Journal of Economics and Sustainable Development
ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
Vol.6, No.7, 2015

Determinants of Household Saving in Gedeo Zone, Southern Ethiopia

Halefom Yigzaw Nigus
Department of Economics, Dilla University, Dilla, Ethiopia
E-mail of the corresponding author: yigzaw2712@gmail.com

Abstract
This study examines the factors contributing for low rate of saving: the case of Gedeo zone. The study employed both descriptive and econometric method of data analysis. It employed censored regression model, that is, the **Tobit model** to investigate the main determinants of household saving in Gedeo zone. Accordingly, it is found that income, education, gender (being female), availability of financial institutions such as Banks and Microfinance institutions positively and significantly affects household saving. However, people in the early age and saving are negatively and significantly related. The study also found that other determinants of household saving like location of the household head (Households reside in the rural area) and household size negatively and significantly affects household saving. That is, households reside in the urban area save more than households reside in the rural area and as household size increase household saving changes in the opposite direction.
Keywords: Age, education, female, Gedeo zone, gender, household, household saving, household size, income, model, rural, tobit, urban.

1. INTRODUCTION

Achieving sustainable and steady economic growth is the primary objective of world's countries in general and least developed countries (LDCs) in particular. To attain rapid, sustainable and steady economic growth, investment is the most important factor. Investment in turn is determined by the amount of domestic (national) saving of a country.

Adam Smith, the father of economics did talk about growth and to him it was governed basically by capital accumulation and division of labor, and capital accumulation in turn is governed by the level of domestic saving. Harrod and Domar[1] said that in order to grow economies must save and invest a certain proportion of their Gross Domestic Product (GDP). Hence, the more they can save and invest; the faster they can grow (Todaro, 2000). According to Meier (1995) cited in Todaro (2000), these countries experienced low level of income from which saving is not expected to finance investment, which in turn leads to low productivity, which is equivalent to low level of income. Thus, the low level of saving becomes both the cause and consequence for the poverty they are in.

Developing economies have faced low level of saving rate and the required rise in capital stock (investment) creates a resource gap. To fill this gap, least developed countries have looked foreign assistance (Abeba, 2002). However, many economists in development economics favor increased investment through domestic saving (Barro, 1999). In the theory of ''the need for national saving (Bhagwati, 1966) said that, though the aid-investment growth is necessary, there was warnings in that there is excessive indebtness which leads to the problem of servicing loans.

Saving rates around the world vary widely; on average East Asia saves more than 30% while SSA saves less than 15% (Loayza *et.al*., 2000). The level of domestic saving in Ethiopia is very low hence; it is experiencing a severe resource gap. According to Tsegabirhan (2010), Gross Domestic Saving/Gross Domestic Product ratio of Ethiopia from 1997 to 2002 was 6.6% which was lower than from the low income SSA which is 7.1%. However, the problem becomes severe recently. According to this study, the domestic saving of Ethiopia in 2007, 2008, 2009 and 2010 was 5.6%, 0.6%, 2.1% and 0.3%respectively. On the other hand, the domestic saving of the low income SSA was 9.6%, 7.3%, 7.8% and 8.6% respectively in the same years.

A number of studies have been conducted on saving in different time periods and in both developed and developing countries. Most of these studies assessed the determinants of saving at national and regional level and there were few studies which were conducted at household level. According to Tsegabirhan (2010), the domestic saving in Ethiopia have been quite low and the reason for low saving is the fact that the embryonic stage of the financial sector, both the banking and non-banking sectors.

Although studies on the determinants of saving increasingly focus in both developed and developing countries, this phenomenon has not been well documented for Ethiopia, particularly at household (micro) level,

[1] Harrod-Domar Growth Model: economies in order to grow, new investments representing net additions to the capital stock are necessary. The economic growth rate is positively related to the savings ratio, that is, the more an economy is able to save and invest out of a given GDP, the greater the growth of that GDP will be.

especially in the study area. That is why the researcher tried to study the determinants of saving at household level.

This study has tried to address the following specific objectives.

- To assess the level of household saving in Gedeo zone.
- To examine the main determinants of household saving in Gedeo zone.

