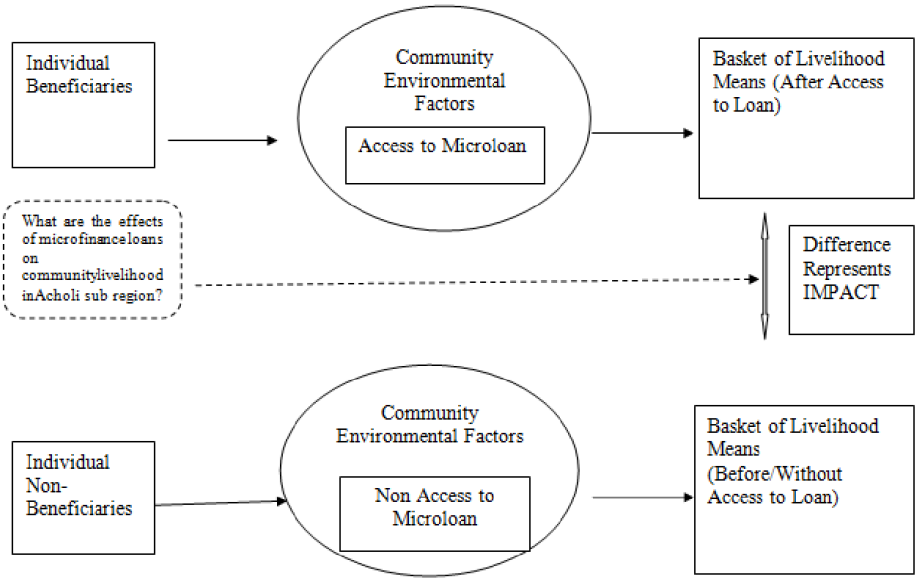
Microfinance is also characterized by the relative poverty of the savers and borrowers in a predominantly rural and slum urban settings. Typically, microfinance is characterized by smallness as an institution, smallness in the size of products they serve as well as relatively poor clientele base. Thus, according to Bank for International Settlements (2010), microfinance is the provision of financial services in limited amounts to low-income persons and small and/or informal businesses which is increasingly being offered by a variety of formal FIs, including banks and non-banks, either as their core business or part of a diversified portfolio.

There have been a number of studies on the role of MFIs contributions to community livelihood with mixed results. In both Ghana and South Africa the outcomes of the two case studies established that microfinance interventions have achieved significant improvements in terms of increased business incomes, improved access to life-enhancing facilities, and empowerment of people, particularly women (Afrane, 2002). According to Morduch and Haley (2002), there is overwhelming evidence substantiating a beneficial effect on income smoothing and increases to income. There is, however, less evidence to support a positive impact on health, nutritional status and increases to primary schooling attendance. PisaniandYoskowitz (2005) conducted their study in Matagalpa state of Nicaragua country in Central America and established that access to microfinance did enhance the life chances of the benefitting households through a noticeable and qualitative improvement in their household health care and food consumption. Donahue, James-Wilson and Stark (2006) conducted a case study under the Microfinance, Youth and Conflict in central Uganda and their findings were that young people who engage in diverse short-term activities were driven to and able to make money albeit the amount would vary depending on the activities.

Duvendack, Palmer-Jones, Copestake, Hooper, Loke and Rao (2011)reviewed and implemented the methodological approach of Pitt and Khandker (1998) and established that replications failed to confirm the original beneficent findings, and they concluded that there is no statistically convincing evidence in these studies to either support or contradict the main claims of beneficence of microfinance as a result of partly their weak research design. As earlier observed, despite microfinance programmes and institutions becoming increasingly important as a strategy to reduce poverty and promote micro and small enterprise development, knowledge about the achievements of such initiatives remains only partial and contested (Hulme, 1997).

Given the conflicting state of affairs empirically and methodologically, the assessment of microfinance performance thus remains an important area of enquiries to contribute to understanding the impact on communities living in post conflict situation such as in northern Uganda. The study investigatedmicrofinance institutions performance and contribution to community livelihood means through savings mobilization and loan deployment in Acholi sub region. The theoretical framework to underpin the study was based on the simplified microfinance loan impact chain which is modified from the work of Hulme (1997) and SIDBI (2008) which asserted that impact is measured as the difference between the basket of selected livelihood means of the controlled group which comprises those who had access and those without access.

The modified level of household economic security through access to loan would lead to changes in the morbidity and mortality of household members, educational levels, the shelter they live in, the food intake and future economic and social opportunities. As shown in figure 1, impact is measured as the existence of difference in the basket of livelihood means between those who have access to microloan and those who have not had access to microloan. There are two schools of thoughts about which links in the chain should be the subject of study, namely the intended beneficiary school and the intermediary beneficiary school (Hulme, 1997). This study applied the intended beneficiary school which seeks to get as far down the impact chain as is feasible with the ultimate target being individuals, households or microenterprises. It is based on the conventional evaluation model which targets outcomes of interventions.



Source; Modified from Hulme, D (1997); SIDBI (2008)

Figure 1. Microfinance Loan Impact on Community Livelihood

MATERIALS AND METHODS

Study Site

The studywas conducted in three selected districts of the Acholi sub region of Gulu, Kitgum, and Agago as shown in Figure 2.

