



**ST. MARY'S UNIVERSITY SCHOOL OF GRADUATES STUDIES
INSTITUTE OF AGRICULTURE AND DEVELOPMENT STUDIES**

**ASSESSMENT OF SAVING BEHAVIOR AMONG RURAL SAVING
AND CREDIT COOPERATIVE MEMBERS IN ETHIOPIA: - THE CASE
OF YAYA GULELE WOREDA NORTHERN SHOA ZONE OF OROMIA**

BY

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**Assessment of Saving Behavior among Rural Saving and Credit
Cooperative Members in Ethiopia: - The case of Yaya Gulele Woreda
Northern Shoa Zone of Oromia,**

By

Techan Tolesa

**A Thesis Submitted to ST. Mary's University, School of
Graduate studies in partial fulfillment of the requirement for the
Degree of Master Agricultural Economics**

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Addis Ababa, Ethiopia

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Dr. Sisay Debebe. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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As members of Board Examiners of the master thesis open defense examination, we certify that we have read and evaluated the thesis prepared by Techan Tolesa and examined the candidate. We recommend that this thesis be accepted as fulfilling the thesis requirement for the Degree of Master Agricultural Economics.

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ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor

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January, 2018

DEDICATION

All praises to the Almighty God, the most gracious, for giving me the strength and determination to complete this study. I would also like to dedicate this paper to my father “ABABBA” and my mother “Harmee” for their sacrifice, encouragement and support.

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ACRONYMS

ACCOSSCA	Africa Confederation of Cooperative Society Savings and Credit Association
DA	Development Agents
DCPO	District Cooperative Promotion Office
FGD	Focus Group Discussion
GDP	Girth Domestic production
GNP	Gross National Product
GTP	Growth and Transformation Plan
MLR	Multiple Linear Regressions
OLS	Ordinary Least Squares
SACCOs	Savings and Credit Cooperatives
SAUN	Savings Experiences in Undisclosed Place
VIF	Variance Inflecting Factor
YGWANRO	Yaya Gulele Woreda Agricultural and natural resources Office
YGCPO	Yaya Gulele Cooperative Promotion Office

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ABSTRACT

Lack of financial funds is one of the leading problems facing rural savings and credit cooperatives. The aim of this study is to assess the level of saving behavior of rural saving and identify factors affecting the saving behavior of rural savings and credit cooperative members in Yaya Guleleworeda North shoa Zone of Oromia, Ethiopia. Simple random sampling technique was employed to select 96 sample respondents from four rural saving and credit cooperatives in the district. Both primary and secondary data were collected and analyzed using descriptive and econometric tools. Applying multiple regression models, the study found that, annual income of respondents' influence on the behavior of savings of RUSACCOs members. Whereas, age of respondents, the family size and amount of loan borrowed were also significant but had a negative influence on the magnitude of savings of members. Finally, the researcher recommends that policy makers and implementers should boost the income of households in the lowest income group through diversifying- their agricultural activities, government and other stakeholders should train respondents on the importance of savings, strengthen informal education and professional or skill training. RUSACCOs should improve financial potentials through increasing membership; purchasing additional shares; increasing monthly saving amount and mobilizing saving. Non-governmental organizations should be given external credit to meet the loan demand of the members and implement other business activities through RUSACCOs.

Keywords: *Saving, Rural Saving and Credit Cooperative Saving behavior*

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Savings and Credit Cooperatives (SACCOs) are community organization based financial institutions that are formed and owned by their members in the promotion of their economic interests Nuwagaba (2012). According to Alila and Obado (1990), in Africa, the idea of savings and credit cooperatives were first started in 1955 in Jirapa, a small town in Ghana which was adapted in Ghana. The idea was brought by a Roman Catholic priest, Father John McNulty from Ireland. He had studied in Canada, where he learnt about SACCOs'. Father McNulty decided to assist the Jirapa villagers to form a savings and credit Cooperative. The cooperative had a specific aim of assisting the members to address their financial problems which they could hardly do individually.

The formation of SACCO in Africa grew tremendously to the extent that the African countries formed a continental association of SACCOs, Africa Confederation of Cooperative Society Savings and Credit Association (ACCOSSCA), in 1965 (Olando et al., 2012). Cooperative societies are characterized by the intrinsic values and principles on which they are founded. They are based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. The end product of these co-operatives is to attain the highest living standards of its members. The savings and credit cooperative in Ethiopia was established in 1964 by employees of Ethiopian Airlines. During the same period, saving and credit co-operatives were established by employees of the Ethiopian Road Authority and the Telecommunication Agency. It is interesting to note that these organizations are among the most modern and relatively efficient enterprises in the country. The oldest ones were established in the late 1960s, and they grew very slowly until 1978. One reason behind such slow growth was the political and social instability which followed the 1974 uprising. SACCOs have been growing fast since 1978. However; the rate of growth is not the same for all co-operatives. Some of them are growing at

very fast rates. A saving and credit co-operative is a free association of people with a common bond who save and lend money to one another at low interest rate for productive and provident purposes (Desalew, 2009).

Until the year 2001, after the first saving and credit cooperative society established by the Ethiopian Air Line civil servant in 1964/65; there was no a rural savings and credit cooperative society in rural Ethiopia. The first rural savings and credit cooperative society in Ethiopia is *Hidu* primary savings and credit cooperative society. It is found in the Oromia Regional State, East Shewa Zone, and Error Woreda at 'Hidu' farmers association (kebele). And the first rural savings and credit cooperative society was established in Tigray Regional State is '*Tembien Teree*' (Limi'at) primary savings and credit cooperative society, it is found in South East Zone in Tigray Region in 'Degua Tembien' Woreda at Limi'at Kebele (RUFIP',2006).

In Ethiopia, RUSACCO is a recent phenomenon, promoted with proclamation No. 147/1998 issued in 1998, indicating the infancy of the sector. A recent declaration was issued in 1998 to give a better policy framework to set up cooperatives based on an individual membership and voluntary basis. Members buy shares to become members and receive dividends at the end of the year, depending on their contributions (the value of their shares) and profit earned. The Cooperative Office has been established in each *district* to provide technical assistance. The Cooperative promotion sector now provides a broad range of services, including the supply of inputs, output marketing and distribute consumer goods (Teka, 2008).

Performance analyses of the sector indicate that the number of cooperatives has increased from 26,672 in 2009 to 53,982 at the end of 2014 showing a double-digit growth rate of 17% per year. The aggregate number of members during the same period increased from 5.8 million to 8.3 million (9% of the population) and their capital increased from one billion birr to 3.5 billion birr (FCA, 2014). The above data indicate that cooperatives have the support of the people in undertaking activities contributing to their economic development. The government continuous commitment to cooperative development is a reflection of confidence in cooperative movement in the country. Financial cooperatives are considered to have immense potential in financing short term loans for agricultural production technologies and undertake off-farm and nonfarm

income generating activities in areas where both the state and the private sector have failed. Serious efforts are being made to strengthen capital resource of SACCO base through increasing members' subscription and mobilization of savings in rural and urban areas (FCA, 2014).

According to Yaya Gulele Cooperative promotion office Annual report (2016), factors that determine savings Behavior of Rural savings and credit cooperative members include; lack of awareness; Weak financial system; in appropriate loan facilities; lack of training and preparedness by cooperatives; poor sequencing of the reform policy; political interference; inadequate legal reforms; slow decision making process; infrastructure; weather conditions and competitions from other institutions. Subsequently, it is imperative to embrace research on the factors that influence the saving behavior of rural savings and credit cooperative members of Yaya Gulele woreda, North shoa zone, Oromia region Ethiopia.

1.2 Statement of Problem

According to Berhane (2008) RUSACCOs are operated and managed by elected committee members. They lack the basic knowledge and skill to perform the day to day activities of SACCOs. For this reason, it is difficult to assume an efficient performance, which meets the required standard in such condition. There is poor recording and book keeping. Besides, a lack of savings facilities creates problems at three levels: the level of the individual, the level of the financial institution and the level of the national economy. At the level of the individual, the lack of appropriate institutional savings facilities forces the individual to rely upon in-kind savings such as savings in the form of gold, animals or raw materials, or upon informal financial intermediaries, such as Rotating Savings and Credit Associations (ROSCAs) or money-keepers.

As a Yaron (2004), states that providing financial services to the rural population has always constituted a challenge to governments due to the inherent difficulties associated with providing such services to rural customers, often characterized by isolated markets, seasonality, and highly covariant risk such as widespread regional crop failures and commodity price fluctuations. Servicing these clientele results in high transaction costs, limited opportunities for risk diversification, Lack of adequate rural physical and human infrastructures (e.g. roads, electricity, health and education), and asymmetric information, more prevalent in rural than in

urban areas often dissuade for-profit formal financial institutions from entering these markets. Inadequate policies with respect to agriculture and financial markets further scare away those from taking a larger share in rural financial intermediation.

Accordingly, these countries often face saving allocation problems and have difficulties to increase productive investments Tsega and Yemane (2014). Ethiopia rural households' savings are found to be limited and only six million households save money in formal financial institutions with an average of 875 Birr per year (Aron "et al.", 2013). The average share of gross domestic saving in the year 2012 was 12.4% of the GDP (Girma *et al.*, 2014). The average gross saving rate as percentage of GDP of Ethiopia was also 21% Tsega and Yemane (2014). Recognizing this fact, the country has planned to promote rural household 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.

As the above mentioned gaps indicate, RUSACCOs in the study area was faced with different problems, the existing formal financial institutions do not address the wants of rural households' financial need even different financial institutions give financial service to the rural households. This is because the inadequate accessibility of financial institutions in the rural areas. As a consequence of this, rural household saving in the district found to be low. Furthermore, the existing problems on the savings behavior of RUSACCOs members in the woreda not identified and the RUSACCOs members in the study area are not benefited.

In the Woreda, no study has been carried out on determinants of saving behavior of rural savings and credit cooperative members'. Therefore, the intent of the present study was to examine savings behavior of members in rural savings and credit cooperatives in the study area, identify factors that influence the magnitude of savings of members of RUSACCOS and analyze the benefits of savings to the members of RUSACCOS in the study area.

1.3. Research Question

This research will try to answer the following research questions:

- What are the saving behaviors of members in rural savings and credit cooperatives in the study area?
- What are the factors that influence level of saving members of RUSACCOS?

1.4. Objectives of the Study

The general objective of the study is to assess the saving behaviors of savings and credit cooperative members of rural household in *Yaya Gulele Woreda of North Shoa Zone of Oromia*.

The specific objectives of the study are:

- To examine the level of savings among rural savings and credit cooperatives. and
- To identify factors influencing level of savings among rural saving and credit cooperatives members.

1.5. Significance of the Study

The information acquired from this study was useful to policy-makers both in the government and RUSACCOs, especially in strengthening policy considerations in this sector. Such policy improvement may be handy in enhancing the guidelines on how to improve the saving behavior of RUSACCOs in an effort to enhance their efficiency for the benefit of the members. Information on the use of financial intermediaries and the factors on the savings behavior of RUSACCOs members will be useful in ensuring prudent savings and efficiency in the management of the members' prosperity. This may also improve efficiency in financial practice of RUSACCOs' prosperity. This might lead to members' satisfaction and belief in the cooperatives and hence increased share contribution. As a consequence, RUSACCOs may be on the right track in the achievement of their goals as stipulated in their official and policy documents. Furthermore, this study was beneficial to the rural financial intermediaries and collaborators as this study was provide the necessary information on the different RUSACCOs problems and possibilities in increasing savings behavior of members of RUSACCOs. Moreover, the study would provide micro level information for those who would like to conduct detailed and comprehensive studies on savings behavior of RUSACCOs members. This district was not investigated before, the study results baseline information of other researchers to conduct different research works from different perspectives, which is again contribute for strengthening of Rural Savings and credit Cooperatives and members' savings behavior

1.6. Scope and Limitations of the Study

The study focused on the identifying the determinants of saving behavior of rural savings and credit cooperative members. This study is covering only Yaya Gulele woreda of Noth Shoa zone, Oromia national regional state Ethiopia. Limited financial resources and shortage of time made it impossible to extend the study away from these districts. Some of the RUSACCO members were reluctant to frankly respond to some of the questions, and also as respondents do not keep records and due to memory lapse, some of the questions lack exact answers. Therefore, the study was undertaken to meet its objectives within the limitations mentioned. With respect to the limitation of this study, as it was undertaken in one district it would be difficult to make generalization about the whole region.

