

Factors Affecting Rural Households Saving: the case of Buno Bedele zone Bedele District, Oromia Regional state

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DECLARATION

I hereby declare that this thesis entitled “Factors Affecting Rural Households Saving: the Case of Buno Bedele zone Bedele Zuriya District, Oromia Regional State” has been carried out by me under the guidance and supervision of Dr.Derese Mersha and Mr. Mathios W/Mariam (MSc). The thesis is original and has not been submitted for the award of degree of diploma any university or institutions.

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ABBREVIATIONS AND ACRONYMS

ASCAS	Accumulation Savings and Credit Association
ATVET	Agricultural Training Vocational Education Training
CSA	Central Statistical Agency
DAs	Development Agents
EEA	Ethiopian Economic Association
ETB	Ethiopian Birr
FTCs	Farmers' Training Centers
GDP	Gross Domestic Product
GOs	Governmental Organizations
GTP	Growth and Transformation Plan
HH	Household
MFI	Microfinance Institutions
MoFED	Ministry of Finance and Economic Development
NBE	National Bank of Ethiopia
NGOs	Non-Governmental Organizations
ORDA	Organization for Rehabilitation and Development
REST	Relief Society of Tigray
ROSCA	Rotating Savings and Credit Association
SACCOS	Saving and Credit Cooperatives
SSA	Sub-Saharan Africa
TLU	Tropical Livestock Unit
UN	United Nation
SH	sex of household
MSH	marital status of household
RH	religion of household
ELH	education level of household
OH	occupation of household
EH	expenditure of household

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Abstract

The objective of this study is to examine the factors affecting household savings in rural areas. Bedele District is one of the districts of Buno Bedele Zone, Oromia Regional State. It is one of the most productive areas especially in Coffee, Maize and Teff production. The total number of population of Bedele district is 211100 of which 101000 lives in rural areas while 110100 lives in urban areas. Among the rural dwellers, 52200 are males and 48800 are females. In addition to this, there are 27842 rural households among these 19868 are male and 7974 are female headed households. This study is initiated with the objective of identifying forms of savings used by rural households and identifying major factors affecting rural households' savings. Based on the explanatory research design, the study applied mixed approaches. For the purpose of the study a cross sectional data were collected from 188 sample households and both primary and secondary data were used. Interview schedule were used to collect primary data from the sampled households. For the purpose of data analysis, descriptive statistics (frequency distribution, cross tabulation), chi-square test, p-value test and Binary logit econometric model were used. Inferential statistical techniques such as correlation and regression analysis were employed to test the hypotheses of association and differences. Collected data were processed using the Statistical Package for Social Science (SPSS) of version 20. The finding of this research revealed that, Religion, Education level and distance have negative and statistically significant effect on saving of households. The total family of household & Landholding size have positive contribution for household savings and statistically significant.

Finally, Sex, Age, Marital status, Occupation, Dependent family, Monthly income, and Livestock ownership of households have statistically insignificant effect on saving of households.

Keywords:-Rural Households' Savings, Formal Financial Institutions, Saver Households, Non SaverHouseholds

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The act of saving is influenced by several variables like the perception of saving of those who save, their assessment of its costs and benefits, their age, family size and structure, objectives or motivations for saving, environment etc. Saving has been considered as one of the factors affecting growth to lead the developing countries to the pathway of development. In developing countries savings are imperative factors of households' wellbeing. On the other hand, without savings, households have few other mechanisms to smooth out unforeseen variations in their income. For individuals and households savings offer a cushion of security against future contingencies whereas for population savings provide the funds needed in the developmental efforts (Gedela, 2012). In addition, saving enable households to maintain a relative stable life time level of living. It is also likely that households avoid doing from current consumption to save for payment for children's education (Yao *et al.*, 2011).

In many developing economies predominantly Africa, saving and investment are necessary engines for capital formation consequently economic growth. It has been argued that saving constitutes the sources for capital formation and capital formation constitutes a critical factor of economic growth. Available statistics however point out low saving mobilization base and investment in this part of the world (Issahaku, 2011). As a result, economists, international organizations, and governments in developing countries have placed increasing emphasis on the mobilization of deposits to increase rural households' savings and achieve sustained economic growth and development (Kifle, 2012). Rural households' savings in developing countries particularly in Sub-Saharan Africa remains limited and far behind from other parts of the world. Chaia *et al.* (2009) combine a number of data sources to estimate that only about 20% of households in Sub-Saharan Africa saved their money in formal financial institutions. This is due to high levels of unemployment, low level of income, the engagement of a large proportion of the population in the informal sector and deprived performance of the economy (Karim, 2010). In developing countries, economic fluctuations and climate risk lead to important income variations and leave the households susceptible to severe hardship. Moreover, their social coverage is restricted and the financial markets are not well developed. Thus, these countries

often face saving allocation problems and have difficulties to develop productive investments (Tsega and Yemane, 2014).

In the same way, in Ethiopia rural households' savings is found to be limited and only six million households save money in formal financial institutions with an average of 875 Birr per year (Aronet *al.*, 2013). The average share of gross domestic saving in the year 2012 was 12.4% of the GDP (Girmaet *al.*, 2014). The average vulgar saving rate as percentage of GDP of Ethiopia was also 21% (Tsega and Yemane, 2014). Recognizing this fact, the country has intended to promote rural households savings among citizens so as to mobilize adequate saving. In the five years Growth and Transformation Plan (GTP) of the country, it is envisaged to increase saving rate of GDP. The policy of the government that have been indicated to mobilize domestic saving resource are creating enabling environment such as increasing financial sector accessibility to rural areas and service diversification by financial sector (MoFED, 2009).

According to the Microsoft Project Document of UNDP (1999), the economically active but poor households in Ethiopia who can potentially access financial services are about 6 million out of which about 8.3% have gained access to the accredited microfinance institutions. Scaling up of the financial services provided by microfinance institutions requires identification of supportive features that are acceptable to the clientele. Accordingly, it is imperative to analyze the influences of microfinance parameters and additional factors affecting the household income in order to provide empirical evidences on the degree of influence of microfinance services.

In Oromia region, the existing formal financial institutions do not address the needs of rural households' financial need even different financial institutions provide financial service to the rural households. This is because limited accessibility of financial institutions in the rural areas. As a result of this, rural household saving in the region is found to be low. This is also similar in the case of Buno Bedele Zone of Oromia. Bedele District is one of the districts of Buno Bedele Zone, Oromia Regional State. It is one of the most productive areas especially in Coffee, Maize and Teff production. And most of the production is carried out by smallholder farmers characterized by low income and having limited access for credit. Thus, mobilizing own saving could serve as a main source of finance for investment to the rural households in the study area. Despite this, the rural households in the study area have limited formal saving.

Therefore, the aim of this study is to assessing factors affecting rural household saving; Bedele Zuriya District to bring valuable contribution to the accumulation of capital by this means it boost investment.

1.2 Statement of the Problem

Understanding the nature of household savings is critical in designing policies to promote savings and investment (Attanasio and Banks, 2001). Given the differences in the economic environment of the developing countries there should be substantial variation in the household savings (Muradoglu and Taskin, 1996). The close relation between savings and growth makes the analysis of savings of household is naturally important for policy analysis. Savings of households shows considerable variation across countries depending upon level of development and socio-economic structure and so one cannot be sure whether the results of a region or country under study may be applicable to a particular country or region of interest. Thus, cross country regression analysis based on the assumption of homogeneity cannot be used as definitive study for any specific country of interest. For this reason, country and regional studies have an importance of their own (Agrawal et al, 2009).

Studies conducted on saving motives in comparison with saving habit agree that saving motives govern saving habit of rural households. Fisher et al,(2010) found out that saving motives drastically contributed to the possibility of households saving. However, the magnitude of pressure that different saving motive shad on saving habit of households varies among different studies. The results of studies on the effect of saving vary from study to study and from country to country (Yao, Wang, Weagely, Liao, 2011, p.28). In addition, authors differed on the catalog of motives they took to study saving rural households'. As Mahdzan (2010, p.40) exposed, past literatures has specific rule in rural households'.

At the same time, interest rates have been relatively low. The need for instant gratification and materialism has burdened South Africans, forcing them to increase their debt levels. Current debt levels stand at approximately 80% of household income, which leaves very little for savings and investments (Old Mutual Saving Monitor, 2010). It is unfortunate that people spend their income on goods that do not appear to eliminate poverty or create long-term wealth (Moav & Neeman, 2010).

They use up their money on items that offer short term fulfillment and decrease in value quickly, for example expensive vehicles. There is a strong argument that even property will create value if paid off quicker than required by the contract. This could be achieved by halving the payment period, or by paying more or double the required installment due. However, this requires households to make sacrifices in a different place. It is promising that people are also spending large amounts on funerals and festivals (Moav & Neeman, 2010), which are treated equally in terms of budget allocation, and are associated with status.

Globally, rural households' savings is increasing in some developing countries. For example, in China and Bangladesh but the circumstances is not the same in most African countries. With this regard, many researches done in developing countries, mainly in sub-Saharan Africa, indicated that many rural households have poor saving culture. As a result, low level of household savings is said to be one of the reasons for slow and sluggish economic growth in the developing countries (Devaney, 2007). Correspondingly, in Ethiopia rural households low saving is a series problem and formal financial saving is initiate to be limited (Dereje, 2010). Numerous reasons, including low and irregular income and lack of access to financial services, have been contributing to low savings rate in developing countries specifically in Sub-Saharan Africa. In addition, institutional factors, and higher expenditure patterns have found to be associated with lower levels of saving in Sub-Saharan Africa (Beck *et al.*, 2008).

In Ethiopia, specifically the study area, smallholders' income is characterized as seasonal and irregular, in this situations savings is usually less considered. The unavailability or few formal financial institutions in the rural areas of Ethiopia could be a disincentive for formal saving. Very few studies have been conducted to assess factors affecting rural households saving in Ethiopia and also in the study area (Kidane, 2010). Even, most of them done at macro level (Girma *et al.* 2014). Thus, the first motive to undertake this study will be to fill gaps identified on existing empirical studies, so far reviewed. This study intends to examine factors affecting rural household saving in Buno Bedele zone Bedele Zuriya District, Oromia Regional States to extend the literature by addressing the subject matter from the perspectives of households saving. Further, **the study introduced additional** variables to provide a comprehensive measure of financial markets practices in order to fill the gap identified on conceptual definition of rural household saving practices.

Therefore, the above highlight leads to the main problem of the study that would be addressed by this study to examine factors affecting rural household saving in Bedele Zuriya District, Oromia Regional States.

1.3 Research Questions

1. To determine which demographic factors affects household saving in Bedele Zuriya District, Oromia Regional state?
2. To what extent socio-Economic factors affect household saving in Bedele Zuriya District, Oromia Regional state?
3. What are the institutional management factors affecting households saving in Bedele Zuriya District, Oromia Regional state?
4. What is the government related factors affecting household saving in Bedele Zuriya District, Oromia Regional state?

1.4. Objectives of the Study

1.4.1. General objective

The main objective of this study is to investigate the factors affecting household saving in Bedele Zuriya District, Oromia Regional State.

1.4.2. Specific objectives

1. To identify the demographic factors affecting household saving in Bedele Zuriya District, Oromia Regional state.
2. To analyze the socio-Economic factors affecting household saving in Bedele Zuriya District, Oromia Regional state.
3. To assess the institutional management factors affecting household saving in Bedele Zuriya District, Oromia Regional state.
4. To examine government related factors affecting household saving in Bedele Zuriya District, Oromia Regional state.

1.5. Significance of the Study

The purpose of this study is to examine the factors affecting household saving in Bedele Zuriya District, Oromia Regional state. Initiate other researchers to generate and add information on existing knowledge of micro finance contributions in improving the livelihood of households saving. Further, the findings of the study provide multipurpose information to different users,

including practitioners in microfinance, donors, policy planners, academicians and the households at large. The study is useful to the government financial organization, private financial organization, microfinance institutions, donors, policy planners, academicians and the public at large by considering the benefit associated with household saving.

This study is aimed to obtain the necessary information useful for organizational leaders and human resource managers to understand household saving and to design preventive and corrective measures to rise saving level. In perspective of future study, it would be usefully for the future study in terms of providing directions, in pointing out the core challenging factors and same time helps also by providing directions for prospective future study that he/she would dig out for more factors in their study of household saving in Buno Bedele zone Bedele Zuriya District, Oromia regional level in general.

1.6. Scope and Limitation of the Study

In point of view the geographical coverage, the study would be conducted at Bedele Zuriya District, Oromia Regional State. Geographically, the study was confined to seven rural kebeles in the district and on rural households' formal savings. The study investigates to find out factors affecting household saving, the reason to select these to see the results of factors affecting household saving, and the theoretical review for the study revolves around main factors that affect household saving. In addition, the study identifies only factors affecting rural households' formal savings. The study merely defines factors affecting households' savings and the data that would be collected from sample households depends on the ability and willingness to give accurate information. Hence, the entire analysis and discussion would be confined to the factors affecting household saving, achievements and challenges.

Some constraints and challenges the study face during data collection (difficulty of getting key informants in the stipulated time, lack of well recorded, kept and related data and others). However, challenge was substantiated by other means such as the use of diverse techniques to collect necessary information for the study and thus the limitations do not have significant impact to decrease the credibility of the study. The study purposefully selected Commercial Bank of Ethiopia, Oromia Credit and Saving Share Company and saving and Credit Cooperatives which are involved in saving mobilization and awareness creation. These offices

were selected due to the interests of the researcher to examine the real situation in the topic. Therefore, the study was restricted to four selected financial institutions.