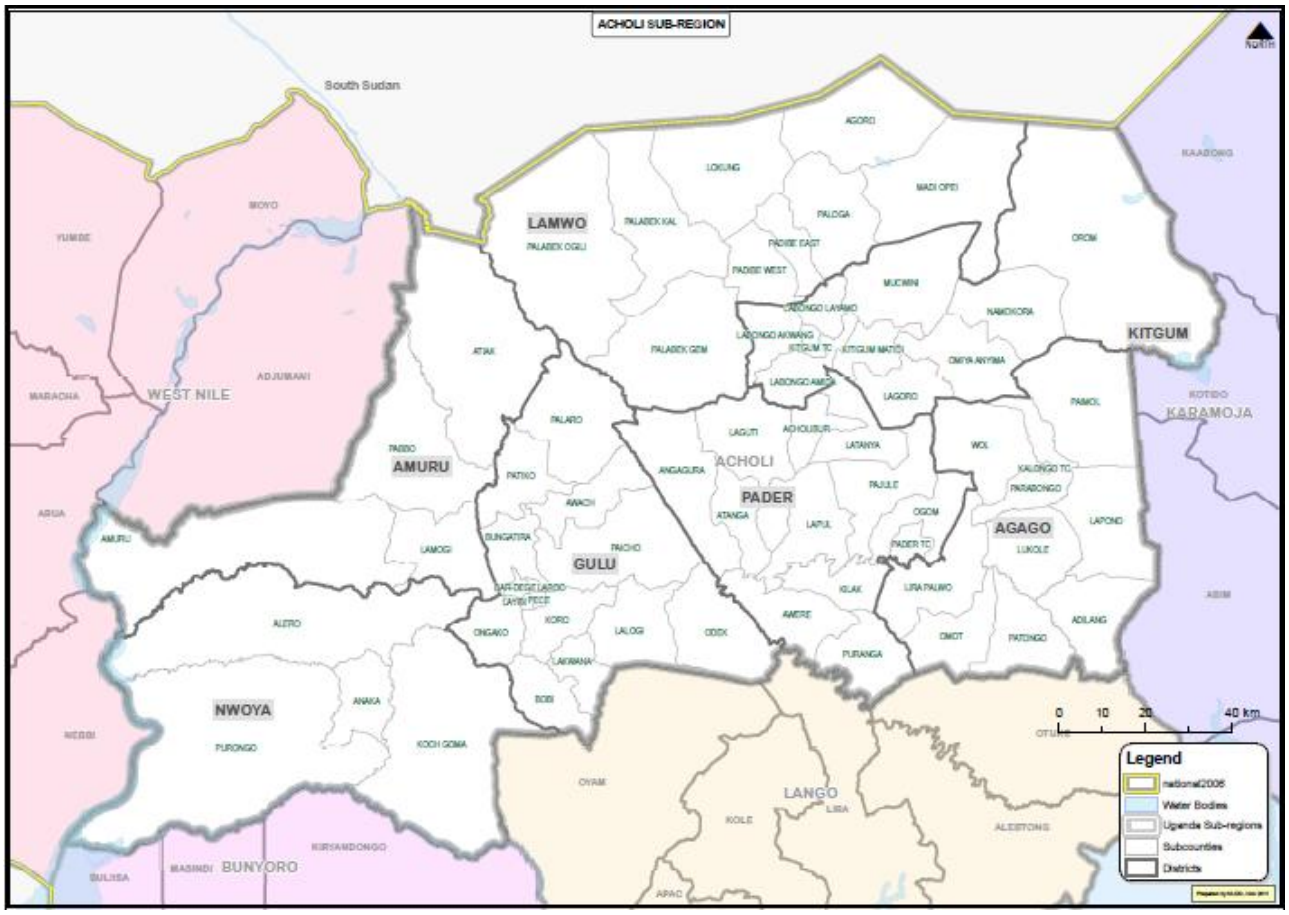


Figure 2. Map of Acholi sub region, Uganda

Study Population

The study populations comprised SACCOs, individual beneficiaries and non beneficiaries. Non beneficiarieswere matched with the individual beneficiaries from the same community at each sub county levels.

Table 1. Population Frame for SACCOs, and Beneficiaries by District and Sub County

District	Number		Individuals Beneficiaries		
	Sub Counties	SACCOs	Female	Male	Total
Gulu	15	46	14,867	8,768	23,737
Kitgum	10	19	5,918	8,918	16,669
Agago	10	12	2,575	4,872	8,505
Total	35	77	23,360	22,558	48,911

Source; UCSCU Regional Office Gulu; 2012

Sampling Procedure

Multistage sampling technique has been adopted. Geographically the first stratum was the district. The second was Sub County. The community level at which SACCOs were to be selected was the sub county. In case of individual client, the third stratum was the SACCOs in which they are domiciled and the fourth was the gender basis into male and female. Non beneficiarieswere tobe matched the sampled individual beneficiaries from the same community at each sub county levels.

Selection of SACCOs

The selection of each particular SACCOs for which questionnaire for suppliers of funds were administered.The first level of stratum was the district and the second was thesub counties in each district. One SACCO was selected from each sub

countypurposively depending on the number of beneficiaries.The one with the highest number of beneficiaries wereselected; giving a total of 35sampled SACCOs out of a population of 77.

Table 2. SACCO Samples by District and Sub County

District	Sub Counties	Number of SACCOs	
		Population	Sample
Gulu	15	46	15
Kitgum	10	19	10
Agago	10	12	10
Total	**35**	**77**	**35**

Source; USCU Regional Office Gulu; 2012

Selection of Beneficiaries and Non Beneficiaries

The individual beneficiaries weredistributed by sex at district level. Thus the first stratum was the district, the second was Sub County, the third stratum was the SACCOs in which they are domiciled and the fourth was the gender basis into male and female. Non beneficiaries were matched with the sampled individual beneficiaries from the same community at each sub county levels.
In view of the wide geographical coverage, the methodological limitations in handling crosssectional matrix as well as considering normality of data distribution is achieved for sample size of 30 and above, purposive sampling was adopted. Hence two beneficiaries per sex per SACCO were matched with a similar number and sex attributes as shown on table 3.

Table 3. Sampled Individuals by Districts and SACCOs

Districts	SACCOs	Individuals				
		Female		Male		
		Beneficiaries	Non Beneficiaries	Beneficiaries	Non Beneficiaries	Total
Gulu	15	30	30	30	30	120
Kitgum	10	20	20	20	20	80
Agago	10	20	20	20	20	80
Total	35	70	70	70	70	280

Data Measurements

The study assignedNominal, Ordinal, Interval and Ratio measurement scales to various types of data that were collected.A Nominal measurement scale was used for variables in which each individual or observations in the study were placed into one mutually exclusive and exhaustive categories of male and female as well as beneficiaries and non beneficiariesrespectively. Ordinal measurement scalewas used for classifying disbursements of microloan as first, second or third tranche as were applicable. A combination of nominal and ordinal scales were used in the Likert scale. Interval scalewas used for classifying microloan repayments as weekly, fortnightly, monthly or yearly instalments. Ratio measurement scalewas used for measuring the number of individuals, amount of savings, and loans. Amounts were expressed in Uganda shillings (UGX) in either absolute or relative terms and in thousand or million as were deemed necessary.

Data Instruments

The instruments included questionnaires, pre-coded form, interview guides and participant observations. Questionnaire was used to collect primary data from the sampled microfinance service providers and individuals. Collection of secondary data was based on pre designed formats in coding forms. It was administered to microfinance service providers and cross checked with records from supervising authority. Interviews Guidewasused for the interview with officials and representatives from the regulatory institutions, microfinance service providers and the individuals. Participant observations were recorded using camera and notebook.

Data Collection Procedures

Both primary and secondary data were collected during the research process**.** Primary data were be collected on sampled microfinance service providers, microfinance individual beneficiaries and non beneficiaries. Secondary data were collected from the UCSCU Regional office in Gulu.

Quality Assurance

The data collection instruments were pretested and where necessary revisions in each category of the questionnaire were made and agreed with the advisors. The Research Assistants (RAs) were trained for two days to attain the necessary skills.In addition, data were mainly collected by the principal investigator to strengthen objectivity. Internal consistency of the primary survey data was

tested using Cronbach'sAlpha on the set of themes measured using the Likert scale 1-5. The score of0.65 or 65% was obtained which was within acceptable range of reliability. In order to achieve meaningful measurements, content validity was reinforced through cross checking and agreeing on the data instruments by the advisors and principal investigator for use in the model of the conceived intermediation role of MFIs.

Data Analysis

Both quantitative and qualitative data were collected to examine the effects of microfinance loans on community livelihood. Quantitative data were analysed using an econometric technique of analysis of covariance (ANCOVA) models. The postulated structural stability test on a linear model was given as;-

$$Y = \alpha_1 D_1 + \alpha_2 D_2 + \beta_1 LNS + \beta_2 SVS + \beta_3 CAP + u$$

Where

$Y =$ the livelihood indicator

$D_1 =$ The dummy variable to capture the impact of covariates from those who were beneficiaries and beneficiary of loans

$D_2 =$ The dummy variable to capture the impact of covariates from those who were non beneficiaries and non beneficiary of loans

$LNS =$ Covariates representing average loans deployed by MFIs/SACCOs from the same community where beneficiaries and non beneficiaries were drawn

$SVS =$ Covariates representing average savings mobilized by MFIs/SACCOs from the same community where beneficiaries and non beneficiaries are drawn

$CAP =$ Covariates representing average capital share holdings in MFIs/SACCOs from the same community where beneficiaries and non beneficiaries were drawn

$\alpha_1, \alpha_2 =$ Dummy variable coefficients for beneficiaries and non beneficiaries respectively

$\left.\begin{matrix}\beta_1 \\ \beta_2 \\ \beta_3\end{matrix}\right\} =$ Slopes to the regressors LNS, SVS and CAP respectively

$u =$ The error terms

According to Gujarati (2002),Greene (2008) and Ocaya (2011), and a linear regression equation may not apply to all the data set because of a possibility of structural breaks or instability of the underlying parameters in a model. These situations may arise when the data obtained are a result of peculiar events or interplay of varied factors. These data could be from peace period and war period, different countries/districts overtime and data from beneficiaries and non beneficiarieson a longitudinal basis. In this sense, structural stability is akin to time period as a key element (Gujarati 2003).