1.7. Organization of Thesis

This thesis is organized in five main chapters. The first chapter deals mainly with the background, statement of the problem, objectives, significance and scope and limitations of the study. Relevant literatures related to the study area are reviewed in chapter two. Chapter three focuses on sampling design, methods of data collection, analytical techniques and description of the study area. In chapter four, the results obtained from the descriptive statistics and econometric models are presented and discussed. Finally, chapter five presents conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1. Definition and Concepts of RUSACCOs

Saving and Credit Cooperative is a group of people who have common bond, live in the same community or society save money together and lend it to one another at agreed interest rate, time and conditions. SACCOS also defined as a legal entity established by the voluntary membership of private or public for the purpose of depositing their savings and providing credits to its members (URT, 2004). In addition, organizations of saving and Credit Co-operatives in Africa, also defined as, a credit union is a cooperative financial organization owned and operated on a non-profit basis by its member according to democratic principles (Dejene, 1993).

Its role is to encourage saving to use polled funds to Members and families. Members typically share a common bond based on a geographic area, employer, community, or other relationship. Cooperative Members have equal voting rights, despite of how many shares they own. Savings and credit cooperatives are their principal services, although many offer money transfers, payment services, and insurance as well. Sometimes savings and credit cooperatives join together to form second -tier associations for the purposes of building capacity, liquidity management, and refinancing. Savings and credit cooperatives provide financial services to millions, including poor and low-income people in many countries. They differ from the rest of other cooperatives because they are financial cooperative organizations with a social context kabuga and batarinyebwa (1995). SACCOs sometimes join together to create second tier associations for the purposes of building capacity, liquidity management and refinancing; these second-tier associations can play a useful role in monitoring (WOCCU, 2005).

Through SACCO, members can get micro and macro credit to create/start small businesses. A member in SACCOs has access to credit as a primary service. SACCO members have equal opportunity to get access to credit within the cooperatives. Almost all

of males and female members within the SACCOs had access to credit. Hence, the participation of males and females in getting access to loans within the SACCOs was high. The SACCOs also provide loans to all members without gender discrimination (Dessalew, 2014). SACCO Society is a financial institution that purely deals with mobilizing money from members as savings, shares and providing easy accessible loans to members on time (Getachew, 2006).

Economic theory tells that saving represents the difference between income and consumption. Income includes earning from all sources during a year and is net of all costs incurred in producing that income. Consumption is the total amount of goods and services consumed by the rural household during a year and include expenditure on food, clothing, housing, travel, health care, social ceremonies, etc. Saving may be made in kind such as jewelry, livestock, grain, or some other commodities or may be in form of currency notes deposited in financial institution and saving are fundamental to sustainable economic development.

According to Orazio and Migule(2000) household savings in developing countries, Stated as: Funds for investing in agriculture in developing countries come from three major sources: public investment, private investment, and foreign aid. The share of public investment would be roughly 70 percent in a typical developing country, private investment at around 10-15 percent, and the balance of 10-15 percent from foreign aid. To meet these investment commit men's, government mobilizes resource, partly through land revenue, agricultural income tax betterment. The shortfall in the mobilization of domestic shavings, both public and private, is met by foreign aid and investment. Although the share of these different sources varies from institution to institution and from country to country, two general trends have been visible in the structure of these resources, Firstly a heavy reliance on concession funds from central banks or aid agencies and secondly, a relative neglect of savings mobilization from the public. Due to the absence of efficient credit and insurance market, household savings are a crucial determinate of welfare in developing countries.

On the one hand, without savings, households have few other mechanisms to smooth out unexpected variations in their income and so; shocks may leave permanent scars, such as interrupting the process of human capital accumulation at early ages. On the other hand, since savings are one of the only means to accumulate assets in the absence of credit and insurance markets, the capacity to save becomes one of the most important vehicles of social mobility and of enhancing future income-earning possibilities. Savings is a mechanism by which economic agents make deliberate choice to allocate a portion of their current income for the purpose of making investment and their increasing their future earning capacity. Theory suggests that household total savings depend on the rate of return on savings, on uncertainty of future incomes, on risk aversion of household, on lifetime or permanent income or wealth, on family characteristics (FAO, 2001).

2.2. Overview of Household Saving Behavior

As studies in China show, in current years is the world's largest and fastest growing economy, also have national saving rates that are among the highest in the world. Since it took the first steps toward economic reform in 1978, China's gross national saving rate has averaged 37 percent of gross national product (GNP) and its economy has expanded at remarkable 9 percent a year in per capita terms, lifting 200 million Chinese out of absolute poverty.

In addition, there has been a constant increase in the national saving rate in India through the post-independence period, though with considerable fluctuations from year to year. The national saving rate increased from about 10 percent in the early 1950s to 17 percent in the early 1970s and then to over 25 percent by the mid 1990s. In international perspective, India has had a high saving rate compared to many other countries except those in East Asia. Whereas the saving rate of Ethiopia to GDP is 9.5% which is, the worst saving rate in the world as compared to China, Bangladesh and South Africa which have a better saving rate in the world. Ethiopia is characterized by poor saving cultures which result in very small domestic savings available for investment. The government knowing this fact has planned in the 5 year GTP of the country (2003-2007E.C.) to increase saving rate from 9.5% to 20% of the GDP. The reason of the poor saving culture recognized lack

of appropriate saving products, lack of motivation to save, low income level, high level of debt, low interest rate, high inflation and others as founded by (Aron *et al.*, 2011). The result of this study suggests that government and other sectors must work in creating awareness of saving in the society, stabilization of inflation, implementing forced saving, modernization and accessibility of the saving institution, stabilization of the income level of the society, assessing the saving interest rate and others (Aron *et al.*, 2011) In general, the saving performance varies significantly across countries; Sub-Saharan Africa has recorded relatively lower saving rates when compared with other less developed countries (Mwega ,1996) as founded by (Ebson, 1999).

In Ethiopia, wherever the poor is the leading one, the existence of strong and experienced SACCOs is necessary for the overall socio-economic development. This indicates that SACCOs has a vital contribution to nationwide as well as household's level financial growth. SACCOs therefore, said to be the life blood of the poor community and plays a crucial role in oiling the wheels of their business activities as stated by (Melkamu, 2005). Thus, from the theory, we identify that households are responsible for substantial part of saving in both developed and developing countries. Accordingly, most economic models treat the motivation for saving from the household perspective (Eabson, 1999). This is further confirmed by (Mahtsentu, 1981) as individuals and private organizations are relatively the major holders of commercial bank savings. Public enterprises and agencies and domestic banks and other financial institutions or agencies contribute a substantial share next to the share of individual and private organizations. However, cooperatives make a lesser share of total deposits than the other savings groups. It is interesting to observe that their share has shown a consistent increasing trend over the period unlike the others, showing the new area the Bank must direct its saving mobilization activity. By now saving is increasing in connection with the construction of the Great Renaissance Dam and other mega projects being undertaken at the moment. Therefore, awareness raising programs should be undertaken to mobilize the public to direct the saving culture for proper development under the umbrella of RUSACCOs in line with enhancing income generating activities among poor community.

2.3. Savings and Credit Products

2.3.1. Saving products

For the rural population, their savings are perhaps the most precious asset. The safety of these assets is their primary concern. Many people would not entrust their savings to the financial institutions unless they are assured that they are safe there (Azhar, 1995). Since RUSACCOS members are owners of the institutions, they have saved regular savings, to some extent irregular savings and have purchased shares. Rural SACCOS are active in promoting savings, since members' deposits are the principal sources of loan able funds. Rural SACCOS have two classes of clients: members and customers. Customers' have access to only limited financial products (irregular savings for adults and minor or children savings)-saving accounts-and are excluded from loan products.

2.3.2. Share

Every potential member must purchase the specified minimum share(s) as determined by the RUSACCO making each member as owner of the cooperative. Purchasing shares is carried out not only by new members but the existing members are also expected to purchase additional shares from the RUSACCOs in proportion to their savings that would enable to maintain at least 3:5 to 1 and 4:1 savings/share leverage ratio.

2.3.3. Regular savings (Compulsory Savings)

It is the main part of savings in RUSACCOS. This type of savings is the predetermined amount of savings, which is saved regularly every month without interruption by RUSACCOS-members. The amount of monthly regular savings is decided by the saver him/herself within the saving range decided by the cooperative general assembly. Members can not withdraw this type of savings from the cooperatives unless they decide to terminate their membership. Members receive interest for the saved amount of cash in every six months to one year. Regular savings are required as a prerequisite of membership and are used as collateral of loan when members request and get loan. Although regular savings in RUSACCOS are preconditions for receiving loans, unlike savings made in other types of

microfinance, they are not targeted only for loan receiving. It is a continuous financial product, which would improve savings culture and built financial and physical capital for the savers. By insisting on regular savings, RUSACCOS could screen out some potential defaulters, increase funds available for lending, and develop among members a degree of identification with the financial health of the institution.

2.3.4. Irregular savings (Voluntary savings)

This type of savings is allowed not only for members but also for non-members. As far as they are interested, non-members can use this product. Voluntary savings products can attract idle resources from some clients (both members and nonmembers) and channel them to others (members and cooperatives, which are established under the same proclamation) in the form of loans for investment in productive activities. Different compulsory savings, savers are not obliged to save every month and its amount is not predetermined. Moreover, this savings bear interest and the saver can withdraw his/her savings at any time on demand. From such type of savings savers do benefit only from interest payment.

2.3.5. Credit Products

In RUSACCO, in addition to other objectives and incentives members are encouraged to save towards loans. Loans are ratio based on member's savings and shares (at present 3:1 or 3 folds of a member's share and savings balance is offered - which is the ceiling level). The loan products offered by RUSACCO are categorized into production, provident and consumption loans. When members face bad situation, consumption loans are also allowed in the RUSACCO loan policy. Rural SACCOs made loans to members only in cash. Every RUSACCO has an approved loan guideline which enables the RUSACCO to offer the loan product to members in a proper and smooth manner. When RUSACCO members request loan they are expected to present the type of activity they are going to do (practice to develop a type of business plan). Based on members' loan request, after loan committee critical evaluation usually loans are disbursed to members every two weeks. The loan duration vary from six months to two years. The repayment modality of the loan depends

on the type of the activity the loans are allocated. The loan disbursed for petty trading (grain trade, livestock trade, local drink and food preparation, etc.), creditors are expected to repay the loan every month to the RUSACCO (equal installment) on the saving day along with their monthly regular savings. The loan disbursed for livestock development (fattening, sheep/goat raring, bee keeping, etc.), after six months grace period creditor are expected to repay the loan every month to the RUSACCO (equal installment) on the saving day along with their monthly regular savings. The loan disbursed for annual agricultural production inputs, creditors are expected to repay the loan to RUSACCO at the time of harvesting (lump sum on due date).

2.4. The Role of RUSACCOs

Savings and credit cooperatives are voluntary financial organizations owned and operated by members. Their purpose is to encourage savings by creating local deposit activities and then using the pooled funds to make loans for productive, consumer or social purposes to their members. Rural savings and credit cooperatives operate as farmers' grassroots organizations, aimed usually at meeting the seasonal financial needs of their members, which other financial institutions do not satisfy (FAO, 2001).

Savings and credit cooperatives in *Yaya Gulele woreda* have continued to play a very important role in the economy by providing employment to the youth and enhancing economic activities in the rural areas by improving the living standards of the people. Depending on a country's legal framework, SACCOs in this area were authorized to mobilize member savings and non-members savings or member savings only. They are established by voluntary people based on the philosophy of building self-help society or "people helping people". They are owned, managed, controlled by members. Members have the right to decide on its issues and to benefit from its service. SACCO Society is formed initially for the poor to provide financial services such as safe place for savings and providing easy accessible loans to members. They organize "not for profit or for charity" but serve members at fair profit margins.

2.5. Challenges of RUSACCOs in Ethiopia

According to different document analysis and field experience outcome shows that RUSACCOs in Ethiopia are intertwined by the different of challenges that need to be addressed in order to enable them improve on accuracy and stability, effectiveness and efficiency, governance, product diversity and integration to the formal financial system. The major challenges of primary and union RUSACCOs include the following.

2.5.1. Lack of awareness

Members are not well informed about the basic cooperative principles and values and create the inspiration among members to rally around their grass root financial service institutions. People look upon these institutions as means for obtaining loans from the government and NGOs. The SACCO unions established are based on the weak primary SACCOs that were established mainly to access loan fund from rural financial intermediation program. So long as people expect to get something from the government.

