

## Determinants of Household Saving the case of Boditi Town, Wolaita Zone, Ethiopia

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### ABSTRACT

The study was conducted to identify factors affecting household saving in Boditi town. Data for the study was collected from 369 households from five Kebeles. Both primary and secondary sources were used for this study and multi-stage sampling technique was used to contact with the study units (households). To attain the objectives of the study the researcher used both descriptive and econometric analysis. With descriptive analysis percentages, figures, graphs, charts and tables were used to present determinants of private saving. The result shows that 181 respondents having family size 1 to 4, 102 households with family size 5 to 6 and the remaining respondents 86 with family size greater than 7. Most of the respondents were under age category 36 to 60 and their response to saving is highest than the rest of age category. Highest number of the respondents were educated secondary and diploma and above and their response to saving is greater than other education categories, the illiterate household's response to saving is lower which is due to low awareness to life style, low awareness to Saving, less involvement in other income generating activity. In logistic regression analyses the variables that are positively related with the probability of saving are household head age, sex, marital status, household education, credit, annual income and interest rate. The variables that are negatively correlated with the probability of saving are family size, distance from financial institution, distance from market and annual consumption expenditure. From 11 explanatory variables, 6 of the variables: family size of the household, household head sex, access to financial institution, credit access, annual income and interest rate have a significant effect on households saving at 1 percent and 5 percent significance level.

**Keywords:** Household Saving, Binary Logit Model, Boditi town

### INTRODUCTION

#### Background of the Study

Saving has been considered as one of the factors affecting growth to lead the developing countries to the path of development. Saving is an important factor of households' welfare in developing countries. On the other hand, without savings, households have few other mechanisms to smooth out unexpected variations in their income. For individuals and households savings provide a cushion of security against future contingencies where as for nation savings provide the funds needed in the developmental efforts (Abebe, 2017).

Although household saving is meant to cover consumption expenditure at large households in developing countries in general are financially constrained due to seasonality of cash flows, poor work culture and the resulting low income that makes saving seasonal and irregular, too. Mobilization of saving is also critical for

household welfare in that it helps households' smoothen their consumption and finance productive investments in human and physical capital (Karlán *et al.*, 2013) as cited in (Bogale, 2017).

In Ethiopia, low GDP per capita limits the potential for domestic savings in the short-run which would be encouraged by offering attractive interest rate for savers. Ethiopia's record in mobilization of saving, access of domestic credit to the private sector as well as the gross capital formation compared unfavorably with the Asian comparators is relatively low (Ibid).

Saving mobilization and development of saving habits of a given society will have an impact on capital accumulation and thus on economic growth of a country in general and on the financial well-being of the individuals in particular. Countries having higher level of saving rates have managed to reduce the burden

of foreign debt and thus domestic investments will be financed by domestic saving especially household sectors (Mengesha, 2015). In our country Ethiopia, in general and Boditi town particularly the smallholders' income is characterized as seasonal and irregular, in this situations savings are usually less considered. This Paper mainly present the factors that affect the household saving situation in Boditi town.

### Objectives of the Study

#### General Objective

The general objective of the study is to assess determinants of private saving in Boditi town, Wolaita Zone Ethiopia

#### Specific objectives

- To identify the determinants of private savings in the study area.
- To analyze forms of savings used by urban households in the study area.

## RESEARCH METHODOLOGY

### Description of the Study Area

This study was conducted in Boditi town which is located in Wolaita zone. Boditi is one of the six administrative towns in Wolaita Zone , in administrative hierarchy the town has equal status with districts and surrounded by Damot Gale district i.e. it borders with Fate in the South, Bala Koysha and Chocha in the South East, Wandara Gale and Sibaye Korke in the west , Ade Koysha in the North , Hagaza and Ade Aro in the Northern East. Boditi town has an estimated total population of 24,133 of whom 12225 are men and 11908 are women. The town is classified in to two sub-town Misrak Sub-town and Mirab sub-town (CSA, 2007)

It is located at 139 km South West of the Hawassa town which is the capital of Southern Regional State and 365km from Addis Ababa in the southern direction. This town has a latitude and longitude of 6°58'N 37°52'E With an elevation of 2050 meters above sea levels (<https://en.m.wikipedia.org>).

### Data Type and Source

Primary data was used for this study was collected from households who were residents of Boditi town.