2. EMPIRICAL LITERATURE REVIEW

Several studies have been conducted across different countries of the world on the determinants of saving (national saving and household saving).

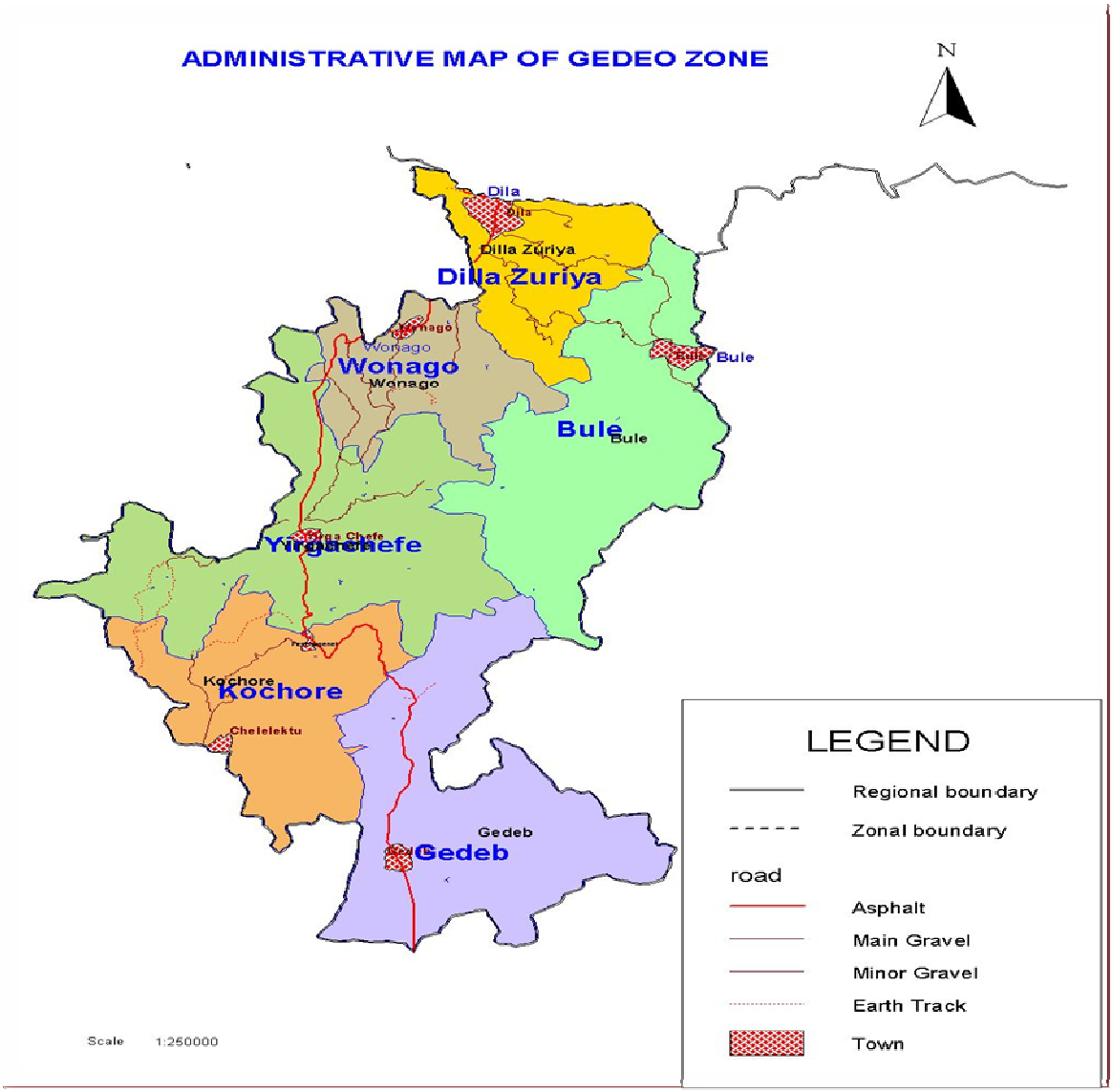
Harris *et al.,* (1999), found that current incomes are perhaps the major determinant of saving. They also found that male have higher saving than female and demographics and households level of economic optimism play a key role in Australia. In China the study by, Horioka and Wan (2007), revealed that China's household saving rate has been high and rising and that the main determinants of variations over time and over space therein are the lagged saving rate, the income growth rate, and (in some cases) the real interest rate and the inflation rate. But, the age structure of the population usually does not have a significant impact on the household saving rate. Abdelkhalek *et al.,* (2009), in Morocco also found current income strongly affects the saving level and the household's size is significant only in the urban case: an additional person reduces the household saving. For the life cycle hypothesis, the results are not significant. They also found that Moroccan women save more than men when they took into account the interaction between gender and income. The results suggest that the self financing of rural household activities may be due to the lack of access to formal financial intermediaries.

