

COLLEGE OF AGRICULTURE AND NATURAL RESOURCE

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SENIOR RESEARCH ON FACTORS AFFECTING THE RURAL HOUSEHOLDS SAVING IN CASE OF CHEHA WOREDA

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ABBRIVAITIONS

ASCA	Accumulated Savings and Credit Associations
CSA	Centoral Statical Agency
FFI	Formal Financial Institution
GDP	Growth Demostic Product
IFI	Informal Finacial Istitution
LCH	Life-Cycle Hypothesis
LDC	Least Developed Countrys
ROSCAs	Rotating Savings and Credit Associations
SNNPRS	South nation Nationality and Peoples of regional stat
VIF	Variance Inflation Factor

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FACTORS AFFECTING THE RURAL HOUSE HOLDS SAVING IN CHEHA WOREDA

ABSTRACT

Saving is about income that is not consumed by immediately buying goods and services. Saving constitutes the basis for capital formation, investment and growth of a country. In a country like Ethiopia, the particularly in the study area, income standard is almost uncertain and leads to more consumption rather than saving which has now been a central problem. The study was conducted to assess the determinants of rural household's saving in Cheha woreda. Both primary and secondary sources were used to gather the data. Simple random sampling technique was used to select the sampled respondents. The data gathered was analyzed using descriptive statistics like percentage and econometric model (multiple linear regression models). The study revealed that the most significant factors that affect rural households saving which income, marital status, family size and total land size. Edir, ekub, mahiber, and saving at home are informal saving practices in the study area. And the most serious problems or constraints of the households saving in the study area: lack of sufficient income, lack of willingness, preferring to save in kind, lack of trust, lack of awareness, cultural background, social affairs and unemployment or lack of non agricultural activities e.t.c are the major once which are surveyed in the study area. From our finding we recommend that provide family planning, increases the productivity of the land, give training about diversify income.

Key Words: Formal saving, Multiple Regression Model, Informal saving.

1. INTRODUCTION

1.1. Background of the Study

According to classical economists like Adam Smith, David Ricardo and J.S.Mill, "saving is an important determinant of economic growth". Saving components can be based on an individual or on household basis which proves to be the wellbeing. As for an individual saving becomes the cushion for the future's intercourse of the unforeseen and upcoming as well as the uncertain circumstances of life. Saving is the part of the income earned by the individuals. For the higher economic growth for the country, marginal propensity to save should be higher but it helps to the multiplier process. The determinants and patterns of saving differ from rural to urban region.

Saving is among important variables for economic growth of any country. Saving is about income that is not consumed by immediately buying goods and services. Saving constitutes the basis for capital formation, investment and growth of a country. Serious problem confronting poor countries including Ethiopia is the savings and investment gap. Because of this gap, these countries find it difficult to finance investments needed for growth from domestic saving (Kifle, 2012). According to kifle (2012), it is also common to see these countries to finance their investment in the short run partly through domestic government borrowings and/or foreign loan and grants but this would significantly increase the country's debt burden and would not be a solution in the long run.

However, both economic variables are not emphasized as a major variable for interventions for overall development in Africa in general and Ethiopia in Particular. This is the case mainly because of: First, most of the studies carried out in the field have focused on developed economies and unable to show the ground reality in poor developing countries. Second, most of the studies adopted a macroeconomic approach yet the behavior of economic units on the aggregate level may not necessarily be the same as on an individual or household level. And third, even the existing limited empirical research results in Africa related to rural household savings and investment are varied and inconclusive.

The saving level in Ethiopia particularly in rural areas is very low and little is known empirically about factors affect it. Savings in rural Ethiopia is mainly made out of the income from agricultural activities (Kifle, 2012). However, rural households do indeed save in the form of tangible assets and/or in financial forms which can be potentially utilized by savings institutions and for investments which is very essential for both households and nation.

Without savings, households have few other mechanisms to smooth out in recent years, economists, international organizations, and governments in developing countries have placed increasing emphasis on the mobilization of deposits, not only to increase domestic savings, to achieve sustained economic growth and development but also to strengthen domestic financial intermediaries. The recent financial crisis has led to serious repercussions in the global economy due to deep economic and moral losses of investors.

These events revealed the relevance of saving and especially its allocation in the nation economy. Indeed, saving is very important in the development of industrial and financial systems as well as the only means to accumulate assets in the absence of credit and insurance markets to households (Girma, 2013).Although there is controversy regarding the relation between savings and economic growth, it is generally agreed that once savings start to rise-perhaps due to increases in income-they enhance the potential to finance investment, and lead to the creation of more opportunities in the economy.

Household saving could be accumulating in real assets or financial assets. Large part of saving accumulation in developing countries is in the form of real assets. These include livestock, precious metals, or food stocks. However, these real assets less useful for industrial activities since it does not liquid. The weakness saving in real assets is important reason for household in developing countries to save in financial assets. They could save in banks or non-bank financial institutions in cash form. In this respect, access to financial institution that meets liquidity needs is crucial.

1.2. Statement of the Problem

Saving is more of meant for meeting contingencies but sometimes it also acts as a form of investment. Saving is a very important component which is responsible for combating or meeting any emergency accrued by the individuals or the households or any corporate agencies. But sometimes people are not inclined towards saving. Savings influence growth of the economy, as higher savings lead to capital accumulation and hence economic growth (Solow, 1956).

In Ethiopia, saving mobilization among rural household is low and this is evidence in inability of households' to provide for the basic needs of life during some in conivinencey in farming. It is well known that households in Cheha woreda collect their higher amount of money during the harvesting time, at the same time they spend it extravagantly. Due to this there is an immediate need to carefully understand the factors affect the rural households saving in cheha woreda, Gurage zone of SNNPRS of Ethiopia.

To advocate appeals for saving, there is a need to know about the saving motives of the individuals. An understanding of the saving also helps in calculating the saving instruments which can efficiently arouse saving. But there was no enough finding which was done on determinants of saving in the study area. Considering this the researchers were intended to study determinants of household savings in rural area of Checha Woreda with the following objectives.