1.7. Organization of the Study

This thesis was organized into five chapters. Chapter one deals with the introduction, focusing mainly on the background, statement of the problem, objectives, scope and limitation and significance of the study, Chapter two deals with review of theoretical and empirical literature pertinent to the subject of the thesis. Chapter three describes the research methodology that includes a brief description of the study area, data collection procedures and analytical techniques. Chapter four discusses the findings and results of the study, Chapter five deals with summary of the major findings, conclusions and recommendations of the study.

CHAPTER TWO

2. LITERATURE REVIEW

The purpose of the literature review was to deliver important information on the theoretical and empirical background of the topic under study. Hence, this chapter provided a review of the literature on relevant articles related to the study. The chapter contained three main parts. The first part dealt with concepts and definitions where key terms of the study were discussed. The second part presented theoretical and empirical review in which theoretical review involved assessing earlier theoretical based articles whereas empirical review demonstrates findings of relevant past studies. The third part came up with the basis of the study that was Theoretical and Conceptual framework, which was drawn from the discussion in the literature review.

2.1 Theoretical Review of the Literature

2.1.1 Definition of Saving

The business dictionary defines savings as the portion of disposable income not spent on the consumption of purchasing goods, but accumulated or invested directly in capital equipment. Saving constitutes the basis for capital formation, investment and development of a country (Nga, 2007). Households' savings is defined as the part of current income, after the imbursement 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. 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). Households' savings is generally defined as the difference between household disposable income and household consumption expenditures (Shikhaetal, 2009).

2.2. Theories of Saving

Saving decisions are at the heart of short and long run macroeconomic analysis as well as much of microeconomics. In the short run, spending dynamics are of central importance for business cycle analysis and the management of monetary policy. And in the long run, aggregate saving determines the size of the aggregate capital stock, with consequences for wages, interest rates,

and the standard of living. Aggregate savings for an economy is a predominant component. The problem of savings can be taken up both at the micro and macro level. The following three of the approaches are now well established the Relative Income Hypothesis by Duesenberg (1949), the Permanent Income Hypothesis by Friedman (1957) and the Life Cycle Hypothesis by Ando and Modigliani (1963). These main theories that exist on the factors affecting saving can be explained.

2.2.1. Life Cycle Hypothesis

It is an economic theory that pertains to the spending and saving habits of people over the course of a lifetime. The concept was developed by Franco Modigliani and his student Richard Blumberg. LCH presumes that individuals base consumption on a constant percentage of their anticipated life income. An example supporting the hypothesis is that people save for retirement while they are earning a regular income rather than spending it all when it is earned. This simple theory leads to important and non-obvious predictions about the economy as a whole, that national saving depends on the rate of growth of national income, not its level, and that the level of wealth in the economy bears a simple relation to the length of the retirement span.

The life-cycle hypothesis remains an essential part of economists' thinking. With population growth, there are more young people than old, more people are saver than non-savers, so that the total non-saver of the old will be less than the total saver of the young, and there will be net positive saving. If incomes are growing, the young will be saving on a larger scale than the old are non-savers so that economic growth, like population growth, causes positive saving, and the faster the growth, the higher the saving rate. In fact, it doesn't much matter whether it is population growth or growth in per capita incomes, what matters for saving is simply the rate of growth of total income. The relationship between saving and the age structure of the population is also a current topic of debate. Cross-country regressions regularly find that aggregate saving rates are lower when the population share of the elderly is high and when the population share of children is high, predictions that are in accord with the life cycle theory if saving takes place in middle-age when earnings are high, after the childrearing ages, but prior to retirement (Schmidt-Hebbel et al., 1996).

2.2.2. Relative Income Hypothesis

It states that the satisfaction or utility of an individual derives from a given consumption level depends on its relative magnitude in the society e.g. relative to the average consumption rather than its absolute level. It is based on a postulate that has long been acknowledged by psychologists and sociologists namely that individuals care about status. In economics, relative income hypothesis is attributed to James Duesenberg, who investigated the implications of this idea for consumption behavior in his 1949 book titled *Income, Saving and theory of Consumer Behavior*. At the time when Duesenberg wrote his book the dominant theory of consumption was the one developed by the English economist John Maynard Keynes, which was based on the hypothesis that individuals consume a decreasing and save an increasing percentage of their income as their income increases. This was indeed the pattern observed in cross-sectional consumption data. At a given point in time the rich in the population saved a higher fraction of their income than the poor did. However, Keynesian theory was contradicted by another empirical regularity.

Aggregate saving rate did not grow over time as aggregate income grew. Duesenberg argued that relative income hypothesis could account for both the cross-sectional and time series evidence. Duesenberg claimed that an individual's utility index depended on the ratio of his or her consumption to a weighted average of the consumption of the others. From this he drew two conclusions (1) aggregate saving rate is independent of aggregate income, which is consistent with the time series evidence and (2) the propensity to save of an individual is an increasing function of his or her percentile position in the income distribution, which is consistent with the cross sectional evidence. Relative income hypothesis has also found some corroboration from indirect macroeconomic evidence. One of these is the observation that higher growth rates lead to higher saving rates, which is inconsistent with the lifecycle, permanent-income theory since the lifetime resources of an individual increases as growth rate increases (Schmidt-Hebbeletal.,1996).

2.2.3 Permanent Income Hypothesis

It was formulated by the Nobel Prize winning economist Milton Friedman in 1957. The hypothesis implies that changes in consumption behavior are not predictable, because they are based on individual expectations. This has broad implications concerning economic policy. Under this theory, even if economic policies are successful in increasing income in the economy,

the policies may not kick off a multiplier effect from increased consumer spending. Rather, the theory predicts there will not be an uptick in consumer spending until workers reform expectations about their future incomes. A theory of consumer spending which states that people will spend money at a level consistent with their expected long term average income. The level of expected long term income then becomes thought of as the level of permanent income that can be safely spent (Schmidt-Hebbel et al., 1996). In the conclusion of the above theories and literature, it was found that the savings does not depend upon income alone rather on the consumption pattern of the individuals also. The relative and permanent income hypothesis holds that the relationship between consumption and income is proportional whereas the relationship of the life cycle hypothesis is non-proportional. By the above theories it is clear that when the income grows the population is encouraged to save and the no saving occurs with the old generation as due to no or less income.

2.3. Global Overview of Rural Households Savings

Saving service has been one of service being delivered by financial institutions. People prefer different options to put their money. A study conducted in India indicated that 51% respondents put their money in the bank and 36% of the households still prefer to keep cash at home. The national survey finding further has indicated that Indian has got strong saving habit despite the saving patterns differs in income, education level and occupation. The study has shown that 83% and 81% of the households have made saving for the key priority areas such as emergency and children education, respectively. Rural household saving in Africa and research from Ghana showed that only 10 percent of wealthiest household increase their saving along with income (Aryeetey, 2004 cited in United Nation, 2007).

The pattern of rural household saving has been irregular in connection to the frequent swing between saving and no saving and this irregularity of saving could result in changing the preference of saving instruments towards the most liquid and accessible (Deaton, 1990 cited in United Nation, 2007). Besides, it is indicated that the rural household saving instruments have been categorized in to non- formal saving, informal saving, and formal saving. These savings have been the determinant of finance sources for investment and as the result they have been considered as course of any country's development. However, in Africa, rural household savings consist mainly of physical assets and some financial savings held in the informal financial sector.

Thus, only a small part is available for productive investment to exemplify the maximum and minimum saving deposit rate was 6 percent and 3 percent respectively from 10 1998/99 to 2003/04 and of course the maximum and minimum was unfortunately registered at the beginning and ending of mentioned time interval EEA (2004/2005). Further, Deaton, 1990 and Dercon, 2002 cited in United Nation (2007) also stated that knowing the way how household save could help to set up policies that would facilitate the increment of resource available for development. The household specifically in the rural areas mostly depend on volatile income sources and with the absence of credit and insurance. Rural households could use the saved resource as a strategy to smooth their household and farm input consumption. Saving as precaution strategy has required due attention for saving and save substantial amount of their income despite low income and lack of saving instrument. For instance, rural households in southern part of Ganza saved over 30 percent of their income (Aryeetey and Udry, 2000 cite din United Nation, 2007).

2.4. Rural Households' Savings in Ethiopia

The financial service sector in Ethiopia was composed of formal and informal sectors. The formal sector comprises financial institutions such as commercial banks, insurance companies and microfinance institutions that are regulated and licensed by the National Bank of Ethiopia. In addition, the emergence of member based financial institutions such as saving and credit cooperatives (SACCOs) has also been recognized for the provision of saving services in Ethiopia. The informal sector mainly comprises of financial institutions like *Iqub* and *Edir*. These institutions play a central role within the financial sector in providing liquidity for payment services and facilitating financial transactions of various entities (Mengistu, 2013).

2.4.1. Rural Households Savings Instruments

Economic theory postulates that households' saving is the difference between households' income and consumption. Income is household's earnings that are earned from all his sources during a year. Sources of income can be salary from Job, business profit, corporate profit, interest payments, earning from farm production, crops' earning etc. Consumption is the total amount of goods and services that is consumed by households during a year. Consumption includes expenditure on food, clothing, housing, rent, education, utility bills, traveling, ceremonies, health, recreation or charity etc. Main forms of savings: Construction materials, cereals and harvest. More generally, this kind of saving accounts for a large part of households

saving in rural areas (Robinson, 2004 in khalek et al, 2009). Growth rate of the country is jointly determined by saving rate and incremental capital output rate in the dynamic model of Harrod-Domar. The role of saving is very critical in capital accumulation and economic development that is recognized in the "two gap" and classical growth models. In Neoclassical growth model, savings do not affect economic growth in steady state but there is high association between higher saving rate and more rapid growth of the economy in its movement towards long run equilibrium. In representing the evolution of developing countries, the transitional path is more meaningful than alternative steady states (Gersovitz, 1988).

There are different types of saving system in the world. This is categorized as formal saving sector (microfinance institutions (MFI), bank and insurance companies, saving and credit cooperatives (SACCOs) and informal saving sector (save at home, save at clubs, deposit collector, reciprocal lending, rotating savings and credit association (ROSCA), accumulation savings and credit association (ASCAS). Informal savings have different names in different countries (Gebeyaw, 2008).

In Ethiopia, the effective financial structure has 95% of the productive asset which was composed of 70-80% loan and 10-20% liquid investment and the remaining 5% is unproductive assets composed of land, buildings and equipment's. On the other hand, 70-80% of credit union liability should be composed of members' savings to achieve financial independence. In order to finance non-performing assets, improve earnings and absorb losses, members share capital and institutional capital should be greater or equal to 20% and to 10% of total asset respectively. Rate of return and costs operating expense to total assets ratio is set to be less than 10% and other return and costs to be greater or equal to market rate. However, administrative cost should not be greater than 5% of the average total assets (Gebeyaw, 2008). In our country, there are different traditional financial systems which have long history and paramount contribution to economic betterment and social wellbeing of the society. Traditional institutions organized with a sense of cooperation and risk sharing has enabled Ethiopians to experience saving and financial management within its cultural context *Iqub*, *Edir*, etc are some of the informal financial institutions that shaped the social bond and interaction (Gebeyaw, 2008).

2.4.1.1. Formal financial saving

These are institutions that have been engaged in saving and credit/loan service delivery for both rural and urban community and having modern accounting and reporting systems e.g. private and government banks, and MFI. The problem in accusing formal saving instrument, lack of trust in formal institutions and inadequacy of formal institutions have been identified as problems to treat the poorer households saving needs. The banks have been considered as main type of formal institutions that have involved in saving mobilization in Africa.

Banks; are the key financial institutions that provide financial services thereby highly contributing to the economy of a given country. The returns on asset are the indicators of the healthiness of these institutions. According to Flamini (2009), the banks in most sub-Saharan African countries have shown an increase to their return as compared to other banks in other developing countries. Banks in Ethiopia has also shown a great improvement in their return on asset (NBE, 2010). There were 15 banks in operation and 30 microfinance institutions, among which 12 were private banks and the rest 3 were state owned banks. In 2008, the Ethiopian banking industry covered 91.5% of the total asset share of the financial institution (Mengistu, 2013).

Microfinance Institutions

In Ethiopia, delivery of financial services to the poor is a very recent development which was started with proclamation number 40/1996 in which the legal framework that allow the establishment and operation of microfinance institutions was framed. Microfinance service has become one of the most prominent instruments in the development programs and strategies of the country (Mengistu, 2013). Microfinance can be defined as provision of a broad range of client-responsive financial services to poor people through a wide variety of institutions. Microcredit activities in rural Ethiopia were initiated by local and international NGOs (Wolday, 2004). In Ethiopia integration of the credit schemes initiated by local NGOs like the Relief Society of Tigray (REST) and Organization for Rehabilitation and Development in Amhara (ORDA) into the formal financial system contributed to the formulation of a regulatory and supervision framework for efficient delivery of services to the rural poor and the issuance of a new proclamation for Licensing and Supervision of Micro Financing Institutions in 1996 (Proclamation No.40/1996)(Wolday,2004).