In this this study, a balanced cross sectional data was pooled for 80 observations for a controlled group of beneficiaries and non beneficiaries. The compelling reasons to think that the underlying parameters of the regression model were equivalently unstable (different) were access and non access to microfinance loan. A standard basket of livelihood means was established for the control group of beneficiaries and non beneficiaries and comprised measures of animal husbandry, crop production, communication, education expenditures, housing, media, medical and transportation means. Basing on the control group, the model tested whether microfinance loan had impact on the community. The main hypothesis investigated was as follows;-

H_o; Thelevels of household assets holdings in the selected livelihood means of beneficiaries were different from those of non beneficiaries in the community

H_a; Thelevels of household assets holdings in the selected livelihood means of beneficiaries were the same from those of non beneficiaries in the community

For each livelihood mean, the interactive effects of dummy variables were employed as model 1, the additive model and model 2, the multiplicative model. Model 1 is the Differential unit intercepts from base category. Model2 is the Separate regression for each unit from a base category.

Model 1; Differential unit intercepts from base category

For each wealth category, the beneficiary dummy was chosen as the base category.The model wasthen represented in generic matrix notation as;-

$$\begin{pmatrix} \mathbf{y}_1 \\ \mathbf{y}_2 \\ \vdots \\ \mathbf{y}_n \end{pmatrix} = \begin{pmatrix} \mathbf{i}_1 & \mathbf{0} & \cdots & \mathbf{0} & \mathbf{x}_1 \\ \mathbf{i}_2 & \mathbf{i}_2 & & \mathbf{0} & \mathbf{x}_2 \\ \vdots & & \vdots & & \vdots \\ \mathbf{i}_n & \mathbf{0} & \cdots & \mathbf{i}_n & \mathbf{x}_n \end{pmatrix} \begin{pmatrix} \alpha_1 \\ (\alpha_2 - \alpha_1) \\ \vdots \\ (\alpha_n - \alpha_1) \\ \boldsymbol{\beta} \end{pmatrix} + \begin{pmatrix} \boldsymbol{\varepsilon}_1 \\ \boldsymbol{\varepsilon}_2 \\ \vdots \\ \boldsymbol{\varepsilon}_n \end{pmatrix}$$

Using the dummy notation the model is also expressed as

$$\begin{pmatrix} \mathbf{y}_1 \\ \mathbf{y}_2 \\ \vdots \\ \mathbf{y}_n \end{pmatrix} = \begin{pmatrix} \mathbf{d}_1 & \mathbf{0} & \cdots & \mathbf{0} & \mathbf{x}_1 \\ \mathbf{d}_2 & \mathbf{d}_2 & & \mathbf{0} & \mathbf{x}_2 \\ \vdots & & \vdots & & \vdots \\ \mathbf{d}_n & \mathbf{0} & \cdots & \mathbf{d}_n & \mathbf{x}_n \end{pmatrix} \begin{pmatrix} \gamma_1 \\ \gamma_2 \\ \vdots \\ \gamma_n \\ \boldsymbol{\beta} \end{pmatrix} + \begin{pmatrix} \boldsymbol{\varepsilon}_1 \\ \boldsymbol{\varepsilon}_2 \\ \vdots \\ \boldsymbol{\varepsilon}_n \end{pmatrix}$$

$$\Rightarrow \mathbf{y}_i = \gamma_1 + \gamma_2 \mathbf{d}_2 + \gamma_3 \mathbf{d}_3 + \ldots + \gamma_n \mathbf{d}_n + \mathbf{x}_i \boldsymbol{\beta} + \boldsymbol{\varepsilon}_i, \quad i = 1, 2, \ldots, n$$

where

$\gamma_1 = \alpha_1$ and $\gamma_2 = (\alpha_2 - \alpha_1), \ldots, \gamma_n = (\alpha_n - \alpha_1).$

This model produces the same slope vector as LSDV model above. The model was then used to test for differential intercepts from the base category as follows;-

$$H_0 = \alpha_1 = \alpha_2 = \ldots = \alpha_n$$

The F-statistic from the residual sum of squares (RSS) is

$$F = \frac{(RSS_1 - RSS_2)/(n-1)}{RSS_2 / n(T-1) - k + 1} \sim F\left((n-1), n(T-1) - k + 1\right)$$

Or

$$F = \frac{(R^2_{Unrestricted} - R^2_{restricted})/(n-1)}{1 - R^2_{Unrestricted} / n(T-1) - k + 1} \sim F\left((n-1), n(T-1) - k + 1\right)$$

• E-views runs the same test (irrespective of whether the panel is balanced) by testing for the equality of intercepts from the fixed-effects regression model (i.e. Model 2). If the panel is balanced, the test for the fixed effects is directly supported by E-Views 7.0. You will have to use *redundant fixed effects* option after estimating the model.The same results are obtained in Stata by running fixed effects regression.

Model 2; Differential coefficients (intercepts and slope vectors) from base category

When the dummy of the base category in the separate regression above is replaced with a common intercept term and its regressors for all the units kept constant (i.e., do not vary), we obtain the expression for this model as

$$\begin{pmatrix} \mathbf{y}_1 \\ \mathbf{y}_2 \\ \vdots \\ \mathbf{y}_n \end{pmatrix} = \begin{pmatrix} \mathbf{d}_1 & \mathbf{0} & \cdots & \mathbf{0} & \mathbf{x}_1 & \mathbf{0} & \cdots & \mathbf{0} \\ \mathbf{d}_2 & \mathbf{d}_2 & & \mathbf{0} & \mathbf{x}_2 & \mathbf{x}_2 & & \mathbf{0} \\ \vdots & & \vdots & & \vdots & & \vdots & \\ \mathbf{d}_n & \mathbf{0} & \cdots & \mathbf{d}_n & \mathbf{x}_n & \mathbf{0} & \cdots & \mathbf{x}_n \end{pmatrix} \begin{pmatrix} \alpha_1 \\ (\alpha_2 - \alpha_1) \\ \vdots \\ (\alpha_n - \alpha_1) \\ \boldsymbol{\beta}_1 \\ (\boldsymbol{\beta}_2 - \boldsymbol{\beta}_1) \\ \vdots \\ (\boldsymbol{\beta}_n - \boldsymbol{\beta}_1) \end{pmatrix} + \begin{pmatrix} \boldsymbol{\varepsilon}_1 \\ \boldsymbol{\varepsilon}_2 \\ \vdots \\ \boldsymbol{\varepsilon}_n \end{pmatrix}$$

$$\Rightarrow \mathbf{y}_i = \alpha_1 + (\alpha_2 - \alpha_1)\mathbf{d}_2 + \ldots + (\alpha_n - \alpha_1)\mathbf{d}_n + \mathbf{X}\boldsymbol{\beta} + \mathbf{x}_2\mathbf{d}_2(\boldsymbol{\beta}_2 - \boldsymbol{\beta}_1) + \ldots + \mathbf{x}_n\mathbf{d}_n(\boldsymbol{\beta}_n - \boldsymbol{\beta}_1) + \boldsymbol{\varepsilon}_i$$

where $\mathbf{X} = \begin{pmatrix} \mathbf{x}_1 & \mathbf{x}_2 & \cdots & \mathbf{x}_n \end{pmatrix}^{/}$, $\mathbf{d}_i = \mathbf{i}_i$ and α_1 being the common unit constant term.

This model tests for differential intercepts and differential slope vector from the base category unit.

The test of differential intercept and differential slope vectors given is as;-

$H_0 = \alpha_1 = \alpha_2 = \ldots = \alpha_n$, $\boldsymbol{\beta}_1 = \boldsymbol{\beta}_2 = \ldots = \boldsymbol{\beta}_k$ ($\boldsymbol{\beta}_i$ Being the slope vector for unit i).

The probability is given by the F-statistic derived from the residual sum of squares (RSS) as;-

$$F = \frac{(RSS_1 - RSS_3)/k(n-1)}{RSS_3/n(T-k)} \sim F\left(k(n-1), n(T-k)\right)$$

where k is the number of estimated coefficients from the pooled model.

However, using E-views in a balanced panel, the test was obtained by simultaneously testing for the equality of intercepts and respective slopes vectors of variables from the separate regression model and analysis of *Wald-coefficient restrictions*.