1.3. Objectives

1.3.1. General Objective

- The general objective was to assess the factors affecting the rural households saving in cheha woreda

1.3.2. Specific Objectives

- To assess determinants of rural households saving in the study area
- To identify the types of informal saving institution in the study area

1.4. Research Questions

1. What are the determinants which affect the rural households saving in the study area?
2. What types of informal saving institutions present in the study area?

1.5. Scope and limitation of the study

The study was conducted in cheha woreda, Gurage zone of SNNPRS that focus on the factors affect the rural households saving. Although there are other variables which are affect saving, as far as the time limit is concerned the variables we were study about income, family size, marital status, sex, total land own, age, consumption, and education level of the farm households. In this area; As far as the time limit is concerned this study was focused on the current situation of rural household's saving.

1.6. Significance of the study

There were few studies conducted or available relating to the factor affecting saving of the rural people of Ethiopia at the micro level. Most of the studies on saving pattern of rural people are based on secondary data which sometimes does not prove to be adequate for the study. The study was used as a bench mark to understand the saving amount of the rural households that provides an important indicator for economic development of the country. This study was helps to define the factor influencing the households saving and to analyze certain types of informal saving in the rural areas.

1.7. Organization of the paper

The paper has five chapters. Chapter one deals with introductory part which contains background, statement of the problem, objectives, basic research questions, scope and limitation of the study, significance of the study. The second chapter deals with theoretical and empirical literature review. Chapter three contains methodology which contains description of the study area, type and source of data, method of data collection and sampling procedure and method of data analysis. The fourth chapter includes result and discussion and the last chapter's deals with conclusion and recommendation, in addition to this it includes the reference and appendix.

2. LITERATURE REVIEW

2.1. Theoretical Literature Review

2.1.1. Concepts of saving

Saving: is the share of disposable income not spent on consumption of consumer goods but accumulated or invested straight in capital equipment or in paying off a home mortgage or not directly throughout purchase of securities.

Household savings is defined as that part of current income, after the payment of direct taxes, which is not consumed or transferred for future consumptions. Saving includes current disbursements made in the form of a reduction in household liabilities, such as repayment of loans. By contrast, any portion of the current expenditure of households not financed by current income but rather by the use of credit represents an increase in the financial liabilities of individuals and is treated as negative saving.

In addition, household saving includes regular and recurring employer and employee contributions to pension and insurance funds and the interest earned on those funds. Saving is also defined in terms of flows in the current account and excludes any capital gains and losses (Schultz, 2005; Nga, 2007; Cronje, 2009).

Household saving could be accumulating in real assets or financial assets. Large part of saving accumulation in developing countries is in the form of real assets (Rehman et al., 2010). These include livestock, precious metals, or food stocks. However, these real assets less useful for industrial activities since it does not liquid. The weakness saving in real assets is important reason for household in developing countries to save in financial assets (Deaton, 1989).

They could save in banks or non- bank financial institutions in cash form. In this respect, access to financial institution that meets liquidity needs is crucial. This is the reason to introduce rural financial institution such as saving and credit cooperatives that strategic in order to increase financial savings and loan facilities. Household save for a variety of reasons such as liquidity constraint or life cycle savings. In developing countries savings are important determinants of household welfare. On one hand, without savings, households have few other

mechanisms to smooth out unexpected variations in their income, and so, shocks may create some problems of human capital accumulation at early ages (Attanasio, 1998).

2.2. Formal financial institutions in Ethiopia

The formal sources are financial institutions that are set up legally and engaged in the provision of credit and mobilization of saving .These institutions are regulated and controlled by the national bank of Ethiopia (NBE).in the Ethiopian context formal financial sector includes national back of Ethiopia (NBE),commercial banks (owned by private and public),development back of Ethiopia (DBE),credit and savings cooperative, insurance companies (both public private) and micro finance institutions (owned by regional governments, NGOs, association and individuals), (NBE,2003).

The number of back branches reached 339, of which 172 or about 51% belong to the commercial back of Ethiopia. Despite modest branch expansion, Ethiopia remains as one of the under-banked countries even at sub-Saharan African countries standard. The bank branch to population ratio was 1:20,400 during 2002/03.Similarily,total capital of the banking system reached birr 2.7 billion, of which about 75% was hold by government owned banks. Commercial bank of Ethiopia accounted for more than 47% of total capital of the banking system (excluding NBE).Total braches of insurance companies reached 106 at end the fiscal year (2002/03). Yet geographical distribution of bank and insurance braches was highly skewed to measure towns and cities. Nearly 42% of insurance and 31% of bank branches were located in Addis Ababa (NBE, 2004).

2.2.1. Constraints of formal saving institution of households.

Helsinki (2009) reported that many impediments make rural households to access financial service. In general both the user and providers of financial service face some common obstacles in getting and providing financial services like: High transaction cost: This is due to the under developments of rural infrastructure, inadequate communication and information technology and remoteness of the local areas. Moreover, small average loans and small saving further compound this problem of higher transaction cost .Higher risk: Credit risk in rural areas is higher since the incomes of rural households depend and seasonality of Agriculture that is being susceptible to natural disasters (such as flood, drought, plant diseases, fluctuating

weather).The covariant risk (in price and yields) is high in the agricultural sector. Rural households mostly depend on one or two sources of income and thereby increasing the risk of financial intermidation.meany households are either entirely lack of collateral or do not have the legal title to land.

In most developing countries illiteracy rate is higher especially in rural area. Poorly educated households find it increasingly difficult to assess the credit risk and profitability of loans and saving. On the other hands ,financial institutions willing to work in rural areas this leads to poor institutional capacity among rural financial institutions especially in developing countries.

2.3. Informal financial institution in Ethiopia

2.3.1. Types of Informal Financial Institution

A. Eqqub

Eqqub: is an informal institution established Formal finance institution (FFI) can be defined as institutions that are regulated by the central banking supervisory authorities for licensing and credit policy implementation. It is well known that the formal financial institution is mostly urban centered and as well as to_procedural particularly for the poor and un educated majority of the country's population, therefore, the bulk of the rural households may be reluctant to use the formal institution rather they prefer rely on informal finance institution, that is well adopted or acceptable to their cultures and customs (Solomon, 1996).