Information on the demographic and socio economic condition of the households was collected through structured questionnaires by close ended elicitation format with open ended

follow up questions. The structured questionnaires were posted to the heads of the households with face to face interviews. Interviews contained inquiries about demographic and socio-economic aspects - age, sex, marital status, household family size, household head education level, household market access, access to financial institution, interest rate , annual income, annual consumption expenditure and credit access in the study area.

Secondary data obtained from Boditi town administration offices, investment office, finance office and CSA.

Both quantitative and qualitative data types were used to analyze determinants of household saving as they complement each other.

### Sample Size Determination

In order to collect reliable and representative sample out of the target population the sample size was decided or determined by applying the scientific formula (Yemane, 1967) as shown below

$$n = \frac{N}{1+N(e)^2} \quad 2.1$$

N- The number of total households in the town

n = sample size

e = level of precision which is equal to 0.05

The researcher has decided to take the true margin of error 5% with confidence level 95%.

$$n = \frac{N}{1+N(e)^2}$$

$$n = \frac{4826}{1+4826(0.05)^2} = 369$$

### Sampling Technique

In this study households were the basic sampling units in order to get quantitative and qualitative data on the determinants of household saving in the study area. A Multi-stage sampling technique was employed to get the required primary data. At the first stage, Boditi town was selected purposively, in the second stage, 5 kebeles were selected by simple random sampling techniques out of 9 Kebeles. A probability proportion to size (PPS) was employed to determine sample size from each kebele. Accordingly 369 households were selected through systematic random sampling techniques. The first household was selected by lottery method and the rest survey points selected by interval.

**Method of Data Analysis**

To achieve the objectives of the study the researcher employed both descriptive and econometric analysis. Descriptive analysis used percentages, graphs and tabulations to explain different socio economic characteristics of the households and binary logit model was used to identify the effect of explanatory variables on household saving in the study area. Tools and statistics used in descriptive and econometric are generated with the help of econometric software STATA version 11.

**Econometric Model**

When the dependant variable in regression is binary the analysis could be conducted by using linear probability and index models *i.e.* logit or probit. But the result of linear probability model may generate predicted values less than zero or greater than one, which violate the basic principles of probability. However, the index models logit or probit models generate predicted values between 0 and 1, they fit well to the non-linear relationship between the probabilities and the explanatory variable. Each model has its own strength and weaknesses, but in this study

logit model is preferable to probit model as it has more plausible feature such as simplicity: The equation of the logit is very simple, inverse linearizing transformation for the logit model is directly interpretable as log-odds, while the inverse transformation probit model does not have a direct interpretation (Gujarati, 2009).

**Binary Logit Model**

The choice of the logit model is premised on the fact that ordinary least squares assumes a continuous dependant variable while in the case of Household saving the response is a binomial process taking the value 1 for saving and 0 for non-saving. The parameters of this model were estimated by using the maximum likelihood estimation rather than the movement estimation in which OLS regression technique rely on. The logit method gives parameter estimates that are asymptotically efficient, and consistent. Indeed, the logit approach is known to produce statistically sound results (Gujarati, 2009). Probability of saving is specified as the value of the cumulative distribution function which is specified as function of the explanatory variables.

$$Pr = \frac{e^{\beta_0 + \beta_1 X_1}}{1 + e^{\beta_0 + \beta_1 X_1}} \quad \text{Or equivalently } Pr(event) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1)}} \quad \text{--- (2.2)}$$

Where,  $\beta_0$  and  $\beta_1$  are coefficients to be estimated from data,  $X_i$  is the independent variable  $e$  is the base of the natural logarithm.

For ease of exposition the model can be written as (for more than one independent variables)

$$Pr(event) = \frac{e^{Z_i}}{1 + e^{Z_i}} \quad \text{Or equivalently } Pr(event) = \frac{1}{1 + e^{-Z_i}} \quad \text{--- (2.3)}$$

This particular study was deal about the probability of saving or not-saving and this expression expressed in mathematical form as follows:

The probability of Saving (an event occurring) as the form:

$$Pr(y = 1/x) = Pr(Y = 1) = \frac{e^{z_i}}{1 + e^{z_i}} = \frac{1}{1 + e^{-z_i}} \quad \text{--- (2.4)}$$

$$z = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k + \varepsilon \quad \text{--- (2.5)}$$