The results that were analysed and interpreted were based on the F-statistics as follows;-

i) The test of differential regression (parameters) or differential intercepts and slopes in which Model 1 is the restricted and model 3 the unrestricted. This test was also available in e-views 5.0 software as the Chow Break Point Test

H_0; $\alpha_1 = \alpha_2$, $\beta_1 = \beta_2 = \beta_3$ There is no structural change; Microfinance loan deployment in Acholi sub region does not improve the livelihood means of beneficiaries

H_a; $\alpha_1 \neq \alpha_2$, $\beta_1 \neq \beta_2 \neq \beta_3$ There is structural change; Microfinance loan deployment in Acholi sub region improves the livelihood means of beneficiaries

ii) The test for equality of all the dummies assuming a common slope in which Model 1 is the restricted and Model 2 the unrestricted.. This represented the test of differential intercepts and was available on e-views 5.0 software as the Wald Test upon specification of the parameters

H_0; $\alpha_1 = \alpha_2$ There is no structural change due to differential intercepts

H_a; $\alpha_1 \neq \alpha_2$ There is structural change due to differential intercepts

iii) The test of differential slopes in which Model 2 is the restricted and model 3 the unrestricted. This was available on e-views 5.0 software as the Wald Test upon specification of the parameters

H_0; $\beta_1 = \beta_2 = \beta_3$ There is no structural change due to differential slopes

H_a; $\beta_1 \neq \beta_2 \neq \beta_3$ There is structural change due to differential slopes

The intercepts represented the base level of livelihood means of the selected indicator which were held at household level in the community. While the slope coefficients represented the best effort at survival level in the given livelihood means through the consumption or non consumption of loan.

RESULTS

General Characteristics of the Respondents

The study samples comprised SACCOs, individual beneficiaries and non beneficiaries in the piloted districts of Gulu, Kitgum and Agago.

Table 4. General Characteristics of the MFIs/SACCOs

Characteristic Year of registration	Frequency (n)	Percentage (%)
Prior to 2006	7	30
2007-2008	7	30
2009-2010	6	26
2011-2012	3	13
Statement of Vision, Mission and Objectives		
Available	23	100
Not available	0	0
Registration		
The Cooperative Societies Regulations(1993)	23	100
BOU MDI Act	0	0
NGO Registration Board	0	0
Affiliations-Local		
AMFIU	14	61
UCA	3	13
UCSCU	23	100
Affiliations-International		
Opportunity	1	4
Women World Banking	1	4
Grameen Trust	0	0
SHG Banking	4	17
MFI Banking Model		
Grameen Banking Model	3	13
SHG Banking Model	8	35
Individual Banking Model	23	100
Specific Sector Model	1	4

As shown in Table 4, a total of 23 SACCOs were surveyed out of which 10(43%) were in Gulu District, 7(30%) were in Kitgum district and 6(26%) were in Agago District. The accessed sample for SACCOs was 23 or 66% of the intended target due geographical terrain and poor road access.

All the SACCOs were registered under the Cooperative Societies Regulations (1993) and none were registered under the BOU MDI Act and NGO Registration Board. A total of 7(30% were registered by 2006, another 7(30%) were registered between 2007 and 2008, 6(26%) were registered between 2009 and 2010 and 3(13%) were registered between 2011 and 2012.

All the SACCOs had written statements of vision, mission and objectives. They were affiliated with UCSCU their apex organization. A total 14(61%) were affiliated with AMFIU and a further 3(13%) were affiliated with UCA. at international level, a total of 4(17%) were affiliated with SHG Banking Group, a proportionate number of 1(4%) each were affiliated with Opportunity International and Women World Banking Trust respectively. None was affiliated with Grameen Trust.

The MFI banking operations adopted by all the SACCOs was the individual model approach. However, a total of 8(35%) are operating SHG banking model, 3(13%) under Grameen Banking Model and 1(4%) is operating Specific Sector Model.

MFIs Services, Sources and Uses of Funds in the Community

Services offered to the Community

Table 5 shows the various MFIs/SACCOs services offered to the Community in the piloted districts which include share capital, pass book savings and loans to beneficiaries which are common to all the SACCOs. Up to 16(70%) of SACCOs offers term deposits and the remaining 7(30%) do not. None of the SACCOs were providing insurance services.

The loan products which represent the various loan purposes are for business, crop production, animal husbandry, education, medical and emergency. All SACCOs offer business loan. A proportionate number of 19(83%) offer loan for crop production followed by 18(78%) for emergency loan, 17(74%) for education 11(48%) for animal husbandry and 9(39%) for medical treatments.

Table 5. MFIs/SACCOs Services offered to the Community

Characteristic	Frequency (n)	Percentage (%)
Services		
Share capital	23	100
Passbook savings	23	100
Term deposits	16	70
Loans	23	100
Insurance services	0	0
Loans products /Purposes		
Business	23	100
Crop	19	83
Animal	11	48
Education	17	74
Medical	9	39
Emergency	18	78
Training services		
Financial literacy	23	100
Business development	19	83
Gender and social issues	6	26
Health and nutrition	4	17
Environmental issues	5	22
Others	7	30

The loan products represented the various loan purposes which were for business, crop production, animal husbandry, education, medical and emergency. The surveyed SACCOs offer various training services which include financial literacy, business development, gender and social issues, health and nutrition, environmental issues and other specialized training in HIV awareness and uniquely local musical Band matching. Financial literacy is offered by all. This is followed by business development by 19(83) SACCOs.

Table 6. MFIs/SACCOs terms of service in the Community

Terms of service	Frequency (n)	Percentage (%)
Banker to MFIs/SACCOs		
MDIs	0	0
Commercial Bank	19	83
Credit Institutions	4	17
Loans to beneficiaries; Minimum amount		
20,000-100,000	12	52
101,000-500,000	10	43
501,000-1,000,000	1	4
Loans to beneficiaries; Maximum amount		
300,000-5,000,000	14	61
5,001,000-15,000,000	1	4
15,000,001-20,000,000	3	13
20,000,000+	5	22
Repayment duration		
6 months	11	48
12 months	9	39
18 months+	3	13
Frequency of Repayment		
Weekly	6	26
Fortnightly	0	0
Monthly	17	74
Interest charges on loan		
Flat rate on loan	1	4
Reducing loan balance	22	96
Interest charges on loan		
1.0 -5.0% per month	18	78
5.1-10.0% per month	5	22
Interest paid on savings		
1.0 -3.0% per annum	7	30
3.1-5.0% per annum	2	9
None	14	61
Collateral on loans		
Group guarantee	15	65
Institutional guarantee	5	22
Mortgage	11	48
Pledge on assets	23	100
Assign standing crop	6	26
No collateral	3	13
Savings	23	100
Penalty on loan default basis		
Amount past due	19	83
Fixed amount of loan	4	17

Terms of service in the Community

As shown in Table 7, the majority of bankers to SACCOs are commercial banking institutions though a few of them bank with credit institutions. The minimum loan disbursed per beneficiaries range from UGX 20,000 to UGX 300,000. One SACCO had it minimum loan at UGX 1,000,000 per client. While the maximum amount of loan given out range from UGX 300,000 to 500,000 for the majority of SACCOs. A total of 5 SACCOs had their maximum loan amount above UGX 5,000,000. According to a client who vends fresh fruits in a local market in the community, "the graduation process from the initial loan amount is a painful process requiring the approval of the group and the supervisor of the group and it is done in steps without jumping the next level of loan amount".

Up to 11(48%) of the SACCOs had their loan duration at 6 months. Another 9(39%) of the SACCOs had their duration at 12 months and the rest had duration between 18 months and 24 months. Frequency of instalment repayment varied from weekly to monthly. 17 (74%) of the SACCOs requires monthly instalments while 6(26%) requires weekly instalments.

The basis of interest charges on loan are either on a reducing principal basis or flat rate on the loan amount. A total of 22(96) of the SACCOs apply the reducing principal basis and only one SACCO uses the flat rate basis. The SACCOs that charge interest on loans of between 1.0% -5.0% per month totalled to 18(78%) while those that charge interest on loans of between 5.0%-10.0% per month were 5(26%).

All the SACCOs use the pledge on assets and the savings balance as collateral for the borrowings. This is in addition to group guarantee where a total of 15(65%) of the SACCOs use as collateral for the loans disbursed to the community and a further 11(48%) use mortgage on the property of beneficiaries.