In this respect, Solomon (1996) pointed out that the informal finance institution are by far that the most important sources of loan able funds both for the rural and urban populations as compared to the formal financial institution. Similarly Dejene (1993) underlined how inaccessible the formal sector is to the majority of the Ethiopian population makes little or no use of formal use of saving and lending institutions. In a country where more than 80% of the population lives in rural areas, few banks and credits associations that are presently operational are limited to urban areas.

The informal financial sector in Ethiopia comprises mainly of Eqqub (rotating and saving scheme), Iddir (traditional institution scheme), and money lender "arata abedari' etc. Relatives

and friends are the other major traditional sources of finance as identified and described by many authors, (Dejebe, 1993).

Voluntarily to collect a specific amount of money from the members on a specific date to be paid on round and lottery basis to the members. According to Dejene (1993) and Aspen (1993) the term eqqub is simply defined as an indigenous savings association where each member agreed to pay periodically on small sum. In a similar manner Assefa (1993) is also defined it as an association formed by a group of people or individuals who agree to make regular contribution to a fund, which is given in whose or in part to each contribution in rotation.

The members know each other and thus trust each other to make the eqqub function smoothly (Dessalegn and Aklilu, 1999). Interestingly enough, eqqub also lends a hand to the members in many aspects such as provision of credit and sharing important information eqqub is conceived as traditional social organization in which members come together for the purpose of savings in cash or in kind. The normal practice is that members contribute money or materials on a regular period of time and lots are drawn so that the one who wins the chance gets the total sum. This process continues at a regular period until the last member receives his/ her share , or what he/ she has been saving through the months and the whole process starts again.

Moreover, it is possible that the eqqub pre-dates the emergence of the modern banking system in the country. The eqqub consists of homogenous groups: people from the same work place, ethnic background trade schooling background or neighborhood. The eqqub is not limited in urban areas: it is also common in rural areas though perhaps practiced to a lesser degree.

B. Iddir – the Social Insurance

Iddir is one of the informal local institutions in Ethiopia established voluntarily by the community and involved in self-help and other social activities. Iddir is established primarily to provide mutual aid in burial matters but also to address other community concerns (Pankhurst & Mariam, 2000). Iddir is a type of informal financial institution whose aim is to provide assistance at times of mourning. As noted by Dejene (1993), iddir as an informal financial and social institution that is almost ubiquitous throughout Ethiopia.

Iddir is also defined by Mauri (1987) as an association made up by a group of persons united by ties of family and friendship, by living in the same district, by jobs, or by belonging to the same ethnic group, and as an object of providing mutual aid and financial assistance in certain circumstances. In practice, the Iddir is a sort of insurance program run by a community or a group to meet emergencies.

Iddir is an informal finance institution or association established by the community members to provide social security during certain specified types of crisis occurred to its members (Kejela et al, 2006). In this sense, Iddir is a sort of insurance program run by community or a group of people in terms of emergence like death of family members.

In most cases, Iddir institution is open to all irrespective of ethnic background, religion, political affiliation, sex and age. In addition, ethnic or social status, election of leaders and important decision are based on the principle of one-man one vote. Iddir is perhaps the most formalized and democratic institution in Ethiopia. Therefore, Iddir appears to have no restriction on membership beyond playing the necessary dues and fees. All villages have at least one Iddir that could be open to any one (Aspen, 1993).

Dejene (1993) suggests that the Iddir, unlike the insurance system, is very popular among the people .It is attractive because it is culturally appropriate flexible easily accessible, and cost-effective. Unlike the insurance system, it is basically anon profit making institution based upon solidarity, friendship, and mutual assistance among members. People from all types of socio- economic backgrounds participate in the Iddir. The insurance system, on the other hand, is limited to high income households seeking insurance policies or a definite purpose.

On the other hand; Iddir is invariably have a strong linkage with the banking system. Iddir is keeping the bulk of their financial assets in banks. Only small amount of cash is kept at hand to meet emergency requirements. Today, the Iddir provides a much wider range of services including financial and material assistance and consolation to a member in the event of difficulties as well as entertainment as the case may be. The expansion of Iddir to urban area

C .Money lenders

It is one of the most important parts of informal finance institutions in Ethiopia. It is locally known as "Areta abedari" which is refers to traditional money lender, who extends credit at exorbitant or very high interest rates. Money lenders enter in to informal finance market to make business by collecting interest on loans (Kejela *et al,* 2006).

In most cases, money lenders are part – time lenders who supplement their income through money lending; usually they have long standing relationship with their borrowers and the well informed about the borrowers. Mostly the moneylenders are farmers, shopkeepers, salaried employees and business persons. The financial operations of moneylenders are simple cost effective as compared to those of banking systems (Kejela *et al,* 2006).

D. Credit from Friends and relatives

In Ethiopia where there is long tradition of mutual assistance and reciprocity, individuals who need funds call friends and relatives for help. Acceptance of such help obligates the borrowers to reciprocate by providing non- financial services or by supporting funds in turn when the lender need to borrow. Lending between friends and relatives often carries low interest or no interest charge and oral agreement, confidence, trust and mutuality are frequently all that is needed as collateral or security (G/Yohannes, 2000).

This type of loan source is well known in most part of the country and accounts for a large share as compared with other sources of loan. A needy person can get interest free loan from relatives and close friends (G/Yohannes, 2000). In general the above informal financial sources provide financial services for those who cannot be addressed through the formal sector.

2.4. Relationship between Saving and Income

The relationship between saving, income, and consumption have a positive relationship between saving, income and consumption. As the income of the individual increases, consumption increases and simultaneously saving also increases (Bernhiem and Shoven, 1991). Rich people save more than poor people, both absolutely and as a percent of income. The very poor are unable to save at all. Instead, as long as they can borrow or draw down their

wealth, they tend to save. That is they tend to spend more than they earn reducing they are accumulated saving or going deeper into debt. So we can say that there is a deep relationship between consumption, income and saving and they all affects to each other (Sameroynina, 2005).