2.5.2. Weak governance

Management committee members have no knowledge about financial management. The committee members elected by the general assembly to lead the affairs of the societies for fixed period do not have the necessary capacity to bring good governance, not undergone in skill upgrading. Thus, good governance is the main and crucial weakness of SACCOs.

2.5.3. Weak financial management system

The financial system in place including accounting and audit works are very weak. Most of the primary SACCOs are not maintain proper financial records and produce reports timely. Similarly, the accounts of the societies are not timely audited with three to four years lag in the case of certain primary societies. This is mainly due to limited capacity and inadequate personnel base of the regional cooperative agency and *Woreda* cooperative desk to provide such type of services timely as required by the cooperative proclamation 147/1998 and bylaws.

2.5.4. Limited outreach

As overview showing just how important SACCOs are to the economies of most countries.

- In Colombia, co-operatives provide 87.5% of short term loan provision in 2007.
- In Kenya, co-operatives are responsible for 31% of national savings and deposits.
- In France, co-operatives are responsible for 60% of bank deposits. Limited outreach is thus, a challenge to the SACCO movement in Ethiopia. Therefore, a lot has to be done in expanding the outreach of members in the SACCO movement; as this will enable the societies mobilized more savings to finance loan portfolios and ensure sustained growth of the societies.

2.5.5. Lack of differentiated products

Cooperatives have not yet provided demand driven products that could address the needs of their members. In general, there are no planned and structured ways of developing new products or revising the existing

2.5.6. Policy and regulatory environment

In Ethiopia regulation governing financial cooperatives is required to maintain Prudential Financial norms and reduce governance risks. Currently, RUSACCOs are organized, promoted, regulated and supervised under the general cooperative law/proclamation No.147/98. The regulation requires that all cooperative types should be promoted, regulated and supervised under the umbrella of one authority. Another major constraint is the lack of adequate trained manpower in the finance area to regulate and supervise RUSACCOs according to standard financial principles. The regulation is very restrictive in that it does not allow RUSACCOS to engage in income generating activities (other than lending to members) or to lend to non-members thereby greatly constraining their capital base and ability to diversify their portfolio. The policy is very static and is not changing to changing environment.

2.5.7. Inadequate regulation and supervision

Competent external regulation and supervision can identify, avoid, and resolve many common problems. Savings and credit cooperatives are often supervised by the same government agency that is responsible for all kinds of non-financial cooperatives, including agricultural and marketing.

2.6. Review of Empirical Literature

Savings play a critical role in financial management strategies of poor people. Deposit facilities make it easier for poor clients to turn small amounts of money into “useful lump sums,” enabling them to smooth consumption and mitigate the effects of economic shocks (Rutherford, 2001).

Formal microfinance institutions are regulated by the financial authorities of a country with special microfinance windows, semi-formal microfinance institutions (savings and credit cooperatives, village banks, etc.) are under the control of non-financial authorities and informal micro financial institutions are controlled by customary law and peer pressure (Rajaram, 2001).

(Annmaria, 2000), in gaining insights into household savings behavior and in explaining the differences in patterns of accumulation in United States of America found the following benefits of household savings; pension and social security, accumulate wealth, past economic circumstances, expectations about the future and preferences.

The major problems of cooperatives in Africa are absence of experienced management, uneconomic base level units, lack of supporting infrastructure like extension, training etc., poor member participation, insufficient supervision and auditing of cooperatives, and too much political disturbance (SACCOL, 2003). The existence of functioning cooperative societies leaves a positive mark on the economic and social structure of a country since cooperatives develop on the basis of local initiative and local economic strength; decentralized cooperative systems can operate in close proximity to markets and target groups (Zvi Galor, 2006).

A household study on determinants of saving states 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's *et al.*, 2005).

(Mark *et al.*, 1999) stated the determinants of household savings in Australia. They also found out that interest rate has no significant effect on household savings. However, income level, age and household asset were found to have positive significant effect on savings. Household size was also found to have negative significant effect on savings.

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 severely affected household savings. Income is the most crucial factor of the saving behavior in the entire study.

(Kelly and Williamson, 1968) in their efforts to research into household savings behavior in Indonesia. They also found out that age of household head is an important determinant of household savings thus, the marginal propensity to save rose as the household heads grow older because current and prospective income from employment declines as a share of total resources. However, (Schulz, 2005) who studied into demographic determinants of savings in Asia found no significant impact of age composition on savings.

A study conducted by (Girma *et al.*, 2014) showed that the determinants of rural households' savings in East Hararghe Zone, Oromia Regional State, Ethiopia. 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.

As study founded by (Degu Addis, 2007) indicated that socio economic variables such as age, family size, resource ownership and expenditure pattern affects the decision of household savings significantly.

2.7. Research Gap

As the reviewed literature showed there are different factors that affect Savings behavior of RUSACCOs members. Many researchers identified various determinants which contribute to the failure of RUSACCOs. As study (Wolday, 2004) showed that rural RUSACCOs are not efficient in both resources allotment and operations mainly due to lack of adequate funding sources and the absence of a standard prudential regulation for RUSACCOs. (SACCOL, 2003) Rural cooperatives hindered by lack of extension, training, poor member participation, inadequate supervision, auditing of cooperatives and political interference. According to (Rajarm, 2001) study revealed formal financial institutions do not demonstrate much importance to put their resources in rural areas. The study by (Tesfamariam, 2011) stated that Rural SACCOs faces a number of challenges such as, poor saving culture, low membership base, lack of demand driven and diversified financial services.

Cooperatives are organized for the sake of simplicity of management; to develop members' confidence; ease to identify members' characteristics; to minimize operational costs of the cooperative; and to enable RUSACCOs members to be the beneficiary of the savings and loan scheme. In addition, interest rate on both savings and loan are commonly better than rates given by banks and the reason for this is that rural RUSACCOs have very low overheads compared to other formal financial institutions; educate their members in financial matters how to keep track of finances and pay dividends on share to their members once they are established and profitable. Moreover, there is no study conducted on the factors affecting saving behavior of rural savings and credit cooperative members based on a combination of the variables considered in this study. Therefore, this study

attempted at filling the gap by establishing the factors considered influence the magnitude of savings of RUSACCOs members. This study will add value to existing literature and may be used as a guide to RUSACCO policy development for the general good of the country and their members.

2.8. Conceptual Framework

The frame work assumes that saving behaviorof members of RUSACCOs were affected by different factors. These factors include demographic factors, social factors, Institutional factors and economic factors. The study was identifying how these variables are determined the savings behavior of members of RUSACCOs in *Yaya Gulele Woreda*

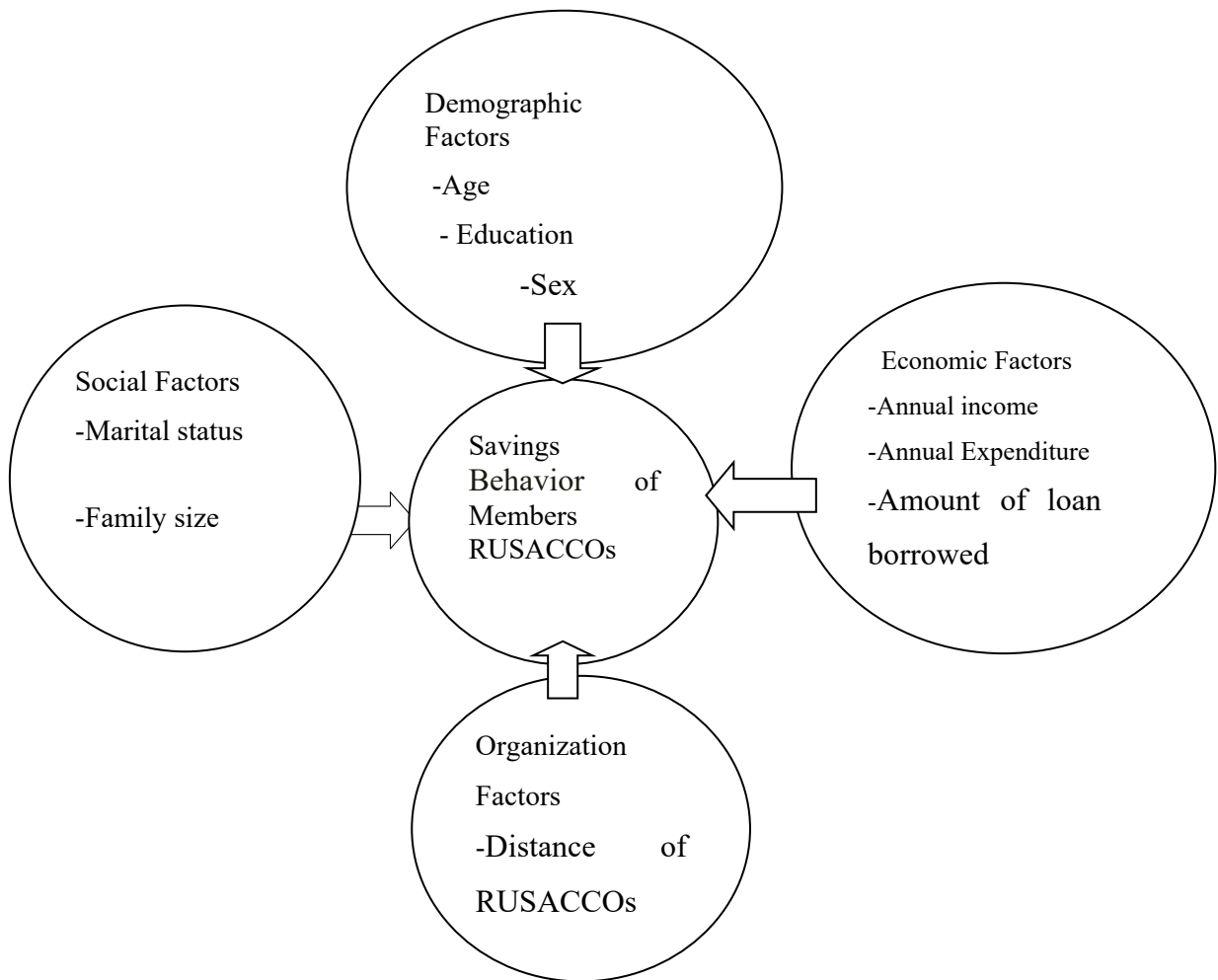


Figure 2.1: Framework of saving behavior of members of RUSACCOs

Source: Own design

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Description of the Study Area

Yaya Gulele woreda is one of the twelve districts in North Shoa Zone, Oromia Regional State, located in one handerand forte four km North part of the capital, Addis Ababa. The district is dividing in to seventeen rural and two urban Kebeles and Fital is the capital city of the district. The (25%) portion of the district has highland agro-climate and the remaining portion (75%) has mid highland agro-climate. The total rural population of Yaya Gulele district is 65,975 of which 33,680 are male and 32,295 are female. The total households in urban 3,654 and in rural 62,321 in the district are with an average family size of 6 persons (CSA, 2014). An area of **33,645.55** he and cultivable land of 25,403 he. Topographically, mountain, hills, plains, valleys and train plateaus characterize the woreda. The altitude of the woreda ranges between 1200- 2500 m.a.s.l. The woreda is characterized by lowest temperature of 16°C with highest temperature of 23°C. The average rainfall in the area is between 1,000-2025 mm. The woreda has three agro climatic conditions dega (27%), woina dega (41.2%) and kolla (31.8%) source (Yaya Gulele Agricultural and Natural resources office, 2017).

In the study area there are formal and informal financial institutions. The formal institutions include the public Banks. In addition to the public banks such as Commercial Bank of Ethiopia exist. Similarly, non-banking financial institutions such as Oromia credit and savings and Vision found institution exist. In addition, informal financial institutions like *iddir*, *Mahiber*, *equb* and private money lenders, relatives, friends and neighbors are available in the area (ARFEDO, 2014).