Table 7. MFIs/SACCOs Sources of funds and use in the Community

Sources And Uses Of Funds	Frequency (n)	Percentage (%)
Sources Of Funds		
Grants and donations	23	100
Deposits	23	100
Compulsory savings	23	100
Share capital	23	100
Investment income	23	100
Commercial loans	23	100
Uses Of Funds		
Grants and donations		
Use as loan funds	14	61
Use as expenses	19	83
Deposits		
Use as loan funds	23	100
Use as expenses	7	30
Compulsory savings		
Use as loan funds	23	100
Use as expenses	4	17
Share capital		
Use as loan funds	21	91
Use as expenses	4	17
Investment income		
Use as loan funds	18	78
Use as expenses	23	100
Commercial Loans		
Use as loan funds	23	100
Use as expenses	0	0

Sources of funds and use in the Community

As shown in Table 6, SACCOs depend on grants and donations, savings deposits, compulsory savings, share capital, investment income and commercial loans for their lending operations and recurrent expenses in varying proportions. All the commercial loans are used for onward lending purposes. All the SACCOs used deposits and compulsory savings for lending, however, some SACCOs reportedly used some proportions of deposits and compulsory savings as expenses. Further, the majority of SACCOs used share capital for onward lending; however, some 4 SACCOs used share capital for operational expenditure. Investment income are used by all SACCOs to meet expense, however, some SACCOs also used the investment income for onward lending to beneficiaries.

Table 8 shows that the accessed beneficiaries totalled to 80 out of 140, representing 57% of the targeted sample of which access to women were more difficult during the planting and weeding period of crop production. It shows the types of accounts offered to beneficiaries and prospective beneficiaries, loan purposes, security for loans, repayment duration and frequency for loan repayments. It also shows the uses to which loan proceeds are made after repayment of the loan. Under types of accounts, the

other products probed were whether SACCOs were offering insurance products of which the results were nil. The main loan purpose was for micro business while the other loan purpose was specified as Emergency Loan. The most frequent security for the loan is the protection of a guarantor which may be individuals or institutional and this is followed by pledge on household assets.

Table 8. Beneficiaries Relationship with SACCOs Service Providers

Characteristics	Male		Female	
	Frequency (n=56)	Percentage (%)	Frequency (n=24)	Percentage (%)
Accounts with SACCOs				
Savings	56	100	24	100
Loans	56	100	24	100
Share account	56	100	24	100
Others	00	00	00	
Loan Purpose				
Micro business	32	62	17	71
Crop farming	12	23	05	21
Animal husbandry	01	02	01	04
Others specified	15	29	05	21
Security For Loan				
Land	08	15	02	08
TV, radio, chairs tables	32	62	12	50
Log-book MV/Cycle	04	08	00	00
Guarantor	01	02	00	00
Others specified	13	25	10	42
Repayment Duration				
6 months	14	27	06	25
12 months	11	21	04	17
18 months	04	08	00	00
Others	14	27	06	25
Frequency of Loan Repayment				
Weekly	14	27	02	08
Fortnightly	02	04	00	00
Monthly	26	50	12	50
Others specified	02	04	02	08
Use Of Loan Proceeds				
Foods	43	83	10	42
Shelter	19	37	04	17
Medical	36	69	06	25
Education	47	90	14	58
Transportation	27	52	06	25
Others	10	19	09	38

The majority of payment duration falls between six months to 18 months. However, other durations varies on the basis of contractual obligations attached to the loan whereby some of the loans range from two days to one week while others ranges from one to three months. The frequencies of loan repayment are in some cases as short as weekly and fortnightly though the majority period is monthly. Household expenditures on education with a frequency of 66(83%) form the main use to proceeds from the loan after loan repayments. Other specified uses of loan proceeds are for the social events of marriages and acquisitions of household assets.

Beneficiaries Relationship with SACCOs Service Providers

The most frequent security for the loan is the protection of a guarantor which may be individuals or institutional and this is followed by pledge on household assets. The frequencies of loan repayment are in some cases as short as weekly and fortnightly though the majority period is monthly. Higher frequency of loan repayment penalizes the borrower in terms of high real interest amount to be paid. However, this is often foregone in cases of emergency loans and the generally high demand for credit which surpasses loanable funds as was the case in Gulu district.

Sources of Household Livelihood Means for both Beneficiaries and Non Beneficiaries

Table 9 shows the relative proportions of beneficiaries and non beneficiaries with respect to the main source of income, source of financing of household economic activities, types of dwelling unit which is either it is owner occupied or rented from landlord/lady. It also shows whether it is grass thatched roof or iron sheet roof.

Further, Table 9 shows the types of owned transportation means, frequency of daily food consumption and hospital or health centres which are used for treatment of family members. The main source of income for beneficiaries is micro business (78%) followed by crop production (70%) while the main source of income for non beneficiaries is crop production (83%) followed by micro business (57%). Proportionately, 28% of beneficiariesdepend on salary while 40 % of non-beneficiariesdepend on salary.

Table 9. Household Livelihood Means for both Beneficiaries and Non Beneficiaries

Characteristics	Beneficiaries		Non beneficiaries	
	Frequency (n=80)	(%)	Frequency (n=60)	(%)
Main Source of Income				
Crop production	56	70	50	83
Animal husbandry	28	35	20	33
Micro business	62	78	34	57
Salary	22	28	24	40
Financing of Economic Activities				
Loan	44	55	0	0
Savings	64	80	54	90
Salary earnings	12	15	20	33
Household labour	70	88	56	93
Others specified	0	0	2	3
Grass thatched-Dwelling units				
Owned	48	60	18	30
Rented	16	20	10	17
Iron sheet- Dwelling units				
Owned	36	45	12	20
Rented	12	15	24	40
Owned transportation means				
Bicycle	70	88	46	77
Motor cycle	28	35	12	20
Motor vehicle	6	10	6	10
No Others means	2	3	12	20
Current daily food consumption				
One meal	0	0	6	10
Two meals	48	60	36	60
Three meals	32	40	16	27
Medical treatment				
Health centres (1-4)	26	33	26	43
Referral hospital	20	25	12	20
Private hospital	32	40	26	43
Private clinics	34	43	24	40

The financing of the multifaceted economic activities at household level depends on household labour force at 88% for beneficiaries and 93% for non beneficiaries. This is followed by savings at 80% for beneficiaries and 90% for non beneficiaries. In addition, 55% ofbeneficiaries used the loans to finance their economic activities.

Proportionately, 60% of beneficiaries own their grass thatched houses as against 30% of non-beneficiaries who own theirs. Similarly, 45% of beneficiaries own their iron sheet dwelling as against 20% who are non beneficiaries. Bicycle is the main means of transportation for both beneficiaries and non beneficiaries. The beneficiaries (45%) have a higher proportion of motor cycle owner ship than non beneficiaries (20%). 3% of beneficiaries do own any means of transportation while 20% of non-beneficiaries do have any means of transportation.

The majority of both beneficiaries and non-beneficiaries have two meals per day. However, 10% of non-beneficiaries have one meal a day while all beneficiaries have between 2 to 3 meals a day. Private clinics and hospital are the most visited health facilities for treatment by both beneficiaries and non-beneficiaries. This is followed by health centres (1-4)which are proportionately visited more by non-beneficiaries than beneficiaries.

Effects of Microfinance Loans on Beneficiaries and Non-beneficiaries

The null hypothesis asserted that thelevels of household assets holdings in the selected livelihood means of beneficiaries were different from those of non-beneficiaries in the community. This was assessed through the establishment of a standard basket of livelihood means for the control group of client and non-beneficiaries and comprised measures of household holdings in animal husbandry, crop production, communication, education expenditures, housing, media, medical and transportation means. The selected livelihood indicators were in line with (UDHS, 2006) except for the addition of medical expenditures, owned/rented shelter information and expenditures on education.