A study by, Ozcan (1996) income level has a positive impact on the private saving rate and growth rate of income is not statistically significant. From a policy point of view, financial depth and development measure of Turkey suggests that countries with deeper financial systems will tend to have higher private saving rates. Private credit and real interest rates try to capture the severity of the borrowing constraints and the degree of financial repression for Turkey. Moreover, negative impact of life expectancy rate lends support to the life-cycle hypothesis. Hüfner and Koske (2010), study household saving rates in G7 countries since the 1970s in a panel co-integration framework. They found that disposable income, real interest rates and inflation are important determinants of household saving in most of those countries. Demographics, government indebtedness, the depth of the financial system and wealth effects (through house and stock prices) are found to play a role in a smaller number of countries. Kibet *et al.,* (2009), conducted a research in rural areas of Kenya. They found that household income, nature of businessmen occupation, gender, and education level of household head positively influenced the saving behavior of the rural households in Nakuru district, while credit access, age, and dependency ratio negatively influence household saving.

3. METHODOLOGY OF THE STUDY

3.1. Description of the study area

The study area, Gedeo zone is found in the in the South Nation Nationality and People Regional State (SNNPR) of Ethiopia. It is located in 369 km from Addis Ababa to south on Addis Ababa-Moyale international road and 90 km from Hawassa (capital city of the regional state). Gedeo zone lies approximately between 50 53'N to 60 27'N Latitude and from 380 8' to 380 30' East, Longitude. It is characterized by sub-humid tropical climate and receives mean annual rainfall 1500 mm with range of 1200 and 1800 mm. The mean monthly temperature is 21.5 oC with mean monthly maximum and minimum temperature of 25 oC and 18 oC, respectively. The zone has a population of 847,434 consisting of 107,79360.48 or 12.72% urban and 73964039.52 (87.28%) rural inhabitants. Moreover, of the total population 424,742 are men and 422,692 women (CSA, 2007). Livelihood of the people in the zone is also dependent on agriculture and livestock production. Gedeo zone is one of the major coffee and Enset producing zones of the region and the country.



3.2. Data Sources, Data Type and Sampling

This study uses mainly primary data(Cross-sectional data) which is collected from primary sources through dispersing of structured questionnaires to the respondents found within the target area. It employed probability sampling method, both multistage and simple random sampling, in selecting four Woredas from the total eight Woredas found in Gedeo zone. Thus, out of eight Woredas, Dilla town, Yirgachefe town, Wonago Woreda, and Gedeb Woreda has been selected through the stated sampling methods. Out of the total population found in the four woredas 250 household were selected using simple random sampling.

3.3. Empirical model

For the proper investigation of the research objectives, for analysis purpose, the study employed both descriptive and econometric method of data analysis. In order to analyze the raw data and to plainly see the relationship between the dependent variable and independent variables this study used the so called STATA software package. Thus, in order to estimate the effect of main determinants of household saving and to identify the factors that results in low rate of saving the following model is developed.