North Shewa Zone Woredas

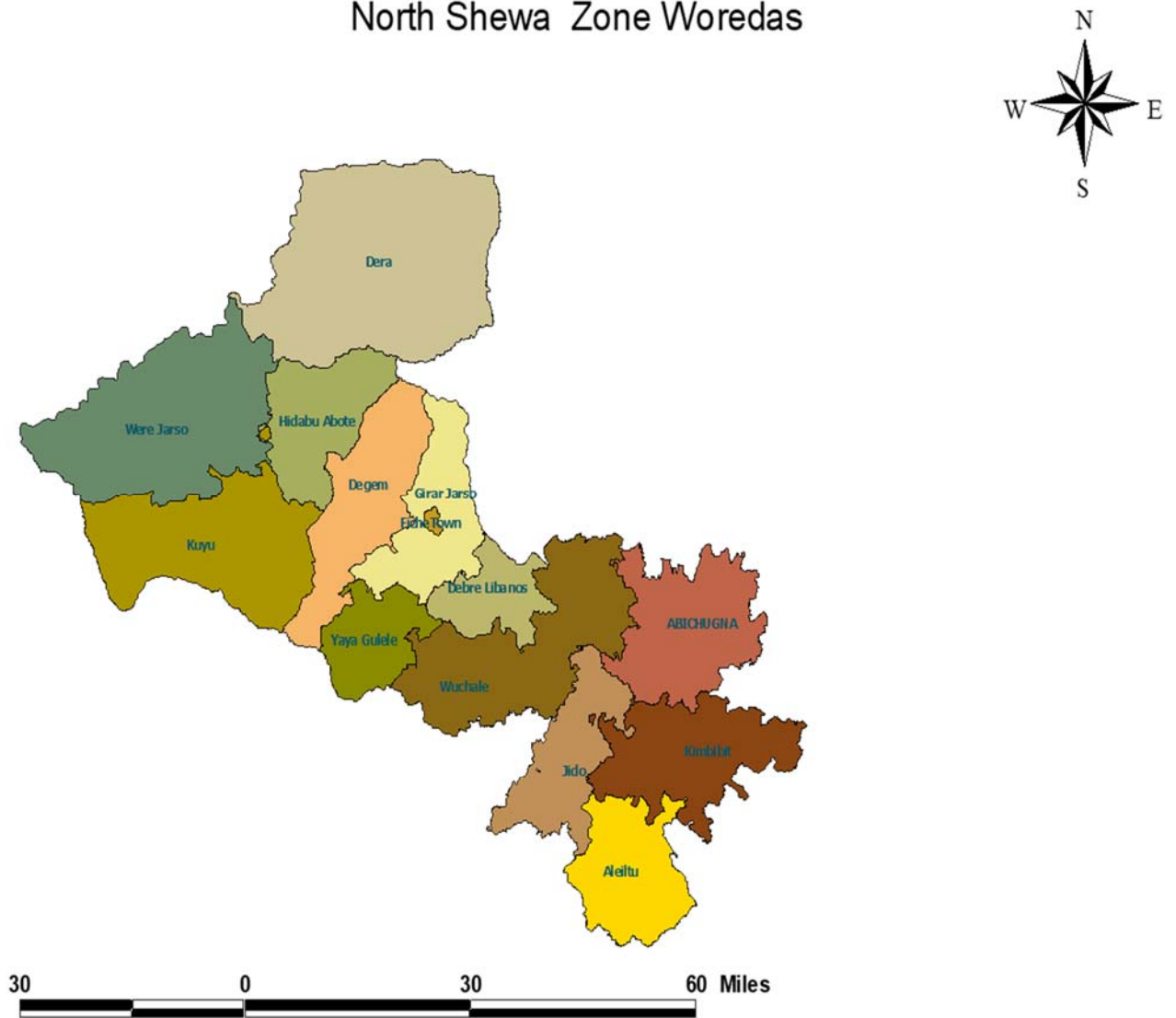


Figure 2: Administration of North Shoa Zone Oromia region

Source: From Land and Management office North shoa zone

Yaya Gulele Woredas

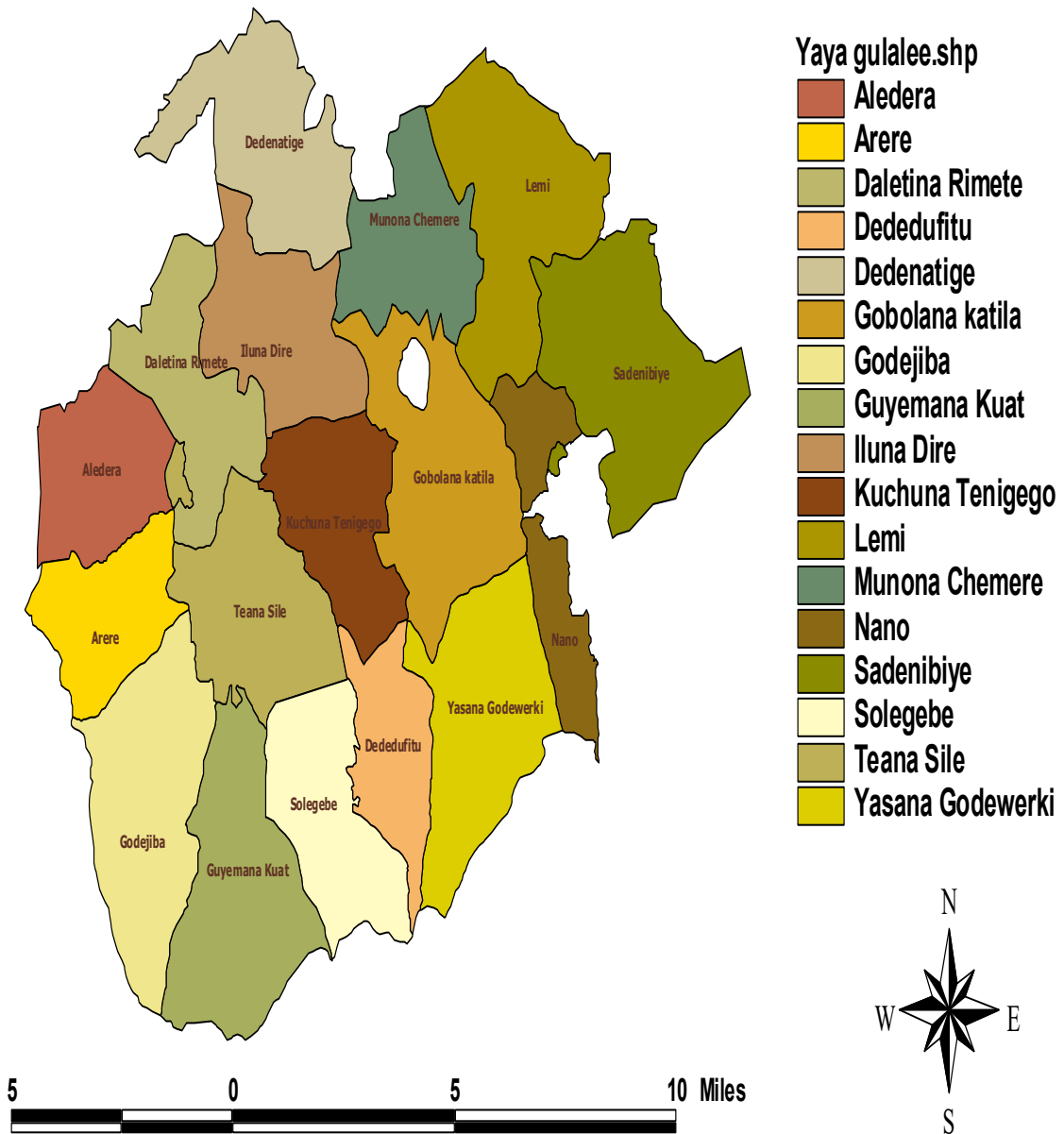


Figure 3: Administration of Yaya Gulele Woreda Map

Source: From Land and Management office North shoa zone

3.2. Sample Size Determination and Sampling Techniques

3.2.1 Sampling Size Determination

A simple random sampling procedure was adopted for the selection of the sample households who are the member of RUSACCOs in the woreda. The sample size for the study is determined by a simplified formula suggested by Yemane (1967)

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

n = the sample size

N = Total population of the selected cooperative members

e = is the level of precision assumed to be 10%

Accordingly, the sample size or number of respondent needed for the study is calculated as follow,

$$n = \frac{1910}{1 + 1910(0.1)^2} \quad n = \frac{1910}{1 + 19.1} \quad n = 95$$

3.2.2. Sampling Techniques

Two stage sampling methods are using to select the sample respondents. In the first stage, from 17 RUSACCOs found in the Yaya Gulele woreda 5 RUSACCOs were purposively selected on the availability of data and lifespan of their activity. In the second stage out of 1,910 total member's households of RUSACCOS 95 sample members of households is selecting randomly using probability proportional to size sampling technique. Concurrently, 25 committee members, from the sampled RUSACCOs, were selected for focus group discussion (FGD) and 5 professionals from Woreda cooperative office were selected as key informants (KI).

Table 3.1: Sample primary cooperatives of sampling members: Woreda Cooperative Promotion Office

No	RUSACCOS	Total Members of RUSACCOS	Sample size
1	Bakalcha Bari	503	25
2	Biftu Lammi	462	23
3	Burqaa Goddinna	311	16
4	Abid Waqe	212	11
5	Ejersaa Kontobi	422	20
Total		1,910	95

3.3. Data Source and Method of Collections

To obtain consistent and objective information, various data collection techniques were used. For this study both primary and secondary data were collected. Primary data required for this study were collected from RUSACCO's management committee and cooperative member's using structured questioner. The questionnaire was administered by development agent (DA) who were selected based on their educational background. A one days training was given to the DA on methods of data collection, giving prime emphasis to interviewing techniques and the content of the questionnaire. Questionnaire pretest was conducted and modifications were made based on the feedback of the pretest. In addition to the structured questionnaire, personal observation, key informants and focus groups discussion were held to generate additional information on different activities carried out by RUSACCO's members. Secondary data were extracted from documents such as

Woreda cooperative office, by laws, books, management minutes, yearly reports, audit reports, balance sheets, income statements and other related reports of the RUSACCOs.

3.4. Methods of Data Analysis

Both descriptive and econometric methods were used to analyze the data

3.4.1. Descriptive Statistics

All the data obtained from respondents through questionnaires were organized, tallied and calculated by using descriptive statistical techniques to make them suitable for discussion or interpretation. Descriptive statistics percentages and median were used. To make the analysis of data convenient, raw data was coded and analyzed on question-by- question bases, and the statistical result of the questionnaire was analyzed using mean score and STATA 12.

3.5.2. Econometric Analysis

In order to identify factors that influence the savings behavior of rural members of RUSACCOs in study area multiple linear regressions were used. MLR was used for the measurement of continuous variable, which are saving behavior of SACCOs members in study area. The dependent variable is a continuous nature representing the level of saving by RUSACCOs members' with value of zero and above. Therefore, a multiple linear regression model (OLS) was employed to identify factors that influencing saving behavior of rural saving and credit cooperative, Green (2012), the multiple linear regression model was specified as:

$$Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_k X_k + U_i$$

Where,

Y_i = The dependent variable used to analysis (the saving behavior of SACCOs of members annually), α is the intercept, $\beta_1, \beta_2, \beta_3 \dots \beta_k$ are the partial regression/slope coefficients, $X_1, X_2, X_3 \dots X_k$ are the independent variables used to explain the dependent variable, U_i

is the random/error term, the error U_i is happen due to measurement error between dependent variable and independent variable.

Where,

X_1 = Age (in years)

X_2 = Sex of respondents (Male or Female)

X_3 = Family size (Number of Dependents)

X_4 = Marital status (dummy)

X_5 = Education of respondents (in years)

X_6 = Annual income (in Birr)

X_7 = Distance to RUSACCOs office (in km)

X_8 = Annual expenditure (in Birr)

X_9 = Amount of loan borrowed (in Birr)

Test of assumptions of OLS

Detection of Multicollinearity: Multicollinearity may cause lack of significance of individual independent variables, while the overall model may be strongly significant. It may also result in wrong signs and magnitudes of regression coefficient estimates and consequently incorrect conclusions about relationships between independent and dependent variables (Maddalla, 1977). Variance inflation factor (VIF) was employed to detect the existence of multicollinearity among explanatory variables.

Detection of Heteroscedasticity: Heteroscedasticity occurs when the error term has non-constant variance but all other assumptions of the classical linear regression model are satisfied, then the consequences of using the OLS estimator to obtain estimates of the population parameters are: still unbiased, OLS estimator is inefficient (it is not BLUE), the

estimated variances and covariance of the OLS estimates are biased and inconsistent and hypothesis tests are not valid. The result estimates are not even consistent in other word the regression coefficient is upward biased. This study tested the existence of hetroskedasticity by employed Breusch-Pagan test using STATA command *hottest* and the remedies for hetroskedasticity is robust the model.