A total of 80 observations in a balanced panel each comprising 40 beneficiaries and non-beneficiaries respectively were analysed using an econometric techniques of Least Square Dummy Variable Model tests as well as the statistical measures of central tendencies. As shown on table 10, in all the themes considered under the livelihood means, the average assets holding of beneficiaries were higher than those of none beneficiaries. Both beneficiaries and non-beneficiaries had the highest average asset holdings in housing followed by animal husbandry. The lowest average assets holding were in medicine for non-beneficiaries and communication for beneficiaries. Expenditures on education were in third place under beneficiaries while crop production was in third place under non-beneficiaries. Under beneficiaries, the average assets holding under housing was higher than the total

package of average loans, savings and capitalization for a typical MFI in the community, possibly because of extra sources of income at household levels which not yet been mobilized into savings with MFIs.

Table 10. Individual Average Assets Holdings, Loans, Savings and Capitalization with MFIs

Livelihood Means	Balanced Panel	Number of Individuals		Average Asset Holdings in Livelihood Means UGX,000'		Average Loans, Savings and Capitalization with MFIs in the Community UGX,000'			
	Beneficiaries	Non-beneficiaries	Total	Beneficiaries	Non-beneficiaries	LNS	SVS	CAP	Total
Animal Husbandry	40	40	80	5227	2152	2115	1995	541	4651
Crop Production	40	40	80	2782	1488	2115	1995	541	4651
Housing	40	40	80	6855	3028	2115	1995	541	4651
Transportation	40	40	80	3034	1212	2115	1995	541	4651
Communication	40	40	80	179	128	2115	1995	541	4651
Education	40	40	80	3582	1506	2115	1995	541	4651
Media	40	40	80	197	102	2115	1995	541	4651
Medicine	40	40	80	228	88	2115	1995	541	4651

Keys; LNS=loans; SVS=savings and CAP=capitalization

The regression equation was subjected to the pooled regression model (PRM), the Least Square Dummy Variable Model (LSDVM) and separate regression model in order to examine any differences between beneficiaries and non-beneficiaries. From these models, the generated t-test results were used to establish the significance of differential intercepts and differential slopes. Based on the analysis of Model 1, differential unit intercepts from base categoryand Model 2, differential coefficients (intercepts and slope vectors) from base category, the following sets of results on Table 11 were obtained bringing out 2 strands of livelihood themes. A total of 3 livelihood themes were statistically the same (structurally stable) and 5 livelihood themes were statistically different (structurally unstable) betweenbeneficiaries and non-beneficiaries.

Livelihood Means that were structurally stable between beneficiaries and non-beneficiaries

Based on the differential intercepts from the base category (beneficiary), the null hypotheses that the intercepts were the same (no structural change) were accepted as the tests were insignificant for household holdings in animal husbandry at $p = 0.14$, housing stock at $p = 0.21$ and transportation means at $p = 0.16$. Hence, statisticallythere were no differences between beneficiaries and non-beneficiariesin those livelihood themes as shown on Table 11.

Table 11. Average Wealth Holding By Livelihood Means

Wealth Category	Average Wealth Holding in UGX'000		Model 1		Model 2	
	Model1	Model2	t-Statistic	Prob.	t-Statistic	Prob.
Animal						
Beneficiaries	6212.81	5226.93	3.32	0.00**	3.58	0.00**
Non-beneficiaries	-3074.68	-3297.97	-1.50	0.14	-1.24	0.22
Housing						
Beneficiaries	5703.53	6854.60	2.05	0.05*	3.09	0.00**
Non-beneficiaries	-3826.03	-3180.03	-1.26	0.21	-0.79	0.43
Transportation						
Beneficiaries	3687.64	3034.10	3.16	0.00**	3.33	0.00**
Non-beneficiaries	-1822.45	-1587.15	-1.42	0.16	-0.96	0.34
Communication						
Beneficiaries	146.92	178.90	7.71	0.00**	11.13	0.00**
Non-beneficiaries	-50.85	-77.10	-2.43	0.02*	-2.63	0.01**
Crop production						
Beneficiaries	2869.14	2781.60	4.92	0.00**	6.09	0.00**
Non-beneficiaries	-1293.63	-1593.75	-2.02	0.05*	-1.91	0.06
Education						
Beneficiaries	4147.09	3581.78	7.46	0.00**	8.13	0.00**
Non-beneficiaries	-2075.73	-1632.75	-3.40	0.00**	-2.03	0.05*
Media						
Beneficiaries	165.03	197.15	4.64	0.00**	6.95	0.00**
Non-beneficiaries	-94.93	-72.79	-2.43	0.02*	-1.41	0.16
Medicine						
Beneficiaries	179.48	228.40	3.20	0.00**	4.82	0.00**
Non-beneficiaries	-140.35	-147.86	-2.28	0.02**	-1.71	0.09

Keys; $**=(p \leq 0.01)$ $*=(p \leq 0.05)$

Livelihood Theme 1; Animal Husbandry

Household holdings in animal husbandry were investigated through the monetized value in possession of a stock of farm animals which included cows, goats, sheep, pigs, and chickens. As shown in table 11, the average wealth holding for beneficiary under

Animal Husbandry was UGX 6, 212,811 while that of non beneficiary was less by UGX 3,074,675. However, the estimated intercept coefficient for non beneficiary was not significant at p=0.14.Hence statistically, the mean wealth holding for beneficiary and non beneficiary were about the same. Further, the results showed that both the differential intercept and slope coefficients were statistically insignificant, strongly suggesting that the wealth holding in animal husbandry were about the same and due to both differential intercept and differential slopes between the controlled groups.

This could be due to the importance both beneficiaries and non-beneficiaries placed on Animal husbandry as their main source of income and livelihood means whereby an approximate proportion of 0.9 in household labour force is used by both parties to finance their economic activities.Culturally, the traditional marriage in the community involved exchange of animals for the bride to be which could affect either of the parties. A number of the NGO operating in the region have been involved in livestock restocking programme which could have also affected either parties.

Based on the dummy variable additive model, the results suggested, ceteris paribus, the level of savings goes up by UGX 1.00 on average, the wealth holding increases by UGX 2,700 as expected. However, as unexpected, the level of loan goes up by UGX 1.00 on average, the wealth holding reduces by UGX 8,329 and as the level of capital goes up by UGX 1.00 on average, the wealth holding reduces by UGX 2, 430. This could imply the sale of animal and withdrawal of capital to pay off loans which could be exceptional.

Livelihood Theme 2; Housing

The current dwelling units were investigated whether it was owned or rented by the individuals as well as whether the roofing types were grass thatched or iron sheet. As shown in table 11, the average mean wealth holding for beneficiary under Housing was UGX 5,703,527 while that of non beneficiary was less by UGX 3,826,025. However, the estimated intercept coefficient for non beneficiary was not significant at p=0.21 hence statistically, the mean wealth holding for beneficiary and non beneficiary were about the same.

Further, the results from dummy variable interactive model showed that both the differential intercept and the differential slope coefficients were statistically insignificant, strongly suggesting that the wealth holding in housing was about the same due to both differential intercept and slope coefficients. Under housing, it was established that proportionately, 60% of beneficiaries own their grass thatched houses as against 30% of non-beneficiaries who own theirs. Similarly, 45% of beneficiaries own their iron sheet dwelling as against 20% who are non-beneficiaries. These findings do not support the statistical significance that there is no difference in assets holding under housing livelihood mean

The results from the dummy variable modelsuggested, *ceteris paribus*, that as the level of savings goes up by UGX 1.00 on average, the wealth holding increases by UGX 90,120 as expected. However, as level of loan goes up by UGX 1.00 on average, the wealth holding reduces by UGX 25,821and as the level of capital goes up by UGX 1.00 on average, the wealth holding reduces by UGX 123,387. This could imply that loan obtained from SACCOs are not directly used for by buying animals and the capital base of the household is not directly ploughed back to purchase animal.