Many people fail to save what they need to for retirement (Munnell, Webb, and Golub-Sass 2009). In economics, the life-cycle hypothesis (LCH) is a concept addressing individual consumption patterns. The LCH implies that individuals both plan their consumption and savings behavior over the long-term and intend to even out their consumption in the best possible manner over their entire lifetimes. The key assumption is that all individuals choose to maintain stable lifestyles. This implies that they usually don't save up a lot in one period to spend furiously in the next period, but keep their consumption levels approximately the same in every period.

2.5. Reasons for Savings

If the households have the opportunity to deposit money at cooperative, their prime reason is not the inter-temporal substitution motive-earning interest but simply to have access to loan and stored safely. The three most common saving motives for both men and female members were: to obtain loans, for emergencies and for housing building. The propensity to save to obtain loan and for emergencies correspond with the result of the study of Karlan et al (2006) about micro saving in Philippines, which was also for emergencies and loan.

These results show that poor households need different types of deposits to deal with different needs. Accessible products such as the voluntary saving accounts allow withdrawals at any time for emergencies, and compulsory saving accounts enable households to accumulate money for expected expenses, such as to obtain loans and housing building.

2.6. EMPIRICAL REVIEW

Many researchers indicate that many rural households in developing countries, particularly in Africa, are too poor to save (Robinson, 2001). However, as Coleman and Williams (2006) stated, the poor do save even though they do not have complete access to savings facilities in formal financial institutions. Instead, they use informal financial institutions for their savings.

Econometric research on the factors affect the household saving based on micro data drawn

from the less developed countries has lagged far behind the pace set in advanced nations. It would appear that there has been limited hypothesis testing in the LDC's beyond macro formulations of the consumption function.

Furthermore, very little of the development literature attempts to isolate the impact of structural change on aggregate personal saving, since few studies provide meaningful disaggregation (Kelley and Williamson, 2009). This state of affairs seems paradoxical, given the currency of W. A. Lewis's remark that the central problem in development theory is to explain an increase in domestic saving from 4 or 5 percent of national income to 12 or 15 percent (Lewis, 1954). Besides, few studies assess the determinants of saving at the individual level generally due to the lack of data. Using recent econometric techniques, Carpenter and Jensen (2002) and Kulikov, *et al.* (2007) identify how household characteristics affect saving behavior, in Pakistan and Estonia respectively.

Carpenter and Jensen (2002) focus on the role of institutions which collect saving and stress on the role of formal (banks) and informal institutions (savings committees). They found that "increased income leads to a greater desire to participate in some form of savings institutions but as income increases more individuals shift to the formal sector". They also found evidence that the urban rural differences in bank use is negligible which suggests that formal finance is not primarily restricted to urban households in Pakistan.

As opposed to Carpenter and Jensen (2002) who focus on the savings supply side, where as Kalikow *et al,* (2007) analyze the saving determinants on the demand side. Making a distinction between regular and temporary household income allows the authors to put forward the role of income variability and the different forms of household assets (financial and non-financial) in a transition economy (Estonia). Their analysis is based on data from household budget surveys. As in many empirical studies, they found that the saving rates depend more on the transitory income than regular income. Among the other variables, the labor market status or the non-financial assets ownership (real estate for instance) and credit access have not significant effect on the household saving behavior; the durable goods possession (in particular cars) has a negative impact on the saving rate.

Among the few researches done in developing countries; Klause *et al*. (1992) studied households saving in developing countries and found that income and wealth variables affect saving strongly. Touhami *et al*. (2009) also investigate the micro-econometric determinants of households saving in Morocco. They concluded as income significantly explains the cross-sectional variation of the saving behavior of households in Morocco.

According to Dejene (2003), Low saving has been a dominant feature of the Ethiopian Economy. The average share of gross domestic savings and investment from GDP was 12.4 and 18.5 percent which is very low, respectively. At household level, irrespective of small size, rural households in Ethiopia do save in many ways, as individual or in a group. They usually save in kind mainly in food grains or in livestock.

The saving level in Ethiopia particularly in rural areas is very low and little is known empirically about its patterns and determinants. Savings in rural Ethiopia is mainly made out of the income from agricultural activities. It is also characterized as seasonal and irregular as the cash flow through sale of agricultural produce and availability of work is seasonal. This reduces their financial capacity to save or poorly respond to incentives that promote savings in the country (Dejene, 2003).

3. METHDOLGY

3.1. Description of the Study Area

The study was conducted in Cheha Woreda which is one of the woreda in Guraga zone of south nation nationality and peoples of regional state in Ethiopia.It had common boundaries with abeshge Woreda at north, Geta and Enemor Wereda at south, ezha and Gumer Wereda at east and yem Woreda and Oromiya region at west. It located 180 km, south west of Addis Ababa and 22 km south west of Wolkite town. According to (CSA, 2007), the population of the area are male 67509 and female are 70156, which total are 137665.

Economic activity of the area is concerned with agricultural activity, the main animal are cattle 110280, equine 2427, goats and sheep 12672, then total animal population is 125379.The topography of the area, attitude of this woreda range from 1710-2800 Meter above sea level. From the total area of woreda distribution of land use in hectare cultivated land 25792 (13106 annual crop and 12686 perennial crop), grazing land 1465, forest land 5877, miscellaneous land 5163, potential culltilted land 3171 and uncultivable land (degraded land) 2504 hectare, which total land of woreda in hectare is 43972.

The main crops of the woreda are divided in two categories: one is perennial crop (ensset, coffee, mango etc.) and other annual crop (teff, wheat, maize, etc.) Agro climate of the woreda is dega 20% and wenedega 80%.The temperature of this maximum 27 C^{o} and minimum 18 $C^{o.}$

3.2. Data Type, Source and Collection Methods

This study was used different type of data mainly qualitative and quantitative types of data were collected. Qualitative data is data that can be observed but cannot be measured. Quantitative data is any kind of data that can be measured numerical and also this study was used primary and secondary data. Primary data source are respondents. The secondary data sources are from annual reports, internets, published and unpublished documents.Different data collection methods were employed. These include; questionnaire and interview. Questionnaire was prepared in the form of structured and open-end questions. Interview was used to get detailed information on the rural households formal saving, types of informal saving institution and, factors that affects formal saving of rural households.

