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Impact of Cooperative Finance on Household Income Generation

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The study assesses the role played by cooperative societies' loans services on members' economic condition through household income generation in rural areas where there is no bank or other formal financial providers. Using a questionnaire technique, the study covers the activities of cooperative societies located in rural communities and villages outside the state capital and local government headquarters where there is no electricity, water, and tarred road in Ogun State, Nigeria. Data are analysed using chi-square, t-test, ANOVA, and effect size. The study found that participation in a cooperative is associated with increase in household income, while membership duration, house ownership, and marital status are the three variables that contributed significantly to the increase in household income reported by members in addition to the program loan. The result indicates specifically that being a cooperative member for a longer period of time and living in rented houses were significant contributory factors towards increase in household income. However, there was no difference in the number of increase in household income reported based on marital status of the members. The use of cooperative loan increases household income level of the borrowers because the loan serves as additional investment and therefore helps to improve economic position for better living standard of the members. The increase in household income through cooperative loan is a financial capital which supports the social capital theory to explain the role of cooperatives in rural finance at the household level.

JEL Classifications: B26, D14, D61, D71, G23

Keywords: Cooperative, economic condition, household income, rural finance, social capital

The increase in the demand for financial services has brought changes to cooperative societies as a factor in financial, economic, and social science disciplines to the extent that over the years, local and international organisations have continued to explore the best modalities in the application of cooperative concept to almost every area of the economic needs of individuals at urban and rural areas. This may have necessitated the declaration of the year 2005 as the international year of microcredit and the year 2012 as the international year of cooperatives by the United Nations General Assembly.

The delivery of banking services in developing nations reaches less than 20% of the population (Rosenberg, 1995; Robinson, 2001). The rest of the population may not have access to a formal financial service provider because most formal financial service providers regard low income earners and households in rural areas as too poor financially to either save with or borrow from their institutions. Several categories of people such as rural inhabitants, poor people, and uneducated people are not served by formal financial institutions in developing countries (Adjei & Arun, 2009). Braverman and Guasch (1993) estimated that only 5% of farmers in Africa and about 15% in Asia and Latin America have had access to formal credit. On average across developing countries, they found that 5% of borrowers received 80% of formal credit. To buttress this finding, Rosenberg (1994) asserted that 90% of the rural population in developing countries lacks access to financial services from formal financial institutions, either for credit or for savings. This 90% may have no better alternative than to either patronise or participate in informal finance programs (Oluyombo, 2012). The informal financial sectors are those financial providers that cannot be classified as a separate legal entity since they are neither controlled nor regulated by the government (Oluyombo, 2007). Due to lack of formal financial providers in rural areas, semi-formal and informal financial providers such as cooperatives, rotational savings association, self-help group, and money lenders are major providers of financial services to rural areas. This study assess the part played by cooperative societies' loan services on participants' household income in rural area where there is no bank nor other formal financial providers. The objective of the study is to investigate through collected data if participation in cooperative loan services leads to increase in rural household income, and to also identify the possible reasons for increase and decrease in household income among cooperative societies' members.

LITERATURE REVIEW

Ghosh and Maharjan (2001) assessed the role of government sponsored cooperatives in improving the socio-economic conditions of their members. They collected data through questionnaire, observation, and case study from both cooperative and non-cooperative members. They reported that household income for members was higher than non-members, and much higher than the national figure, but it was not tested statistically. Larocque, Kalala, & Gaboury (2002) found that the total household income for cooperative member was 2.9 times higher than the poverty line. A cross sectional study by Ramotra and Kanase (2009) examined the impact of cooperatives on members' standard of living with the aid of interviews among cooperative members located in 12 villages in India. The study found a positive correlation (r=0.71) between income and household condition, which signify positive changes among members after the establishment of cooperatives. They concluded that per capital income of the members is on the increase.