Note: - the error term  $\varepsilon$  also follows logistic distribution

For a not-Saving cumulative logistic distribution, representing the probability is just  $(1-p_i)$  i.e.

$$1 - pr(y = 1/x) = \frac{e^{-z_i}}{1 + e^{-z_i}} \quad \text{--- (2.6)}$$

Therefore, by dividing equation (2.4) by equation (2.6) we can result in the odds-ratio in binary response, which is as stated below:

$$\frac{pr(y = 1/x)}{[1 - pr(y = 1/x)]} = \frac{P(Y = 1)}{1 - P(Y = 1)} = \frac{\frac{1}{1 + e^{-z_i}}}{\frac{e^{-z_i}}{1 + e^{-z_i}}} = \frac{1}{e^{-z_i}} = e^{z_i} \quad \text{--- (2.7)}$$

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When we take the natural logarithm of odd-ratio of equation (2.7) will result in logit model as we can see below

$$Li = \ln((P(Y = 1))/(1 - P(Y = 1))) = Zi = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9 + \beta_{10} x_{10} + \beta_{11} x_{11} \dots \dots \dots (2.8)$$

### Assumptions of Logistic model

- Assumes a linear relationship between the logit of the independent variable and dependant variables, however, does not assume a linear relationship between the actual dependant and independent variable
- Independent variables were not linear functions of each other, i.e. perfect multicollinearity makes estimation impossible.
- The model was correctly specified i.e.

- The true conditional probabilities are a logistic function of the independent variables;
- No important variables are omitted;
- No extraneous variables are included; and
- The independent variables are measured without error.

Based on the above justification, the researcher specified the logit model for probability of saving or not-saving of a household and determinants of saving as follows:-

$$Y_i = \beta_0 + \beta_1 Ag + \beta_2 Sex + \beta_3 FS + \beta_4 Mr + \beta_5 Edu + \beta_6 AcFI + \beta_7 AcMkt + \beta_8 AnI + \beta_9 AnEx + \beta_{10} Crd + \beta_{11} r + \varepsilon_i \dots \dots \dots (2.9)$$

Therefore  $Y_i = 1$  if household is saving and  $=0$  if household is not saving,  $\beta_i$  is regression parameters,  $\varepsilon_i$  is the error term and the explanatory variables was defined under the

variable description section 2.7. The regression was estimated by Maximum likelihood technique.

### Variable Description and Their Expected Sign

**Table 2.1.** Variables and their Expected Sign

Variable Name	Description of variable	Measurement	Expected sign
Saving	Probability of Saving	Dummy (1= saving, 0 = not-saving)	Dependant
Ag	Age of the household head	Continuous variable measured in years	+
Sex	Sex of the household head	Dummy(1=male,0=female)	+
FS	Family size of the households	Continuous variable measured in number	-
Mrs	Marital status of household	Dummy(1=married,0=unmarried+ divorced + widowed )	+
Edu	Education of household head	Continuous variable measured in years of schooling	+
AcFI	Access to financial institutions	Continuous measured in Km	-
AcMkt	Market access	Continuous measured in Km	-
AnI	Annual Income	Continuous measured in birr	+
AnCexp	Annual Consumption expenditure	Continuous measured in birr	-
Crd	Household access to credit	Dummy(1 ,if the household access credit, 0 otherwise)	+
r	Interest rate	Continuous variable measured in birr	+

## RESULT AND DISCUSSION

This part of the study deals with the results of descriptive analysis and binary logit model regression results of the determinants of households saving. The analysis was conducted in line with the objectives of the study. Section 3.1 deals with descriptive analysis and section 3.2 presents the results of the econometric analysis.

### Descriptive Analysis

#### Demographic and Socio-economic characteristics of the Households

##### Family size of respondents

Family size is one of factors affecting saving status of households in the study area. 181(49.05%) respondents were having family size 1 to 4 (out of these 31.15% were saving and

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17.9% were not saving), 102(27.65%) households with family size 5 to 6 out of these respondents 12.5% are saving and 15.15% were not saving and the remaining respondents 86(23.3% ). with family size greater than 7(out of these 16.5%(majority) were not saving and only 6.8% were saving.