Detection of Specification error: Functional form and hypothesis testing are directed towards improving the specification of the model or using that model to draw generally narrow inferences about population. Specification of the functional form is important, because a correct explanatory variable may well appear to be insignificant or to have an unexpected sign if an inappropriate functional form is used. There are numerous types of errors that one might make on the specification of the estimated equation. Perhaps the most common ones are the omission of relevant variables and inclusion of superfluous variables. This can be detected by *ovtest* through STATA command (Gujrati, 2003). No rule of thumb for specification error, the only means is trial and error until included relevant variables which omitted before and excluding superfluous variables in the model.

3.5.3. Definition of Variables and Working Hypotheses

3.5.3.1. Definition of dependent variable

The level of savings: it is a continuous variable. It measured by birr. For the effective functioning of the cooperative movement, behavior of savings of members' of RUSACCOs is the pole of the development. The members of the RUSACCOs were making themselves aware of the problems and have the willingness to contribute to the progress of the RUSACCOs in socially and economically. Therefore, by assigning the behavior of savings of RUSACCOs members as a dependent variable, the following factors were selected to analyze whether they explain the behavior of the savings of RUSACCO members' or not.

3.5.5.2. Definition of independent variable

Age of the respondent: Is the period from the respondent's birth to the time of the interview. It is a continuous variable. As age increases farmers would acquire knowledge and experience through continuous learning and the level of responsibility to manage the

family and the need to accumulate assets for tomorrow becomes high. These variables were hypothesized that it has positive impact on the magnitude of savings of members. (Rehman *et al.*, 2010) found that age of the respondents directly related to household savings.

Sex of the respondent: This is a dummy variable that takes a value of 1 if the member of RUSACCOS is male and 0, otherwise. The literature assumed that male headed households have more exposure and access to information and new interventions than female headed households. As Gedela (2012) study showed that male headed households save more than female headed households. Therefore, it was hypothesized that, male cooperative members expected to have a positive relationship with the magnitude of savings.

Family size: It indicates the total number of members in the family. This is a continuous variable. As the members' family size increases, the ability to save was decreased. (Bendig *et al.*, 2009) found the family size to be related negatively to annual savings magnitude. Hence, it was hypothesized that the family size was directly or inversely related to the members' decision to the magnitude of annual savings and influencing the magnitude of savings negatively.

Marital status (MARTS): It is a dummy variable and takes the value of 1 if the respondent is married, 0 others. It is assumed that married households can handle and manage their overall farm activities than households who divorced or single, that enabled them to produce more income and save more. As study (Marzieh *et al.*, 2013) stated that married households are more economically developed than single households. Therefore, married cooperative members expected to have a positive effect on the magnitude of savings.

Education of members: This represents the level of formal schooling completed by the household head. It is a continuous variable. Educated members are expected to have more exposure to the external environment and accumulated knowledge through formal learning which might enable them to pursue livelihood strategy that leads to better income through making use of available opportunities, which lead to increased household consumption

level. (Oliveira *et al.*, 2003) also found that education level of the household heads had positively related to the magnitude of savings. Therefore, education levels of the cooperative members have a positive impact on the magnitude of savings.

Annual income: It is a Continuous variable. Total annual income earned from sale of agricultural products, petty trade, off-farm activities, and livestock products by improving its productivity to secure the members' basic needs and gradually to change the household members' life style. As (Abdelkhalek *et al.*, 2009) stated that annual income positively affects the saving level of the household. Hence, the variable was hypothesized that it has a positive impact on the magnitude of savings of the members of RUSACCOS.

Distance to RUSACCOS office: Distance is measured in terms of Kilo meters. It is a continuous variable. The long distance to SACCOS was discouraging members' participation in the cooperative and it becomes difficult to follow up and control the operational system of the cooperatives. Study founded by Chemonics International (2007) stated that distance is a major barrier to formal financial saving and other markets in rural areas. Therefore, it was hypothesized that distance to SACCOS' office is negatively influencing the magnitude of savings.

Annual expenditure: It is a continuous variable. It refers to the sum of household expenses on the food item, production items, clothing, education, health, etc. The more the respondents squander, their saving reduces. Therefore, it was hypothesized that this variable has a positive relationship with the magnitude of savings of the members of RUSACCOS.

Amount of loan borrowed: RUSACCOS members borrow loan from their societies. It is a continuous variable. Increasing savings will develop confidence and on the other hand, if members of SACCOS have limited capital to save regularly and have the commitment of to repay the loan, they can't increase their savings, therefore the Amount of loan was hypothesized that it has a positive or negative association with the magnitude of savings.

Table 3.2. Description of the variables, measurement and their expected hypothesized

No	Variable description	Measurement	Expected sign
1	Age	Year	+
2	Sex of respondents	Dummy	+
3	Family size	Number	-
4	Marital status	Dummy	+
5	Education of respondents	Year	+
6	Annual income	Birr	+
7	Distance to RUSACCOs office	Km	-
8	Annual expenditure	Birr	+
9	Amount of loan borrowed	Birr	+/-

CHAPTER FOUR

RESULT AND DISCUSSIONS

This chapter discusses the analytical results of the study. The first section of this chapter presents the descriptive results of the study. This is followed by the discussion of the econometric model Results

4.1. Demographic and socio economic characteristics of sample households

Table 4.1.1: Age of respondents

Age	Frequency	Percentage
20-35	50	52.63
36-45	21	22.11
46-60	20	21.05
60 and above	4	4.21

Source: Computed from the field survey data

The answers of respondents to their age are outlined in the Table 4.1.1 shows, the majority of the respondents 20-35 then 50(52.63) are from the age of 36-45 then 21(22.11) from the age of 46-60, followed by 20(21.05%) from age of 60 and above 4(4.21%). The result indicates that more than 75% of respondents 'members were in their productive age. This data implies that the RUSACCOS respondents' member were in their productive age

Table 4.1.2. Marital Status of the respondents

Marital Status	Frequency	Percentage
Unmarried	0	0
Married	73	76.84
Divorced	19	20
Widow	3	3.16

Source: Computed from the field survey data

As shown in table 4.1.2 the majority or 73 (76.84) of the respondents are married, 19(20) divorced and 3(3.16) widow. The result shows that the most customers of consumer cooperative in the study area were married people. Most of the member of RUSACCOs were after married

Table 4.1.3 Education status of the Respondents

Education status of the Respondents	Frequency	Percentage
Illiterate	35	36.91
1-4 Grade	34	35.79
5-8 Grade	19	20
9-12 Grade	7	7.3
Diploma and above	0	0

Source: Computed from the field survey data

As indicated in table 4.1.3 the educational status of the respondents are from beginner to higher education. The majority of the respondent are illiterate 35(36.91%) followed by 1-4

Grade 34(35.79%) and 19 (20%) of them are from 5 to 8 grade. In addition, 7 (7.3%) of the members are from grade 9 to 12. The most majority of the respondents are illiterate for the data collection. The study results depicted that, as the educational level of the sampled respondent's increases, the average RUSACCOs members' savings also increases. Therefore, cooperative members who have higher education level on average save more than lower education level members of the cooperatives. Education helps to obtain knowledge and skill to direct their business. Education helps the members to know and understand how to manage their money and profitably handled. Education improves the ability of individuals to attain, process, and develop information through different sources.

Table 4.1.4 Gender of the respondents

Gender Representative	Frequency	Percentage
Male	21	22.11
Female	74	77.89

Source: Computed from the field survey data

As shown in table 4.1.4, respondents figure comprised of 21(22.11%) male and 74 (77.89) female. Therefore, the majority of the respondents were female. This was because women members exceed the male in terms of numbers at the study area because of women and child office and cooperative office awareness creation to women participation and women empowering.

Table 4.1.5 Annual Income of Respondents

No	Characteristics	N	Mean	Max	Min	St.dev.
1	Annual Income	95	17,623.79	72,020	6000	13304.15

Source: Computed from the field survey data

Annual income is one of the parameters to measure the changes in economic gain of the RUSACCO. Total annual income is an important variable explaining the characteristics of households, in that those who have earning relatively high income could probably have high participation on the savings. The main sources of income for the sampled RUSACCOs

members are sale of agriculture, sale of off farm activities, sale of vegetable, sale of livestock products and others/ salary.

Table 4.1.6 Monthly income of the sample respondents

No	Monthly Income	Monthly income	
		frequency	Percent
1	Less than 700	54	56.84
2	700-1500	21	22.11
3	1500-2000	13	13.68
4	Above 2000	7	7.37
Total		95	100

Source: Computed from the field survey data

Income is an important determinant of saving. Income is positively related with savings. When the income of the individual's increases, savings also increases and when the income of the individuals decreases the rate of savings also decreases. The change in income signifies the changing growth rate in savings.

The findings from the table above show that member SACCOs the majority of respondents 56.84 percent had monthly income Less than 700 birr, 22.11 percent of respondents had incomes between 700-1,500 birr, 13.68percent of respondents had incomes between 1,500-2,000 birr and 7.37percent of respondent had income above 2,000 birr. The main sources of income for the sampled RUSACCOs members are sale of agriculture(crop), sale of off farm activities, sale of vegetable, sale of livestock products and others/ salary. The average annual income of the sample respondents was 25,465.89 birr. The analysis result shows 66persons of the sample respondents obtain an annual income from crop production, 27 persons from off-farm activities, 8 persons from vegetables, 60persons from livestock production. This shows that, crop production and livestock production are main income sources for the sample RUSACCOs members. The mean annual income generated from crop production, off farm activities, vegetables, livestock production and salary was Birr 8929, 8485, 2325,10054 and 0respectively.

Table 4.1.7 Sample respondent response by Sources of income

No	Source of income	N	Mean	Max	Min	St.deviation
1	Agriculture	60	8929	37500	1200	6954
2	Off-farm activities	27	8485	18800	500	5821
3	Vegetable	8	2325	6000	5000	1989
4	Livestock	60	10054	2600	1000	5182
5	Salary	0	0	0	0	0

Source: Computed from the field survey data

4.2. The major problems of RUSACCOS

Table 4.1.8 Sample members' response on the problems of RUSACCOS

No.	Types of Problems	Agree		Disagree		Total
		Number	Percent	Number	Percent	
1	Lack of finance of the SACCOS	89	93.68	6	6.33	95
2	Lack of Skilled Man Power in the line of income generating activities	82	86.33	13	13.68	95
3	Lack of information in the line of income generating activities	84	88.43	11	11.58	95
4	Weak management capacity	70	73.68	25	26.32	95
5	Members' weak business management capacity and lack of business diversification opportunities	75	78.94	20	21.06	95
6	Short loan repayment period	60	63.16	35	36.84	95
7	Limited loan amount available	72	75.78	23	21.22	95
8	Lack of record keeping system	55	57.89	40	42.11	95
9	Poor saving habits of members	82	86.31	13	13.69	95

Source: Computed from the field survey data

Due to lack of finance available, RUSACCOs are often forced to prioritize lending (resulting in queues) and ration the quantity of credit. It is observed from the above table that about 93.68 percent of the respondents agreed that there is a lack of the finance of RUSACCOs Members' high demand for loans means less money for investment by the RUSACCOs. In addition to this, only 6.33 percent of respondents disagreed with that the lack of finance of the RUSACCOs.

When respondents asked to response, whether lack of professional manpower was a challenge for RUSACCOs expansion or not, 86.33 percent of them agreed that RUSACCOs do not have professional skilled manpower. The sample respondents reported that, due to lack of skilled manpower RUSACCOs have limitations to the development and expansion of saving and credit activities. During the course of the research study it was observed that many RUSACCOs do not have adequate auditors, accountants and other cooperative experts to support the cooperative activities.

About 88.43 percent of the respondents agreed that there is lack of information of members in the line of income generating activities. This indicates majority of cooperatives members in the district have lack of information gap. Only 11.58 percent of respondents disagreed that there is a good information system of members in the line of income generating activities.

With respect to weak management capacity 73.68 percent of the respondents have agreed that the RUSACCOs management committee capacity was weak to manage RUSACCOs activities properly. The rest 26.32 percent of the respondents have believed that RUSACCOs management committees have good skills for management of RUSACCOs activities. In order to expand saving and credit service, the researcher recognized the need for expertise and professionalism. How could this be achieved? This could be achieved in two ways: 1) increased the on-going education as fundamental for the management committee and 2) recruit train and knowledgeable professional work force in light of the financial conditions of the RUSACCO.