Simkhada (2004) used cooperatives that offer savings, loans, and micro insurance services to their members and found that 62% of members and 20% of non-members increase their income. Adebayo, Chinedum, Dabo, & Pascal (2010) reported that 70% of the members' income increased but without comparison figure for non-members. The findings of Wanyama, Develtere, & Pollet (2008) revealed that participation in cooperatives leads to increase in members' household income and more employment. They found in Ghana that members obtain loans for informal business to support their wage income. Sharma, Simkhada, & Shrestha (2005) documented that members reported a higher increase in household income of 61.7% as against 20% by non-members. The non-members' performance was traced to a spill-over effect of the activities of the cooperative. However, their result was not tested statistically. Calkins and Ngo (2005) found that members' income increases more than non-members and control group. Significant difference between members and other group was found in Ghana, while the result in Cote d'Ivoire was not significant. Torfi, Kalantari, & Mohammadi (2011) reported a direct and meaningful relationship between income and social capital. Early members have better income than others who joined the scheme later (Holmgren, 2011). This is an indication that Africa and other developing nations may not be able to do without the services of the informal finance providers and it also reveals how important the informal finance providers are to the economic well-being of the rural people.

Edgcomb and Garber (1998) conducted a study to determine the impact of informal finance program at household level. They reported that existing clients increased their household income more than incoming clients over a period of one year. The pitfall of Edgcomb and Garber (1998) is the use of both individual informal finance program and village banking clients for the study. Falaiye (2002) studied an NGO finance program to determine the changes that the program's loans services has brought to the beneficiaries' level of income and household expenditure. She found that increase in household income is not statistically ($p=0.074$) traceable to membership of the program. The reasons given for reduction in household income include sickness, poor sales, death, and loss of job. The use of both rural and urban centres for the study is contrary to the title of the study that indicates rural area. Shaw (2004) examined the causes of income related impact gap and the reasons for differences between earnings of micro enterprises among poor and less poor clients. The study suggested that financial support for rural entrepreneurs helps to alleviate ill-effects of poverty. The poor in semi-urban locations have a better opportunity to exit poverty via any microenterprises than their rural counterparts. The researcher reported that 25% of households that were initially below poverty line came out of poverty after joining the program. The study concluded that it is harder for poor people in rural areas to get out of poverty than other areas. Todd (2000) reported that non-clients were more vulnerable than clients to decline in household income because 41% increase in clients income was traceable to business expansion while 40% is due to increase in sales. Adjei and Arun (2009) examined the depth of an NGO program that used group lending method in the provisions of savings, credit, insurance, and training services to the clients. The study concluded that clients have better standard of living than non-clients. The discussion in the paper suggests a quantitative research in data gathering but the researchers did not specify this. The researchers did not mention if the tool used was quantitative, qualitative, or a combination of both.

A study by Copestake, Dawson, Fanning, McKay, & Wright-Revolledo (2005) in Peru found that 17.7% of the clients experience improvement in their poverty level while the program had a significant effect on household income. Oke, Adeyemo, & Agbonlahor (2007) found that loan repayment increased by 0.27% based on additional loan, indicating that the program's clients have more capacity to accommodate more loans to increase their productivity and earnings. The program also led to increase in household income which is significant ($p=0.01$). Park and Ren (2001) studied the performance of Chinese rural finance program and found that the majority of the respondents—63%, 71%, and 97% in government, mixed, and NGO programs, respectively—reported that the program has brought an increase to their household income.

Research Hypothesis

Shaw's (2004) analysis on changes in income reported that 25% of households that were initially below poverty line exit poverty after joining an informal finance program and the household income of frequent clients is more than new clients'. The income of members increased when compared to their income level before joining the cooperative and helps to fight poverty (Ghosh & Maharjan, 2001). Simkhada (2004) reported that members experience better household income (62%) than non-members (20%). Edgcomb and Garber (1998) suggested that existing clients increased their household income more than incoming clients over a year period, while Sharma et al. (2005) recorded that household income of members (61.7%) was higher than non-members (20%). The above studies were not empirical in nature but they all reported an increase in members' household income more than non-members. However, the findings from empirical studies are inconclusive. For instance, Falaiye (2002) reported insignificant difference between existing clients and new clients in household income and increase in household income is not statistically ($p=0.074$) traceable to membership of the program, but Oke et al. (2007) documented a significant result ($p=0.01$) on the effect of program loan on members' household income. Ramotra and Kanase's (2009) study result indicated a positive correlation ($r=0.71$) between members income and household condition.

The inconsistency in the findings of previous empirical studies provides a basis for further examination of the effect of participation in cooperative societies on household income of the members. Furthermore, the conflicting findings of the two studies in Nigeria (Falaiye, 2002; Oke et al., 2007) that used NGO program in the same region of the country require further investigation. Moreover, none of the previous studies tested for the effect of participants' demographic variables as contributory factors to household income position, which is considered in this study. The hypothesis of this study will investigate the relationship that exists between access to cooperative loan and household income of the members. The hypothesis is stated below.