Livelihood Theme 3; Transportation

The null hypothesis asserted that the levels of household assets spending in transportation means of beneficiaries were different from those of non-beneficiaries in the community. Based on the dummy variable additive model, the average mean wealth holding for beneficiary under Transportation was UGX 3,687,637 while that of non beneficiary was less by UGX 1,822,450. However, the estimated intercept coefficient for non beneficiary was not significant at p=0.16 hence statistically, the mean wealth holding for beneficiary and non beneficiary were about the same. Further, the results showed that both the differential intercept and the differential slope coefficients were statistically insignificant, strongly suggesting that the wealth holding in transportation were about the same due to intercept and slope coefficients.

This could have been attributed to equal vehicle ownership at the community level whereby for both beneficiaries and non-beneficiarieshave the same proportion (0.1) of respondents have motor vehicles. The predominant mode of transport is bicycle in the community which is used by both parties due to poor road networks. Further, the results suggested, ceteris paribus, that as the level of loan goes up by UGX 1.00 on average, the wealth holding increases by UGX 12,345 as expected in the case direct loan purpose for transportation. However, as the level of savings goes up by UGX 1.00 on average, the wealth holding decreases by UGX 15,775 and as the level of capital goes up by UGX 1.00 on average, the wealth holding reduces by UGX 32,407. These are not the expected findings, however, there could be situation where transportation means are sold off and deposited with Sacco's as savings and buying of share in the Sacco's.

Livelihood Means that were Structurally Unstable between Beneficiaries and Non-beneficiaries

Based on the differential intercepts from the base category (beneficiary), the null hypotheses that the intercepts were the same (no structural change) were rejected as the tests were significant for household holdings in communication means at $p = 0.03$, crop

production at $p = 0.05$, education expenditures at $p = 0.02$, media means at $p = 0.00$ and medical treatments at $p = 0.00$. Hence there were structural differences between beneficiaries and non-beneficiaries in those livelihood themes as shown on Table 11. The first source of disparity could have stemmed from the source of financing of economic activities in which loan is used by the beneficiaries forthe direct purpose of especially paying school fees under education, emergency loans for medical treatments and direct loan for crop production under the specific sector model of microfinance.

The second source of disparity could have emerged from the proceeds of the engagement in micro business whereby 78 % of beneficiaries are involved against the participation of only 57% of non-beneficiaries. Otherwise both beneficiaries and non-beneficiaries fund their economic activities through savings, household labour, salaries where applicable and from sales of crop produced and farm animals. Whereby in the case of crop and animal, the beneficiaries have higher holding on the Average than the non-beneficiaries.

Livelihood Theme 4; Communication

The means of communication was probed through the individual possession of mobile and non mobile telephones which are prevalent at both the urban and rural areas of the sub region. As shown on Table 11, the average wealth holding for beneficiary under Communication was UGX 146,000 while that of non beneficiary was less by UGX 50,850. The estimated slope coefficient for non beneficiary was significant at p=0.02 hence statistically, the mean wealth holding for beneficiary and non beneficiary were different (mean wealth holding for non beneficiary was significantly lower by 2%).

Further, the dummy variable multiplicative model from the base category of beneficiary showed that the differential intercept was significant at p=0.01, therefore the null hypothesis that intercept were the same was rejected. Hence, statistically confirming that the mean wealth holding for beneficiary and non beneficiary were different due to differential in intercepts since the differential slope coefficients were statistically insignificant, therefore, suggested that the difference in wealth holding in communication were not due to differential slope coefficients.

Livelihood Theme 5; Crop Production

Crop production was probed through the types of crop grown and yield in the last harvest season as well as the current gardens ploughed in readiness for next season. Based on the dummy variable additive form, the average mean wealth holding for beneficiary under Crop UGX 2,869,142 while that of non beneficiary was less by UGX 1,293,625. The estimated slope coefficient for non-beneficiary was significant at p=0.05.Hence statistically, the mean wealth holding for beneficiary and non beneficiary were different (mean wealth holding for non-beneficiary was significantly lower by UGX 1,293,625).

Further, the results from the dummy variable interactive model, showed that both the differential intercept and the differential slope coefficients were not statistically significant, strongly suggesting that the difference in wealth holding in communication were due to both differential intercept and differential slopes. Differential intercept was confirmed above as the main source of different between beneficiaries and non-beneficiaries. In addition, loan beneficiaries would have added advantage to mechanize their farm holding and pay casual labours to promote higher yield than their non beneficiary counterpart.

Livelihood Theme 6; Education

Expenditure on education was probed through the number and level of school going children including self where applicable within the last one year. Based on the dummy variable additive model, the average mean spending for beneficiary under Education was UGX 4,147,092 while that of non beneficiary was less by UGX 2, 075,725 on an annual basis. The estimated slope coefficient for non beneficiary was highly significant at p=0.00 hence statistically, the mean spending for beneficiary and non beneficiary were different (mean spending for non beneficiary was significantly lower by UGX 2, 075,725).

The results from the analysis of the dummy variable interactive model, showed that the differential intercept was significant at p=0.05. Hence statistically, it confirmed that the mean spending for beneficiary and non beneficiary were different since the differential slope coefficients were statistically insignificant, and suggesting that the different in spending in education was not due to differential slopes.Household expenditures on education with a frequency of 66(83%) form the main use to proceeds from the loan after loan repayments. This is besides the ability to obtained direct loan for education purposes.

Livelihood Theme 7; Media

Access to mass media investigated the holding of radio and TV for the individuals surveyed. The null hypothesis asserted that the levels of household assets spending in media of beneficiaries were different from those of non-beneficiaries in the community. The average mean wealth holding for beneficiary under Media was UGX 197,150 while that of non beneficiary was less by UGX 72,793. The estimated slope coefficient for non beneficiary was highly significant at p=0.00 hence statistically, the mean wealth holding for beneficiary and non beneficiary were different (mean wealth holding for non beneficiary was significantly lower by

UGX 72,793). The results of the dummy variable interactive model, showed that both the differential intercept and the differential slope coefficients were statistically insignificant. This suggested that the difference in wealth holding in communication were due to both differential intercept and the differential slope coefficients.

At the community level, assets holding in media means is a prestigious consumption in comparison to the needs to feed and clothe the family. Hence through proceeds of the loans, beneficiary are better placed to hold more in comparison with the non-beneficiaries. Moreover 78 % of beneficiaries are engaged in micro business as against 57% of non-beneficiaries. Hence the proportionate need to be informedthrough the media while marketing and /or acquiring raw materials for their microbusiness.

Livelihood Theme 8; Medicine

The individual beneficiaries and non-beneficiaries were probed on the number of visits and expenditures in either Health Centre IVs or Referral Hospitals or Private Hospitals or Private Clinics in the last one year. The null hypothesis asserted that the levels of household assets expenditures in medicine of beneficiaries were different from those of non-beneficiaries in the community. Based on the dummy variable additive model, the average spending for beneficiary under Medicine was UGX 179,482 while that of non beneficiary was less by UGX 140,350. The estimated slope coefficient for non beneficiary was highly significant at p=0.03 hence statistically, the mean spending for beneficiary and non beneficiary were different (mean spending for non beneficiary was significantly lower by UGX 140,350).

Based on the dummy variable interactive model, the results showed that both the differential intercept and the differential slope coefficients were statistically insignificant, strongly suggesting that the difference in wealth holding in medicine were due to both differential intercepts and slopes. Beneficiaries have the ability to obtained special loan for medical purposes which cannot be available to non-beneficiaries.Non-beneficiaries prefer to health centres 1-4 than their counterpart. And proportionately, a higher proportion of beneficiaries were able to go to referral hospital which are for advanced sickness and more expensive than the health centres 1-4.

DISCUSSION

General Characteristics of the MFIs/SACCOs

The respondent SACCOs accessed in the study totalled to 23 out of 35 representing a response rate of 57% in primary data due to geographical disperse and low infrastructural development in some areas. However, to complement the primary data, secondary data for the total population of 65 SACCOs had been accessed through the UCSCU regional centre in Gulu for the sub region. All the SACCOs were registered under the Cooperative Societies Statute 1991 and Regulations 1993 and none were registered under the FIs Act 2004, BOU Acts (1969) and (2000), MDI Act (2003) and NGO Registration Board.