The dependent variable in this study is household saving. Household saving takes the values zero for the substantial part of the population and positive continuous values for the rest of the population. Thus, censored regression model, that is, Tobit model is appropriate for such types of dependent variables. The Tobit model that the research employed is censored from below or is left- censoring. The form of the Tobit model following Verbeek (2000) is:

$$S_i^* = X_i\beta + u_i \quad \text{.....(3.1)}$$

i = 1, 2, 3, 4, 5 … N,

$S_i = 0$ If $S_i^* = X_i\beta + u_i = 0$ or $S^*{}_i = 0$

$S_i = X_i\beta + u_i$ If $S_i^* = X_i\beta + u_i > 0$ or $S^*{}_i > 0$

Where, S_i = is saving of the i[th] household head

$X_i\beta$ = is the independent or explanatory variables

u_i = is the error term where, u_i ***N (0, σ2)***

$S^*{}_i$ = is the latent variable

$$X_i\beta = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots\ldots\ldots\ldots\ldots + \beta_K X_K \ldots\ldots\ldots\ldots\ldots\ldots (3.2)$$

The dependent variable in this model is S_i = the household saving, calculated as, household disposable income (net household income in the case of rural households) minus total household consumption.

S_i=f (PDI_i, AGE_i, SEX_i, $EDUC_i$, FI, HS_i, $RURAL_i$) ……7

\+ ? + + + - -

The negative and positive signs beneath the above equation indicate the expected signs of these explanatory variables.

Thus, the model for the main determinants of household saving can be specified as follows;

$S_i = \alpha + \beta_1 \ln PDI_i + \beta_2 AGE1 + \beta_3 AGE3 + \beta_4 FEMALE + \beta_5 EDUC1 + \beta_6 EDUC3 + \beta_7 EDUC4 + \beta_8 FI + \beta_9 HS_i + \beta_{10} RURAL_i + u_i$

Where, α is a constant term and u_i is the error term.

Table 3.1: Description of dependent and independent variables

Variable name	Description
ln PDI_i	logarithm of personal disposable income of i[th] of household head
AGE1	1, if the i[th] household head age is between 18-24 years 0, otherwise
AGE2	1, if the i[th] household head age is between 24-65 years 0, otherwise
AGE3	1, if the i[th] household age is >65 years 0, otherwise
FEMALE	1 if the i[th] household head is female 0 otherwise
EDUC1	1, if the household head is illiterate 0, otherwise
EDUC2	1, if the household head has primary education 0, otherwise
EDUC3	1, if the household head has secondary education 0, otherwise
EDUC4	1, if the household head has tertiary education 0, otherwise
FI	availability (number) of financial institutions within the woreda
HS_i	Household size of i[th] of household head
$RURAL_i$	1 in the case of rural households 0, otherwise

4. RESULTS AND DISCUSSION

4.1. Descriptive Analysis

Socio-Economic and Demographic Characteristics of Households

Gedeo zone has a total of eight Woredas, that is, it has six rural Woredas and two city administrations and four Woredas (Dilla town, Yirgachefe town, Gedeb woreda and Wonago woreda) has been randomly selected. Of the 250 households, 40% were from Gedeb woreda, 35.2% were from Wonago woreda, 4% were from Yirgachefe town and 20.8% were from Dilla town. Of the total sample surveyed households, 38 were female headed and the remainder 212 were male headed households and182, 54 and 14 of the respondents found in the age group between 25 and 64, 18 and 24, above 64 years old respectively. The mean household size of the total sample households is 5.20. The sample households are with a minimum of 1 and a maximum of 12 household members. Of the 250 household heads about 11.6% of them are illiterate and the balances are literate. Out of the total literate households 32.8% of them did attend their primary education (from grade1-8) which excludes those household heads who were attending informal education but can read and write, 28% did attend their secondary education (from grade 9-12) and the remaining 27.6% did attend their tertiary education (Bachelor and Masters' Degree). The sample households earn an average annual income of Birr 22,238.30 which ranges from a minimum of Birr 3,840 to maximum of Birr 240,000 per annum. and save an average of Birr 3,852.48 per annum.