Research Hypothesis: There is no relationship between participation in a cooperative and increase in household income.

METHODOLOGY

The population for the study are unregistered cooperative societies in Ogun State, Nigeria. The choice of unregistered cooperative societies is because they are mostly found in rural areas and they also function more like financial institutions for rural dwellers. Two local governments that are categorized as rural—based on Nigeria's poverty index—were selected in each of the three senatorial district of the state for the study.

Five cooperatives were randomly selected in each local government area from which 11 individuals from the membership list were randomly selected to participate in the impact survey questionnaires. This include loan members and no-loan members. The no-loan members are members of the cooperative societies, but they did not take loans as at the time of the study. The choice of loan and no-loan members is to enable me to use the no-loan members as the control group for the loan members. I was able to receive responses to the questionnaire from only 302 people (91% of total sample). The remaining 28 people include the few who withdrew their participation and those who had to leave while administering the questionnaire because of other commitments they considered more important. The questionnaire was translated into the local language (Yoruba) of the respondents in order to gather accurate responses to the questions. I and my field assistants personally administered the questionnaires directly to the respondents by reading out the questions to them and they in turn provided their answer, which was then recorded in the appropriate space on the questionnaire. To avoid being biased in completing the questionnaires, officials of the cooperative societies were excluded from working as field assistants because "using program staff introduces the risk of biased responses and of compromising the validity and reliability of the data" (Barnes & Sebstad, 2000, pp. 44-45). During the field work, 223 questionnaires were administered to loan members and 79 to no-loan members. The responses from the survey questionnaires are analysed with an independent sample t-test to evaluate statistically significant differences in means between the two groups. One way analysis of variance (ANOVA) was computed to determine the demographic variables that contributed significantly to the result while the standard effect size was used to determine the relationship that exists between the dependent and independent variables from the t-test result.

RESULTS AND DISCUSSION

I define a household as a group of individuals who live together and share the same food at least once a day. This is necessary to ensure that those who are economically related are considered as part of the household and this is differentiated from other people that may be living there. "Household frameworks provide a basis for studying impacts on micro enterprises and individual household members" (Sebstad, 1998, p. 10). In the study centres, a typical household comprises majorly of nuclear family members and in few cases the extended family members who reside fully with the respondents such as grandchildren and their relatives who are included. On average the households have 3 to 4 adults and a mean total of 5 to 6 people (see Table 1). Forty households are headed by female while 262 households have male as their heads.

A larger proportion of members with loan than those without loan own their houses: 35% and 17.7% respectively. For households without loan, 63.3% live in rented houses as against 53.8% for households with loan. Others (19% and 11.2% of members without loan and those with loan respectively) either live in houses owned by their parents or family.

The study determines if there is a significant difference between the two groups on demographic variables such as gender and marital status. To accomplish this, chi-square test of significance was applied to variables measured on ordinal or nominal scale while t-test was applied on ratio and interval data as reported respectively in Tables 2 and 3.

Table 1
Household Demographic Information

	No-loan Member n=79	Loan Member n=223
Mean number of adults (person > 18 years)	3.26	3.78
Mean number of children (persons < 18 years)	1.99	2.19
Mean number in household	5.25	5.97
Mean age of respondents	38.02	40.75
Percent female headed household	16.46	12.11
Percent male headed household	83.54	87.89
Percent house ownership – self	17.7	35.0
Percent house ownership – rent it	63.3	53.8
Percent house ownership – parent/family	19.0	11.2

Table 2
Test of Significance on Demographic Variables between Loan and No-loan Members (Chi-square)

	Value	Df	Asymp. Sig (2-sided)
Marital Status	10.565	3	.014*
Gender	.033	1	.856
Educational Background	.264	4	.992
House Ownership	9.297	2	.010*
Family Type	3.023	1	.082
Family Headship	.527	2	.769

* Significant at five percent

Table 3

Tests of Significance on Demographic Variables between Loan and No-loan Members (t-tests)