These SACCOs are at tier 4 level of Financial Institutions in Uganda and are not regulated by Bank of Uganda unlike the tier 1-3 FIs and the MDIs. The apex organization that supervises them is UCSCU. It uses the Cooperative Societies Statute 1991 and Regulations 1993 which cannot protect the depositors in case of failure of the SACCOs. The findings are in line with SIDBI (2008) on the Indian economy where absence of a proper regulatory framework and supervision mechanism for MFIs sector is a major hindrance to the orderly growth of the sector.

All the SACCOs used deposits and compulsory savings for lending, however, some SACCOs reportedly used some proportions of deposits and compulsory savings as expenses which could lead to erosion of equity funds and eventual failure to operate. Hence there is need to review the BOU and MDI Act (2003) to streamline the supervision of SACCOs. Therefore, the ongoing process of coming with the act to regulate SACCOs and protect the depositors from failing SACCOs should be expedited.

The SACCOs were all affiliated with UCSCU their apex organization. UCSCU has been chosen as the implementation agency for RFSP and is being assisted to build its capacity to more effectively undertake this role. A total of 14(61%) were affiliated with AMFIU and a further 3(13%) were affiliated with UCA. AMFIU is concerned with membership capacity building, performance monitoring, consumer education and general lobbying and advocacy for the development of the MFIs sector. While UCA is the national apex of the country's cooperative movement from the 1980s to date. It is concerned with training, nurturing and provision of technical assistance to SACCOs. The relationship amongst the apex and affiliated organization needs to be harmonized for reporting and avoidance of duplication of roles.

At international level, a total of 4(17%) were affiliated with SHG Banking Group, a proportionate number of 1(4%) each were affiliated with Opportunity International and Women World Banking Trust respectively and none was affiliated with Grameen Trust. As in the case of Oikocredit (2011), these affiliations are good for adoption of good practices from those peers and a source of whole sale fund for onward lending which are being missed out by a number of these SACCOs because they not affiliated to international organizations.

MFIs/SACCOs Services offered to the Community

The various MFIs/SACCOs services offered to the Community in the selected districts included share capital, pass book savings and loans to clients which are common to all the SACCOs and none offered insurance. These products are few in comparisons with the Asian and Latin American countries (SIDBI 2008). This could be due to lack of financial deepening even with higher tier levels of FIs in Uganda.

The loan products represented the various loan purposes which were for business, crop production, animal husbandry, education, medical and emergency. These products are being served to the predominantly rural community in Acholi sub region which are in line with the Social Performance Process Model (CGAP, 2007). According to this model, key outputs of MFIs are assessed as to whether the MFIs serve the poor and very poor and the products are designed to serve them.

MFIs/SACCOs Terms of Service, Sources and Uses of Funds in the Community

The minimum loan disbursed per clients range from UGX 20,000 to UGX 300,000. Given the current exchange rate of 1 USD=UGX 2650, some of the clients have complained that the minimum loan is too small at the equivalent of USD 7.54 to develop their micro business. This finding is in agreement with SIDBI (2008) on smallness of loan size and demand for loanable funds which forces loan beneficiaries to source for alternative sources and borrow more funds to top up on their business demand. However, the low level of minimum loan and the slow graduation rate from one level of loan to another call for periodic review of those levels with the clients in order for the MFIs to comply with Social Performance Process Model of MFIs operations.

All the SACCOs used deposits and compulsory savings for lending. However, some SACCOs reportedly used some proportions of deposits and compulsory savings as expenses. This could lead to erosion of equity funds and eventual failure of SACCOs if not checked through on site surveillance by the supervising authority. MFIs failures have been attributed to a number of factors amongst which are overexpansion, inadequate skills/working practices, organizational instability, mismanagement and fraud and malfeasance (Siwale and Ritchie, 2011).

Clients Relationship with SACCOs as Service Providers

The most frequent security for the loan is the protection of a guarantor which may be individuals or a group of individuals or institutions to which the borrower is affiliated. This is followed by pledge on household assets. The finding is in line Amal Aslam and NeelamAzmat (2012) where in Pakistan group guarantee constitutes 83% of lending portfolio and personal guarantors constitutes 72% of lending portfolio. The group guarantors are especially successful because of joint monetary liability in which if one member defaults, the remaining members are required to pay for that amount due to peer pressure which is constituted by the social pressure exerted by group members on one another to respect the repayment obligation or both joint monetary liability and social pressure.

According to CARE (2014), lending to groups or individuals with personal guarantors has proved remarkably successful with very high loan repayments rates of up to 97% and these are in fact higher than the repayments rates that commercial banks experience with wealthy borrowers. Credit risk in the operations of SACCOs could be further minimized through the use of the Grameen banking system of MF which has invariably been adapted by a number of SACCOs. This is based on the idea that the poor have skills that are under-utilized and a group-based credit approach is applied which utilizes the peer-pressure within the group to ensure the repayment is done (Grameen Bank 2010).

The frequencies of loan repayment are in some cases as short as weekly and fortnightly though the majority period is monthly. Higher frequency of loan repayment penalizes the borrower in terms of high effective interest amount to be paid. However, this is often foregone in cases of emergency loans and the generally high demand for credit which surpasses loanable funds as was the case in Gulu district. The findings on high interest rate is not in agreement with SIDBI (2008) in which it was observed that MFIs offer relatively cheap credit.

Effects of Microfinance Loans on Community Livelihood

A standard basket of livelihood means was measured for the control group of client and non clients. These comprised measures of crop production, animal production, transportation means, mass media, communication, education expenditures, medical expenditures and owned /rented shelters expenditures that have been established for commonality. The livelihood indicators were in line with (UDHS, 2006) except for the addition of medical expenditures, owned/rented shelter information and expenditures on education. The results showed that in the eight livelihood means considered, the average assets holding of beneficiaries were higher than those of non beneficiaries. However, through further statistical analysis, two strands of livelihood means emerged, namely; those that were structurally stable and those that were not. The structurally stable categories were household holdings in animal husbandry at $p = 0.14$, housing stock at $p = 0.21$ and transportation means at $p = 0.16$. Hence, statistically there were no differences between beneficiaries and non beneficiaries in those livelihood themes. This is in agreement with Mosley & Hulme

(1998) that the beneficial results of microfinance loans to the community can be a mixture of improvement and indifference to the status quo of livelihood means. A total of five categories were structurally unstable, namely; household holdings in communication means at $p = 0.03$, crop production at $p = 0.05$, education expenditures at $p = 0.02$, media means at $p = 0.00$ and medical treatments at $p = 0.00$. Hence there were structural differences between beneficiaries and non beneficiaries in those livelihood themes. Thus microfinance loan deployment in the community could have led to those higher holdings with the beneficiaries than with the non-beneficiaries besides other sources of financing. This is in agreement with Robinson (2002), Morduch and Haley (2002, Pisani & Yoskowitz (2005), Mawa (2008) and SIDBI (2008).

Conclusions and Recommendations

The results obtained brought out two strands of livelihood themes, namely; those which were structurally different and those that were not structurally different between beneficiaries and non-beneficiaries. Three structurally stable categories were household holdings in animal husbandry, housing stock and transportation. Hence, statistically there were no differences between beneficiaries and non-beneficiaries in those livelihood themes. A total of five categories were structurally unstable, namely; household holdings in communication means, crop production, education expenditures, media means and medical treatments.
However, in all the eight livelihoods themes, beneficiaries had higher average amount of holdings than the non-beneficiaries although statistically only five themes were significantly higher for beneficiaries than for non-beneficiaries. Hence microfinance loan deployment in the community could have led to those higher holding with the beneficiaries than the holdings of non-beneficiaries besides other sources of financing to the individuals in the community.

It is hereby recommended that the standard basket of livelihood means measured for the control group of client and non-beneficiaries could be tracked in a longitudinal study of cohorts in the sub region or elsewhere. The management of SACCOs would need to continually review the minimum and maximum loan with the economic conditions prevailing in their community and with the views to upgrade the products of beneficiaries. The engagement of SACCOs in deposit mobilization would need to be regulated at all tier 4 level of financial institutions in Uganda.

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