4.1.1. Determinants of household savings

Table 4.1: Socio-economic and demographic characteristics of households

Variable		Obs.	Average Saving (Birr)	Minimum	Maximum
Sex	Male	212	329.86	0	6000
	Female	38	259.46	0	800
Age	Age (18-24)	54	206.20	0	1160
	Age (25-64)	182	360.55	0	6000
	Age (> 64)	14	244.64	0	2000
Location	Rural	72	658	0	6000
	Urban	178	184.74	0	4000
Education	Illiterate	29	58.57	0	600
	Primary education	82	261.80	0	4000
	Secondary education	70	269.93	0	6000
	Tertiary education	69	546.65	0	6000
Income	*[0-500]*	*39*	*22.308*		
	(500 – 1000]	*63*	*115.71*		
	(1000 – 2000]	*87*	*189.2*		
	(2000 – 5000]	*53*	*464.87*		
	>5000	*8*	*3875*		

Source: Own Survey, 2012/13

In this study, it is found that, household heads who are in the middle age (24-64) save more than household heads that are in the early age and old age. The mean saving of middle age, early and old age household heads is about Birr 360.6, 206.2 and 244.6 per month respectively.

Another important determinant of household saving is educational level of household heads. This is because of the fact that, as the level of education increase the awareness of households concerning saving also increase. Table 4.1. showed that mean saving of households with higher educational level on average save more than households with no or lower educational level. The mean saving of illiterate household heads is Birr 58.57 where as household heads with primary education, secondary education and tertiary education on average saves Birr 261.8, Birr 269.93 and 546.65 per month respectively. Hence, as the educational level increases, the average household saving also increase and this finding is consistence with the empirical results of other researchers.

Location of the household is one of the major determinants of household saving. There is a systematic difference between urban and rural households in the household saving. The difference between urban and rural households in the household saving is not ambiguous. The urban households have the access to banks and microfinance institutions and save their money and other assets. On the other hand, the rural households have limited access to financial institutions like banks and microfinance institutions with a limited outreach. Table 4.1 clearly confirmed that households living in the urban area save more than the rural households. The average saving of rural households Birr 184.74. It is even less than the total average saving which is Birr 321.04 per month. The average saving of households located at the urban areas is Birr 658 per month, which is three times greater than the average saving living the rural areas. The rural households may save their money either at banks by incurring high transportation cost, risk of theft and spent their time unnecessarily or at home which is also risky too. Although there are microfinance institutions such as OMO, Wisdom, and Leta in the rural areas of Gedeo zone, their outreach is very limited and their focus is not on promoting household saving rather it is on credit.

Gender is identified as an important variable in the household saving behavior. This by gender analysis is relevant because women are usually expected to save more part of their disposable income than men do. However, the finding showed that women do not save more than men. The average saving of women is Birr 259.46 per month but, the mean saving of men is Birr 329.86 per month.

Even if the average saving of men is more than the average saving of women, it is not logical to conclude as generally men save more than women by simply observing at the amount of average saving. This is because, we have to consider other saving measurement mechanisms like average propensity to save (APS) and marginal propensity to save (MPS). Average propensity to save is expressed as the ratio of total saving to total personal disposable income. Here, to measure the average propensity to save of men and women household heads, it is must to measure the average income of both household heads. Therefore, the mean income of men

and women households is Birr 1915.05 and 1180.21 respectively. Hence, table 4.2 showed that average propensity to save (APS= saving / personal disposable income) of women is more than men. Average propensity to save of women and men is 0.22 and 0.17 respectively, calculated as 329.86/1915.05 and 259.46/ 1180.21. Therefore, on average, women save a major part of their disposable income than men, keeping other factors constant.

Table 4.2: Income, Saving and APS of household head by Gender

Variable	Obs	**Mean**		**APS**
		Income	**Saving**	
Male	212	1915.05	329.86	**0.1722**
Female	38	1180.21	259.46	**0.2198**
Total	**250**	**1547.63**	**321.04**	**0.2074**

Source: Own survey, 2012/13

Another most important determinant of household saving is disposable income of the household. Disposable income is expressed as personal income minus personal income tax and household tend to spend a certain part of their disposable income on consumption and save the rest. Thus, disposable income is the summation of household's consumption and their saving. Both theoretical and empirical literatures on saving have consistently outlined that income is one of the major determinants of household saving. The relationship between savings and income has been a major subject of discussion in the growth literature. Subsistence-consumption theories suggest that countries with higher income levels tend to have a higher saving rate and the empirical evidence strongly supports this conclusion.