Levene's test for equality of variance[1]	T-test for Equality of Means						
	F	Sig	T	Df	Sig. (2-tailed)	Mean Difference	Standard Error Difference
Age	.780	.378	2.306	300	.022*	.27150	.11773
Membership Duration	1.412	.236	8.453	300	.000*	.72793	.55846
Household Size	4.994	.026	2.338	300	.020*	.71993	.30787
Number of Children	13.403	.000	.938	300	.349	.20548	.21905

* Significant at five percent

The statistical tests results in Tables 2 and 3 reveal that the groups are similar in gender (p=0.856), educational background (p=0.992), family type (p=0.082), family headship (p=0.769), and number of children (p=0.349). There are significant differences between loan and no-loan members on five variables, namely, marital status (p=0.014), house ownership (p=0.010), age (p=0.022), membership duration (p<0.001), and household size (p=0.020). These criteria are used to further test the result of the hypothesis to ascertain if any of the variables have significant effect on the results in addition to the cooperative loan.

The respondents were more comfortable to report if their income reduced or reduced greatly, remained the same, increased or increased greatly when comparing their current income with what they earned a year earlier, since what they earn is not revealed to the researcher. One of the reasons for asking for the position of household income is because almost every other thing that happens at household level depends largely on income. Increase in income gives room for additional investment and also serves as contributory factor to fight against poverty (Haque & Yamao, 2009). In analysing the data, the five options were collapsed into three as "decreased" for those who reported "decrease greatly" and "decreased". Increase was used for responses to "increase greatly" and "increase" while those who reported "stayed the same" is left intact. The result of this question as stated in Table 4 shows that the higher percentage of respondents (87%) whose household income have increased in the past one year are loan members.

A decrease in income was experienced by 13% of the loan members and 16.5% by no-loan members. No-loan members are likely to suffer from reduction in household income more than loan members which may have negative effect on the no-loan members' standard of living. Household income for 7.6% of no-loan members stayed the same but there was no report of stagnation in income among loan members. Simkhada (2004) found 62% and 20% increases in household income for members and non-members respectively as against 87% and 75.9% for loan and no-loan members respectively found in this study. The loan members are able to increase their household income more than no-loan members. This suggests a possible improvement in loan members' economic condition and standard of living.

In order to conduct a t-test based on the result stated in Table 3, a new variable "total decrease" was created in the statistical software whereby all respondents who reported that their income had "decreased" and "stayed the same" were merged and assigned a number. These steps were necessary to determine if there is any relationship between participation in the program and increase

Table 4
Household Overall Income

Compare to a year ago, what is the position of your household overall income?	No-loan Member n=79		Loan Member n=223	
	No.	%	No.	%
Decreased	13	16.5	29	13
Stayed the same	6	7.6	0	0
Increased	60	75.9	194	87

in household income as stated in the research hypothesis.

The Sig. (2-Tailed) value is 0.021 which indicated significant relationship between participation in cooperatives and increase in household income. There is a significant difference (p=0.021) between the mean score of loan members (M=0.8700, SD=0.33711) and no-loan members (M=0.7595, SD=0.43012) who experienced an increase in their household income. Similar finding was documented by Ramotra and Kanase (2009) while Idowu and Salami (2011) found that a loan does not increase the borrowers' income. Likewise, Falaiye (2002) reported insignificant result of p=0.074, while Oke et al. (2007) documented a significant result of p=0.01. Participation in a cooperative as a loan member is associated with increase in household income. The standard effect size of cooperative loan on increase in household income is moderate with an average positive relationship. The more loans are given, the better for the members to increase their household income and reduce their poverty level. Any effort to hinder rural people from accessing loans from the cooperative without any similar alternative may make them vulnerable to low income, reduction in standard of living, increase their poverty level, and plunge them into financial hardship. An increase in rural household income may lead to more investment in rural areas with a positive linkage effect on other areas of rural economy for better household economic condition.

The study result of increase in household income provides the basis to support the social capital theory. This is because the social capital theory explains that membership of an association or a group leads to increase in economic condition of the participant because of lower cost of managing the common pool resources of the group (Anderson, Locker, & Nugent, 2002). This lower cost enhances members' ability to borrow and also use the loan to improve their household income.