3.3. Sample Size and Sampling Technique

The size of the sample depends up on the precision desires and there is no single rule that can be used to determine sample size. But the larger sample is much more likely to be representative of the population. Checha Woreda was selected purposively for it's nearest to the university. Next two kebeles (chukuara and Gassore) was randomly selected from 39 rural kebeles. The total household of the two kebele was 2964 (CSA, 2007).From this the total target households of the study area was about 1482.Then the sample size was determined using the simplified formula developed by Yamane (1967) at 90% confidence level. According to this formula the sample size is obtained to be 94 households at the given significance levels.

$n = N/1+N(e)^2$

Where; N = target household e = significance level

$1482/1+1482(0.1)^2 = 94$

3.4. Methods of Data Analysis

3.5.1. Analysis of Descriptive Statistics

To describe the characteristics of household's by descriptive statistics like mean, percentage and frequency was employed.

3.4.2. Multiple Linear Regression Analysis

Linear regression is a method of estimating or predicting a value on some dependent variable given the values of one or more independent variables. Like correlations, statistical regression examines the association or relationship between variables. Unlike correlations, however, the primary purpose of regression is prediction (Geoffrey M. *et al.,* 2005:224-225). In this study multiple regressions was employed. Multiple regression analysis was take into account the inter-correlations among all variables involved. Multiple regression analysis, which means more than one predictor, is jointly regressed against the criterion variable. This method was used to determine if the independent variables are explaining the variance in dependent variable.

3.4.2.1 Econometric analysis

An econometric model is used to identify determinants affecting the saving habit of rural households for data's collected from a cross-section of samples. The econometric model specification of the variables for the analysis of the saving of individuals with the other independent variables is given through a linear regression analysis by the following equation:

$Y_i = (X_1, X_2, X_3, X_4, X_5, X_6, X_7)$

$Y = \beta 0 + \beta 1_{EDU} + \beta 2_{AGE} + \beta 3_{MAR_STA} + \beta 4_{FASIS} + \beta 5_{TOTLA} + \beta 6_{SEX} + \beta 7_{INC} A$

Where: Y_i = amount of saving in monthly (yearly)

B0= the constant term, X_1-age of the households, X_2 -family size, X_3 – income , X_4, - gender(sex), X_5,_total land own , X_6, -level of education , X_7,- marital status ,

3.5 Definitions of Dependent and Independent Variables

Saving (SAV); - is a basic instrument in the improvement of household's life or in the poverty alleviation effort as it helps to smooth consumption. It is also usually the entry point for a potential user in interacting with financial service providers. The saving habit of the households in the study area was asked. Hence, due to low saving habit of households, the vital role of financial capital seems inadequate. When individuals have saved some amount of money, the performance of their income becomes improved. More saving money would mean more capital (Demise, 2011). It is continuous variable that is the amount of money households saves.

Age (AGHH): Study findings were support consideration of age of an operator as a factor that may affect firm survival and growth. It is a continuous variable.

Sex (SSHH): Sex of a respondent is one of the variables that can be considered in the model, being categorized as (0) male (1) male.

Education (EDU): when the number of literate household is increase their saving performance is raise. There is a believed that older people bring more maturity to a situation and those with more education also have more experience to save. This means when educational status of households increases, their income increases significantly. Studies were also asserted that the more educated people become successful in their business.

Family size (FASIS): When the number of family size of the household increases their saving performance is declined. They consume more rather than to save. The most probable explanation could be more family size could mean they consume more and decrease their Income and they do not motivate to save (Demise, 2011).

Annual Income (INCA): it is a continuous variable and operationalized as the total annual earnings of a family from sale of agricultural produce, off-farm and non-farm activities. Income level which shows that when the income level of households increase the saving rate will also increase by some presents. Abdelkhalek *et al*. (2009) indicated that income strongly affects the saving level of the household. The expected effect of this variable on rural household saving is positive.

Total land own (LAND): it is the total land size cultivated by the household. It is a continuous variable and measured in hectare. The larger the cultivated land size the more the households to save in financial institutions. The expected effect on rural households saving is positive.

Marital status (MARTS); is the condition when the two opposite partners are joint together with agreement. It is one of the determinant variables that influence the saving habits of households.

3.6. Hypothesis

Is subject to test i.e., to confirmation or rejection on empirical grounds.

Table 1: Summary of characteristics variables and their expected sign

Determinants of saving	Continuous	categorical	Effects of each factor on household saving habits
Income	➢		Positively
Total land own	➢		Positively
Family size	➢		Negatively
Marital status		➢	Negatively
Sex		➢	Negatively
Age	➢		Positively
Education		➢	Negatively

4. RESULT AND DISCUSSION

4.1. Descriptive result of households Respondent

4.1.1. Age of the respondents

Table; 2 age of respondent

Variable	Obs	Min	Max	Mean
age of the house hold head	94	20	84	44.53191

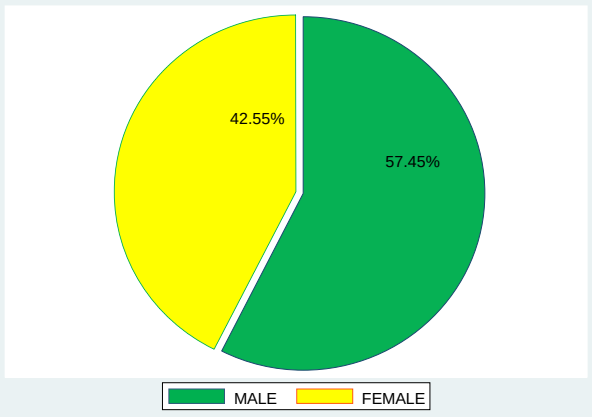
Source; survey result 2019

The result showed that the average age of the respondent was 44.53

The minimum age of the respondent was 20 and the maximum of the respondent was age 84.