As it was clearly indicated by table 3.1 below Households with large family save less where as households with lower family size save more

**Table3.1 .Family size of the respondants**

Families	Number of Respondents	Percentage	Saving	
			yes	No
1to 4	181	49.05	115(31.15%)	66(17.9%)
5 to 6	102	27.65	46(12.5%)	56(15.15%)
Greater than 7	86	23.3	25(6.8%)	61(16.5%)
Total	369	100	186(50.45%)	183(49.55%)

### Age

As it was indicated in table 3.2 below,98(26.6%) of respondents were under age category 25 to 35, 216(58.5%) of respondents under age category 36 to 60 and 55(14.1%) of the respondents age greater than 60. Large number of the respondents' age category was 36

**Table, 3.2 Age distribution of respondents**

Age	Number of respondents	Percentage	Saving Status	
			Yes	No
25 to 35	98	26.6%	38(10.35%)	60(16.25%)
36 to 60	216	58.5%	120(32.5%)	96(26%)
>60	55	14.9%	28(7.6%)	27(7.3%)
Total	369	100	186(50.45%)	183(49.55%)

Source: own survey 2018

### Education level of respondents

Education level play major role in determining saving level of households through improvement of income; increase knowledge of the household to use new technology, help to participate in different income generating activities, family planning and improve management of resources. All those lead to good productivity of the household and can enhance income level which is directly related to saving. But, due to the lack of access to education, the greater number of the respondents saves less due to poor management of resources,

**Table 3.3 Educational level of respondents**

Education level	Frequency	Percentage	Saving Status	
			Yes	No
Illiterate	41	11.11%	13(3.52%)	28(7.59%)

.The result is due to the fact that large family size resulted due to lack of awareness to family planning in the study area. Possible interpretation for the finding is for large family size, it is difficult to feed by one household head and their consumption level is greater than saving. Typically, large family size has the significant relationship with lower saving, an increase in the household size; the demand for household consumption increases and at the same time saving decreases.

to 60 and their response to saving was higher than the rest of age category. It is due to as age increases households would acquire knowledge and experience through continuous learning which help them to actively participate in different activities that help them to generate income and when income increases people save more.

poor family planning low awareness to technology.

As the table 3.3 below shows, 41(11.11%) of the respondents were illiterate, 100(27.11%) completed primary education, 151(40.91%) completed secondary education, and 77 (20.87%) of the respondents education level was diploma and above, the finding clearly indicates that illiterate household's saving level was low due to low awareness to life style, lack of awareness to saving, less involvement of other income generation activity.



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1 to 8	100	27.11%	48(13.02%)	52(14.09%)
9 to 12	151	40.91%	86(23.31%)	65(17.60%)
<b>Diploma and above</b>	77	20.87%	39(10.6%)	38(10.27%)
Total	369	100	186(50.45%)	183(49.55%)

Source: own survey 2018

### Econometric Analysis

In addition to descriptive analysis, the logistic regression model was employed to identify the determinants of household saving in the study area. Before regressing variables included in the model were tested for the existence of multi-collinearity, if any. Contingency coefficient and variance inflation factor were used for multi-collinearity test of discrete and continuous variables, respectively.

Contingency coefficient value ranges between 0 and 1, and as a rule of thumb variable with contingency coefficient below 0.75 shows weak association and value above it indicates strong association of variables. The contingency coefficient for the discrete variables included in the model was less than 0.75 that didn't suggest multi-collinearity to be a serious concern. As a common practice continuous variable having variance inflation factor of less than 10 are believed to have no multi-collinearity and those with VIF of above 10 are subjected to the problem and should be excluded from the model (Gujarati, 2009).

So as to identify the major determinants of

### logit saving hhsex hhage fs maritalstatus headedu acfi ani acmkt crt anx r

Logistic regression Number of obs = 369

LR chi2 (11) = 292.39

Prob > chi2 = 0.0000

Log likelihood = -108.86366 Pseudo R2 = 0.6919

Saving	Coef.	Std. Err.	Z	P>z
Hhsex	0.069731442	.0213246	3.27	0.001*
Hhage	.0041881	.0132939	0.32	0.753
Fs	-.532629	.1128206	-4.72	0.000*
maritalstu-s	.1618587	.2498432	0.65	0.517
Headed	.0007129	.0631131	0.01	0.991
Acfi	-.2285486	.1160804	-1.97	0.044**
AnCex	.0000351	.0000309	1.14	0.256
Crt	.933554	.4902046	1.90	0.049**
Acmtk	-.3666635	.3198123	-1.15	0.252
Ani	-.083614	.0321596	-2.59	0.009*
R	-.9949396	.1161402	-8.57	0.000*
_cons	2.526956	1.142325	2.21	0.027**