A one-way ANOVA shown in Table 5 and Table 6 was conducted to determine if any of the demographic variables is significant to increase in household income. The result

Table 5
Group Statistics

	Access loan from the cooperative	N	Mean	Std. Deviation	Std. Error Mean
Numbers with increase in household income	Yes	223	.8700	.33711	.02257
	No	79	.7595	.43012	.04839

Table 6
Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Numbers with increase in household income	Equal variances assumed	19.121	.000	2.320	300	.021	.11046	.04760	.01678	.20414
	Equal variances not assumed			2.069	113.748	.041	.11046	.05340	.00468	.21625

suggests that there was no significant difference in increase in household income based on age (p=0.094), educational background (p=0.473), household size (p=0.909), and number of children (p=0.174). Those with disparity in any of these four variables above have equal opportunity to increase their household income. There was a significant effect of house ownership (p<0.001), membership duration (p=0.002), and marital status (p=0.048) on cooperative members with increase in household income. The contributory demographic variables are discussed below.

House Ownership: The ANOVA result indicates that the type of house ownership—self, rented and parent/family—influences household income. Those in rented houses have the highest performance (M=0.8941, SD=0.30860) in increase in household income compared to other groups who reside in their own houses and those living with parent/family. House building projects may be in progress for those who reside in their houses and they may have to pay more to complete their houses and thereby divert some of the income on the project with fewer funds left for their enterprise.

Membership Duration: The ANOVA test suggests that members who have been with the program for six years and above performed better (M=0.9417, SD=0.23537) in their household income than other groups. The order of increase in household income is for those with six years and above, two to five years, and 0-1 year. Being a cooperative member for a longer period of time was a significant contributory factor towards increase in household income. This finding agrees with Holmgren's (2011) study result that early members have better income than those who joined later. The longer a member stays with the scheme the more likely it is for that person to have more income. Those within 2-5 years and 6 years and above might have developed different skills from previous loan cycle on the proper way to manage their enterprises. These members could easily provide guarantors within the scheme and also have access to larger loan because of their accumulated savings. They appear more mature in the program to explore other means of managing cooperative loans for better household income.

Marital Status: The ANOVA result revealed that the marital status (married, separated/

divorced, widowed and single/never married) of the members did not reflect in their contribution, as no one contributed more than the others to bring about increase in household income. Cooperative members have equal opportunity to increase their household income and experience better standard of living irrespective of their marital status. It was expected that those who are married should have higher household income since they are likely to have more sources of income, but the result is the contrary. This can be interpreted to mean that all cooperative members in rural areas, irrespective of their marital status, have equal opportunity to increase their household income. House ownership, membership period, and marital status are significant to the creation of financial capital among cooperative members through increase in household income which supports the social capital theory.

Reasons for Decrease or Increase in Household Income

It is necessary to know the reasons why rural dwellers' income either increase or decrease. The questionnaire contains two questions that were used to elicit the data in order to provide answers to the questions.

Reasons for Decrease in Income: The respondents were given seven options on why their income decreases with opportunity for multiple answers where necessary. This was allowed in order not to limit them to a choice which may not necessarily reflect the reasons why their household income decreased, because reduction in income could be a function of more than one variable. Table 7 below shows the result on why household income decreases.

Reasons for reduction in household income reveal how vulnerable the poor are to unfavourable conditions and circumstances. Natural disaster and inability to collect proceeds on credit sales do not constitute reasons why household income decreases. The major reason for reduction in household income from the responses is poor sales. This is common to the two groups with 24.75% and 22.25% of loan members and no-loan members, respectively, citing this reason for decrease in income.

Sickness or death of household members was identified as the second reason for reduction in household income. Ten percent of loan members and 8.75% of no-loan members reported reduction in their household income due to death or sickness of household members. This may imply an increase in the cost of taking care of deceased or sick family members since such people cannot be left uncared for. This event is enough to erode the meagre capital of the rural people especially if it is the head of the household that is ill and the sickness lingers over a longer period of time. This may eventually introduce poverty into such household as a result of reduction in income due to inability to engage properly in business activities during sick period. The actual amount

Table 7
Reasons for Decrease in Household Income

Why did your income decrease?	No-loan Member n=79	Loan Member n=223
Household member fell sick or died	8.75%	10%
I have been sick	5.25%	7.5%
Loss to natural disaster	0%	0%
Unable to get stock	0%	4.5%
Poor sales	22.25%	24.75%
Could not collect credit sales	0%	0%
Lost job	0%	3.25%

spent on illness is not known, but it could be much for such expenses to have affected household income negatively for both groups. Sickness is a phenomenon that is common in depleting the income of rural dwellers especially loan and no-loan members of cooperative society. Trying to find out if there is public health facility in the communities where the study was conducted or the amount expended on health related issues is not within the research objectives.