4.1.2. Sex of the respondents

Figure1; sex of respondent

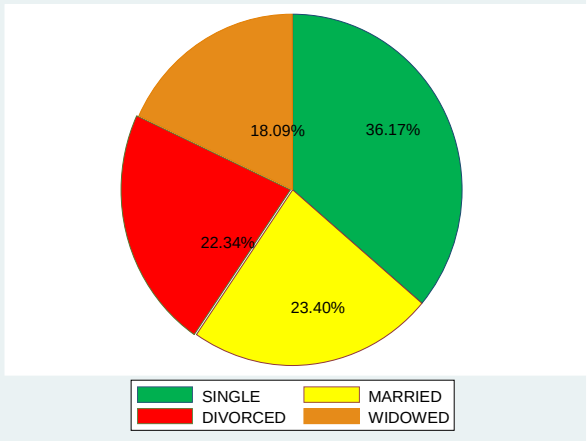


Source; survey result 2019

The result showed that, Out of the sample households taken for the study 54 (57.45%) were males and 40 (42.45%) of the respondents were females.

4.1.3. Marital Status of the Respondents

Figure 2; marital status of respondent



Source; survey result 2019

The result of this descriptive statistics showed that, from the sample of 94 households 34 (36.17%) of respondents were single and those 22 (23.40 %) of respondents were married, and 17 (18.08 %) of the respondents were windowed and 21 (22.34%) of the respondents were divorced. The result showed that most of the respondents were singles.

4.1.4. Family Size of the respondents

Table 3; family size of the respondent

Variable	Obs	Mean	Min	Max
Family size	94	3.648936	1	12

Source; survey result 2019

The report showed that, the average family size of the sample households was 4. The largest family size was 12, and the smallest was 1.

4.1.5. Education level of the house hold head

Table 4; Education levels of the respondents

Education.	Freq	Percent.
litrate	51	54.26
read and write	13	13.83
illitrate	30	31.91
Total 94	100.00	

Source own survey result, 2019

The result showed that, most of the respondents were literate that accounts 51(54.26 %). It also showed that 13 (13.83 %) of the respondents can read and write by means of informal education which is related to religion and others and 30 (31.91%) of the respondents were illiterate.

4.1.6. Total land own of the respondents

Table 5; total land of the respondents (in hectare)

z	Obs	Min	Max	Mean
LAND	94	1	5	2.876845

Source; survey result 2019

The result showed the minimum total land owned by the respondent was 1hectare and the maximum land owned by the respondent was 23 hectare. The average land size for respondents was 3.95 hectares and the standard deviation of land size for the respondents was 1.002.

4.1.7. Income of the households

Table 6: Income of the households

Variable	Obs	Min	Max	Mean
Income	94	10000	80000	37480.85

Source; survey result, 2019

The result showed that the average income of the respondent is 37480.85 birr per year with maximum earning of 80000.00 birr per year and minimum earning of 10000.00 birr per year. It was assumed that the respondent who has higher income saves more than respondents that that has less income.

4.1.8. Proportion of respondent participation in saving institution

Table 7; participation of respondents in both institutions

Participation	Freq.	Percent
Informal saving	50	53.19
Formal saving institution	30	31.91
In both	14	14.89
Total	94	100.00

Source; survey result 2019

All respondents in the study area were participating in saving institution. While result showed that from 94 respondents 30 (31.91%) of the respondents have saving account in any of formal saving institution and 50 (53.19%) of the respondents were participate in informal saving. While the rest 14 (14.89 %) of the respondents were participate in both saving institution.

4.1.9. Household saving

Table 8: summary of saver respondent's annual saving status

Variable	Min.	Max	Mean
Saving	200	41000	13417.02

Source; survey result 2019

Household savings is value deposited at the time of survey by households. Farmers usually save from their proceeds for consumption smoothing purposes throughout the year, accumulation of wealth, and for contingency purposes in case of bad harvest or accident. Among surveyed households, the average amount of household savings was 13417.02 Birr. The lowest saving level among the households was 200 Birr and the highest reaches 41000.00 Birr per year.

4.2. Results of econometric model (multiple linear regression model) and discussion

In order to identify the most affecting variables in this study, an attempt had been made by using multiple linear regression methods. Before estimating the chance of the event using multiple regression model, goodness of fit of the model and multicollinearity diagnoses were made.

Test for Multi-colinearity: The test for multicollinearity tests whether there are no perfect linear relationships among the explanatory variables. However, multi-collinearity problem is the existence of a "perfect," or exact, linear relationship among some or all explanatory variables of a regression model (Gujarati, 2004). In order to test the existence of multicollinearity problem, VIF (Variance Inflation Factor) is utilized. As a rule of thumb for multicollinearity, test of the model states a variable whose values are greater than 10 or whose 1/VIF value is less than 0.1 indicates possible problem of multi-collinearity. Thus, in this study there is no value greater than 10, all value of the Variance Inflation Factors are less than 1.01 or all values of 1/VIF are greater than 0.956064 and the mean value of vif is 1.08 (**APENDIX –C).**

Goodness of Fit; One of the techniques used to assess the goodness of fit of a model is R square and T test. The test is used to accept or reject the alternative hypothesis "the model adequately describes the data". If the significance level of the test is less than 0.05, it indicates that the alternative hypothesis is rejected and the null hypothesis is accepted. In the case of this study, the significance level of the test was found to be less than 0.05. The R square is also greater than 50%. The R square is 82 % which means 82 % of the dependent variable saving is explained by the independent variable in the model.

Table 9; Econometric model result of the factors affecting formal saving

SAV	Coefficients.	Standard error.	t	P>t
AGHH	16.29248	35.40846	0.46	0.647
SSHH	-1285.347	930.5111	-1.38	0.171
FASIS	314.8491*	179.9157	1.75	0.084
LAND	304.927*	155.8436	1.96	0.054
INCA	.5468746***	.0277896	19.68	0.000
EDU	338.0712	519.3186	0.65	0.517
MRTS	-977.6767*	531.5052	-1.84	0.069
_cons	-8038.081	2068.018	-3.89	0.000

Source: Own survey result, 2019

*, significant at 10 %, and *** significant at 1% level of significance respectively.