Saving and Credit Cooperatives

According to Wolday (2004), the cooperative movement in Ethiopia took birth in 1950s. Actually the first saving and credit cooperative in Ethiopia was established by the employees of Ethiopian Road Authority in 1957. This was followed by the SACCO of Ethiopian Airlines (1964). During the period between 1960 and 1978 140 cooperatives with a total membership of about 44000 were established in the country. Derg, after issuing Proclamation No. 138/78 established agricultural producers' cooperatives and service cooperatives, organized 13546 cooperatives with a membership of about 10 million by 1990. Performance analyses of the 13 sector indicated that there are 10270 SACCOs active in the country with the total membership of 910275 and a saving amount of 1.2 Billion Birr. However, the sector provides less than one percent of the country's total financing, and many struggle with low-capacity management and governance (Kifle, 2012). SACCOs are promoted not only for money, but also for its contribution to the promotion of total human development. SACCOs develop people's minds by providing motivation, creating initiative, promoting self-development and self-reliance and providing leadership. They also develop material wellbeing by raising the living standards of members, making possible regular savings and wise use of money, providing loans at low interest rate and by making possible economic emancipation of members (Wolff, *et al.*, 2011). SACCOs are widely seen to have potential to impact on development and poverty reduction. The UN has also acknowledged important direct and indirect impacts on socio-economic development in terms of promoting and supporting entrepreneurial development, creating productive employment, raising incomes and helping to reduce poverty while enhancing social inclusion, social protection and community-building (UN, 2009). Moreover, the sector still faces a number of challenges including low membership base, poor saving culture, lack of separate regulation for being financial institutions, and lack of demand driven and diversified financial services (Tesfamariam, 2011)

2.4.1.2. Informal financial saving

The great bulk of the Ethiopian population makes little or no use of the formal savings and lending institutions. In a country where more than 80% of the population lives in rural areas, the few banks and credit associations that are presently operational are limited to urban areas. Informal savings are any savings that occur within the informal sector of the economy. Saving in informal institutions have not yielded interest for the depositors and mobilizing resource.

Through this system does not use for investment to yield income and, of course, most of the time depositors have expected to pay for saving service their changing financial needs. Especially in developing countries, a variety of informal institutions that enable transactions and are particular to the poor can be observed (Banerjee and Duflo, 2011).

2.4.1.3. Non-financial saving

Households have experienced in practicing saving in the form of items such as livestock, grain ,construction material and most precious materials example gold for the propose establishing smooth consumption pattern. Though evidences are limited, some studies suggested that non-financial assets represent about 80 percent of all the household assets in rural areas. High risk, uncertain financial instrument and lack of adequate financial instruments have been indicated as the reasons that have initiated the household to save in non-financial instruments. This form of saving has remained as part of saving of household in African countries. Thus, an improvement in access, adequacy and reliability on the part of the financial sector could trigger an increase in savings held in a financial form through substitution from non-financial to financial saving instruments (Wright, 1999 cited in Michael, 1999).

2.5. Importance of Rural Households Savings

The financial sector plays a vital intermediary role in channeling resources from the unproductive use (resource suppliers) to its productive use (resource demanders). The system of financial intermediation can affect economic performance and growth directly through the role it plays in resource allocation. Financial sector development is at the heart of resource mobilization, industrialization, boosting investment and accelerating economic growth. In particular, the financial system can affect saving and investment decisions and hence capital accumulation and technological innovation by reducing information and transaction costs, creating mechanisms of risk sharing, facilitating trade and payments among economic agents and providing various supporting services.

The study of saving has a contribution to change personal behavior and economic growth in the country. Credit and Saving Institution take more shares in serving clients in the market (Befekadu, 2007). It is emphasized that importance of understanding rural households saving for several reasons having national and individual dimensions. The national dimension is that household saving is the main sources of investment for both government and corporate sectors.

But individual saving has only short and long term goal mainly financial security. So, the national dimension will result in GDP growth and this in turn leads to rise in households' income that could bring higher households saving. The approach is true for India as it has been elsewhere in Asia (Rajesh, 2008).

2.6. Empirical Studies on Factors Affecting Rural Households Savings

Researches on factors affecting rural households savings on micro data drawn from the developing countries has lagged far behind the pace set in advanced nations. It would appear that there has been limited hypothesis testing in the developing countries beyond macro formulations of the consumption function. Furthermore, very little of the development literature attempts to isolate the impact of personal saving, since few studies provide meaningful disaggregation (Kelley and Williamson, 2009).

Besides, few studies assess the factors of savings at the individual level generally due to the lack of data. Turner and Manturuk (2012) examined how individual, institutional, and structural determinants the decision-making processes that guide households' savings in New York. The results showed that individual factors such as obligation to family, upbringing affect households' toward savings and their confidence in their ability to save. Institutional factors such as incentives, disincentives, and organizational culture shape households' trust in financial institutions and their willingness towards participating in savings programs was studied.

Issahaku (2011) identified age composition and assets do not have a major effect on saving. The factors that make household investment are occupation and expenditure. Contrary to Issahak's findings, Rehman *et al.* (2010) investigated the determinants of households saving and identified age has positive. In this research, age has to be negative relationship with rural households saving. A household study on determinants of saving asserts that three factors were influence household saving behavior in Africa. One of these was the ability to save which in turn depends on a household's disposable income and expenditure. The second was the propensity or willingness to save as influenced by socio-cultural and economic factors like the family obligation to educate children. The third one was the opportunity to save and returns on savings. In addition, household size has a negative effect on household savings suggesting that larger household are more resource constrained than small ones with disposable income and consequentially a lower level of savings (Newman *et al.*, 2008; Orebiy`set *al.*, 2005).

Nga (2007) examined a general idea of households' savings in South Africa. She identified the main factors responsible for the lack of a commitment to saving which are particularly relevant in the case of rural households. The major factors were: lack of income (due to unemployment), inadequate income, over-consumption (due to obvious consumption, procedural rationality and the bandwagon effect) and market failures, such as unfinished or even no information, lack of financial literacy, cultural and political factors. Similarly a study conducted by Touhamiet *al.* (2009) also investigated the micro-econometric determinants of households saving in Morocco. He concluded as income significantly explains the cross-sectional variation of the saving status of households in Morocco.

The fundamental reasons or importance and role of households to save were highlighted. Experiential investigations carried 17 out to date also appear to support these broad propositions acknowledged for developing economies. A study conducted by Girmaet *al.* (2014) identified determinants of rural households' savings in East Hararghe Zone, Oromia Regional State, Ethiopia. In this study, Nine significant determinant explanatory variables of rural households savings were identified which includes household head's education level, livestock holdings, access to credit service, income, investment, training participation, contact with extension, forms of savings and saving motives. The empirical literature review revealed that there are different factors that affect household savings. Most of these empirical studies focus on aggregate national savings using macro 17 data. Besides, there is no study conducted on microeconomic level on the factors affecting rural households' savings in Buno Bedele Zone specifically in the study area and limited studies are found in the country.

Therefore, this paper attempted objectively to identify major factors of rural households' savings at household level focusing on the effects of the demographic, socio-economic, institutional, and variables related to saving institutions characteristics of the households. The study is also intended to contribute to the existing research gap through a better exploration of its factors.

2.6.2. Demographic Characteristics

Gender: Quartey and Blankson (2008) in the analysis of the GLSS 4 data observed the following. First the number of people who did not have savings account was more than those who had. Only 12.1% of the total sample held savings account and out of this proportion, females held more savings account than males (53.5% against 46.5%). It was observed that

comparing this figure to that of 1991/2, the proportion of males with savings account declined. It was also noted that of the total people who held savings accounts, majority of them were sons and daughters of household head followed by household heads themselves and then the spouses of household heads and the least was the grandchildren of household heads. To note that, according to the logic of indigenous associations, personal savings tend to assume an obligatory character after the individual has joined the association, and that savings become, in a sense, a form of participation.

Therefore the formulation of an ideal incentive program for household savings should start from such basic considerations and should seek to make full use of existing savings motivations in view of developing the savings potential of the household sector Borsch-Supan (1992) found that in Germany savings reduce among households below retirement age. Among the elderly however, the tighter safety net might actually increase net savings since the generous retirement income might not only prevent the German elderly from depleting their assets but even provide income levels sufficiently large to induce savings in old age (Borsch-Supan 1992).

Education level (EL): is expressed as literate and illiterate. Education affects saving performance by influencing the level of saving and the options for asset accumulation available to the household. Kulikov *et al.* (2007) found that education as a human wealth promotes rural household saving. It was expected, therefore, households who are literate have a higher probability of saving it had positive effect for literate households.

Marital status (MS): is expressed as married and unmarried. Marital status has also been shown to have an effect on asset accumulation (Grinstein-Weiss *et al.*, 2006). Historically, marriage has been viewed as a source of financial security continues to be a determining factor for economic well-being. Pooling resources for a married couple may provide a cushion for them to accumulate assets without going under in times of crisis. The expected effect of rural household saving on single households was negative.

Sex (SEX) it is assumed that male for the head of the household is male and female for the other. Several studies have shown that sex has an effect on asset accumulation. In sub-Saharan Africa, women own fewer assets than men (LeBeau *et al.*, 2004). In rural SSA, women's ability to accumulate assets is governed by family and community norms, which historically have favored men to the disadvantage of women. Gedela (2012) found that male headed households save more

than female headed households. The expected effect of sex on female headed households was negative.

Age (AGE): it is a continuous variable, defined as the household heads age at the time of the study measured in years. Rehman *et al.* (2010) found that age has positive relationship with household savings. The life-cycle hypothesis suggests that there exists a relationship between age and saving rates. When the age of the households increases their saving status going decreases. Therefore, the expected effect of age on rural households saving was negative.

Family Size of the household (FS): this is a continuous variable measured by numbers and it refers to the total number of family members of the household. A household with high number of dependents in the family have less savings. Rehman *et al.* (2010) found that family size significantly and inversely affecting household saving. The expected effect of family size on rural household saving was negative for households who have large family size.

Religion (REL): this variable is identified as Musilim, Kirstian, wakefata and protestant. Although the relationship between religion and economic development on the macro-level has been explored, it is less clear how background of religiosity influences economic attitudes and financial decision-making on the level of the individual or household in the micro-level. Fentahun (2014) identifies religion as determinant factors in west Amhara regional state has had its share towards the impact of saving on households. The result of this study shows religious affiliation effects on saving behavior and decision to save money or notand compares religiosity in the form of Christian to Islam believers the results show Christians save more than Islam. Therefore, the expected effect of religion on rural household saving was negative for Islam religion followers.

2.7. Conceptual Framework

Savings fundamentally is about choosing between current and potential consumption. In recent years, few studies have been presented nationally on this matter using aggregate saving data. But still this issue is needed to be discussed more at micro level to find policy framework in the prospect. Keeping in view the importance of households saving in Ethiopia, some conceptual and empirical evidence from international economy is reviewed based on saving in developing countries (Kifle, 2012). Gedela (2012) reviewed the determinants of rural households' savings

and the result revealed that the age of the head of the household, sex, income and expenditure are significantly influencing the rural household saving. He found that expenditure has harshly affected household savings. Income is the most critical factor of the saving behavior in the entire study. Then, the researcher developed the following conceptual framework by reviewing diverse empirical studies. The most important variables expected to affect rural households' savings in the study area includes; demographic (age, marital status, educational status, sex and family size, socio-economic (religion of the head of the household, income level of households, livestock ownership, landholding size of households and distance from market), institutional (physical distance from financial institutions), variables associated to government (awareness of saving and advice concerning saving).

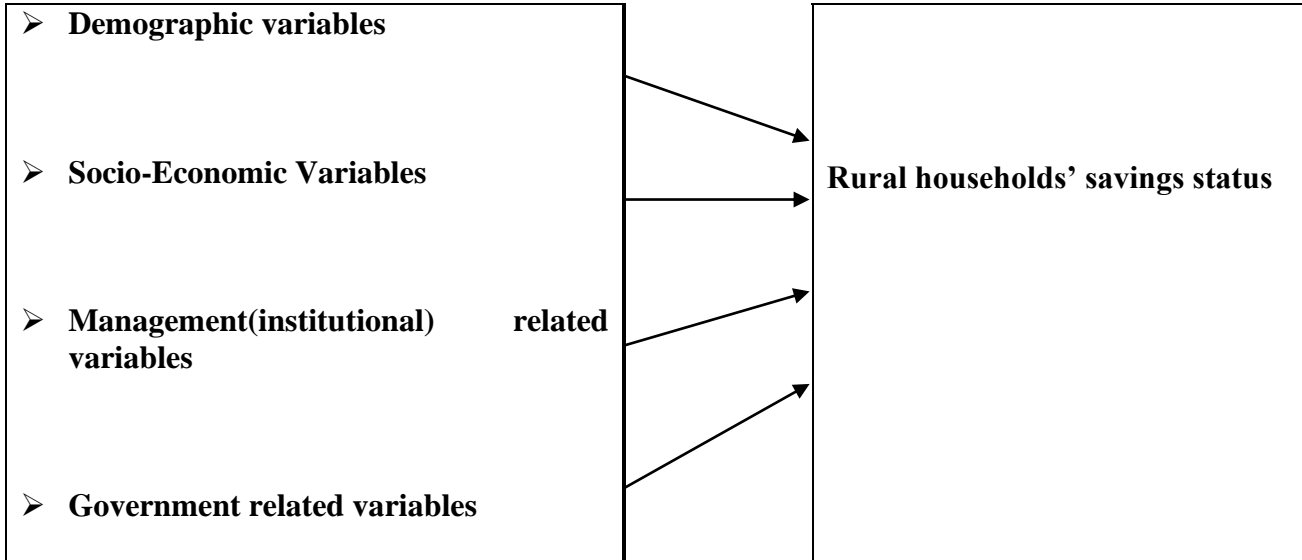
Creating better way enhanced for achieving means of living for the beneficiary that found in the town from side to side institutional credit, saving, insurance and generating employment opportunities, education opportunities, nutrition facilities. Diagrammatically, it can be shown as follow:

Independent variables

The study consider independent variables that comprise; demographic (education level, sex, age, marital status, family size), socio-economic (religion, landholding size, livestock ownership, annual income and market distance), institutional (distance from financial institutions,) and government related to saving institutions (awareness of saving and advice concerning saving) would be defined and hypothesized

Table 2:1 table of dependent and independent variables

Independent variable	Dependent Variables
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Source Compiled by the researcher

CHAPTER THREE

3. RESEARCH METHODOLOGY

Introduction

This chapter on methodology includes the study design, the method of study adopted, The sampling technique and sample size. It also covers the ways the data was collected and the statistical methods used to analysis the data.