Another reason given for income reduction is respondent's sickness. Those who reported to have been sick are 7.5% and 5.25% for loan and no-loan members respectively. This could be interpreted that few of the respondents have alternative plans such as engaging the service of responsible employees, to stabilize their household income even when they are sick. Ill health affected the two groups, which suggest that the poor are vulnerable to unfavourable incidents and if this persists, it could lead to reduction in consumption, investment, and difficulty in repaying loan from the cooperative. This may affect other contributors' opportunity to borrow from the cooperative since program funds may be tied down to some individuals when they are sick as their income reduces during such period. This result tally with that of Adjei, Arun, & Hossain (2009). Other conditions that affected the household income negatively are inability to get stock and loss of job which is peculiar to loan members alone. This is very minimal to other factors causing reduction in household income.

Reasons for Increase in Income: The respondents were given five options of likely reasons why their income increased and they were allowed to report multiple reasons for the increase. The five options and the responses to them are reported in Table 8 below.

The results identify expansion of existing business and commencement of new enterprise as the two predominant reasons for increase in income of loan and no-loan members. Expansion of existing businesses caused the increase in household income for 39.5% of loan members and 24.1% of no-loan members. More of the no-loan members (34.2%) reported that they started a new business and that led to an increase in their household income. Other factors such as opening a new shop, purchase of stock at cheaper prices, and getting a job also contributed to an increase in household income but there is no major difference in the result of both groups as their responses range between 20.3% and 25.3%. Participation in business activity is the driving force of rural economy which brought increase in household income with possibility for better standard of living. The combined result for loan and no-loan members revealed that a total of 35.43% reported expansion of business as the reason for the increase in their household income within a year while 29.14% started new business and eventually led to their household income being on the increase within the same period. Any policy that affects the rural business negatively will significantly reduce rural dwellers' ability to increase household income and improve their economic condition.

Table 8
Reasons for Increase in Household Income

Why did your income increase?	No-loan Member n=79	Loan Member n=223
Expansion of existing business	24.1%	39.5%
Started new business	34.2%	27.4%
Got a job	25.3%	25.1%
Bought stock at cheaper price	21.5%	23.8%
Opened a new shop	20.3%	21.1%

CONCLUSION

The statistical result using t-tests and ANOVA signify that participation in a cooperative as loan member is associated with increase in household income. This finding matches that of Calkins and Ngo (2005) wherein members' income increases more than non-members' and control group. The study found that membership duration, house ownership, and marital status are the three variables that contributed significantly to the increase in household income reported by loan members in addition to the loan. The result indicates specifically that being a cooperative member for a longer period of time and living in rented houses were significant contributory factors towards increase in household income. However, there was no difference in the number of increase in household income reported based on marital status of the members. The reasons for decrease in household income revealed that the poor are more vulnerable to unfavourable factors such as sickness and death in the family, which has negative impact on their household income and may probably reduce their consumption pattern and investment. This may lead to increased poverty and low standard of living if the situation does not get better on time. Two main reasons—expansion of business and commencement of new business—were identified for increase in household income.

The finding shows that the use of cooperative loan increases household income level of the borrowers because the loan serves as additional investment and therefore helps to improve economic position for better living standard of the members. Access to cooperative loan that leads to increase in household income, which is a financial capital, further support the social capital theory to explain the role of cooperatives in rural finance at the household level. The implication for practitioners is to device ways of reaching the rural people with loan product and to disabuse the minds of doubters that rural dwellers have no need for loan in growing their household income. This may require the establishment of formal finance providers where more fund can be mobilised and increase theamount of loan that could be given. The illiteracy level of the respondents made it difficult for them to personally complete the questionnaire without the researcher's assistance. This could create a mistake though adequate care was taken by the researcher in the field work. Since the respondents were not able to personally peruse the completed questionnaire before it was used for the study, it may likely affect the outcome of the study especially in areas where increase, decrease, and additions are used. In this case, future studies may want to consider members of registered cooperatives who may have better level of education than the unregistered cooperatives used in this study.

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