Number of obs. = 94 R-squared = 0.8245 Adj R-squared = 0.8102

Interpretation of Saving and Independent Variables

Saving is affected by different variables weather positively or negatively in significance or insignificance econometric analysis. As clearly shown in the above table seven explanatory variables were considered in the econometric model out of which four Variables were found to be significant determinants of saving at 1% and 10% level of significance.

Econometrics multiple linear regression analysis shown that household saving in the study area is significantly and positively associated to household income, family size and total land owned with P-value 0.000, 0.084 and 0.054 respectively. The role of income in stimulating saving stems from the Keynesian link between saving and Income i.e. higher incomes raise the capacity to save. Total land owned by the respondent was affect saving pattern positively and significantly. The larger the cultivated land size the more the households to save in financial institutions. The expected effect on rural households saving was positive that means the result was in line with researcher's hypothesis. Marital status has significant and negatively associated to the rural household saving with p value 0.069.

The final econometrical regressed question for significant variables expressed as follow;

$Y = -8038.081 + 304.927_{landsize} + 0.54687 income + 314.8491 family\ siz - 977.6767_{marital\ status} + e_u$

Annual income: annual income showed significance and positive effect at 1 % probability level on rural households saving status and it is in line with the hypothesis. Part of the explanation for this result income would increase households saving ability and enhance the probability of households to save in formal financial institutions. This result is consistent with studies by (Tsega and Yamane, 2014) and Rehman *et al*. (2010) that shows rural households saving is significantly and positively associated to households' income. The model result indicates that saving and income has strong association i.e. higher incomes raise the capacity to save.

It is an important determinant of saving. When the income of the individuals increases by 1 birr, savings also increases by 0.55 birr and when the income of the individuals decreases the rate of savings also decreases. The change in income signifies the changing growth rate in savings.

Total land owned by the house hold: Total land owned by the respondent was affect saving pattern positively and significantly. That study showed that a 1 hectare increment in land size leads to 304.93 birr increment in saving annually. The larger the cultivated land size the more the households to save in financial institutions. The expected effect on rural households saving was positive that means the result was in line with the researcher's hypothesis.as results of researchers study most of the researchers result was similar to this study .scince it is consistance with other researchers.

Marital status: it is the condition when the two opposite partners are joint together with agreement. It is one of the determinant variables that influence the saving habits of households significantly but negatively. The study showed that when two opposite partners joint together the amount of saving decrease by 977.68 birr annually. The expected effect on rural households saving was negetivly that means the result was in line with the researcher's hypothesis.

Family size . The total number of the family was affects the saving pattern positively and significantly. This study showed that increase the family size by one unit that increase also the amount of save by 314.85 birr.The expected effect on rural households saving was negativly that means the result was not in line with researcher's hypothesis.becouse of the working ability of respondant was every high.scince by increasing the family size to develop their working ability and economic growth.

4.4. Types of informal saving institutions

There are different types of informal saving institutions in the study area among these Edir**,** ekub, mahiber, Money Leander and saving at home.

Table 10; Tabulate of informal saving institution (TYPE) and participation of society.

Types of informal financial institution	Frequency	Percent (%)
Eqquib	24	25.53
Eddir	26	27.66
Money Leander	10	10.64
Mahiber	19	20.21
Saving at home	15	15.96
Total	94	100.00

Source: Own survey result, 2019

Edir; is one of the most cooperative form of informal saving practice in the study area and all parts of Ethiopia. The study showed that among 94 total respondents 26 (27.66%) of the respondents were practiced edir in a cooperative form. It also showed that most of respondents were participate in this saving institution. The main objective of edir saving is to the help the members in case of getting sorrow (due to the death of family member) and happiness (marriage) which requires material and financial support from all of the edir members based on the rule and regulation of the society. The members of edir save both in kind and cash for their future emergencies.

Eqqub; is a traditional financial saving institution of the society that form a cooperative in voluntarily. The survey study showed that from the total of 94 respondents 24 (25.53%) sample respondents were save their money in eqqub monthly

Mahiber; is the saving practice among the organization of the society mostly related with religious to help the members at the time feast, death and misfortune. The study showed that among 94 total respondent, 19 (20.21%) of the respondents were members of mahiber

.**Money Leander;** is an other saving habit of society in the study area.The study showed that10or 10.64% of the respondants from the total 94 sample respondant were save their money in the form moneyleander

Saving at home; it is the saving habit of the societies in the study area inside the home. The study showed that 15 (15.96%) of respondents from the total 94 sample respondents were save their money inside their home. The study also showed that those respondents (who saves money at home) never save their money in bank and they were not members of ekub, on the contrary all are members of edir. Individuals save their money in different traditional materials like muday, gotera, on pocket which is not wear, on small pottery by digging up the ground and soon and they take it when it is necessary

4.5. The Main Constraints for the rural Households formal saving

Constraints are obstacles which resists something or someone from doing specific tasks. There are constraints of household saving in the study area. These constraints are lack of income or do not make enough to save in cash, lack of willingness, preferring to save in kind, lack of trust, lack of awareness, cultural background, education, social affairs and unemployment or lack of non agricultural activities e.t.c are the major once which are surveyed in the study area.

5. CONCLUSION AND RECOMMENDATION

5.1. Conclusion

This study considers 94 sample household heads for identifying factors affecting formal saving amount of respondents of these about 54 (57.45%) were male headed households and 40 (42.55%) were female headed households.

The educational level of household found that accounts 30 or (31.91 %) households illiterate. It is also showed that 13 or (13.83%) of the respondents can read and write by means of informal education which is related to religion and others and also 51 (54.24%) of the respondent were litrates. And the mean age of household in the sample Data is about 44.5 years and the mean household size was about 3.65 members per households. The mean land ownership was about 3.95 hectare per household. The descriptive analysis also showed that 50 or (53.19%) of sample households practiced or participated in informal saving and 30 or (31.91%) of respondents participated in formula saving institution .While 14 or (14.89%) of the respondents practiciced in both saving institution.