3.1. Description of the Study Area

Buno Bedele Zone is one of the twenty two administrative Zones of Oromia National Regional State, bordered by SNNPR on the South, West Wolega on the North I/A/Boraon the East and Jimma Zone on the West. Bedele Zuriya District were located in Buno Bedele Zone of Oromia National Regional State, at about 480Kms South East of the capital city of Addis Ababa and at about 120 Kms from Metu town and at about 140Kms from Jima town. According to the information from Agriculture Office of Bedele Zuriya District (2019/2020), the district has about 32 Kebeles. Among these, 25 of them were rural based Kebeles which constitutes the largest share of the administrative district and 7 of them were under the town kebeles.

Population: according to Central Statistical Agency (2010), the total number of population of Bedele district is **211100** of which **101000** lives in rural areas while **110100** lives in urban areas. Among the rural dwellers, **52200** are males and **48800** are females. In addition to this, there are **27842** rural households among these **19868** are male and **7974** are female headed households. Financial institutions that are found in the study area are; Commercial Bank of Ethiopia, Oromia cooperative bank, Oromia saving and credit institution, Brihan Bank, Wogagen Bank, Dashen Bank, Awash Bank and saving and credit cooperatives. Rural households used these financial institutions to save and access.

Climate of the area: the area is one of the forestry areas of the country having an average altitude of about 2400 m.a.s.l. The district was one of the densely populated areas of Buno Bedele Zone with a small landholding of farmers similar to most highlands of Ethiopia. It has three basic agro-climatic conditions; namely, high land "Dega", middle land "Woyina-Dega" and "kola". The area is mainly characterized by uni-modal rainfall type that exists almost throughout a year with the average annual temperature of 25°C with the maximum and 15°C the minimum and averaging of 20oc (Agriculture Office of Bedele Zuriya District, 2018) Credit services.

Economic Activities: The main source of economy for the district's population is land. It is used for different economic activities such as for crop and livestock production. The major crops grown in the district are Coffee plantation, cereals, pulses, oil crops and vegetables (Agriculture Office of (Bedele Zuriya District, 2018).The district has been known for its high Coffee, Maize, Oil crops and Teffe production and for supplying the products for export market, domestic

market for consumption, and for local factories. Livestock is reared by most of the households in the study area. Animal production activity is one of the integral components of the farming system in the district. Livestock production has multi functions for the households in the study area that augments the continuation requirement of the community in terms of milk, milk by-products and meat production, and generates household income. Livestock contributes a lot for crop production by providing draught power, manure (organic fertilizer) and transportation services (Agriculture Office of Bedel Zuriya District, 2018).

3.2. Research Design

The major focus of the study was identifying factors affecting saving of rural households by collecting cross sectional data from the study area. So, the research method used for the study was explanatory research design to answer research questions. Kerlinger (2011) notes that research design is the planning of conditions from collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It is the logical way in which individuals or other units are compared and analyzed and acts as the foundation of making clarifications from the research data. It is the blue print for the compilation, measurement and analysis of data. It is a plan and structure of investment comprehended so as to gain answers to research questions (Coopers & Schindler, 2008).

Explanatory research design would be appropriated for this study as it helps in understanding the factors affecting rural household saving in Buno Bedele Zone Bedele Zuriya District and therefore answers “why” question of the study. The study used mixed research design that utilizes both quantitative and qualitative data sources (questionnaire and interviews) research approaches would be used in the course of sample size determinations in given target population. The qualitative methods would be used to describe the findings qualitatively which was gathered through participatory assessment involving; interviews, questionnaires and secondary data obtained from various data sources. Quantitative data was analyzed by using descriptive statistical tools by using SPSS 20. Qualitative content analysis would be the major approach that the study was used in analyzing the qualitative data. Moreover, **Binary logistic regression model** would be applied for independent or explanatory variables which show a significant effect on the saving status of rural households.

3.3. Data Source and Method of Data Collection

The study employed both primary and secondary source of data. The primary sources of data were derived from the answers that respondents have given in the interview schedule. The primary sources of data were used to obtain information related to demographic characteristics of the households and forms of savings used by rural households. Interview schedule were used as a method of data collection for the two objectives to collect quantitative data and focus group discussion was also used to collect qualitative data. The researcher administers the focus group discussion by telling the objectives of the study and asking permission from financial institutions. After the researcher obtained permission, four focus group discussions was organized with a group size of 6-8 with staff members of Banks, Oromia Saving and Credit institute and SACCO committee members. While conducting the focus group discussion, the researcher record and take note for data analysis. Information related to motivation for savings and reasons for no saving was collected through the help of focus group discussions. On the other hand, secondary data was obtained from the findings stated in published and unpublished documents and literatures related to the research problem. These was based from the recent literatures such as; articles, journals, reports, working papers, books, and internet sources related to rural households savings. Information related to factors influencing rural households' savings were collected from secondary sources of data.

3.4. Sampling Procedures and Sample Size

Multi-stage sampling method was applied to select sample respondents to study factors affecting rural households saving. First, **purposive sample selection method** were used to select 7(seven) rural Kebeles as a study area. Second, the researcher divided the rural kebeles as near and far **using stratified sampling method**. The bases of stratification of the kebeles was distance and rural kebeles located five km far from the financial institutions would considered as near where as rural kebeles located more than five km was taken as far. Then, seven rural kebeles three from near and four from far were selected randomly. In the third stage, the rural households in each kebele were stratified in to saver and non-saver categories based on the source provided by the financial institutions. At the fourth stage, 188 sampled households was determined using the

formula given by Becker (2005) from a total of **3972** population found in the selected seven kebeles at 5 percent error and 95 percent confidence level.

$$n = \frac{Z^2 * P(1 - P)}{e^2}$$

P = 0.142 Z = 1.96 e = 0.05

$$n = \frac{(1.96)^2 * 0.142 (1-0.142)}{0.0025} = \mathbf{188}$$

Where n is the minimum sample size to be drawn, z is the desired confidence level (the value corresponding to the 95 percent level of confidence i.e. 1.96), e is the desired level of precision i.e. 5 percent and P is the estimated percentage proportion of the population. The total rural households in all 25 kebeles of the district are about 27842. Then the estimated percentage of the population in the sample seven kebeles (p) is about 14.3 percent. Probability proportional to sample size was used to determine the number of sample households from each kebeles as shown in Table 1. Finally, simple random sampling method was used to select sample households.

Table 3:1 Determination of kebeles sample size

Name of Kebeles	Number of households	Number of sampled households

Sidisa	568	$568/3972*188 = 26.88$
Lalistu	568	$567/3972*188= 26.88$
Yebala	568	$568/3972*188= 26.88$
Kenkelcha	567	$567/3972*188= 26.83$
Kerero	567	$567/3972*188= 26.83$
Kenyi Mute	567	$567/3972*188= 26.83$
Gira Mute	567	$567/3972*188= 26.83$
Total	3972	188

Source: Author's computation based on survey data (2020)

Binary logistic particularly binary logistic regression is used as the model of analysis for this study since it is appropriate to analyze demographic data and the other data that will be collected for this study.

The sample size was determined as follows by dividing to each Kebeles

Table 1:2 Sampling data's of Kebeles

No	Name of kebeles	Households	Sample households
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		Savers	Non savers	Total	Savers	Non Savers	Total
1	Sidisa	155	413	568	12	16	28
2	Lalistu	155	413	568	12	16	28
3	Yebala	155	413	568	12	15	27
4	Kenkelcha	155	412	567	12	15	27
5	Kerero	155	412	567	11	15	26
6	Kenyi Mute	155	412	567	11	15	26
7	Gira Mute	155	412	567	11	15	26
	Total	1085	2887	3972	81	107	188

Source; data collected from Kebeles

3.5- Data Analysis

The data acquired from respondents were analyzed by almost any of the range of technique of statistical analysis. The researcher used descriptive statistics such as frequency distribution to assess the demographic profile of the respondents to make the analysis more meaningful, clear and easily interpretable. Descriptive statistics allow the researchers to present the data acquired in a structured, accurate and summarized manner and in this study in order to test the effect of independent variables on dependent variable which is household saving. The tool for quantitative data analysis was descriptive statistics. Percentages, frequencies, mean and standard deviation were employed for demographic variables.

Data were analyzed using both descriptive and inferential statistical, so as to draw meaningful inferences about the factors under investigation. Quantitative data was analyzed by using descriptive statistics such as frequency, mean and percentage and inferential statistics; Qualitative data obtained from the open ended questionnaire and observation was also interpreted and discussed. In addition, chi-square test was used in identifying the relationship between rural households saving status and dummy independent variables and t-test was used to

test the differences between rural households saving status and continuous independent variables. Moreover, **Binary logistic regression analysis** was applied for identifying significant factors affecting rural households saving. The qualitative data which were gathered through focus group discussion was analyzed through narration and description. Analysis was conducted by using Statistical Package for Social Sciences (SPSS) version 20. Particularly regression analysis was used for estimating or predicting a value on some dependent variable given the values of one or more independent variables. Binary logistic particularly ordinal binary logistic was used as the model of analysis for this study since it was appropriate to analyze cause and effect when the dependent variable is categorical in nature.

Econometric model specification

Binary logistic regression model was a proper model when the dependent variable is a dummy one consisting of two, 0 and 1, or more levels; logistic regression model can be properly used (Tathdil, 2002). Thus, logistic regression model that was employed in this study was a binary logistic regression model, where dependent variable is Y and independent one is X. In order to elucidate the model, the following logistic distribution function was used (Maddala, 1986; Greene, 1993; and Gujarati, 1995).

3.6-Model Specification

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$$P_i = \Pr(Y = 1/X_i) = \frac{1}{1 + e^{-(\beta_1 + \beta_2 X_i)}} \tag{1}$$

In the logistic distribution equation, P_i is the independent variable; X_i is the data that is the possibility of a preference by an individual (option of having 1 and 0 values). When $\beta_1 + \beta_2 X_i$ in Equation 1 is replaced by Z_i , Equation 2 is obtained:

$$P_i = \frac{1}{1 + e^{-Z_i}} \quad (2)$$

Z_i is between $-\infty$ and $+\infty$, and P_i is between 1 and 0. When P_i shows the possibility of savers, the possibility of non-savers of rural households is $1 - P_i$. Then, the possibility of non-saver can be explained as in Equation 3 as follows:

$$1 - P_i = \frac{1}{1 + e^{Z_i}} \quad (3)$$

Equation 4 is obtained by dividing the savers by non-savers:

$$\frac{P_i}{1 - P_i} = \frac{1 + e^{Z_i}}{1 + e^{-Z_i}} = e^{Z_i} \quad (4)$$

When the natural logarithm of both sides of the equation is written, Equation 1 is obtained:

$$L_i = \ln\left(\frac{P_i}{1 - P_i}\right) = Z_i = \beta_1 + \beta_2 X_i \quad (5)$$

Thus, non-linear logistic regression model is liberalized based on both its parameters and variables. “ L ” is called “logit” and models such as this called “logit models” (Gujarati, 1995, 2003). In these situations, Equation 1 is used for proper transformations:

$$P_i = \frac{1}{1 + e^{-(\beta_1 + \beta_2 X_1 + \beta_3 X_2 + \dots + \beta_k X_k)}} \quad (6)$$

Odds and odds ratio are significant terms in legit model. Odds are defined as the ratio of the number of events that occurred to number of events that did not occur. “Odds ratio” on the other hand, is the ratio of two odds, in other words, the ratio of likelihood to another. In Equation 4, two probabilities, savers and non-savers probability of an event are proportioned and this is the odds of proportion. It is important to understand that possibility, odds, and logit concepts, are three different ways of explaining the same thing (Menard, 2002).

$$Z_i = \beta_0 + \varepsilon\beta_iX + U_i \tag{7}$$

Therefore, the above Binary logit model will be used for the study to identify major factors affecting rural households savings.

$$P_i = E(y=i/x) = \beta_0 + \beta_1 \text{Demo} + \beta_2 \text{socio} + \beta_3 + \beta_4 \text{Institution (mgmt.)} + \beta_5 \text{govt} + e$$

3.7- Definition and Measurement of Study Variables and Hypothesis

3.7.1 Dependent Variable

Rural households’ savings status: The dependent variable has a dichotomous nature measuring rural households’ savings status in formal financial institutions in the year 2019/2020. This is to distinguish or discriminate between those savers and non-savers in the study area. It takes a value of 1 if the households save in formal financial institutions otherwise 0.

Independent variables: Independent variables in this study were accessed and adapted from existing literature. The study consider independent variables that comprise; demographic (education level, sex, age, marital status, family size), socio-economic (religion, landholding size, livestock ownership and annual income), institutional (distance from financial institutions) and government related to saving institutions (awareness of saving, advice and motivation.). and they are measured by 0 or 1 which takes the value of Yes or No and 1,2,3,4,5,or likert scale which is strongly agree, agree, neutral, disagree, and strongly disagree respectively.