Income generation activities are most important to improvement of living standards of the RUSACCOs members. Table4.1.8 indicated that, 78.94 percent of the sample respondents

were agreed that lack of knowledge in income generating activities and it is a decisive factor in challenging the RUSACCOs progresses.

According to the results of the study, 63.16 percent of the respondents agree that the repayment period were one year or six months, regardless of the borrowed amount; so this is one problem that forces non-members not to join in RUSACCO. To encourage to save more and non-members to join to the RUSACCO it is better to extend the repayment periods compared with the other financial institutions.

About 75.78 percent respondents have agreed that limited loan amount available were a challenging for RUSACCOs development. The respondents reported that the amount of loan available for members were very low; on the other hand, the annual saving of the RUSACCOs members were also very low.

As survey result revealed that 57.89 percent of respondents agreed that RUSACCOs lack good record keeping about record showing asset, liabilities, and cash received and paid out. About 42.11 percent of respondents disagreed that RUSACCOs have good record keeping systems that reflect the transaction and financial position of the RUSACCOs.

About 86.31 percent of the respondents have agreed that lack of awareness on saving habit was the critical challenge for RUSACCOs development. Therefore, there is a need to create continuous awareness on the benefits of savings. Government and non-government organizations should focus on these activities.

4.3. Suggestions of the respondents to improve the savings magnitude of members of RUSACCOs

Table 4.1.9 Suggestion's on the improvements of the savings behavior of members

No	Recommendations	Very Important		Important	
		Number	Percent	Number	Percent
1	Promote awareness creation on savings mobilization	72	75.79	23	24.21
2	Provide problem based training for members	70	73.68	25	26.32
3	Strengthen the governance of RUSACCOS	68	71.58	27	28.42
4	Build autonomous and independence of RUSACCO	74	77.89	21	22.11
5	Increase members participation	78	82.11	17	17.89
6	Support RUSACCO's revolving fund for loan	58	61.05	3	38.95

Source: Computed from the field survey data, 2016

Study findings show that, 75.79 percent, 24.21 percent of the sample respondent's responded at the awareness creation on savings mobilization very important and important respectively, 73.68 percent and 26.23.1 percent of the sample respondent's responded at the Provide problem based training for members were very important and important respectively, 71.58 percent and 28.42 percent of the sample respondent's responded at the strengthen the governance of RUSACCOS were very important and important respectively, 77.89 percent and 22.11 percent of the sample respondent's responded at the build autonomous and independence of SACCOs were very important and important, 82.11 percent and 19.89 percent of the sample respondent's responded at the increase members participation were very important and important respectively, 61.05 percent and 38.95 percent of the sample respondent's responded at support RUSACCO's revolving fund for loan were very important and important respectively. Thus, the government and

policy implementer should vigilant the saving and credit cooperatives members in the potential and benefit of RUSACCOs.

4.4. Focus Groups Discussion

The Benefits of the Saving and Credit Cooperatives to the Members: -According to FGD report, benefits of cooperatives to the community and even to members are difficult to measure. Some benefits to members are tangible or direct as in the case of net margins or savings. Compulsory savings are a saving that a member is forced to save a regular basis; it is a membership savings i.e. must be saved on weekly, monthly, seasonal basis depending on the income of the member. As FGD revealed that members improved their living standard and they managed to run their life after being members of SACCOS.

Loan is having some one's money for productive purpose to solve Social problem and that will pay back at agreed period with additional agreed interest. It can be expensive because the borrower will have to pay the loan itself, with additional interest more than or equal to what they produce. Therefore, the loan must be examined and treated carefully and honestly in the SACCO society. According to FGD members of sampled SACCOS used credit to buy agricultural inputs, fattening cattle, trade cereals, house construction and to teach their children's. The results showed that, the majority of members benefited from SACCOS.

Requirements for a Member to get a Loan from RUSACCOs: -The findings revealed that, members used a special form provided by SACCOS to send their application, they used letters to apply for a loan, and members show that they used both forms and letters to send their applications. When interviewed in focus group it was further observed that most of SACCOS lending methodology for issuing loan was on an individual basis, the applicants received loan based on their shares which used to determine the amount to be given. Also the applicants must be the member of SACCOS. After application had been sent forms or letters were discussed by loan committee and signed by loan manager and chair man before loan disbursement. It takes from one day to thirty days for the committee board to conduct the meetings for verification and approval.

Loan applications must have one or more forms of guarantee attached to them, in order to be approved. The first and best form of guarantee is savings, either for the client individually or from a guarantor, however, the savings will never be sufficient to cover the full value of the loan. The savings, as a guarantee, must be locked away (made unavailable to a member) during the full term of the loan. Additional forms of collateral can then be used to guarantee the remaining portion of the loan.

Education and Training for Members and Non-Members: - Education and training is one of the fundamental of cooperatives and the development of sustainable member-owned cooperatives mainly depends on the members having a basic understanding about the activities of their cooperatives. This can also be put into practice through education and training. Education and Training is making sure that all those who are associated with cooperatives have the skill they require in order to carry out their responsibility. SACCOS provide education and training for manager and for committee ie, control, credit, management and for member's.

4.5. Key Informants Interview

Why Non Members Household Not Become Members of RUSACCOS

To identify reasons why non-member households did not join any cooperative society earlier, as informants replied that;

- Cooperatives in the area is not attractive to non-members
- Problem of knowing how
- Weak governance on cooperatives
- In some cooperatives cooperative is not open to non- members
- Lack of education and training is limited
- Profit from cooperatives is uneven
- Committee members aren't implement any work as general assembly decision
- Cooperatives in the woreda not changing members life
- Traditional belief and culture domination

From the above discussion, FGD concludes that the Woreda household has limited awareness about cooperatives.

Women Participation in the RUSACCOs as Members

AS key informants, answered women participation in members in the study area is weak, due to;

- Poor management and poor SACCOS' leaders who do not have member empowerment strategies
- Lack of extension support at establishment up to now
- Lack of awareness about importance of cooperatives deeply
- Weak management capacity of committee members
- Some men's see women do not have the capacity to run a business at rural area
- Lack of transparency between members and committees

key Informants on Factors that have been Influential in the Improvement of Members' Savings Behavior of RUSACCOs

The RUSACCOs in *Yaya Gulele Woreda* have been relatively successful due to members' awareness of the principles and objectives of savings and credit cooperatives and strong commitment of the officials and the management committee of the cooperatives. However, during the past years of the RUSACCO establishment, the RUSACCOs have been confronted with the following problems: -

- Lack of timely external audit;
- Limited knowledge of financial management on how to record data on passbook, personal ledger and general journal.
- Lack of technical support from cooperatives offices
- Limited training and education to members
- Lack of the necessary operating office facilities;
- Lack of participatory planning
- Lack of capital or budget to work

- In adequate promotional activities of the organizing body;
- Less amount of capital as compared to the members of RUSACCOs
- Limited Profit from RUSACCOs likes; dividend and interest rate
- low membership base
- unstable policies and general poverty

General suggestion of Key Informants on the members of Savings Behavior of RUSACCOs

In light of the current problems of savings behavior of members in RUSACCOs, the following interventions should be considered by key informants to mitigate the problem:

- Timely Auditing; many SACCOs members were dropping out due to lack of transparency in financial management and clear report of the status of the balance sheet of the saving and cooperative. So, timely auditing is needed
- The training and education have to be accompanied by career development schemes so as to increase their motivation on habit of savings.
- Create awareness about the overall benefit of RUSACCOs should be continuing on regular basis for members, non- members and committee members.
- Cooperative's office should provide technical support in the areas of financial management (recording, posting, summarizing and reporting transactions)
- It is therefore recommended that the RUSACCOs consider hiring a manager in the future. Provision of practical support on classification of small scale local investment opportunities;

4.6. Econometrics Results- Determinants of RUSACCOS Members' Savings Behavior

Attempts were made to identify factors responsible for variations of the magnitude of savings of members of RUSACCOS and determined by various demographic, socioeconomic and institutional factors. In view of this, efforts were made to include variables found relevant to the model in order to estimate the effects of the hypothesized explanatory variables on benefits of savings and credit cooperatives to the community.

Multiple linear regression models were employed to identify the significant factors that affect that influence the magnitude of savings of members of RUSACCOS by using the OLS in STATA software version 12. For the parameter estimates to be efficient, test of assumptions of OLS were performed using appropriate test statistics.

The five most important diagnostic tests after OLS, heteroscedasticity, omitted variable, normality, multicollinearity and specification, were conducted.

The Heteroscedasticity tests were performed and there was no heteroscedasticity problem (Appendix Table 2). The degree of multicollinearity among explanatory variables was checked using VIF. The result attests that there was serious co linearity which ranging between 1.12 and 2.10 and the mean VIF value was 1.70 (Appendix Table 2). In addition, the model misspecification test also conducted, the result implies that there was no omitted relevant variable in the model which imply that there was no model misspecification error (Appendix Table 2).

Table 6.1.10 Results of the Multiple Linear Regression Model

Variables	Coefficient.	Std. Err.	T	P>t
Age	7.107*	4.134	1.72	0.089
Annualexpenditure	5.620	12.295	0.46	0.649
Annual income	.027***	.007	3.83	0.000
Family size	-90.688**	44.044	-2.06	0.043
Amount ofloanbrowed	-.053**	.0258	-2.08	0.041
Distance to RUSACCOoffice	-41.828	30.990	-1.35	0.181
Sex	76.466	88.858	0.86	0.392
Marital status	12.252	190.147	0.06	0.949
_cons	950.62***	344.659	2.76	0.007
F(16, 86)	18.93***			
R-squared =0.8786				
Adj R-squared = 0.9343				

*Indicates 10% significant level, ** indicates 5% significant level and *** indicates 1% significant level

Source: Model results

Before explaining the result of the model, the overall goodness of fit of the model should be reported. The model goodness of multiple regression model reported using a combination of F-Statistics and R square and adjusted R square. The result of F statistics with a value of 18.93 is statistically significant at 1% level of significant which imply that the model have good explanatory power. In addition, the coefficient of determination or R square shows that almost 87.86% of the variation in the dependent variable is explained by the independent variables. Therefore, from the findings of the F-statistics and R square and adjusted R square indicate that the model is well fit to explain determinates.

A total of 9 explanatory variables were considered in the econometric model, age, total annual income, family size and amount loan borrowed variables were found to significantly influence the behavior of savings members of RUSACCOS except distance from RUSACCOS, gender, education, annual expenditure and marital status.

Age of the household head of cooperative members was significant at 10% probability level and was positively associated with the behavior of savings members of RUSACCOS. The implication is that, as age of the respondent increases by one year, the savings behavior of members of RUSACCOS increases by 7.107 Birr, other things remaining constant (*ceteris paribus*). This would mean older cooperative members are less mobile and engaged in agricultural activities, which are main source of income for majority of rural households. The other reason could be old aged households in the study area are economically active and engaged in several incomes generating activities. This study result was similar with the finding of (Rehman *et al.*, 2010)

The family size was found to be a significant variable in determining the behavior of savings with a statistically significant coefficient at less than 5% probability level, but it is negative correlated to the behavior of savings of RUSACCOS members. The model result showed that, as family member increases by one, the behavior of savings of RUSACCOS members' decreased by 90.688 birr while other variables are kept constant. This result coincides with the findings of (Bendig *et al.*, 2009) that household size negatively affects the demand for savings, as bigger households are likely to consume a large share of their income and have less guarantee.

The model results also reveal that total annual income was positively and significantly at 1% probability level related to the behavior of savings of RUSACCOs members. Other variables are held constant, as a one unit increase on annual income, the behavior of savings of RUSACCOS member's increases by 0.027 birr. This implies that the higher the quantity of annual income could reflect cooperative members' plan of improving its agricultural production and productivity to secure the household crucial needs and gradually to change the household members' life technique. The study result was similar with the finding of (Issahaku, 2011) that annual income had positive and significant impact on the household savings behavior.

The amount of loan received from RUSACCOS was found to be a significant variable in determining the behavior of savings of RUSACCOS members with a statistically significant coefficient at less than 5 % probability level, but it is negatively related to the magnitude of savings of members. Because members have the commitment to repay the loan on time they do not increase the amount of monthly savings. The result shows that, the amounts of loan received from RUSACCOS decreases the magnitude of savings of members by 0.053 birr while other variables are kept constant.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

On the basis of the findings of the results presented in the preceding chapters, this chapter attempts to draw general conclusions and recommendation.