The econometric analysis showed that household saving in the woreda is significantly and positively associated to household income, family size and total land owned by the household.The model also showed that marital status affect saving negatively and significantly.

Edir, ekub, and mahiber are types of informal saving institutions and saving at home is one of informal saving practices of the society which is surveyed in the study area. The study showed that from a sample respondent's one individual has at least one type of informal saving practice. Lack of income or do not make enough to save in cash, lack of willingness, preferring to save in kind, lack of trust, lack of awareness, cultural background, education, social affairs and unemployment or lack of non-agricultural activities are some of the constraints of saving in the study are

5.2. Recommendations

The econometric result of the study shows that saving of household is determined by family size,land size, marital status and annual incomeof households. Depend on this result we give the following recommendation;

- The government could also provide family planning service to the households.
- Households should be encouraged for improving their income levels and enlighten on the need for savings households could also minimize their consumption levels in order to develop their saving habits.
- Total land own is significantly and positively related to saving. Even if there is scarcity of land, it should be nice to have policy that increases the productivity of the land by introducing new technologies that can increase production, or producing plenty from small land using technologies.
- Giving training how the people can diversify their incomes from on farm and off farm activities.
- An efficient wage act policy should be implemented by the government as many of the rural people are the daily wage worker amounting them to proper ways which can meet the consumption needs and some portions of the income can be saved.
- The financial institutions should increase interest rates on savings which can motivate the households to save in banks rather than keeping at home.
- There should be a proper channel of agents who can advise or council these people regarding saving. Policy-wise, efforts should be made to encourage the rural households to save through giving trainings for the household and using the formal channel.

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7. APPENDIEX

Appendix A

Summary of Survey Questionnaire General Information

1. Date----------
2. Keble----------

A. Individual Background

1. Sex of the household head: - A. Male B. Female

2. Age_____Years

3. Marital status A. Single B. married C. divorced D. Widowed

4. Educational status of the house holds _____

A. Illiterate B. Read and write (due to religions learning) C. Literate

5. Do you participate in informal financial institution? . A. Yes B. No

5.1. If you yes in which financial institution you participate?

A, Equib B, Iddir C, Money lenders D, others

6. Do you have access to formal saving institution? A .yes B .no

6.1 If yes, in which financial institution is participate?

A.CBE B, Abay bank B. NIB C. Wegagen Bank D. other Bank

7, Experience in saving _____years; In Formal saving institution and _____year informal saving institution_____Years

8, your family size is_____in number.

B.Sources of Income

1. Specify the main sources of your family income.

2. Do you have cultivated crops? A, yes B,

3 if you yes, specify amount of income you get from each crop?

No	Type of product	Total product(by Qt)	Price of one Qt	Amount of annual income obtained(by birr)
1	Wheat			
2	Maize			
3	Sourgem			
4	teff			
5	pepper			
			Total	

4 Do you have Animals/livestocks? A, yes B, No

5 If you yes, specify the amount of income you get from each animal?

No	type of animal	No of animal	Price of one animal	Total amount of income(by birr)
1	Cow			
2	Ox			
3	sheep			
4	goat			
5	Heifer			
6	Bull			
7	Donkey			
8	Hen			
			Total	

C.Farm Resource Characteristics

1. Total farm size_____‘*timad*’]

2. Allocation for different crops during 2010/2011 crop season.

No	Type of crops	Area allocated in timad
1	Wheat	
2	Maize	
3	Sourgem	
4	Teff	
5	Pepper	
	Total	

3. Land allocated for grazing_____' *timad*'; Fallow__'*timad'*; others (Specify)_____*'timad*

4. Product and Consumption

4.1. How many incomes are you get per year?

Annual product	Annual income(birr)
livestock	
Cultivate crop	
Total annual income in birr	

4.2 How many income are consumed per year

Annual product	Annual consuption expedeture(birr)
Livestock	
Cultivate crope	
Total annual consumption	

Appendex B

Results of distributive statics

Variable	Obs	Mean	Std. Dev.	Min	Max
SAV	94	13417.02	9738.237	200	41000
edu	94	1.776596	.9058265	1	3
MRTS	94	2.223404	1.127889	1	4
INCA	94	37480.85	16172.76	10000	80000
LAND	94	3.946809	3.207407	1	23
FASIS	94	3.648936	2.942852	1	12
SSHH	94	.4255319	.4970745	0	1
AGHH	94	44.53191	13.64819	20	84

Appendex C

Test of multicollinarity

```
. vif
```

Variable	VIF	1/VIF
LAND	1.05	0.956064
AGHH	1.04	0.957792
INCA	1.01	0.990883
FASIS	1.01	0.990974
Mean VIF	1.03	

Apendex D
Result of final regression

```
. regress SAV AGHH SSHH FASIS LAND INCA edu MRTS
```

Source	SS	df	MS		
Model	7.2714e+09	7	1.0388e+09	Number of obs	= 94
Residual	1.5481e+09	86	18001266.8	F(7, 86)	= 57.71
				Prob > F	= 0.0000
Total	8.8195e+09	93	94833255.5	R-squared	= 0.8245
				Adj R-squared	= 0.8102
				Root MSE	= 4242.8

SAV	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
AGHH	16.29248	35.40846	0.46	0.647	-54.0972	86.68216
SSHH	-1285.347	930.5111	-1.38	0.171	-3135.141	564.4483
FASIS	314.8491	179.9157	1.75	0.084	-42.81146	672.5097
LAND	304.927	155.8436	1.96	0.054	-4.879726	614.7337
INCA	.5468746	.0277896	19.68	0.000	.4916307	.6021184
edu	338.0712	519.3186	0.65	0.517	-694.3	1370.442
MRTS	-977.6767	531.5052	-1.84	0.069	-2034.274	78.92076
_cons	-8038.081	2068.018	-3.89	0.000	-12149.16	-3926.997