In order to clearly show the impact of household disposable income on household saving, income is categorized in to five groups [0 – 500], (500 – 1000], (1000 – 2000], (2000 – 5000], >5000 Birr)). Based on this classification of income, the mean saving of household heads with an income level of, (([0 – 500], (500 – 1000], (1000 – 2000], (2000 – 5000], >5000 is Birr 22.3077, 115.71, 189.2, 464.87 and 3875 respectively.

4.2. ECONOMETRIC ANALYSIS

4.2.1. Tobit Estimates

When we use cross-sectional data we may encounter problem of heteroscedasticity (Greene, 2008). In order to correct the heteroscedasticity problem we can estimate the robust standard errors instead of the usual standard errors (Wooldridge, 2002). Thus, the Tobit model which is used in this study is corrected for heteroscedasticity problem using the robust command in Stata (robust standard errors are estimated for the Tobit) and from correlation matrix (pair-wise correlation coefficient analysis), it is observed that there is no multicollinearity problem among independent variables. According to (Gujarati, 2004) rule of thumb, multicollinearity is a serious problem, when a pair wise correlation coefficient between two independent variables is greater than or equal to 0.8. Therefore, from correlation matrix generated using the survey data it is shown that there is no series multicollinearity problem in this study.

As reported in table 4.3, the log transformed disposable income positively and significantly affects household saving. That is, as the disposable income of the household head increases, household saving changes in the same direction. This result is consistent with the hypothesis and is also in agreement with the other empirical studies by (Kibet *et al*., 2009; Horioka and Wan, 2007; Abdelkhalek *et al.,* 2009; Loayza *et al*., 2000)

The marginal effect showed that, being female household head and household saving are positively and significantly correlated even at 1% level of significance. This result concurs with the earlier findings by Abdelkhalek *et al.,* (2009). According to Abdelkhalek *et al.,* (2009), women usually save more than men and manage their saving more actively. But, it is in contrast with the finding of Harris *et al.,* (1999), that men save more than women. Even if gender was not well captured in the study by Kibet *et al.,* (2009), but, they found positive relationship between saving and being female.

The other important determinant of household saving is age of the household head. As it is clearly depicted in table 4.3, AGE1 (household head found in the age group between 18 and 24) is negatively and significantly related with the household saving. However, AGE2 and AGE3 (household head found in the age group between 25 and 64 years and household heads older than 64 years respectively) positively and significantly affect household saving. The life-cycle model is validated by the data, except for the age group 65 years and above who does not exhibit the expected dis-saving. This may be because of the reason that elderly are concerned about the possibility of unpredictable and costly events such as to meet emergency needs (to pay large bills for medical care) and to leave bequest to their children, other relatives.

Education is also vital to increasing average household saving. Educational level of the household head is also another important determinant of household saving. From the Tobit estimates of table 4.3, education is positively and significantly determined household saving. In order to see the impact of education on saving it is categorized in to four (illiterate, primary school, secondary school and university level). Therefore, being illiterate (EDUL1) and household saving are negatively and significantly related. But, as the level of education

increases household saving also increases. Thus, EDUL3 (secondary school) and EDUL4 (tertiary school) positively and significantly determine household saving.

The other determinant of household saving is household size. As it is clearly shown in the Tobit estimates of table 4.3, household size negatively and significantly affects household saving. A higher dependency ratio implies a greater burden of consumption expenditure, that is, expenditure on food, education, cloth and so on and hence, the more the allocation of household budget towards consumption expenditure leads to lower saving. On the other hand a reduction in the number of children relative to the working age population alleviated household budget constraints, thereby boosting savings rates.

Availability of financial institutions and financial sector development (FI) positively and significantly determines household saving. The financial sector development contributes positively to household saving. Therefore, this result is also concurs the research hypothesis and the finding of (Abdelkhalek *et al.,* (2009); Mahmoud (2008); Pailwar *et al.,* 2010).

Finally, location of the household head is an important determinant of household saving. This because there is a difference in household saving between those people resides in the urban areas and rural areas. Thus, this study found that residing in the rural areas negatively and significantly related with household saving. This is due to the fact that households reside in the rural areas do not have exposures to financial institutions such as banks and microfinance institutions and to education as well as to media and other exposures. Therefore, this result is also concurs with the previous finding.