5.1. Summary and Conclusions

Saving is the integral part of the household's income. In economic theory a part of income that is not consumed is saved. The savings play an important role in the economic prosperity and growth of a country. The growth in the economy requires capital so that it may be invested and that capital will be provided by the savings. The nation in the long run rely on domestic savings so this study has high lighten some key factors that highly affect the saving behavior of the people especially in the developing country like Ethiopia. The main objective of this study was to examine savings behavior and identify factors that influence the behavior of savings members' in savings and credit cooperatives in *North Shoa Zone, Yaya Gulele Woreda*.

For this study both primary and secondary data were used. Primary data were collected through household flied surveys using a structured interview schedule; Focus Group Discussion and official key informant's interview were used. Secondary data were collected from reports, research papers, literatures, journals and other relevant sources to supplement household survey data.

Data were analyzed using descriptive and econometrics analysis. OLS econometrics model were employed to identify main factors influencing the behavior of savings of RUSACCOs members. A total number of 96 respondents were randomly selected from four RUSACCOs in *Yaya Gulele Woreda* namely, (*Bakalcha Bari, Burqaa guddinna, Biftu Lammi, Abdi Waqe and Ejersa Kontob*) and 5 focused group discussions were held.

The average annual income of the sample respondents were 24,649.43 Birr. The analysis result shows This shows that, crop production and livestock production are main income

sources for the sample RUSACCOs members. The mean annual income generated from crop production, off farm activities, vegetables, livestock production and salary was Birr 8929.77; Birr 8485.19; Birr 2325; Birr 10054.50 and birr 35179.23 respectively. The main sources of income for the sampled RUSACCOs members are sale of crops, sale of off farm activities, sale of vegetable, sale of livestock products and others. About 66 persons of the sample respondents obtain an annual income from crop production, 27 persons from off-farm activities, 8 persons from vegetables, 60 persons from livestock production. There was a slight improvement in a monthly income of members after joining the RUSACCO and accessing the RUSACCO loans and other RUSACCO services.

According to FGD and key informants the main factors influencing the behavior of savings of RUSACCOs in the study area are: lack of timely external audit, lack of capital, poor saving culture, low membership base, limited Profit from RUSACCOs (likes, dividend and interest rate), limited training and education to members, weak management capacity. OLS econometrics model results reveal that annual income had positive and statistical significant effect on the behavior of savings of member's. Whereas, the age, family size, Distance of saving member had negative and statistically significant effect on the behavior of savings of members of RUSACCOs.

5.2. Recommendations

Based on the findings of the study, the following points need to be considered as possible recommendation in order to improve the saving behavior of RUSACCOs members.

Annual income had positive and statistically significant effect on the behavior of savings of RUSACCOs members. Rural households with higher levels of income have a higher tolerance that can reduce any risk and ensure wellbeing, which will build members confidence to save in the RUSACCOs. So, they are most likely to invest more funds in agriculture. Therefore, implementer should improve the income of households in the lowest income group through diversifying their agricultural activities and income source by engaging different Productive activities and it provides more income to household to save more.

Amount of loan borrowed negatively affected the magnitude of savings of RUSACCOs members. RUSACCO gives a variety of loan products to its members such as inputs (production loan), social, transactions and precautionary loans. The negative relationship indicates with several reasons, inadequate fund for loan, fear of interest rate on credit, poor savings habit of members and low interest rate for savings. According to survey shows, increasing the loan size would increase the production capacity leading to better settlement. Therefore, RUSACCOs could extend credit for their members with reasonable interest rate by mobilizing saving from their members with the collateral of their savings as well as the saving of other members. The researcher recommends that, there is a need to support the financial potentials of the cooperatives through increasing membership; purchasing additional shares; increasing monthly saving amount and mobilizing saving from members are the most important means to improve the financial strength of cooperatives from internal sources. In other way's government and non-governmental organizations should be given external credit to meet the loan demand of the members and implement other business activities through RUSACCOs.

REFERENCES

- Abdelkhalek Touhami, Arestoff Florence, Defreitas Mekkaoui and Mage Sabine. 2009. A Micro econometric Analysis of Households Saving Determinants in Morocco. University of Paris, France.
- Akhtar, S. 1987. Saving income relationships in urban Pakistan: evidence from HIES. *Pakistan Journal of Applied Economic*, 5(1).
- Alila, P. and Obado, P. 1990. Co-operative credit: The Kenyan SACCOS in a historical and prospects. Occasional paper.4. Addis Ababa
- Aron Hailesellasié, Nigus Abera and Getnet Baye. 2013. Assessment of Saving Culture among Households in Ethiopia. *Journal of Economics and Sustainable Development*.4 (15):1
- Assefa Admassie, Gebrehiwot Ageba and Mulat Demeke. 2005. Rural Finance in Ethiopia: Assessment of the financial products of MFIs, AEMFI.
- _____. 2004. A Review of the Performance of Agricultural Finance in Ethiopia: Pre-and Post Reform Periods. (unpublished).
- Azhar, B. A. 1995. Rural Savings: Their magnitude, Determinants, and Mobilization. *The Pakistan Development Review*, 34(4).
- Banerjee, A. V., and Duflo, E. 2011. The Economic Lives of the Poor. *The journal of economic perspectives: a journal of the American Economic Association*. 21(1): 141-167.
- Bartlett, J. E., II, Kotrlik, J. W., & Higgins, C. 2001. Organizational research: Determining appropriate sample size for survey research. *Information Technology, Learning, and Performance Journal*. Available at <http://www.osra.org/itlpj/bartlettkotrlikhiggins.pdf>
- Bendig, M, Giesbert, L and Steiner S. 2009. Savings, Credit, and Insurance: Household Demand for formal financial services in Rural Ghana', BWPI Working Paper. 76p.
- Berhane Kidanu. 2008. The status of RUSACCOs in Ethiopia Report. Work shop held on 22- 24 July 2008, Addis Ababa.

- Bersales S.G.S. and Mapa D.S. 2006. Determinants of Household Saving In the Philippines, EMERGE A GRP Project Supported by USAID, Unpublished Technical Report by Bangko Sentral ng Pilipinas (BSP).
- Brata, A.G. 1999. Household Saving Behavior: The case of rural industry in Bantul. *Analysis CSIS*. 28(1): 75-86.
- Bryman A and Cramer, D. 2001. *Quantitative Data Analysis with SPSS*, London: Rutledge.
- Burney, N.A., and Khan, A.H. 1992. Socioeconomic characteristics and household savings: An analysis of the households' is saving behavior in Pakistan. *The Pakistan Development Review*. 31(1): 31-48.
- CGAP. 2005. *Working with savings and credit co-operatives: Helping to improve donor effectiveness in microfinance*. Donor Brief No. 25. Washington, DC: Pact Publications.
- Chaia, Alberto, Aparna Dalal, Tony Goland, Maria Jose Gonzalez, Jonathan Morduch, and Robert Schiff. 2009. Half the World is Unbanked. Financial Access Initiative Framing Note.
- Chemonics International, 2007. Improving access to financial services in rural Uganda: Rural SPEED final report. Washington DC, Chemonics.
- Chowa, Gina, David Ansong and Rainier Masa. 2010. Assets and child well-being in developing countries. *Children and Youth Services Review*.
- Chukwu, S.K. 1990. *Economics of the Cooperative Business Enterprise*. Marburg, Germany.
- Daneil Belay. 2006. Performance Of Primary Agricultural Cooperatives And Determinants Of Members' Decision To Use As Marketing Agent In Adaa Liben And Lume Districts, MSc Paper, Alemaya University, Ethiopia
- De Gregorio, J. 1996. Borrowing constraints, human capital accumulation and growth. *Journal of Monetary Economics*, 37: 49-71.

- Deaton, A.S. 2005. Franco Modigliani and the Life Cycle theory of Consumption. Banca Nazionale Del Lavoro Quarterly Review.
- Degu, A. 2007. Household Saving behavior and Determinants of Saving in Rural Saving and Credit Cooperatives in Selected Districts of West Amhara Region, Ethiopia. M.Sc. Thesis presented to the school of Graduate studies of Haramaya University, Haramaya.
- Dejene Aredo. 1993. The informal and semi-formal financial sectors in Ethiopia: A study of the Iqub, Iddir, and Savings and Credit Cooperatives, African Economic Research
- Demetriades, P.O., Hussein, A.K., 1996. Does financial development cause economic growth? Time series evidence from 16 countries. *Journal of Development Economics* .51: 387–411.
- Dessalew Asratie. 2009. The role of cooperative in gender equality. The case of Amhara region, Ambo University, Ethiopia.
- Dessalew Asratie. 2014. The Socio-Economic Role of Saving and Credit Cooperatives in Promoting Gender Equality: The Case of Estie Woreda, Ethiopia. *European Journal of Business and Management* .6(1): 1-7 development perspective; Working paper. Finance and Accounting, 2:10-23.
- Desta Beyera. 2004. Impact of community managed irrigation Farm production Efficiency and Household Income: The case of Weliso and Wenchi districts of Oromia Regional states. M.Sc. Thesis presented to the School of Graduate Studies of Haramaya University, Haramaya.
- Ebson, N. 1999. An Ecometric Analysis of private Domestic Saving in Namibia, MA thesis, AAU.
- Elser, L., Hannig, A., Wisniwski, S.E.1999.Comparative Analysis of Savings Mobilization Strategies. Washington D.C: CGAP.
- FCC. 2009. Federal Cooperative Commission (FCC), annual report June 30, 2009.

- Flamini, V. 2009. The Determinants of Commercial Bank Profitability in Sub-Saharan Africa. IMF working paper.
- French, J.R.P. 1960. An experiment in participation in a Norwegian factory. *Human Relations*. 13 (3).
- Gebeyaw Aychile. 2008. Financial Performance of National Bank of Ethiopia Workers' Savings and Credit Association with Special Emphasis to Adjustments.
- Gedela Surya Prakasa. 2012. Determinants of Saving Behavior in Rural and Tribal Households: An Empirical Analysis of Visakhapatnam District, *International Journal of Research in Social Sciences*. 2(8).
- GetachewMergia. 2006. Working paper - sustainable SACCO development.
- Girma Teshome, Belay Kassa, Bezabih Emanu, and Jema Haji. 2014. Saving patterns of rural Households in East Hararghe. *Journal of Development and Development Economics*. 6(4):177-183.
- Gomez, K.A. and A.A.Gomez. 1984. Statistical Procedures for Agricultural Research, John Wiley and Sons, New York.
- Green, H. W. 1990. *Econometric Analysis*. Second ed.: Macmillan Publishing Company.
- Green, W. 1993. *Econometric Analysis*. Macmillan.
- Grinstein-Weiss, M., Zhan, M., and Sherraden, M. 2006. Savings performance in Individual Development Accounts: Does marital status matter? *Journal of Marriage and Family*.
- Gujarati, Domadar N. 2004. *Basic econometrics*. 4th edition, McGraw Hill, Inc., New York
- Gujirati, Domadar N., 1995. *Basic Econometrics*. Second Edition. MacGraw-Hill, New York.
- ICA (International Cooperative alliance). 1995. *Cooperatives. Schools for Democracy – UN Department of public Information, New York. Intermediate Technology Publications Ltd, Great Britain. Pp.37-85.*

- Issahaku, H. 2011. Determinants of household savings and investment in deprived district capitals in Ghana –a case study of nadowli in the upper west region of Ghana. *Continental J, Social Sciences*. 4(1): 1-11.
- Jacob Yaron. 2004. Rural Micro-Finance: The Challenge and Best practice, Tanzania.
- Kabuga, C. and Batarinyebwa, P.K. 1995. Cooperatives: Past, Present and Future. Kampala: Uganda Cooperative Alliance Ltd.
- Karim Moussaly. 2010. Participation in Private Retirement Savings Plans. 200868 (1):192–204.
- Kelly. A. C. and Williamson G. 1968. Household Saving Behaviour in Developing Economies: The Indonesian Case. *Economic Development and Cultural Change*, 6(3).
- Kennedy, P. 1985. A Guide to Econometrics. Massachusetts Institute of Technology Press, Cambridge, Massachusetts, USA.
- Khandker, S. 2000. Savings, informal borrowing and micro finance. *Journal of Bangladesh studies*. pp. 49-78.
- King, R. G. and Levine, R. 1993. Finance and growth: Schumpeter might be right. *Quarterly Journal of Economics*. 108: 717-737.
- Klein, K.K., Richards, T.J., and Walburger A. 1997. Determinants of cooperative patronage in Alberta. *Canadian Journal of Agricultural Economics*.45(2): 93-110.
- Kothari, C.R. 2003. Research Methodology: Methods and Techniques (2nd Ed.). Wishwa Prakashan, New Delhi.
- KUSCO (Kenya Union of Savings and Credit Cooperatives). 2009. Challenges Facing Sacco's.
- Levine, R. 1991. Stock markets, growth, and tax policy. *Journal of Finance*. pp: 1445–1465.
- Levine, R. 1997. Financial development and economic growth: views and agenda. *Journal of Economic Literature*. 35: 688-726.