Table 3:3 Measures and expected signs of independent variables

	Notation	Variables	Measure	Expected sign
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Dependent variable	HHSS	Household saving status	Question No 11-12	+
Independent variable	DV	Demographic variables	Question No 1-2 & 4-7	+
	SEV	Socio-economic variables	Question No 3,9, &17-20	-
	IRV	Institutional related variables	Question No 21-24	+
	GRV	Government related variables	Question No 12-16	+

Table 3:4 description of questions

Name	Type	Code	Question of variables	Value
Household saving status	Dummy	HHSS	-Saving of household -percentage of saving	1 if saves & 0 if not save Expressed in percepts (%)
Demographic variables	Dummy	DV	-sex of household,	1 male, 0 female
			- education level,	-Degree, 2. Diploma, 3. 6-10, 4. 1-5, 5. Illiterate
			- age of h/h,	-1.20=30, 2. 31-40, 3. 41-50, 4. 51 & above
			-marital status	-1. Married, 2. Unmarried, 3. Divorced, 4. Widowed
			-family size	-1. 1-3, 2. 4-6, 3. 7-9, 4. 10 & above
			-occupation	0- farmer 1- job-less
Socio-economic variables	Dummy	SEV	-Religion of h/h	-0. Islam, 1. Christian
			-land holding size Q1 & Q2	-0. No 1. Yes -1. <1, 2. 1-3, 3. 4-6, 4.7-10, 5. >10
			-livestock owner ship Q1 & Q2	-0. No 1. Yes -1. <3, 2. 4-10, 3. 11-18, 4. 19-25, 5. >26
			-annual income	-1. <1000, 2.1001-3000, 3. 3001-6000, 4,6001-10000
Institutional related variables	Dummy	IRV	-distance from financial institution, Q1,Q2,Q3,	-0. No, 1. Yes
Government related variables	Dummy	GRV	-Awareness' of saving Q1,Q2,Q3,Q4,Q5	-0. No, 1. Yes

3.8. Definition and Measurement of Study Variables and Hypothesis

3.8.1. Dependent Variable

Rural households' savings status

The dependent variable has a dichotomous nature measuring rural households' savings status in formal financial institutions in the year 2019/2020. This is to distinguish or discriminate between those savers and non-savers in the study area. It takes a value of 1 if the households save in formal financial institutions otherwise 0 if the household did not save.

3.8.2. Independent Variables

The study considers independent variables that include; demographic (education level, sex, age, marital status, family size, occupation), socio-economic (religion, landholding size, livestock ownership and annual income.), institutional (distance from financial institutions.) and government related to saving institutions (awareness given to households on saving) and were defined and hypothesized as follows.

Education level (EL): is expressed as literate and illiterate. Education affects saving performance by influencing the level of saving and the options for asset accumulation available to the household. Kulikov *et al.* (2007) found that education as a human wealth promotes rural household saving. It was expected, therefore, households who are literate have a higher probability of saving it had positive effect for literate households.

Marital status (MS): is expressed as married and unmarried. Marital status has also been shown to have an effect on asset accumulation (Grinstein-Weiss *et al.*, 2006). Historically, marriage has been viewed as a source of financial security continues to be a determining factor for economic well-being. Pooling resources for a married couple may provide a cushion for them to accumulate assets without going under in times of crisis. The expected effect of rural household saving on single households was negative.

Sex (SX) it is assumed that male for the head of the household is male and female for the other. Several studies have shown that sex has an effect on asset accumulation. In sub-Saharan Africa, women own fewer assets than men (LeBeau *et al.*, 2004). In rural SSA, women's ability to accumulate assets is governed by family and community norms, which historically have favored men to the disadvantage of women. Gedela (2012) found that male headed households save more

than female headed households. The expected effect of sex on female headed households was negative.

Age (AG): it is a continuous variable, defined as the household heads age at the time of the study measured in years. Rehman *et al.* (2010) found that age has positive relationship with household savings. The life-cycle hypothesis suggests that there exists a relationship between age and saving rates. When the age of the households increases their saving status going decreases. Therefore, the expected effect of age on rural households saving was negative.

Family Size of the household (FS): this is a continuous variable measured by numbers and it refers to the total number of family members of the household. A household with high number of dependents in the family have less savings. Rehman *et al.* (2010) found that family size significantly and inversely affecting household saving. The expected effect of family size on rural household saving was negative for households who have large family size.

Religion (RE): this variable is identified as Musilim, Kirstian, wakefata and protestant. Although the relationship between religion and economic development on the macro-level has been explored, it is less clear how background of religiosity influences economic attitudes and financial decision-making on the level of the individual or household in the micro-level. Fentahun (2014) identifies religion as determinant factors in west Amhara regional state has had its share towards the impact of saving on households. The result of this study shows religious affiliation effects on saving behavior and decision to save money or notand compares religiosity in the form of Christian to Islam believers the results show Christians save more than Islam. Therefore, the expected effect of religion on rural household saving was negative for Islam religion followers.

Market distance (MD): here it is assumed to capture the effect of walking distance to the main market center from home measured in kilometers. Better access to roads expands output markets in addition, from the fact that as farmers locate far from market there is limited access to input and output markets and market information. Moreover, distance to market leads to higher transaction cost which reduces the benefits accrue to the households. More importantly, the longer distance from the market likely to discourage the households from participating in market

oriented production that increase their income and possible encourage to save in financial institutions (Essa *et al.*, 2012). The expected effect on saving was negative.

Landholding size (LHS): 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 was positive.

Distance from financial institutions (DFI): it is a continuous variable measured in kilometers. Households near to financial institutions have a location advantage and can contact easily and have more access to information than those who live more distant locations. Chemonics International (2007) identified distance remains a major barrier to formal financial saving and other markets in rural areas. As rural households far from formal financial institutions, the expected effect on saving was negative.

Annual Income (AI): 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 was positive.

Livestock ownership (LSO): this refers to the total number of animals possessed by the household measured in tropical livestock unit (TLU). As the total number of animals in the household increases, the household would be save more. Degu (2007) shows positive and significant relationship between households saving and livestock ownership. Therefore, the expected effect of this variable on rural household saving was positive.

3.9- Ethical Consideration

The purpose of the study was to explain the participants and the study would ask their consent to answer questions in the questionnaires. The study also informed the participants that the information they provided was only be used for the study purpose. Accordingly, the study would be used the information from his participants only for the study purpose. To ensure the safety, social and psychological well-being of respondents and others participant;

The researcher was got an introduction letter from the Jimma University of Post Graduate Studies that introduces him to Jimma Town out his study.

The researcher has got permission from the financial institutions' of Buno Bedele Zone Bedele Zuriya district to carry out the study.

The researcher seeks consent of the respondents.

The researcher ensured that the information given was treated with confidentiality.

The researcher also quotes all the authors used in the study.

CHAPTER FOUR

4. DATA ANALYSIS AND INTERPRETATION

4.1- Introduction

In this section, analysis and discussion of the data gathered based on the research methodology designed for the research is conducted. This chapter focused on the presentation, analysis and interpretation of data collected from primary sources. A total of 188 questionnaires were distributed to collect data from rural household about the factors affecting household saving in Oromia regional state Buno Bedele zone Bedele zuriya district. For this purpose, statistical instruments called descriptive statistics as well as binary logistic analysis is used to perform data analysis. All the data were coded and entered in to SPSS version 20 and inferences were made based on the statistical results.

4.2-Results and discussion

This chapter presented and discussed the results of the analysis on factors affecting rural households' savings. Descriptive statistics were used to summarize the data. The description was made using frequency distribution, mean and standard deviation. Statistical tests like; chi-square test was employed to see association between the dependent and dummy independent variables and t-test was employed to identify differences between dependent and continues independent variables. In addition, an econometric model of Binary logistic was applied using SPSS version 20 to identify major factors affecting rural household savings.

Frequencies of variables

Table 4:1 Sex of household

	Frequency	Percent	Cumulative Percent
Female	22	11.7	11.7
Valid Male	166	88.3	100.0
Total	188	100.0	

Source SPSS output and own computation, (2020)

Sex is one of the variables that can explain rural households' savings. As indicated in Table 7 out of the sampled households 166 (88.3%) were male and the remaining 22 (11.7%) were female headed households. This implies that male headed households are the dominant responders.

Table 4:2 marital status of household

	Frequency	Percent	Cumulative Percent
Married	158	84.0	84.0
Unmarried	14	7.4	91.5
Valid divorced	14	7.4	98.9
widowed	2	1.1	100.0
Total	188	100.0	

Source SPSS output and own computation, (2020)

The marital status of the head of the households also affects the saving status of the rural households and of the total sampled household heads, 158 (84%) were married households, 14 (7.4%) were unmarried households, 14 (7.4%) were divorced households and 2 (1.1%) were widowed respectively. The implication of this analysis shows that married headed households were the dominant responders than the other headed household respondents.

Table 4:3 religion of household

	Frequency	Percent	Cumulative Percent
Islam	77	41.0	41.0
Valid Christian	111	59.0	100.0
Total	188	100.0	

Source SPSS output and own computation, (2020)

Religion plays an important role in affecting the saving status of the rural households. The survey result revealed that 77 (41 %) of the sampled households belongs to Islam and 111 (59 %) of them belongs to Christians as we observe from the table above. This shows that Christian follower headed households were larger in number than Muslim headed households of the total respondents.

Table 4:4 Age of household

	Frequency	Percent	Cumulative Percent
Valid 20-30	14	7.4	7.4
31-40	52	27.7	35.1
41-50	67	35.6	70.7
51 & above	55	29.3	100.0
Total	188	100.0	

Source SPSS output and own computation, (2020)

The age of the households expressed in the table 10 above shows that the household heads age at the time of the study measured in years. This shows that 14(7.4%) were households with the year between 20-30, 52(27.7%) were households with the year between 31-40, 67(35.6%) were households with the year between 41-50 and 55(29.3%) were households with the year 51 and above respectively. This implies that the frequency of households 41-50, above 50 years old and 31-40 years old households were dominant responders respectively.

Table 4:5 Education level of household (ELH)

	Frequency	Percent	Cumulative Percent
degree and above	6	3.2	3.2
Diploma	11	5.9	9.0
Valid 6-10	41	21.8	30.9
1-5	45	23.9	54.8
Illiterate	85	45.2	100.0
Total	188	100.0	

Source SPSS output and own computation, (2020)

Education enhances the capacity of individuals to obtain, process, and utilize information through different sources. It is required to make saving decision. As a result, level of education of the head of the households influences the saving status of the rural households. According to the survey result, illiterate 85(45.2%), 1-5 grade 45(23.9%), 6-10 grade 41(21.8%), diploma 11(5.9%) and degree and above are 6(3.2%) respectively. This shows that illiterate headed households were high in number of responders when compared with educated households of the total headed households.

Table 4:6 occupation of household

	Frequency	Percent	Cumulative Percent
Farmer	180	95.7	95.7
Job-less	8	4.3	98.4
Total	188	100	100

Source SPSS output and own computation, (2020)

The occupation of the head of the household is one of the factors affecting the saving differential between households. As we see from the above table the occupation of the households 180(95.7%) were farmer households 8(4.3%) were job-less households. This implies that farmer headed households were dominant responders when compared to job-less households

Table4:7 Total family of household

	Frequency	Percent	Cumulative Percent
Valid 1-3	28	14.9	14.9
4-6	95	50.5	65.4
7-9	47	25.0	90.4
10 & above	18	9.6	100.0
Total	188	100.0	

Source SPSS output and own computation, (2020)

The size of the family is also one of the factors that affect the saving status of the rural households. Accordingly, as we see from the above table a household who have total family of 1-3 were 28 (14.9%), 4-6 were 95(50.5%), 7-9 were 47(25%) and total family of 10 & above were 18(9.6%) respectively. This shows that households have total family 4-6 were half of the number of sampled households and households with 7-9, 1-3 and 10 & above total families were the respondent headed households according to their frequencies respectively.

Table 4:8 dependent family of households (DFH)

	Frequency	Percent	Cumulative Percent
Valid 1-2	73	38.8	39.0
3-4	82	43.6	82.9
5-6	32	17.0	100.0
Total	187	99.5	
Missing System	1	.5	
Total	188	100.0	

Source SPSS output and own computation, (2020)

The dependent families were the absorber of a large portion of the resources potentially available for increasing the stock of physical and human capital. These dependent families have a negative effect on the saving of the households. As we see from the above table 1-2 dependent families were 73(38.8%), 3-4 dependent families were 82(43.6%) and 5-6 dependent families were 32(17%) respectively. This implies that the majority of the respondents for this study are households who have 3-4 dependent families with percent value of (43.6) as shown in table 4.9 above.

Table 2:9 monthly income of household

	Frequency	Percent	Cumulative Percent
<1000	8	4.3	4.3
1001-3000	83	44.1	48.4
Valid 3001-6000	73	38.8	87.2
6001-10000	24	12.8	100.0
Total	188	100.0	

Source SPSS output and own computation, (2020)

The major sources of income for the sampled households were crop production, livestock production and off farm/nonfarm activities. Income is an important factor of the saving status of the rural households. It is a positive factor that analyses the saving status of households. As we see from the above table a households monthly income <1000 were 8(4.3%), 1001-3000 were 83(44.1%), 3001-6000 were 73(38.8%) and 6001-10000 were 24(12.8%) respectively. This implies that household whose monthly income were 1001-3000 and 3001-6000 have high frequency respondent than those who earn monthly income of <1000 and above 6000 respectively.