NB: \* significant at 1%, and \*\* significant at 5%

Source: own survey result, 2018

The regression result revealed above shows variables that are positively related with the probability of saving are household head sex,

household saving the dependent variable was regressed against various independent variables. The regression table revealed that binary logistic model managed to predict 69% of the responses correctly.

Apart from percent correct predictions, the model Chi-Square with "n" degrees of freedom. Accordingly, p-values associated the Chi-Square with 11 degrees of freedom. The value of .0000 indicates that the model as a whole is statistically significant that shows the model fit the data well.

Robust logistic regression was used to control for heteroscedasticity in binary outcome models. Heteroscedasticity in binary outcome models will affect both the "Betas" and their standard errors (Wooldridge, 2001). In this particular study both regression i.e. earlier regression and robust logistic regression have the same result. None of the coefficients changed, but the standard errors and Z values are a little different. Had there been more heteroscedasticity in these data, would have probably seen bigger change. Therefore this model is free from heteroscedasticity problem.

age, marital status, household education, credit, annual income and interest rate. The variables that are negatively related with the probability

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of household saving are family size, distance from financial institution, distance from market and annual expenditure

In the table above out of 11 independent variables, 6 variables: household sex, family size, access to financial institution, annual income, credit access and interest rate have a significant effect on household saving at 1 percent and 5 percent .The negative values of explanatory variables in the table indicates that when the unit change in independent variable lead to decrease in probability of household saving.

### Marginal Effect for Logit Regression

Since the logit model we employed for regression analysis is not linear, the marginal effect of each independent variable on the dependant variable is not constant but it depends on the value of the independent variables. Thus, marginal effects can be a means for **Mfx**

#### Marginal effects after logistic

$y = \text{Pr}(\text{saving}) (\text{predict})$

$= .63688845$

Variable	dy/dx	Std. Err.	Z	P>z
hhsex*	0.0583222	.01762	3.31	0.001*
Hhage	.001044	.00331	0.32	0.753
Fs	-.1327722	.02801	-4.74	0.000*
marita~s*	.0403477	.06226	0.65	0.517
Headed	.0001777	.01573	0.01	0.991
Acfi	-.0569719	.02894	-1.97	0.049**
AnCex	8.76e-06	.00001	1.14	0.255
Crt *	.228874	.1159	1.97	0.048**
Acmkt	-.0914008	.07978	-1.15	0.252
Ani	-.0817386	.03221	-2.53	0.009*
r	.2480156	.02902	8.55	0.000*

(\*)  $dy/dx$  is for discrete change of dummy variable from 0 to 1

Source: own survey result, 2018

### Family Size

The size of household was negatively related with probability of household saving and the coefficient is statistically different from zero at 1percent significance level. Holding all other variables constant at their mean values, when household family size increase by one individual, probability of households saving decrease by about 13.27%. This is result is due to the fact that when family size increases with its existing high rate of fertility, less employment opportunity, weak work habit members of the family become unemployed and coupled with low rate of payment. Therefore,

summarizing how change in a response is related to change in a covariate. For categorical variables, the effects of discrete changes are computed, i.e., the marginal effects for categorical variables show how  $P(Y = 1)$  is predicted to change as  $X_k$  changes from 0 to 1 holding all other  $X_s$  constant.

Whereas for continuous independent variables, the marginal effect measures the instantaneous rate of change, i.e. we compute them for a variable while all other variables are held constant .That means in this study change in the probability of household saving with a unit change in continuous independent variable. Thus, opposed to linear regression case, it is not possible to interpret the estimated parameters as the effect of the independent variable up on saving. However, it is possible to compute the marginal effects at some interesting values of the significant explanatory variables.

additional household member shares the limited resources that lead the household to save less.