Table 4.3: Tobit Estimates of Household saving

Variable	Coef	Marginal effects(dy/dx)
lnPDIi	792.1554***	298.0104
	(1.708689)	(10.066)
FEMALE	283.1621***	115.5431
	(38.5763)	(16.461)
AGE1	-1772.638***	-666.8696
	(4.959206)	(20.682)
AGE3	1741.601***	655.1937
	(4.959206)	(22.083)
EDUL1	-3818.412 ***	-1436.494
	(6.169124)	(45.729)
EDUL3	413.7015***	155.6353
	(6.204516)	(6.0568)
EDUL4	3507.066	1319.365
	(6.169124)	(43.264)
HS	-17.38204***	-6.539157
	(3.417037)	(1.19735)
FI	44.78182***	16.84701
	(5.855472)	(2.45073)
RURAL	-69.09068***	-26.30604
	(26.66335)	(10.361)
Cons	-5757.472***	
	(7.998848)	
Number of obs = 250		
F(8, 240) = 3.90		
Prob > F = 0.0000		
Pseudo R^2 = 0.0506		

Source: own survey, 2012/13 *** Statistically Significant at **1%**, **5%** and**10%** respectively
Figures in parenthesis are ***Robust Standard Errors***

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Generally, based on the findings of the study, it is possible to conclude the effect of the explanatory variables on household saving as;

- Higher income households save more than those of lower income. Income was found to determine saving positively and significantly.
- In this study, it is found that households in the early age and old age save less than households found in the middle age. Households in the early age negatively and significantly affects household saving where as households in the middle and late age determine saving positively and significantly.

- Educational level of households positively and significantly affects households saving in Gedeo zone. As level of education increases households would be aware of the merit of saving as a result, household saving increase. The study reveal that illiterate households negatively and significantly determine saving. Household heads with secondary and tertiary school positively and significantly affects saving.
- Gender of the household head is another important determinant of saving. Being female household head and household saving are positively and significantly related.
- It is not ambiguous that, household heads dwell in the urban areas save more than household heads reside in the rural areas and it was being rural dweller determine saving negatively and significantly.
- The household size also determines saving negatively and significantly. That is, households with large family size save less than households with small family size.
- Finally, availability of financial institutions like banks and microfinance institutions is one factor that affects saving. Thus, the researcher revealed that availability of financial institutions encourage saving as a result, it affects household saving positively and significantly.

5.2. Recommendations

It is obvious that the level of saving in Ethiopia is very low; even it is less than from saving of low income sub-Saharan Africa countries. It is not secret that saving contributes a lot for economic growth and development. Thus, what measures should be taken to improve saving in the country in general and in Gedeo zone in particular? Based on the study findings the researcher recommend the following policy recommendations.

- Since income is the major determinant of saving then, due attention should be given to increase income of households. Income could be increased by implementing policies that increases the employment opportunities and reduce underemployment and disguised unemployment.
- Women are expected to save more than men. But, most of the time men dominate women and control income and assets. Thus, in order to improve saving the government should enhance women empowerment and pave the way for women to increase their income. Moreover, there should be equality especially on the control of income and other assets among men and women.
- Financial sector development in Ethiopia in general and in Gedeo zone in particular is at its infant stage. Hence, due attention should be given by government and private institutions in the expansion of financial institutions in order to mobilize saving. Besides, not only the limited outreach of banks and microfinance institutions but also their focus is on providing loan than mobilizing saving. Therefore, there should be ***"Saving lead credit"*** strategy than ***"Credit lead saving".***
- A lot should be done in Gedeo especially in the *family planning*. This is because the family size in this zone is very high. This is one reason for the existence of low household saving within the zone. Therefore, appropriate measures should also be taken for the implementation of family planning.
- Education is also vital to increasing aggregate household saving. Education has a positive impact on household savings mainly because of the awareness that occurs with higher educational levels. Though government has already provided free elementary and high school education in public schools, their outreach is limited. Thus, efforts should be made by government, private institutions and the public to increase the number of schools. Nowadays, our government increases tertiary education by increasing the number of Universities at an *alarming* rate. Efforts to lessen drop-outs and advocate for more students to continue and finish high school should also be maintained.