Table 4:10 Saving of household

	Frequency	Percent	Cumulative Percent
No	115	61.2	61.2
Valid Yes	73	38.8	100.0
Total	188	100.0	

Source SPSS output and own computation, (2020)

The above table 16 showed as saving status of the sampled households. Out of 188 sampled households considered in the analysis, 73(38.8%) rural households have used formal financial institutions and 115(61.2%) were households who did not save in the formal financial institutions at the time of data collection. This implies that from the total sampled households, the no savers were the dominant respondent and the savers households were less responders in number.

Table 4:11 Characterization of Savers and Non-Savers by demographic factors Cross tabulation

Variables		Saving status		Total	X ² -value & P-value
		Saver	Non saver		
Sex	Male	N 63	N 103	115	X ² =0.46 P= 0.496
		% 38	% 62	61.2	
	Female	N 10	N 12	73	
		% 45.5	% 54.5	38.8	
Marital status	Married	N 66	N 92	158	X ² =5.45 P=0.141
		% 90.4	% 80	84	
	Unmarried	N 2	N 12	14	
		% 2.7	% 10.4	7.4	
	Divorced	N 5	N 9	14	
		% 6.8	% 7.8	7.4	
	Widowed	N 0	N 2	2	
		% 00.0	% 1.7	1.1	
Educational level	Degree and above	N 3	N 3	6	X ² =58.22 P=0.00
		% 4.1	% 2.6	3.2	
	Diploma	N 9	N 3	11	
		% 11	% 2.6	5.9	
	6-10 grade	N 34	N 7	41	
		% 46.6	% 6.1	21.8	
	1-5 grade	N 14	N 31	45	
		% 19.2	% 27	23.9	
	Illiterate	N 14	N 71	85	
		% 19.2	% 61.7	45.2	

Source SPSS output and own computation, (2020)

Sex of household (SH)

Sex is one of the variables that can explain rural households' savings. As it shows from the table above sampled households 166 (83.3%) were male and the remaining 22(11.7%) were female. Of the total sampled households, 12 (54.5%) of the non-savers were female headed households where as 103 (62.0%) of the non-savers were male headed households. On the other hand, 10 (45.5%) of the sampled saver households were female headed households where as 63(38.0%) of the sampled saver households were male headed households. The chi- square value ($X^2= 0.46$; $P=0.496$) showed that there was statistically insignificant between saving status and sex of saver and non-saver households. This implies that being male or female headed household had no statistically significant effect on saving decision of the households. Since p-value is less than 0.05 there was no statistically significant association between them. The results revealed that male headed saver and non-saver households had greater percentage than female headed households. In addition, male headed saver and non-saver households had greater percentage than female headed households. This implies that being male or female headed household had no statistically significant effect on saving decision of the households. This possibly indicate that male and female headed households had equal chance to access to information on saving and formal financial institutions make their target on male and female headed households during saving mobilization.

Marital status of households (MSH)

The marital status of the head of the households also affects the saving status of the rural households. Of the total sampled household heads, 158 (84%), married households, 14(7.4%) were unmarried households, 14(7.4) were divorced households and 2(1.1) were widowed respectively. From these 92(80.0%) were non saver households and 66(90.4%) were savers12 (10.4%) un married households were non savers and 2(2.7%) were saver households. and 9((7.8%) were non saver households and 5(6.8%) divorced households were savers. 2(1.7%) were non savers totally. Regarding its association, the chi-square test indicated that there had no statistically significant association between marital status and saving status of saver and non-saver households ($X^2 = 5.45$; $P = 0.141$). Therefore, the result in this study clearly showed that being married or unmarried had no significant effect on rural households' savings. This possibly married and unmarried household heads would have similar socio - cultural background regarding to rural households' savings.

Education level (ELH)

Education level enhances the capacity of individuals to obtain, process, and utilize information through different sources. It is required to make saving decision. As a result, level of education of the head of the households influences the saving status of the rural households. According to the survey result, savers and non-savers who have degree and above were 3(2.6%) non savers and 3(4.1%) were savers. Households who have diploma level 3 (2.6%) were non savers and 8(11.0%) were savers. households 6-10 grade were 7(6.1%) were non savers and 34(46.6%) were non savers. Households 1-5grade 31(27.0%) were non savers and 31(27.0%) were non savers and 14(19.2%) were saver households. From illiterate households, 71 (61.7%) were non savers and 14(19.2%) were savers respectively. The chi-square value ($\chi^2=58.22$; $p= 0.00$) of the sampled households indicated that there was statistically significant between the education levels saving status of households. The percentage difference between savers and non-savers in terms of literacy level may mean that literate household heads had more exposure to the external environment and information which helps them to easily associate them to saving from formal financial institutions. It implies that saver rural households with more education were likely to save their money in formal financial institutions. This finding was similar with the finding of (Aron *et al.*, 2013) that indicated as the academic level of households' increase the saving status shows improvement and Girma *et al.* (2014) that showed positive and statistically significant effect on rural households' savings. But, Sebhatu (2012) found that education and rural households' savings had negative relationship and the possible explanation given was some saving schemes might not need good educational background of the respondents. . Al so the result of interview held with employees of financial institution revealed that there is a gap regarding literate and illiterate households due to gaining information about saving and the use of it. So that literate households are near to the information and identifying the use of saving.

Table 4:12 Savers and Non-Savers by demographic factors Cross tabulation

Variables		Saving status		Total	X ² Value P- value
		Saver	Non saver		
Age	20 – 30	N 0	N 14	14	X ² =19.27 P=0.065
		% 0	% 12.2	7.4	
	31 – 40	N 24	N 28	52	
		% 32.9	% 24.3	27.7	
	41 – 50	N 35	N 32	67	
		% 47.9	% 27.8	35.6	
>50	N 14	N 41	55		
	% 19.2	% 35.7	29.3		
Total family	1 – 3	N 10	N 18	28	X ² =0.449 P=0.030
		% 13.7	% 15.7	14.9	
	4 – 6	N 38	N 57	95	
		% 52.1	% 49.6	50.5	
	7 – 9	N 19	N 28	47	
		% 26	% 24.3	25	
10 and >	N 6	N 12	18		
	% 8.2	% 10.4	9.6		
Occupation of households	Farmer	N 68	N 102	170	X ² = 1.024 P= 0.22
		% 93.2	% 88.75	90.42	
	Job less	N 5	N 13	18	
		% 4.3	% 11.3	9.57	

Source SPSS output and own computation, (2020)

Dependent family of household cross tabulation

Variables		Saving status		Total	X ² - value
		Saver	Non saver		p- value
Dependent family of household	1-2	N 29	N 44	73	X ² = 1.805 P= 0.406
		% 39.72	% 38.26	38.83	
	3-4	N 34	N 48	82	
		% 46.57	% 41.74	43.62	
	5-6	N 9	N 23	32	
		% 12.33	% 20	17.02	
Total	N 72	N 115	187		
	% 98.63	% 100	99.47		

Source SPSS output and own computation, (2020)

Age of households (AH)

From the entire household heads 115(61.17%) were non savers and 73(38.83%) of the households were savers. As we see from the above table the heads of households between 20-30 years were 14(22.2%) and they were all non-savers. from 31-40 years were 28(24.3%) were non savers and 24(32.9%) of households were savers. from 41-50 years 32(27.8%) were non savers and 35(47.9%) were saver households. the households 50 & above years were 41(35.7%) were non savers and 14(19.2%) were saver households. The ($X^2=19.276$; $P=0.065$) age was found to be a significant factor to rural households savings by many empirical studies, the result in this study showed that it had no a significant effect on rural households' to age. The possible explanation here was as the age of savers and non- savers were relatively not depending on age, these households would have relatively similar life experience regarding to saving. . Al so the result of interview held with employees of financial institution revealed that there is no gap regarding age of households.

Total family of households (TFH)

The size of the family is also one of the factors that affect the saving status of the rural households. Accordingly, from the total household 115(61.2%) were non saver households and 73(38.8%) were savers. To identify weather the number of households affect the saving, from

1-3 total number of households 18(64.3%), (15.7%) were non savers and from 10(35.7%) total family households (13.7%) were saver households. From 4-6 total family of households 57(60%) within total family, (49.0%) were non savers and 38(40%) total family,(52.1%) were savers. from 7-9 total family 28(59.6%) within total family and (24.35/ were non saver households and 19(40.4%) within total family households (26.0%) were saver households. from 10 and above households 12(66.7%) within total family households (10.4%) were non savers and 6(33.3%) total family of households,(8.2%) were savers family of households. The X^2 value, ($x=0.449$, $p=0.030$) shows that there was statistically significant between the family size and saving status. . Al so the result of interview held with employees of financial institution revealed that there is a gap regarding family size of households. That means households who have high number of total family consume wealth than households who have less number of total family.

Occupation of households (OCH)

Household's occupation is one of the factors affecting the saving differences between households. Occupation has proved to be a good classification of variables for estimating permanent income. As we identified from the above table, 102(88.75%) non saver total farmer households and 68 (93.2%) saver of total households.in other way 13(11.3%) were no saver job-less households and 5(4.3%) were saver job-less households. The X^2 value ($x=1.024$, $p=0.22$) shows that there was statistically insignificance between occupation of household and saving status.

Dependent family of households

The dependent families were the absorber of a large portion of the resources potentially available for increasing the stock of physical and human capital. These dependent families have a negative effect on the saving of the households. As we see from the above table, households who have dependent family of 1-2 were 29(39.72%) saver households and 44(38.26%) non saver households. Households who have dependent family 3-4 were 34(46.57%) of savers and 48(41.74%) non saver households. Households those have 5-6 dependent family were 9(12.33%) savers and 23(20%) non saver households. The X^2 -value ($x=1.805$, $p= 0.406$) shows that there was statistically insignificant between dependent family of household and saving status.

Table 4:13 Savers and Non-Savers by Socio-economic factors Cross tabulation

Variables		Saving status		Total	X ² -value & P-value
		Saver	Non saver		
Religion	Christian	N 36	N 75	111	X ² =4.67 P=0.022
		% 49.3	% 65.2	59	
	Islam	N 37	N 40	77	
		% 50.7	% 34.8	41	
Land holding size	Yes	N 70	N 104	174	X ² =1.93 P=0.017
		% 95.9	% 90.4	92.6	
	No	N 3	N 11	14	
		% 4.1	% 9.6	7.4	
Livestock ownership	Yes	N 73	N 0	73	X ² =1.94 P=0.227
		% 100	% 0	38.8	
	No	N 112	N 3	115	
		% 97.4	% 2.6	61.2	
Annual income	<1000	N 0	N 8	8	X ² =11.447 P=0.422
		% 0	% 6.96	4.25	
	1001 – 3000	N 26	N 57	83	
		% 35.6	% 49.56	44.14	
	3001-6000	N 37	N 36	73	
		% 50.7	% 31.3	38.8	
	6001-10000	N 10	N 14	24	
		% 13.7	% 12.2	12.76	
	>10000	N 0	N 0	0	
		% 0	% 0	0	

Source SPSS output and own computation, (2020)

Religion of households (RH)

Religion plays an important role in affecting the saving status of the rural households. The survey result revealed that 40(34.8 %) of the sampled households belongs to Islam non savers

and 37(50.7 %) of them were Islam savers.. Among the total non-saver sampled households 75(65.2%) were Christian non savers and the remaining 36(49.3%) were Christian savers. Based on Table above totally, 77(41%) households were Islam and 111(59%) were Christian followers. The result shows that, percentages of Islam follower of savers were lower than non-savers whereas saver Christian religion followers were lower than non-savers. The X^2 value ($x=4.67$, $p=0.022$) shows that there was statistically significant association between religion and saving status.

Land holding size

As we see from the above table the total sample 14 (7.4%) of households do not have farmland and 174 (92.6%) of households have farmlands. In addition, 3 (1.6%) of households do not have livestock and 185 (98.4%) have livestock. The X^2 value ($x=1.928$, $p=0.017$) shows that there was statistically significant association between land holding size and saving status. This implies that rural households who are using their larger size of farm land for cultivation can utilize more capital and finally their income increases. As the income of the households increase because of cultivation of large farm land, the probability to save in formal financial institutions also increases. In addition, land is used as collateral for rural households for credit access from financial institutions. Although the livestock play a great role in generating income of rural household and they uses their livestock to increase their income and this encourage them to use properly. Al so the result of interview held with employees of financial institution revealed that there is a shortage of land holding size and this is one of the main factors that forbid households to generate sufficient production and to save money to financial institution.

Livestock ownership

It refers to the total number of animals possessed by the household measured in tropical livestock unit (TLU).From the sample size those households who have livestock were 185(98.4%) and the rest 3(1.6%) do not have livestock. The SPSS result shows that from the saver households totally 73(100%) were the owner of livestock and from the livestock owners none of them were non savers. In other hand those households do not have livestock but, savers were 112(97.4%) and 3(2.6%) were non savers. The X^2 -value ($X=1.935$, $P=0.284$) shows that there was statistically insignificant between livestock ownership and saving status. As the total number of animals in the household increases, the household would be save more. Degu (2007) shows positive and

significant relationship between households saving and livestock ownership. Therefore, the expected effect of this variable on rural household saving was positive.

Annual income of households (AIH)

The major sources of income for the sampled households are crop production, livestock production and off farm/nonfarm activities. Income is an important factor of the saving status of the rural households. It is a positive factor that analyses the saving status of households. As shown in the above table, the households income whose <1000 was 0(0%), were savers & 8(6.96%) were non saver households. The households income 1001- 3000 was 26(35.6%) were saver households and 57(49.56%) were non savers. Households income from 3001- 6000 was 37(50.7%) were saver households and 36(31.3%) were non savers. The households income from 6001- 10000 was 10(13.7%) were saver households and 14(12.2%) were non saver households. The households income >10000 was 0(0.00%) savers and non-savers totally. That means no household earn >10000 Br monthly. As the income indicated that there was greater annual income difference between savers and non-savers. The X²-value (X=11.447; P=0.422) also shows that there was statistically insignificant between the annual income of savers and non-savers with respect to their income levels. As indicated in the relative income hypothesis, higher income leads to higher probability of households to save. This result is consistent with a study by (Aron *et al.*, 2013) that showed income is a significant factor for the saving status of households and the result revealed that when the income level of households increased, the saving rate will also increase by some present. Rehman *et al.* (2010) also showed that household income would increase households saving ability. Al so the result of interview held with employees of financial institution revealed that there is a gap of technology which hinders the productivity of households labor and decrease their income.

Table 4:14 Characterization of Savers and Non-Savers by Institutional (management) related factors Cross tabulation

Variables		Saving status		Total	X ² -value & P-value
		Saver	Non saver		
Distance of financial institution	<5km	N 40	N 91	131	X ² =12.518 P=0.00
		% 54.8	% 79.14	69.68	
	>5km	N 33	N 24	57	
		% 45.2	% 20.86	30.31	
Distance of market from household	<5km	N 43	N 99	142	X ² =17.853 P=0.00
		% 58.9	% 86.08	75.53	
	>5km	N 80	N 16	96	
		% 41.09	% 13.91	51.06	
Accessibility of road	Yes	N 4	N 109	113	X ² =148.516 P=0.00
		% 5.47	% 94.78	60.1	
	No	N 69	N 6	75	
		% 94.52	% 5.22	39.89	

Source SPSS output and own computation, (2020)

Distance of households from financial institution, market and accessibility of road (DH)

The table above shows that the distance in kilometers that the potential beneficiaries traveled on foot for using saving services in formal financial institutions. The distance traveled by savers and non-savers to their nearest financial institution was a problem and 131(69.7%) of total households raise as a problem to save their money in formal financial institution and 57(30.3%) of households were not think as a problem. In addition, 142(75.5%) of households were >5km far from formal financial institution and 46(24.5%) of households were not >5km far from formal financial institution. Finally, in accessibility of road 113(60.1%) of households have risen as a problem and 75(39.9%) of households have no problem on accessibility of road. For the distance of financial institution, the X² value(x=12.518; p=0.00), assume that, the distance of market from household X² value(X=17.853; P=0.00) and the accessibility of road X² value(X=148.516; P=0.00). This shows that saving of households have highly significant relation with both distance of financial institution, distance of market from household and the accessibility of road related variables. So, households located relatively in far distance from financial institutions than households located in nearer to financial institutions save money. This is because households in distant area have large landholding size than households located near to

the center and this contributes for generating more income and in turn motivates households to generate wealthier as compared to closer households and distant households are scattered and there is large variation among households in their landholding size since land is not equally distributed in the study area.

Characterization of Savers and Non-Savers by Government related factors Cross tabulation

Table 4:15 Frequency table of awareness variable saving

Awareness of saving		Frequency	Percent	Valid percent	Cumulative percent
Did you get any advice regarding to saving?	No	17	9.0	9.0	9
	Yes	171	91	91	100
	Total	188		100	
Have you observed banks in motivation & awareness creation among rural households with regard to saving?	No	185	98.4	98.4	98.4
	Yes	3	1.6	1.6	100
	Total	188	100	100	
Have you observed micro finance involved in motivation & awareness creation among rural household with regard to saving?	No	188	100.0	100.0	100.0
Have you observed saving & credit cooperatives involved in motivation & awareness creation among rural households with regard to saving?	No	101	53.7	53.7	53.7
	Yes	87	46.3	46.3	100
	Total	188	100	100	
Have you observed credit union involved in motivation & awareness creation among rural households with regard to saving?	No	188	100.0	100.0	100.0

Source SPSS output and own computation, (2020)

Government related (Awareness)

The sample respondents' response with regard to the awareness of saving about the factors affecting rural household saving as stated in the above table, 171(91%) of respondents were get the aware and advice of saving. In contrast, 17(9%) of households did not get the advice regarding saving. banks were involved in awareness creation for 3(1.6%) of households regarding to saving. Saving and credit cooperatives involved in motivation and awareness creation for 87(46.3%) of households and 101(53.7%) of households did not get awareness about saving from these institution. As we identify from the above table, micro finance and credit unions have not involved in any motivation and awareness creation about saving in giving advice for rural households. Al so the result of interview held with employees of financial institution revealed that there is awareness creation gap regarding government & management of financial institution.

Table 4:16 Characterization of Savers and Non-Savers by Government related factors cross tabulation

Variables		Saving status		Total
		Saver	Non saver	
Advice regarding saving from financial institution	Yes	N 73	N 98	171
		% 42.7	% 57.3	90.95%
	No	N 0	N 17	17
		% 0.00	% 100	9.05%
Banks involved in motivation	Yes	N 0	N 0	0
		% 0.00	% 0.00	0.00%
	No	N 73	N 115	188
		% 38.8	% 61.2	100%
Credit & saving cooperatives involved in motivation & awareness creation	Yes	N 73	N 14	87
		% 83.9	% 16.09	46.27%
	No	N 0	N 101	101
		% 0.00	% 100	53.73%
Credit union involved in motivation & awareness creation	Yes	N 0	N 0	0
		% 0.00	% 0.00	0.00%
	No	N 73	N 115	188
		% 38.82	% 61.17	100%

Source SPSS output and own computation, (2020)

Awareness of saving (AS)

As the table above 22 shows that, from 188 sample households 171(90.95%) households were got advice and awareness regarding saving and 17(9.05%) of households did not get any advice and awareness. When we compute in terms of saving, 73(42.7%) were savers and 98(57.3%) were non savers from the award households. Though 17(100%) of non-award households did not participate to save their moneys to financial institution.

Households did not award about saving by microfinance institution totally. But, 73(38.8%) of households save their money to microfinance even though they haven't got awareness about saving from microfinance and 115(61.2%) households were not saved their money.

From the total households 87(46.27%) were award about saving by credit and saving cooperative and 101(53.73%) households did not get any advice and awareness. When we compare awareness in terms of saving 73(83.9%) were savers and 14(16.09%) were non saver households. 101(100%) of households who do not award or advised about saving did not participate to saving totally. The same to microfinance credit unions did not involve in advice and awareness creation regarding to saving. So totally, 188(100%) households did not award about saving. But, 73(38.82%) of households were saved their money to credit union while they were not get awareness of saving. Assume 115(61.17%) non award households were non savers.

Also the result of interview held with employers of CBE, OIB, OCB & OCSSCO said that there is no access of financial institution in rural areas of the research area. In addition the distance of households from financial institution has its own problem on saving status.

Logistic Regression Analysis

In this part of the research further analysis has been conducted in order to test the influence of independent variables: Demographic variables, Socio-economic variables, Institution (management)related variables and Government related variables influence on the dependent variable which is the factors affecting rural household saving. Logistic regression analysis is preferable due to the nature of the dependent variable which is binary/ dichotomous: “**Rural household saving—yes/no**” (Hosmer & Lemeshow 1989). In addition to that, “unlike multiple regression and discriminate analysis, logistic regression does not entail assumptions related with normality, linearity and homogeneity of variance for the independent variable, which evidences

the popularity of the model. Logistic regression assumes that the outcomes are independent, mutually exclusive and finally in order to obtain accuracy requires large samples (Lee. et al, 2004).

4.3.1 Multicollinearity

Second important things taken into consideration for the application binary logistic regression like multiple linear regression there should be no high correlation (multi collinearity) among the predictors (independent variables) this can be assessed by a correlation matrix among the predictors (independent variables). According to (Tabachnick & Fidell, 2013) and also (Kline, 2005) suggest that as long correlation coefficient among independent variables are less than 0.9 the assumption is met. So in order to detect multicollinearity problem in this study the researcher apply the correlation matrix. According to Phyllis, et'al (2007; p 220) by citing (Kline, 2005). correlation coefficients for categorical variable Spearman's rank correlation can be applied rather than Pearson correlation and then the result of the matrix shows that all independent variable correlation below 0.9 which means there is no Multi collinearity problem as indicated in the table 4.18 below:-

Table 4:17 Correlation

		SHH	SH	MS	RH	AH	ELH	OH	TFH	DFH	MIH	FLH	LSH	DH
SHH	PC	1												
SH	PC	-.049	1											
MS	PC	-.114	-.818**	1										
RH	P C	-.158*	.168*	-.040	1									
AH	P C	-.003	.181*	.297**	.261**	1								
ELH	PC	-.466**	-.023	.123	-.093	.341**	1							
OH	PC	-.010	-.096	.005	.129	.284**	.483**	1						
TFH	PC	-.005	.286**	.302**	.059	.604**	.349**	.264**	1					
DFH	P C	-.065	.213**	.217**	-.162*	.465**	.356**	.217**	.768**	1				
MIH	PC	.188**	.244**	.339**	.231**	.371**	-.015	-.180*	.393**	.093	1			
FLH	P C	.101	.149*	-.014	.195**	.245**	.265**	.631**	.221**	.253**	-.069	1		
LSH	P C	.101	-.046	.051	-.106	.258**	.314**	.738**	.197**	.139	.268**	.449**	1	
DH	PC	.000	.252	.543	.394	.194	.077	.758	.798	.773	.162	.455	.252	1

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Evaluation of a logistic regression model

According to Hyeoun (2013) there are several parts involved in the evaluation of the logistic regression model. First, the overall model (relationship between all of the independent variables and dependent variable) needs to be assessed. Second, the importance of each of the independent variables needs to be assessed. Third, goodness-of-fit statistics; finally, predictive accuracy or discriminating ability of the model needs to be evaluated.

The relationship between the dependent variable saving and the overall combination of the independent variables (predictors) is tested in the Omnibus Tests of Model Coefficients table represented in table below. The model chi-square value of $\chi^2 = 89.462, df=12, N=188,$

$P = 0.00$ with a p-value of less than 0.05 tells us that our model as a whole fits significantly. So, the relationship between the combination of the independent variables and the dependent variable is confirmed.

Table 4:18 Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
	Step	89.462	12	.000
Step 1	Block	89.462	12	.000
	Model	89.462	12	.000

Source: SPSS results 2020

The model summary table below illustrates the computation of correlation measures to estimate the strength of the relationship so the researcher prefer to use Nagelkerke R Square shows that about 51.4% of the variation in the outcome variable which is rural household saving is explained by this logistic model. (Chan. Y, 2004).

Table 3:19 Model Summar

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	161.698 ^a	.379	.514

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

According to Sakar &Midi, (2010) common techniques in social science for judging the classification table accuracy of fitted binary logistic regression model is accuracy ratio. The probability of detecting true signal (sensitivity) and false positivity (specificity) for entire range of possible cut point comes from classification table. According to Hyeoun (2013) higher sensitivity and specificity indicate a better fit of the model. Then overall correct prediction, 83.5% shows an improvement over the chance level which is 50%. If the classification table greater than the cut value the model is fit or it is considered as the model performance is excellent.

Table 4:20 Classification Table

	Observed		Predicted		
			saving of household		Percentage Correct
			No	Yes	
Step 1	saving of household	No	100	15	88.0
		Yes	16	57	78.1
	Overall Percentage				83.5

a. The cut value is .500

Hosmer Lemeshow test

The Hosmer–Lemeshow test is another test to examine whether the observed proportions of events are similar to the predicted probabilities of occurrence in subgroups of the model population. According to Hyeoun (2013) better approach to present any of goodness of fit test available is Hosmer Lemeshow which is commonly used measure of goodness of fit based on the χ^2 distribution with 8 degrees of freedom (with large p -value >0.05) indicate a good fit to the data, therefore, goodness of overall model fit. In generally according to (Hosmer & Lemeshow, 2000) if p -value is less than 0.05 and conclude that the model is not fit but the p value in this model is 0.195 which greater than 0.05 means conclude that the model is fit for the observed data.

Table 4:21 Hosmer and Lemeshow Test

Step	Chi-square	Df	Sig.
1	11.115	8	.195

Table 4:22 Variables in the equation

	B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Sex	-.215	.439	.240	1	.624	.806	.341	1.908
MS	.015	.764	.000	1	.985	1.015	.227	4.537
REL	-1.451	.498	8.479	1	.004	.234	.088	.622
Age	-.170	.275	.380	1	.537	.844	.492	1.447
EDU	-1.688	.276	37.506	1	.000	.185	.108	.317
OCC	-1.250	.753	2.757	1	.097	.286	.065	1.253
Step 1 ^a TFM	1.114	.479	5.411	1	.020	3.046	1.192	7.787
Depfm	-.442	.485	.833	1	.362	.642	.248	1.662
MOin	-.313	.427	.538	1	.463	.731	.317	1.687
lanz1	3.100	1.152	7.241	1	.007	2,288	2.321	212.107
livst1	.853	.573	2.218	1	.136	2.347	.764	7.209
Dis1	-1.012	.431	5.521	1	.019	.364	.156	.846
Constant	4.352	1.523	8.169	1	.004	77.609		

a. Variable(s) entered on step 1: sex, MS, REL, Age, EDU, OCC, TFM, depfm, MOin, lanz1, livst1, Dis1.

Notes: Odds ratio shows the predicted changes in odds for a unit increase in the predictor, Nagelkerke R Square = .514, Omnibus Tests of model coefficients: Chisquare=89.462, cox & Snell R Square 37.9% Percentage of correct prediction=83.5%, correctly predicted non-savers =88%, correctly predicted savers=78.1%; df =12, Significant at 1% and 5% significance level respectively.

4.2.1. Interpretation of the Model Results

The results of the Binary logit model estimations of factors significantly affecting rural households to save in formal financial institutions and the model was found to be significant at 1% significance level. The logit model analysis emphasizes on considering the combined effect of variables between saver and non-saver rural households in the study area. Therefore, the emphasis is on analyzing the variables together, not one at a time. Out of the total variables; five of the variables were found to be significant while the remaining seven were not significant in explaining the variations in the dependent variable.

The maximum likelihood estimates of the Binary logistic regression model showed that education level of head of the households, religion, land size, total family and distance from formal financial institutions were important factors influencing saving decisions of rural households in the study area. Most of the variables age, sex, marital status, livestock ownership occupation, dependent family and monthly income were not powerful in explaining rural households' savings status.

The Binary logit model result, the maximum likelihood estimates revealed that rural households saving are determined by the interaction of different potential demographic, socio-economic, institutional, and variables related to governments. To test the measure of goodness of fit in logistic regression analysis, the likelihood ratio test that says chi-square distribution with degree of freedom (df) equal to number of independent variables included in the model (Gujarat, 2003) Consequently, the chi-square computed indicated, as the model was significant at 1% significance level.

The other measure of goodness-off-fit in the logistic regression model is by observing the value in the prediction Table as the model correctly predicted it or not. Accordingly, the result indicated that 61.2% of the non-saver and 38.8% of the savers were correctly predicted; and overall, the model correctly predicted 88% of the sample cases. Hence, the model predicted savers and non-savers categories accurately.

Religion of households (RELIG): this variable is identified as Muslim, & Christian. Although the relationship between religion and economic development on the macro-level has been explored, it is less clear how background of religiosity influences economic attitudes and

financial decision-making on the level of the individual or household in the micro-level. So, religion has significantly affected the rural households saving. Based on the model result, Christian household heads had 0.234 times more odds ratio of saving than Muslim household heads. The result of this study shows statistically significant as P value =0.004 at 5 % significance level and positively influences the dependent variable, saving status, and it is in line with the hypothesis.

Education level of household heads

Education increases the analytical ability of individuals to process information received from any source. As the model result on Table 23 revealed, education level of households is statistically significant at 5 % significance level and positively influences the dependent variable, saving status, and it is in line with the hypothesis. This shows as households are getting educated, they are more likely to save in formal financial institutions. Based on the model result, literate household heads had 0.185 times more odds-ratio of saving than illiterate household heads. The possible explanation for this is that education helps the household head's to save in financial institutions and because the capacity created would help them to analyse, interpret and make use of it than illiterate household head's. This finding is contrary to the findings of (Tsega and Yemane (2014) that shows education level has positive contribution for household savings. But the result is similar with the finding of Girma et al. (2014) that shows education has positive effect on households saving and statistical significant.

Total family of households (TFH): this is a continuous variable measured by numbers and it refers to the total number of family members of the household. A household with high number of dependents in the family have less savings. Rehman *et al.* (2010) found that family size significantly and inversely affecting household saving. The expected effect of family size on rural household saving was negative for households who have large family size. Based on the model result, a high number with household heads had 3.046 times more odds-ratio of saving than small number of household heads. The possible explanation for this is that having high number of families helps the household head's to save in financial institutions than households with small number of households. This finding of this study was in line with Wogene Markos (2015) and Alebachew & Yohanis (2018).

Distance from formal financial institutions (DH)

The model result of the study confirmed that distance affects negatively and significantly at 5% probability level and it is in line with the hypothesis. The model result revealed that those households who are residing short distance from formal financial institutions had more access to save where as those who are residing at far distance from formal financial institutions had less access to save in formal financial institutions due to distance factor. Moreover, the odds ratio in favour of access to save decreases by a factor of 0.364 for those sampled households residing at a far distance from financial institutions other things being kept constant. The possible explanation for this is that as the sampled households' are close (near) to the financial institutions; they would have more access to use the service than the one in far place. This finding was similar to Chemonics International (2007) identified distance remains a major barrier to formal financial saving and other markets in rural areas in SSA especially in rural Uganda, only 10% of the population have access to basic financial services. Sebhatu (2012) also indicated that as financial institutions are far to the households' house, they would have been spent more resources (time, labour) to access financial products and services.

CHAPTER FIVE

5.1 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.2 Summary

This study was conducted in order to assess factors affecting rural households saving in Buno Bedele Zone: Bedele zuriya district. Different characteristics of the households were analysed among savers and non-savers. These characteristics were categorized as demographic (education level, sex, age, marital status, family size), socio-economic (religion, landholding size, livestock ownership, annual income), institutional (distance from financial institutions, distance of market, accessibility of road) and variables related to government; advice & awareness given on banks, on microfinance and on credit cooperatives.

In this study cross-sectional data were collected from 188 sample households and from seven rural kebeles namely; Sidisa, Lalistu, Yebala, Kenkelcha, Kerero, Keny Mute, Gira Mute. In this study, both primary and secondary source of data and interview schedule were used as data collection tools. Data analysis methods like percentage, frequency distribution, cross tabulation were used. In addition, chi square test and p-value were used to see associations and differences in characteristics between saver and non-saver respectively. The result of the descriptive statistics, chi-square test and p-value tests indicated that most of the variables hypothesized to determine the rural households were significantly associated with rural households' savings status. Moreover, Binary logit model was used to identify major factors affecting rural households' savings.

From rural households' demographic variables, sex of the household head was hypothesized to affect rural households saving status significantly. The result showed that sex had no significant association with rural household saving status. Household head's marital status, Occupation and age were hypothesized to have significant association with rural households saving status. But the result showed that they were not statistically significant associated with rural households savings status. Education level and Total family of the household head hypothesized to have significant association with rural households' savings status. The result showed that education and Total family had statistical significant association with rural household saving status.

The socio-economic variables such as annual income, landholding size and livestock ownership were hypothesized to have significant association with rural households savings status. The

results of the descriptive statistics also indicated that annual income and livestock ownership had no association with rural households' savings status but landholding size have statistically significant with saving status of households.

In line with this, from institutional variables Distance from formal financial institution was hypothesized to have negative relationship with rural households saving status. The result of the descriptive statistics showed that distance from formal financial institutions had negative and statistically significant association with rural households' savings status.

The results of the Binary logit model indicated that education level of the household heads and annual income had positive and statistically significant effect on rural households saving status whereas distance from financial institutions had negative and statistical significant effect on rural households' savings status.

The government related variable, awareness; motivation and advice of saving were hypothesized to have significant association with rural household's savings status. But, the result of the inferential statistics showed that awareness; motivation and advice of saving were highly significant and had no association with rural households' savings status.

5.2. Conclusions

In this study attempt has been made to assess factors affecting rural households' savings in Buno Bedele zone Bedele zuriya district, Oromia regional state. The result of the study indicated that rural households have used different financial institutions namely formal, informal and nonfinancial savings.

The descriptive analysis showed that some rural households practiced saving in formal financial institutions and the common reasons for rural households no saving in formal financial institutions in the study area were; they had no surplus cash to save, low income, they were not aware about saving culture and saving institutions are far.

Besides, the Binary logit analysis showed that household heads' education level enhances households' awareness to decide to save money in formal financial institutions. Households with accesses to credit service enhance rural households' savings. Households with high annual income would like to save in formal financial institutions. Distance from formal financial institutions significantly affects rural households' savings in the study area. Developing strategies that promote rural households savings in rural areas is an integral part to achieve economic growth in the study area.

5.3. Recommendations

The findings of the study identified major factors of rural households' savings in Bedele zuriya district. Based on the findings of the study, the following recommendations are forwarded.

According to the result of the Binary logit model, educational level of sampled households was found to have a significant positive association with rural households' savings status. Literate households have the awareness regarding the importance of saving and practice rural households' savings than illiterate rural households. In order to make illiterate rural households have better understanding towards savings and make decision to save, emphasis should be given towards strengthening different educational opportunities (non-formal education). Financial institutions in collaboration with agricultural offices, NGOs and other community based organizations should work on awareness creation activities in the study area though providing training to the rural households. In addition to awareness creation activities, financial institutions should have reward system to motivate non-saver households. The result of the Binary logit model revealed that average annual income had positive and statistically significant effect on rural households' savings status. Based on this finding, to make non-saver households to save in financial institutions, there is a need to further improve the rural households' income through diversifying their agricultural activities and income source by engaging in nonfarm/off farm activities.

Government related variables like awareness creation motivation and advice regarding savings had positive and statistically significant effect on rural households' savings status. In order to make non-saver rural households to save, financial institutions should have awareness creation, consultancy program and provide productive loan and follow up their credit utilization so that they can use it to generate additional income and this in turn motivates rural households to save in financial institutions.

The Binary logit result revealed that distance from financial institutions had negative and statistically significant effect on the saving status of rural households. Hence, financial institutions should provide saving services by establishing satellite branches reasonably near to the rural households' residences. In addition, policy interventions should focus on increasing the availability and accessibility of financial institutions in rural areas to promote rural households saving.

Generally, these factors affects rural households' savings, therefore emphasis have to be given in designing strategies aimed at improving the saving mobilization of rural households in the study area. Saving and investment level in rural area can be enhanced if diversified range of saving products is being availed to encourage the saving opportunities of the rural households as well as formulating legislation for being financial institutions is put in place.

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Survey Questionnaire

I am a graduate student undertaking a degree in Master of Arts (MA) Degree in Accounting and Finance in the University of Jimma College of Business and Economics, Department of Accounting and Finance and I am currently conducting a research on Factors affecting Rural Households Saving: A study on clients OF OROMIA CREDIT & SAVING S.C. (OCSSCO) The Case of Buno Bedele zone Bedele zuriya District, Oromia Regional State. You have been selected to assist in providing the required information because your views are considered important to this study. I am therefore kindly requesting you to fill this questionnaire. Please note that any information given will be treated with outmost confidentiality and will only be used for the purpose of this study.

A-Demographic variables

Part 1: Give your opinion to each of the following questions by putting tick mark () on the appropriate choice(s). You can select more than one choice whenever necessary.

1-Sex of household 0=female 1= male

2=age of household 1=20-30, 2= 31-40, 3= 41-50, 4= 51& above

3-Position of marital status: 1= () married 2= () unmarried 3= () Divorced 4= () widowed

4-Education level 1=degree & above 2=diploma 3=6-10 4=1-5 5=illiterate

5-occupation of household 1=farmer 2= job-less

6-Total family of h/h 1= 1-3, 2=4-6, 3=7-9, 4=10 & above

7- Dependent family of h/h 1= 1-2, 2=3-4, 3= 5-6, 4= 7 & above

B-Socio-economic variables

8-Religion of household 0= Islam 1= Christian

9-Do you have own farm land? 0=n no 1= yes

10-if yes, how many hectare of land do you have? (in hectare). 1= <1, 2= 1-3, 3= 4-6, 4= >10

11-Livestock ownership of h/h 0= no 1= yes

12-If yes, how many livestock do you have? 1= <3, 2= 4-10, 3= 11-18, 4= 19-25, 5= >26

13-Annual income of h/h 1=<1000, 2= 1001-3000, 3= 3001-6000, 4= 6001-10000, 5= >10000

Annual expenditure

14-to pay children fees 1= strongly agree 2= agree 3=neutral 4= disagree 5= strongly disagree

15-to buy food & other household expenses 1 = strongly agree 2= agree 3=neutral 4= disagree
5= strongly disagree

16-To expand my business 1= strongly agree 2= agree 3=neutral 4= disagree 5= strongly disagree

17-To buy items to sell 1= strongly agree 2= agree 3=neutral 4= disagree 5= strongly disagree

18-To pay medical expenses 1= strongly agree 2= agree 3=neutral 4= disagree 5= strongly disagree

19-To build house or acquire asset 1= strongly agree 2= agree 3=neutral 4= disagree 5= strongly disagree

20-To attend funerals engagement and similar functions 1= strongly agree 2= agree 3=neutral
4= disagree 5= strongly disagree

21-To support my household income 1= strongly agree 2= agree 3=neutral 4= disagree 5= strongly disagree

C- Institutional variables

22-Do you think that distance is a problem to save money in formal financial institutions?

1= yes 0=no

23-Is your home >5km far from formal financial institution? 1= yes 0=no

24-Is accessibility of road discouraging you to save money in formal financial institution? 1=yes 0=no

D-Government related variables

25-Did get any advice regarding to saving from formal financial institution? 1= yes 0=no

26-Have you observed banks involved in motivation and awareness creation among rural households with regard to saving? 1= yes 0=no

27-have you observed micro-finance involved in motivation and awareness creation among rural households with regard to saving? 1= yes 0=no

28-have you observed saving and credit cooperatives involved in motivation and awareness creation among rural households with regard to saving? 1= yes 0=no

29-Have you observed credit union involved in motivation and awareness creation among rural households with regard to saving? 1= yes 0=no

Interview question

1. What are the methods used to encourage and inform people to save their money in the formal financial institutions? Is government work on awareness creation actively?
2. What is your view on formal financial institution's in saving mobilization? How do you see the access of financial institution in rural areas /research areas/?
3. What are the main factors affecting saving in formal financial institutions? What is your view concerning income, education level, land holding size and age of household?
4. What are the challenges that discourage people to save in the formal financial institutions? Is there facility problem?
5. How do you express the challenges in saving among rural households regarding distance of financial institution and distance of market?