### Interest rate (r)

Interest rate is one of the factors that determine households saving level. As it was expected the variable is positively related with dependent variable and coefficient is statistically different from zero at less 1% level. Holding other variables constant at their mean level, a unit increase in interest rate leads to increase in probability of household saving at about 24.8 percent. The possible explanation for this finding is when interest rate for saving increases

people's motive to consume decrease and increase their saving level.

### Credit access

One of the model variables in this study is households' access to credit. As it was hypothesized the variable is positively related and coefficient is statistically different from zero at less than 5 percent level. Holding other variables constant, when access to credit change from "no access" to "credit access" probability of saving increases at about 22.8 percent. The result was due to the fact that access to credit can increase an opportunity to invest and participate in different income generating activity which can enhance income and saving level at the same time.

### Household Sex

The variables sex of the household head positively related to probability of saving and the coefficient was significantly different from zero at 1 percent level.

Keeping other variables constant, change in sex of household head from "female to male" probability of saving increase at about 5.8 percent.

This result is due to female headed households in general have more dependents and thus have higher non-workers to workers ratio compared to other households, they work for lower wages and have less access to assets and productive resources compared to men, owing to gender bias against women and bear the burden of household chores that result in time and mobility constraints compared to male-heads. Therefore, Male headed households are expected to have better chance of earning income and when income increases saving level of the household increases.

### Annual income of the household

In this study annual income of the household was positively related and coefficient is significantly different from zero at 1 percent level.

Other things remain constant, when annual income of the household increase by a unit, probability of household saving increase at about 8.17 percent. This is due to the fact that when income increases households' tendency to save increase it means as income increase proportion of income saved also increases which are because share of income consumed decreases.

### Access to financial institution

Financial institution access was one of the factor that affect households saving in the study area. When access to financial institution increases (distance increase by a kilo meter) probability of households saving decrease at about 56.9 percent other variables remain constant. The Possible interpretation for the result was households near to financial institutions have a locational advantage, can contact easily to financial system, and have more access to information than those who live more distant locations.

### CONCLUSION

The study was conducted to identify factors affecting households saving in Boditi town. Data for the study was collected from 369 urban households from five kebeles. The researcher used descriptive and econometric analysis to identify the effect of explanatory variables on independent variable. With descriptive percentages, graphs, charts and tables were used to present factors affecting household saving. The result shows that 181(49.05%) respondents were having family size 1 to 4 (out of these 31.15% were saving and 17.9% were not saving), 102(27.65%) households with family size 5 to 6 out of these respondents 12.5% are saving and 15.15% were not saving and the remaining respondents 86(23.3%) with family size greater than 7(out of these 16.5%(majority) were not saving and only 6.8% were saving. Most of the respondents were under age category 36 to 60 and their response to saving is highest than the rest of age category. It is due to the fact that as age increases households would acquire knowledge and experience through continuous learning which help them to actively participate in different activities that help them to generate income and when income increases people save more.

Majority or the greater number of the respondents were educated secondary and diploma and above i.e. 40.91% and 20.87% respectively. At the same time their response to saving is greater than other education categories, when we see the illiterate household's response to saving is low this is due to low awareness to life style, low awareness to Saving, less involvement of other income generation activity. In logistic regression analyses the variables that are positively related with the probability of saving are household head age, sex, marital status, household education, credit,



annual income and interest rate. The variables that are negatively correlated with the probability of saving are family size, distance from financial institution, distance from market and annual consumption expenditure. From 11 explanatory variables, 6 of the variables: family size of the household, household head sex, access to financial institution, credit access, annual income and interest rate have a significant effect on households saving at 1 percent and 5 percent significance level.

### RECOMMENDATION

Based on the above conclusion the following policy recommendations were forwarded.

- Access to credit was positively correlated with household saving in the study area. It helps households to improve their participation in different activities and enhance productivity, create job, to smooth consumption flows but with a prior saving used as pre requisite to qualify for credit in the form of group lending hinders credit access to households with lower income in the area. However, respondents find group lending inconvenient to access credit from MFI since they are rejected from the group by better offs on one hand and pre requisite saving requirement on the other. Therefore, accommodative credit policy should be employed; meaning that MFIs and other development agencies need to introduce credit policies targeting poorest of the poor.
- Family planning and related measures should be taken to limit household family size.
- Financial institution access improves household's probability of saving and can enhance households' information accessibility to the institution, give location advantage and help to save money easily, hence concerned body should establish financial institution in the vicinities of households.

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