- Loibl, C., Kraybill, D. S. and DeMay, S. W. 2011. Accounting for the role of habit in regular saving. *Journal of Economic Psychology*. 32: 581–592.
- Maddalla, G.S. 1992. Introduction to Econometrics: 2nd ed. Business Economics: University of Florida and Ohio state University, Mac Milan publishing Company, and New York.
- Mahtsentu, 1981. An Assessment of the Role of the commercial Bank of Ethiopia in savings mobilization and utilization in past Revolutionary Ethiopia. MA thesis, AAU.
- Malombe, G.M. 2011. The effects of dividend policy on profitability of SACCOs with FOSAs IN Kenya, masters research project, university of Nairobi.
- Mark N. H, Joanne L and Elizabeth W. 1999. Determinants of household savings in Australia, Melbourne institute of applied economics and social research, University of Melbourne, University of Melbourne.
- Mark, N.H., L. Joanne and W. Elizabeth, 1999. Determinants of household savings in Australia, Melbourne institute of applied economics and social research, University of Melbourne, University of Melbourne.
- Marzieh L.G. and Kanuk, L. L. 2013. Consumer Behaviour, 9th Ed. Upper Sandle River, NJ: Pearson Prentice-hall.
- Melkamu Engida. 2008. Operating performance and capital structure of Rural Saving and credit cooperatives in Ethiopia, Application of panel Threshold Method, MA thesis, AAU.
- Mengistu Ketema, Mengistu Urge, Nigussie Dechassa, Endrias Geta, Mohammadamin Hussein, Temesgen Keno, and Yemisrach Getachew. 2013. Proceedings of the National Conference on Loan and Saving: the Role in Ethiopian Socioeconomic Development, 15-16 February 2013. Haramaya University, Haramaya, Ethiopia.
- Michael, F, Alfred, H. and Sylvia, W.1999. Saving in the Contest of Microfinance State of Knowledge, Working Group on Saving Mobilization, GTZ.

Ministry of Finance and Economic Development (MoFED). 2009. Growth and Transformation Draft Plan the Federal Democratic Republic of Ethiopia (GTP) 2010/11 2014/15. MoFED, Ethiopia.

Mohammed S and Mohammed M. 2012. A Worthy Factors Affecting Dividends Policy Decisions an Empirical Study on Industrial Corporations Listed in Amman.

Appendix -1

Regression result

Variables	Coef.	Std. Err.	T	P>t
Age	7.107*	4.134	1.72	0.089
Saunplaces	5.620	12.295	0.46	0.649
Totlanualincom	.027***	.007	3.83	0.000
Famsize	-90.688**	44.044	-2.06	0.043
Amtloanborwed	-.053**	.0258	-2.08	0.041
Distancefrmoffice	-41.828	30.990	-1.35	0.181
Sex	76.466	88.858	0.86	0.392
Marstatus				
2	12.252	190.147	0.06	0.949
3	64.385	201.4321	0.32	0.750
_cons	950.62***	344.659	2.76	0.007
Number of obs=95				
F(16, 86) =18.93				
Prob > F =0.0000				
R-squared =0.8786				
Adj R-squared = 0.9343				
Root MSE =309.49				

Appendix-2- Tests of OLS

1. Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
ehat	96	0.98986	0.739	-0.667	0.74747

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of logprd

chi2(1) = 0.63

Prob>chi2 = 0.4265

2. vif

Variables	Tolerance	VIF
AGE	0.791	1.264
AMTLOANBORWED	0.766	1.305
ANNUALEXP	0.299	3.347
EDULEVL	0.287	3.484
FAMLSIZE	0.833	1.200
TOTLANUAIINCOM	0.898	1.113
DISTANCEFRMOFFICE	0.910	1.099
SEX	0.284	3.521
MARSTAT	0.203	4.926

Source: Computed from the field survey data, 2017

3. ovttest

Ramsey RESET test using powers of the fitted values of logprd

Ho: model has no omitted variables

F(3, 78) = 1.82

Prob> F = 0.1496

3. APPENDICES

Appendix 1: Survey questionnaire filled by the selected RUSACCOs members

I am conducting a study on the determinants of saving Behavior of rural savings and credit cooperative members in the case of Yaya Gulele Woreda, North Shao zone, Oromia national state, Ethiopia. The questionnaire items are about the study and I kindly request you to participate in responding to the questions below to help me getting the information needed in my research. The information given was treated as confidential and the results of the study will be used for academic research purposes only.

❖ General Instruction for the enumerator

- Introduce yourself with the selected person
- Interview respondents alone
- Circle the letters for the closed question
- Explain clearly the purpose of the study
- Should be ethical for the data
- Please tick (√) in space provided

❖ General information

Name of the enumerator _____
Signature of the enumerator _____ Date _____
Name of the RUSACCOs _____
Name of the respondent _____

2. Household characteristic information

1. Age of the household head _____ in years
2. Sex of the household head: A. Male B. Female
3. Marital status: A. Single B. Married C. Divorced
4. Education level of the respondent _____
5. What is your Main occupation? A. Farming B. Trade
 C. civil servants D. others (Specify) _____
6. How many people live in your household? _____

3. Saving

1. Do you save regularly in your RUSACCOs? A. Yes B. No
2. What are the main source(s) of income for your regular savings?
 - A. From the sales of agricultural products
 - B. from livestock products and by product
 - C. Non-agricultural activities like, petty trading, wood work and weaving.
 - D. other (specify) _____

3. For how long do you save cash in undisclosed places? ____ Year

4. Types of your saving habit before or after joining the SACCOs

Types of saving	Amount of saving (in birr)
Traditional	
Credit and Saving company	
SACCOs	
Banks	
Others	
Total	

5. What is the amount of total savings you have saved annually in RUSACCO? _____ Birr

6. Do you believe your total annual savings is enough? A. Yes B. No

7. When you save your money in the financial institutions?

A. Monthly B. weekly C. Yearly D. Any time

8. Have you got benefit from your SACCOs? A. Yes B. No

9. If yes, what type of benefit have you got from your SACCOs?

Benefits category	Put a check (√) to benefits
To receive interest rate for saving and annual patronage dividend fund	
To save ,to get loan and easily access to credit	
To Increase know how about alternative business	
For household consumption	
To invest it back to SACCOs	

10. Are you increasing your monthly regular savings from time to time?

A. Yes B. No

11. If the answer is No, what are the main reasons not to increase your annual cash savings?

A. income is low B. High social commitments

C. Family expenditure commitment D. high cost of living E. debt commitment

F. Lack of confidence on financial institutions

G. other (specify) _____

12. What are factors that have been hinder the RUSACCOs in the improvement of members saving behaviors ?

Problems	Agree	Disagree
Lack of finance of the SACCOs		
Lack of skilled Man power in the line of income generating activities		
Lack of information in the line of income generating activities		
Weak management capacity		
Members' weak business management capacity and lack of business diversification opportunities		
Short loan repayment period		
Limited loan repayment period		

Lack of record keeping system		
Poor saving habits of members		
Others (specify)		

13. What are your general suggestions for improving the members' savings magnitude of your SACCOs?

No.	Recommendations	Very important	Important	Less important
1.	Promote awareness creation on savings mobilization			
2.	Provide problem based training for members			
3.	Strengthen the governance of SACCOs			
4.	Build autonomous and independence of SACCO			
5.	Increase members participation			
6.	Provide qualified promoters			
7.	Support SACCOs revolving fund for loan			
	Others			

4. Membership Duration

1. For how long you have been a member of cooperative? _____ (in years)

2. Do you perceive that SACCOs are helpful to members?

Yes B. No

3. What are the constraints you counted by being a member?

4. What suggestions you have to make more people members of SACCOs?

5. Credit facilities

1. Are you credit beneficiary from your RUSACCOs in the last three years?

A. Yes B. No

2. If yes, discuss the change you get?

6. Amount of loan borrowed

1. How much you have borrowed in the last three years? _____ in birr

2. If yes, what was the purpose of taking the loan?

A. for trade B. For household goods

C. House construction D. For Consumption

E. others (specify) _____

3. How many times have you received a loan since you joined SACCOs?

A. First time B. Second times C. Third times

D. Fourth times E. More than fourth times

-
4. Do you ask collateral for loan to the members?
 A. Yes B. No
5. If yes, what the type of collateral?
 A. Savings of the member (borrower)
 B. Member's savings guarantee
 C. Asset of the of the member
 D. Office letter guarantee
 E. Kebele or Woreda administration guarantee
 F. Others (specify) _____
6. Did you face any problem when you ask the loan? A. Yes B. No
7. If yes, what kind of problems have you faced?
 A. Asset collateral
 B. Loan saving amount
 C. Personal Guarantees
 D. Group Guarantees
 E. Permitted less amounts from what you have asked
 F. Others (please specify) _____
8. Did you return your loan on time? A. Yes B. No
9. If No, What are the reasons behind late in loan repayment?
 A. Negligence B. Payment period too short C. UN foreseen events
 D. UN expected expenses E. UN profitable venture
 F. other reason, specify _____
10. What measures do your SACCOs take to control credit default?
 A. Strengthen physical follow up
 B. Strength initial screening of borrowers
 C. Restriction deposit withdrawal from savings
 D. Requesting collateral and collateral substitutes
 E. Giving discount (other incentive) to promote payment
 F. Sanctions (penalties) for late payment
 G. Provide technical support after loan extension
 H. Other (specify) _____

7. Annual income

1. What is your the total annual income?

-
2. What is your major source/s of annual income generation?
 A. sales crop B. horticulture/Vegetable trading C. Livestock production
 D. Off-farm income E. others (specify) _____

3. What is your Cash income from crop production last year (2009E.C)?

No	Types of crops	Amount in Quintal	Income from crop Birr per Q.	Total income in year birr
1				
2				
3				
4				

4. What was your Income from off-farm activities last year (2009E.C)?

No	Income from off-farm	Total working days	Income receive in birr daily	Total income in year birr
1.				
2.				
3.				
4.				

5. What is your income from vegetables production last year (2009E.C.)?

No.	Types of crops	Amount in Quintal	Income from crop Birr per Q.	Total income in year birr
1.				
2.				
3.				
4.				

6. What is your income from livestock production last year (2009E.C)?

No	Types of Livestock	Amount in Number	Income from Livestock in birr	Total income in year birr
1.				
2.				
3.				
4.				

7. What was your income per month after joining SACCOs?

- A. Less than 700 B. 700-1500
 C. 1500 -2000 D. 2000 and above

8. How much share do you have in your SACCOs (number of shares)?

- A. One B. Two C. Three D. more than four

9. How much dividend did you get for the past three years (2007-2009 E.C.)?

- A. 100-600 birr B. 600-1000 birr C. greater than 1000 Birr D. Not yet paid

10. Mention some of the changes that you have seen in your life after you became a Member.

8. Annual expenditure

1. What is the total Annual expenditure? _____ in birr

2. What is your monthly household expenditure before and after joining the SACCO?

Expenditure	Before		After	
	Increased	Decreased	Increased	Decreased
School fees				
Food				
Medical				
Transportation				
Clothing				
Fuel				
Others				

9. Distance from SACCOs Office

How long is the SACCOs office far from your home? _____ Km

Is it appropriate? A. Yes B. No

Appendix 2: Checklist for focus group discussion with management committee

1. What is the existing Status of the RUSACCOs from establishment up to the current year?
2. What are the benefits of the saving and credit cooperatives to the members?
3. What are the requirements for a member to get a loan from your RUSACCOs?
4. Discuss Education and training for members and non-members.

Appendix 3: Key informants interview

1. Why nonmembers household not become members of RUSACCOs?
2. Discuss Women participation in the RUSACCOs as members.
3. Discuss on Factors that have been influence in the improvement of members' savings behavior of RUSACCOs
4. General suggestion on the members of savings behavior of RUSACCOs?

Thank you for your cooperation