REFERENCES

Abdelkhalek, Touhami., Arestoff, Florenc., Najat E., Mage, Sabine. (2009). A Micro econometric Analysis of Households Saving Determinants in Morocco. Retrieved August 14, 2011, from *gdri.dreem.free.fr/wp-content/d21-arestoffetal_final.pdf*

Abeba, Siraj Mussa. (2002). Macroeconomic impacts of external assistance in Ethiopia. Retrieved on June 12, 2011, from etd.aau.edu.et/dspace/bitstream/123456789/.../ABEBA%20SIRAJ.pdf

Barro, Robert J. and Martin Xavier Sala-i. (1999). Economic Growth. First edition, MIT Press

Bersales, Lisa Grace, S., and Mapa, Dennis S. (2006). Patterns and Determinants of Household Saving In the Philippines. Retrieved June 14, 2011, from *pdf.usaid.gov/pdf docs/PNADH621.pdf*

Bhagwati, Jagdish.(1966). The Economics of Underdeveloped Countries. McGraw Hill: New York

Greene, William H. (2012). Econometric Analysis. Seventh Edition New York University Pearson Education, Inc., publishing as Prentice Hall

Gujarati, D.N.(2004).Basic Econometrics, Fourth Edition Front Matter Preface. The McGraw−Hill Companies.

Harris Mark, Loundes Joanne and Elizabeth Webster. (1999). Determinants of Household Saving in Australia. Melbourne Institute of Applied Economics and Social Research. Melbourne Institute Working Paper No. 22/99.

Horioka, Charles Yuji., and Wan, Junmin. (2007). The Determinants of Household Saving in China: A Dynamic

Panel Analysis of Provincial Data. Retrieved August 14, 2011, from www.frbsf.org/publications/economics/papers/2007/wp07-28bk.pdf

Hüfner Felix and Koske Isabell. (2010). Explaining Household Saving Rates in G7 Countries: Implications for Germany. Economics Department Working Papers No. 754

Kibet, Lawrence K., Mutai, Benjamin K., Ouma, Desterio E., and Ouma, Shem A. (2009). Determinants of household saving: Case study of smallholder farmers, entrepreneurs and teachers in rural areas of Kenya. Journal of Development and Agricultural Economics Vol. 1(7).

Loayza, Norman., Hebbel, Klaus Schmidt., and Servén, Luis. (2000). Saving in Developing Countries: An Overview. The World Bank economic review, vol. 14, no. 3: 393–414

Mahmoud, Touny A. (2008). Determinants of Domestic Saving Performance in Egypt: An Empirical Study. Retrieved May 7, 2011, from *faculty.ksu.edu.sa/.../Mahmoud%20Touny*

Ozcan, Kivilcim M., Gunay, Asli., and Ertac, Seda. (1996). Determinants of Private Savings Behavior in Turkey. Retrieved May17, 2011, fromwww.bilkent.edu.tr/~economics/papers/0206%20DP_K.Metin.pdf

Pailwar, Veena K., Kaur, Jaspreet., Saxena, Khushboo., and Nijhara, Mitesh. (2010). Impact of Membership of Financial Institutions on Rural Saving: A Micro-Level Study. EABR & ETLC Conference Proceedings Dublin, Ireland

Todaro, M.P. (2000). Economic Development. 7th ed. New York.

Tsegabirhan, Weldegiorgis Abay. (2010). Domestic Resource Mobilization in Sub-Saharan Africa: The Case of Ethiopia. Retrieved March 21, 2011, from www.nsi-ins.ca/english/pdf/DRMEthiopiaFINALPOST.pdf

Verbeek, Marno. (2000). A Guide to modern econometrics. John Wiley, Sons L.TD

Wooldridge, Jeffrey M.(2002).Econometric Analysis of Cross Section and Panel Data. The MIT Press Cambridge, Massachusetts London, England

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
http://www.iiste.org

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: http://www.iiste.org/journals/ All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

Academic conference: http://www.iiste.org/conference/upcoming-conferences-call-for-paper/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar