

FACTORS AFFECTING THE EFFECTIVNESS OF SAVING &
CREDIT COOPERATIVES IN GURAGHE ZONE

By:

GINBARU TEKLE

A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING,
COLLEGE OF BUSINESS AND ECONOMICS, SCHOOL OF GRADUATE
STUDIES WOLKITE UNIVERSITY IN PARTIALS FULFILLMENT OF THE
REQUIREMENTS FOR DEGREE OF MASTER OF SIENCE (MSC) ACCOUNTING AND
FINANCE.

June,2019

Wolkite, Ethiopia



FACTORS AFFECTING THE EFFECTIVNESS OF SAVING & CREDIT COOPERATIVES IN GURAGHE ZONE

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES WOLKITE UNIVERSITY IN PARTIALS FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SIENCE (MSC) ACCOUNTING AND FINANCE.

By:

GINBARU TEKLE

ID.NO GSE 062/09

MAIN ADVISOR: - AREGA SEYOUM (PhD, ASSOCIATE PROFESSOR)

CO- ADVISOR: - DELELEGNEYOB (MSC)

WOLKITE UNIVERISTY

SCHOOL OF GRADUATE STUDIES

MSC IN ACCOUNTING AND FINANCE

WOLKITE, ETHIOPIA

JUNE, 2019

Declaration

I, GinbaruTekle, declare that this thesis entitled: “Factors Affecting the Effectiveness of Saving & Credit Cooperatives in Guraghe Zone” is outcome of my own effort and study and that all sources of materials used for the study have been duly acknowledged. To the best of my knowledge, this study has not been submitted for any degree in this University or any other University. It is offered for the partial fulfillment of the degree of Masters of Accounting and Finance.

By: GinbaruTekele

Signature _____

Date _____

ADVISORS' APPROVAL SHEET
SCHOOL OF GRADUATE STUDIES
WOLKITE UNIVERSITY
ADVISORS' THESIS APPROVAL SHEET

This is to certify that the thesis entitled "Factors Affecting the Effectiveness of Saving & Credit Cooperatives in Guraghe Zonesubmitted in partialfulfillment of the requirements for the degree of Master's with specialization in Accounting and Financethe Graduate Program of the Department/School of Accounting and Financeand has been carried out by Id. N_oGSE 062/2009, under my/our supervision. To the best of my knowledge, is an original work and not submitted earlier for any degree either at this University or any other University. Therefore I/we recommend that the student has fulfilled the requirements and hence hereby can submit the thesis to the department.

Name of major advisor

Signature

Date

Name of co-advisor

Signature

Date

SCHOOL OF GRADUATE STUDIES
WOLKITE UNIVERSITY
EXAMINERS' THESIS APPROVAL SHEET

=====

We, the undersigned, members of the Board of Examiners of the final open defense by Ginbaru Tekle have read and evaluated his/her thesis entitled "Factor Affecting the Effectiveness of Saving & Credit Cooperatives in Guraghe Zone", and examined the candidate. This is, therefore, to certify that the thesis has been accepted in partial fulfillment of the requirements for the Master's degree in Accounting and Finance.

Name of the Chairperson	Signature	Date
Name of Major Advisor	Signature	Date
Name of Internal Examiner	Signature	Date
Name of External examiner	Signature	Date
Stamp of SGS	Date: _____	

Acknowledgments

At the beginning special thanks to God for helping me in every aspects of my life. Next my special thanks go to closely my entire friend. Who helped me to develop a topic of this study and advices me during this paper work.

My special gratitude goes to my main advisor AregaSiyoum (PhD, Associate Professor) and Delelegn Eyob (MSC) for his guidance to this study and provided me many useful suggestions during my research and study time. Appreciation to all my family who supports me and my friends, without their support it would not have been possible. You inspired me to believe in me, I am grateful.

Again, I extend unique appreciation to the staff work cooperative office districts on SACCOs in Guraghe zone without their cooperation the fieldwork would not have been possible.

Contents

Acknowledgments	V
List of Tables	VIII
Acronyms and Abbreviations:-.....	IX
Abstract.....	X
CHAPTER ONE	1
1. INTRODUCTION	1
1.1 Background of the Study.....	1
1.2 Statement of the Problem	2
1.3 Research Objectives	4
1.4 Research Questions	4
1.5 Significance of the Study	5
1.6 Scope of the Study.....	5
CHAPTER TWO	6
2. LITERATURE REVIEW	6
2.1 Introduction	6
2.2 Historical Background.....	6
2.3 Cooperatives.....	7
2.4 Some Theories of the Evolution of Cooperatives	9
2.5 Saving and Credit Cooperatives (SACCOs)	9
2.6 History of SACCOs in Ethiopian	11
2.7 Types of SACCOs.....	11
2.8 Empirical Review	12
2.9 Monitoring and Evaluation of SACCOs	12
2.10 Factors Affecting the Performance of SACCOs	13
2.12 Conceptual Framework	18
CHAPTER THREE	19
3. MATERIALS AND METHODS	19
3.1 Description of the Study Area.....	19
3.2 Data Sources.....	19

3.3. Sampling Design and Sampling Procedures	19
Table 3.1: Selected number of SACCOs in each woreda	21
3.4 Study variables	21
3.4.1 The Dependent Variable.....	21
3.5 Statistical Methods	22
3.6 Data Analysis	27
CHAPTER FOUR	28
4. RESULTS AND DISCUSSION	28
4.1 Discussion	28
4.1 Effectiveness of SACCOs in Guraghe Zone.....	29
4.2 Indicator of Dependent Variable for Effectiveness of SACCOs.....	29
4.3 Percentage of Independent variable for effectiveness of SACCOs.....	31
4.4 Chi- square	33
Table 4.9 Binary logistic regression output	38
4.9 Interpretations of the result	39
CHAPTER FIVE	47
5. CONCLUSIONS AND RECOMMENDATIONS	47
5.1 Conclusion.....	47
5.2 Recommendation.....	48
References	50

List of Tables

Table 3.1: Selected number of SACCOs in each Woreda.....	21
Table 3.2 Indicators to assess effectiveness of SACCOs measure in PEARLS standard...	22
Table 3.3 List of Variables with their Codes and Descriptions.....	22
Table 4.1: Effectiveness of SACCOs.....	29
Table 4.2: Indicator of dependent variable.....	29
Table 4.3.1: Descriptive Statistics Results of Independent Variables.....	31&32
Table 4.4: Summary for variable in chi-square.....	33&34
Table 4.5 Omnibus Tests of Model Coefficients.....	35
Table 4.6 Model Summery.....	36
Table 4.7 Hosmer and Lemeshow Test.....	36
Table 4.8 Classification Table.....	37
Table 4.9 Binary logistic regression output.....	38

Acronyms and Abbreviations:-

SACCOs:	Saving and Credit Cooperatives
ICA:	International Cooperative Alliance
PPP:	Public Private Partnership
ICTs	Information Communication Technology
MFIs:	Microfinance Institutions
SPSS:	statistical package for social science
RUSACCOs:	Rural Saving and Credit Cooperative society
WCCOu:	World Council Credit Union
DECSI:	Dedebit Credit and Saving Institute
PEARLS:	Protection, Effective financial structure, Asset quality, Rate of return and cost, Liquidity, sign of growth

Abstract

The main purpose of this study was to investigate factors affecting the effectiveness of saving and credit cooperative in Guraghe zone. The study followed simple random sampling research design. Using simple random sampling, 109 sample SACCOs were taken from the study area. Data used primary data collected from board chair person based on designed questionnaires and also data used the logistic regression model was used for the analysis. The major factors that affecting effectiveness of SACCOs are favorable for saving, fair policy and regulation, amount of saving to members, working time, and membership size which has a strong association and statistically significant. In addition the major factors that affect SACCOs effectiveness and statistically significant is level of Equib and Edir. Therefore the researcher recommends SACCOS should give high attention in attracting members to increase their source of fund by providing awareness about the benefit of joining SACCOS by using different social Medias, by creating training programs, through distribution of brochure to clients if fund is available should encourage members to take loan to increase dividend for idle funds, should charge compatible interest rate on loan to members to attract members, and also the government establishes cooperative bank then bank of cooperative to regulate SACCOs cooperative every activities. Finally Federal cooperatives agency should pay attention to decide for the government to establish cooperative bank of SACCOs as they help many people in providing loan as well as saving services and they are one of the financial service providers that highly contribute for effective financial services for the country

Key Terms:*SACCOs factors, SACCOs effectiveness, saving amount and loan size*

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the Study

The International Cooperative Alliance the apex organization that represents cooperatives worldwide (ICA 2004) defines cooperative as an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. It includes agricultural, non-agricultural, unions or savings and credit cooperatives(SACCOs) (Sumelius, 2008). The first Co-operative Society in the world was formed in 1844 in a village in England known as Rochdale, by a group of people referred to as the Rochdale Pioneers, when Britain was undergoing the industrial revolution. SACCOs first appeared in south Germany in 1846 at the time of agricultural crisis and continuous heavy drought in Europe (Birchall, 2004). Ombado, 2009, remarks that the SACCOs were developed to meet the fundamental human need of saving and borrowing in a more cordial business environment. Today SACCO societies have significant role in empowering their members' social and economic status all over the world (Getachew, 2006). SACCOs are user-owned financial institutions that offer both savings and credit services to members. Members of these financial institutions can be both net savers and net borrowers (Getachew, 2006).

Now a day, development is multidimensional and it demands active involvement of governmental and nongovernmental organizations, the society, individuals, financial institutions and etc. All these stakeholders of development are interdependent. Thus a single component of development cannot be analyzed separately. For example, the involvement of individuals and the society in development activities depend on the access of financial institutions that provide loan. The mere presence of financial institutions is not sufficient by itself; but also the loan and saving rule, objective and scope of the financial institutions determine the public participation in investment. At the same time the sustainability of financial institutions depend on the social, economic, cultural and political nature of the given society. Therefore, this research is developed to investigate to assess factors that affect the effectiveness of saving and credit cooperatives in Guraghe zone.

Even they differ in their objective, scope and administration; saving and credit institutions are not strange for human history. Sources indicate that even during in the time of barter system

people were practicing saving and credit activities. For example, in the study area the two dominant forms of saving and credit practices that run in kind were Damada (practices by butter) and Wujo (practiced by milk) can be a good example. Equib and Edir are also traditional saving and credit institutions that have been practiced in Ethiopia for a long period of time. (Dejene, 1993)

Modern saving and credit cooperatives (SACCOs) are a recent history. SACCOs as a legal institution first established in Ethiopia in 1960s. Ethiopian Airline Workers' SACCOs was established in 1956 During the Derg regime (1974-1991), cooperatives were formed to assist implementation of the government policy of collective ownership of property. It was then triggered by reform to the socio political system. Violation of cooperative principles proved to destabilizing cooperative movement in Ethiopia as most of the cooperative were dismantled following the downfall of the socialist system. In 1974, there were about 149 unions and 10,524 SACCOs in Ethiopia. But in 1999, the figure dropped to 7,366 SACCOs. In 2008, the figure again rose to 37,247 primary cooperatives; 245 unions and locally we found those 57,982 primary cooperatives and 375 unions in 2009. (The end of 2009 FCA report)

1.2 Statement of the Problem

Saving and Credit Cooperatives (SACCOs) in Ethiopia are playing active role both in rural and urban areas (Kifle tesfemariam, 2011), and play crucial role in alleviating poverty and promoting investment (Gebreselassie, 2015). They provide loan for those who couldn't access credit services from modern bank system because of different reasons like the amount of guarantee requested by bank. In particular women, youths, farmers and poor people are the primary beneficiaries of SACCOs. Not only by getting loan that these groups are beneficiaries but also SACCO creates and encourages saving cultures of the people (Nkuru, 2015). According to (Kifle, 2011) study factor affecting outreach of SACCOs challenges is Poor infrastructure facilities.

Generally from 1978 to 1990; in Ethiopia SACCOs Savings increased from birr 4 million to birr 69 million, and also Savings per member was 349 birr on averaged over the same period (Dejene, 1993). From this context current saving amount per member average is increased but, evidence from western Guraghe (based on information obtained from key informants in the study area) shows that at present the average saving amount of the members in the Woredas was birr 300 (Guraghe Zone cooperative department report 2009), and the majority of the members are

dissatisfied when taking loans from their SACCOs due to problems associated with administration and the size of loan that is provided to members. The decreasing number of membership in every SACCO with in the study area is an indicator for the decrease in saving habits of the people. (Guraghe Zone cooperative department report 2009)

Conversely, the sustainability and effectiveness of the SACCOs depend on saving culture, politics, social, religion, and economic situation of the given society. Particularly, the effectiveness of saving and credit cooperatives highly depend on the saving culture and income level of the given society since people are coming to such institution only for saving. In principle, the saving level of a given society depends on the income level of the society (Addisu, 2016). Accordingly, in low income and poor society; the saving culture is very low. So it is important to answer the question why? And also researchers conducted on outreach and sustainability of SACCOs factors (kifle tesfemariam), savings has been an important microfinance product which has significant effect on outreach means the amount of saving per member will less(okumu, 2007), savings culture influences the financial performance of SACCOs in the banking sector(Kifle, 2015). Financial services provided, source of fund, credit risk for SACCO's are weak(Nigussie, 2015). Those various research studies identified that the above mentioned factor affecting effectiveness of the SACCO's directly or indirectly. Because, it is difficult to understand its outreach, benefits, sustainability and to analyze without understanding their effectiveness regarding breadth and depth of the saving and credit cooperatives operated in the study area. Therefore it is important and helpful to know and understand the effectiveness of SACCOs in the study area. As a result this study is intended to conduct a study on the factor affecting the effectiveness of saving and credit cooperatives in Guraghe Zone.

Despite such kind of scenario there is not sufficient research based evidences that depicts the effectiveness of saving cooperatives in the study area. Of course, there are researches conducted on assessing the impact of SACCOs in improving the socio-economic condition of the target groups. Thus this research is intended to fill the gap by identifying the factors affecting effectiveness of saving cooperatives in the study area.

1.3 Research Objectives

1.3.1 General Objectives

The general objective of the study is to investigate factors affecting effectiveness of saving and credit cooperatives in Guraghe Zone.

1.3.2 Specific Objectives

The research will address the following specific objectives.

- To investigate the effect of economic factors on the effectiveness of SACCOs in the study area.
- To determine the effect of demographic factors on the effectiveness of SACCOs in the study area.
- To identify cultural challenges of saving & credit cooperatives in the study area
- To assess the effect of socio-political factors on SACCOs effectiveness in the study area.
- To examine the effect of religious factors on the effectiveness of SACCOs in the study area.
- To assess the impact of employee on effectiveness of SACCOs in the study area

1.4 Research Questions

1.4.1 General Research Question

The major question: what are the factors affecting effectiveness of saving and credit cooperative (SACCOs) in the study area?

1.4.2 Specific Research Questions

- What are the economic factors affecting effectiveness of saving and credit cooperatives in the study area?
- What is the effect of demographic factors on the effectiveness of SACCOs in the study area?
- What are social-political factors affecting effectiveness of saving and credit cooperatives in the study area?
- What are religious factors affecting effectiveness of saving and credit cooperatives in the study area?
- What are the impact of employee satisfaction factor affecting effectiveness of saving and credit cooperatives in the study area?

1.5 Significance of the Study

At the end, the research is expected to bring about the following importance. Firstly, governmental and nongovernmental organizations which are working on the area can use the finding of the research as an input in developing plan and strategies to overcome challenges of saving cooperatives. Secondly, saving cooperatives working in the zone and other area can use the research finding as an input in modifying and adjusting their service provision to be more effective. Finally, it can serve as a stepping stone for further research on the area.

1.6 Scope of the Study

Because of shortage of resources and time, the research focuses on specific geographic and thematic areas. Geographically, the research is delimited to Guraghe zone and thematically it focuses only on identifying the factors affecting the effectiveness of saving and credit cooperatives (SACCOs).

CHAPTER TWO

2. LITERATURE REVIEW

2.1 Introduction

This chapter covers the literature review which relates to the subject of this study. This chapter helps to identify and bring out the research gaps.

2.2 Historical Background

The International Cooperative Alliance (ICA, 2005) defines a cooperative as an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically controlled enterprise (Gunga, 2009). This association is meant to embody the values of self-help, honesty, openness, self-responsibility, social responsibility, democracy, equality, equity, solidarity, mutual caring, efficiency, effectiveness, transparency and accountability. ICA further identifies the principles that ought to guide the formation, organization and activities of cooperatives as; voluntary and open membership, democratic member control, member economic participation, autonomy and independence, education, training and information, cooperation among Cooperatives and concern for Community (Gunga, 2009).

Cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly –owned and democratically controlled enterprise (Kejela, 2013).

Cooperatives have played a significant role towards achieving the growth and poverty reduction strategy by promoting income generating activities and improving access to near banking services to rural and urban households (Kifle, 2015).

The fundamental objective of a cooperative is not "to maximize the profits" as in a capitalist company, nor to act initially like "actor of a social change" as in the non-profit-making associations, but "to maximize the benefit which the member users can obtain from their commercial transactions with the cooperative" (Birchall, 2004). In fact, with their cooperative, the members try to obtain the maximum of individual benefit through the particular type of commercial transactions which they carry out with it. It is thus for example, that a SACCO could promote by the mutual aid, the economic and social welfare of its members in their granting

loans to cover their economic needs, by supporting the spirit of initiative and agricultural or industrial local work, by the careful use of the saving produced locally. And also Cooperatives are motivated not by profit, but by providing a service to satisfy members' requirements for affordable and quality goods or services. Cooperatives exist solely to serve their members.

The benefits which can accrue from adherence to the (ICA) principles include; enabling entrepreneurs achieve economies of scale, bargaining power and capacity to invest in more advanced stages of the value chain including storage, processing, marketing and distribution of products and services (Gunga, 2009). Through cooperatives, transaction costs are reduced and relationships with commercial enterprises are built. In addition, as community institutions, cooperatives devolve decision making to the community level, build social capital, nurture community spirit and pride (Reynolds, 1998). Today many governments expect cooperatives to inform policy making and engage in advocacy while the cooperatives themselves seek a more pronounced, active and permanent role in decision-making (Mercoiret, 1999). The shared spirit of cooperation and empowerment leads to engagement in larger projects for the economic gain of the society.

2.3 Cooperatives

The International Cooperative Alliance (ICA, 2005) defines a cooperative as “An autonomous association of persons united voluntarily to meet their Common economic, social, and cultural needs and aspirations through a Jointly-owned and democratically-controlled enterprise”. The seven internationally recognized cooperative principles are:

- Cooperative society shall be voluntary organizations open to all person willing to use their service and able to accept the responsibilities of membership without discrimination on the basis of gender, social status, race, political ideology, disability or religion
- Cooperative societies shall be democratic organizations controlled by their members who actively participate in setting their policies and making decision each member having equal voting right as well as one member having only one vote
- Member shall receive dividends from surplus according to their participation and setting aside an amount necessary for reserve and other services.
- Cooperative societies shall when enter into agreement with other organizations including government or raise capital from external sources, do so on terms that insure democratic

control by their member, maintain their autonomy and do not affect their self-help characteristics.

- Cooperative societies shall provide education and training for their members, elected representatives, managers and employees so as to enable them to contribute effectively to the development of their societies and, advertise to the public at large particularly to the youth about the nature and benefits of societies.
- Cooperative societies shall serve their member most effectively and strengthen the cooperative movement by working together through local, national, regional and international structures.
- Cooperative society shall work for the sustainable development of their community through policies approved by their members. Federal Cooperative Society's Proclamation No. 985/2016.

Cooperative is an autonomous association of having legal personality democratically control by persons united voluntarily to meet their common economic, social and cultural needs and other aspirations, which could not addressed individually, through an enterprise jointly owned and operated on the basis of cooperative principle federal cooperative society's proclamation No 985/2009 E.C. Cooperatives: - are societies who are eligible and who can be organized in saving and credit form of cooperative societies to achieve their common objectives under the Federal Cooperative Society's Proclamation No. 985/2009.

A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly –owned and democratically controlled enterprise (Kejela, 2013).

Cooperatives return surplus income (revenue over expenses and investment) to members in proportion to their use or patronage of the cooperative, and not proportionate to their investment or ownership share.

Cooperatives are motivated not by profit, but by providing a service to satisfy members' requirements for affordable and quality goods or services. Cooperatives exist solely to serve their members.

2.4 Some Theories of the Evolution of Cooperatives

Wave Theory: We should not be surprised to see waves of cooperative organization, especially in depressed times, followed by waves of cooperative failures.

Wind-It -Up Theory: Once they have secured the terms they require, competitors may adjust their prices or improve their services such that the group (i.e., the cooperative) becomes redundant. The cooperative has achieved its purpose and the members, considering that it is now obsolete, may wind it up.

Pacemaker Theory: The very existence of a successful cooperative makes for greater efficiency amongst the competitors, so that even when price and service adjustments have been effective, the organization is kept in being to fulfill a pacemaker role.

2.5 Saving and Credit Cooperatives (SACCOs)

SACCOs: - is a cooperative financial institution that is owned and controlled by its members and operated for the purpose of promoting thrift, providing credit at low interest rates and providing other financial services to its members (Addisu, 2016).

A savings and credit cooperative is a cooperative financial organization owned and operated by and for its members, according to democratic principles, for the purpose of encouraging savings, using pooled funds to extend loans to members at reasonable rates of interest and providing reetailed financial services to enable members improve their economic and social well-being.

Saving and credit cooperatives are recognized by law and the cooperative society's regulations.

2.5.1 Theoretical Review

This section discusses and articulates the relevant theories and concepts on how savings and credit cooperative society's especially economic, social & political, factor affecting the effectiveness in Guraghe Zone. It builds a case to justify the study. Under this approach prediction models are constructed based on some theoretic arguments. These theories include classical and neoclassical theories. Each of these theories makes assumptions regarding the behavioral aspects and how it is affected by savings and credit cooperative organizations effectiveness.

2.5.1.1 Social Capital Theory

The social capital theory by Stein 1960 postulates that when people act or function in a group such as a cooperative society or self-help group, it leads to the economic and social

development of the group, individuals in the group and the immediate community where such group operates from (Anderson, Locker, & Nugent, 2002; World Bank, 1998). Social development is the improvement in relationship between people while the economic development is divisible into two parts as improvement in financial condition and physical progress such as material acquisition. This is significant since economic development does not take place without increase in physical material acquisition and financial resources (Jainaba, Dana, & Muhammad, 2005; Oluyombo, 2013).

The economic development in social capital theory includes improvement in economic condition of the people which may be physical and financial. Assets acquisition is physical economic development while enterprise profit, saving and income are financial economic development. Cooperative societies as economic and social networks can influence members' behavior towards assets building through the provision of loans. However, borrowing is voluntary and the loans have minimal interest.

2.5.1.2 Neoclassical Theory

The neoclassical theory advanced by Marshall (1842-1924) argues that the way individuals respond to changes in incentives can be predicted. It suggests that individuals behave rationally when deciding on asset accumulation. Some economic models of the neoclassical theory postulate perfect knowledge and access to perfect market by individuals (Beverlyetal, 2008). But this is not possible in for most of the low income earner and small business owners. The early models of the theory identify income and age as the predominant factors for asset building, but Sen (1999) reveals that assets can be accumulated through sources other than income.

Recent models, as seen in Adjei, Arun and Hossain (2009), Grinstein-Weiss et al. (2007) and Oluyombo (2013), have shifted to the use of savings and credit cooperative societies which works based on the philosophy of low interest loans for members either for individual, jointly or separately in asset accumulation for members who came together to pool up the resources together for their own benefit. The theory assumes that individuals and group members through savings and credit cooperative societies have been able to take a big achievement in economic & social welfare.

2.6 History of SACCOs in Ethiopian

Modern saving and credit cooperatives (SACCOs) are a recent history. SACCOs as a legal institution first established in Ethiopia in 1960s. Ethiopian Airlines Workers' SACCOs was established in 1956s. During the Derg regime (1974-1991), cooperatives were formed to assist implementation of the government policy of collective ownership of property. It was then triggered by reform to the sociopolitical system. Violation of cooperative principles proved to destabilizing cooperative movement in Ethiopia as most of the cooperative were dismantled following the downfall of the socialist system.

Saving and credit cooperatives (SACCOs) means a society established to provide saving, credit and loan-life insurance service to its members. Loan-life insurance means an insurance given by a cooperative society its members to cover loan taken by deceased member before full repayment of debt. (Federal Cooperative Society's Proclamation No. 895/2016).

According to (Addisu, 2016) saving and Credit Cooperative societies (SACCOs) are cooperative financial institutions owned and controlled by members. It is established for the purpose of encouraging saving, and by mobilizing pooled funds they provide loan service to its members at a reasonable rate of interest and other financial-related services to enable members improve economic and social conditions (Galor, 1995).

2.7 Types of SACCOs

Saving and credit cooperative established to service rendering to members i.e. service oriented Federal Cooperative Society's Proclamation No. 895/2016.

According to Bwana and Mwakujonga (2013), various types of SACCOs exist, depending on the membership profile and the products extended to the SACCO members differ accordingly. In essence, there are three broad categories of SACCOs :(Addisu, 2016).

- Community-based SACCOs: These SACCOs can be found in urban areas or regional towns, but are most frequently encountered on village level. A variety of group and individual loans can be found, including women solidarity loans, business loans for individual members, or loans for small and micro enterprises.
- Employee-based SACCOs: These represent SACCOs where all the members are drawn from one employer and these SACCOs are generally located in urban areas or regional

level. Specific salary-based loans are extended which are often guaranteed by the employer.

- Agricultural SACCOs: To date these represent primarily small-scale cane growers in areas such as the rural region. Both individual farmers and farmers' associations can be clients of the SACCO. Loans are extended for various purposes, including agricultural production loans, for investment, small trade, for education

2.8 Empirical Review

SACCO's are formed with sole purpose of improving member's welfare thorough returns on savings and loans facilities among other products. SACCO's advance loans to members at relatively lower interest rates compared to other financial institutions. Additionally, SACCO's reach clients in rural and or poor areas which are un-entered to by banking institutions. This makes SACCO's are more attractive to customers as the preferred financial institutions (Osofi, 2014).

Kifle (2012) also conducted a research entitled The Impact of Savings and Credit Cooperatives in Ofla Woreda Tigray Region of Ethiopia. The study conducted Pearson correlation analysis to determine the relationship between income (profit) and the independent variables. Only four variables deserve attention (seniority, saving, loan size, and number of times loan availed). The study found that there was significant positive correlation between seniority, saving, size of loan, Number of times loan availed and post income of the respondents. Similarly for profit, there is significant and positive correlation between seniority, the size of loan and number of times loan availed and profit from economic activities while the variable saving had significant negative correlation with the profit. The study also came out with a range of reasons in response to the question 'why have non-members not joined the SACCOs? Non-members stated that no perceived benefits, sense of ownership, lack of awareness about saving, especially illiteracy with in management level, lack of information and high interest on loan are the critical problems of SACCOs. Different literatures have mentioned ways of measuring performance of SACCOs in various ways.

2.9 Monitoring and Evaluation of SACCOs

An appropriate Monitoring and Evaluation system developed in order to investigate the performance level of SACCOs it is important for improved growth. SACCOs should be properly

monitored and evaluated if they are delivering their services to members as planned. The proper and efficient utilization of their resource with the given time frame should be assessed (Porteous *et al.*, 2005). Besides, this assists to take corrective measures in time if deviations are identified; to ensure sustainability. In most SACCOs however properly monitoring and evaluation is non-existent due to inadequacy in structured and systematized monitoring and evaluation system, trained manpower and the required facilities, poor recording and handling of data, and inadequate knowledge and skill (Porteous *et al.*, 2005).

2.10 Factors Affecting the Performance of SACCOs

The performance of SACCOs depends on their operational efficiency (Nyanjwa, 2008). Performance of SACCOs is greatly hampered by low capacity to operate and manage their activities. There is no standardized performance measurement tool to evaluate the status of SACCOs. In spite of this measurement using certain indicators, such as profitability, asset quality, signs of growth and rates of return and costs, some indication of performance can be found.

The important indicator of performance is the rates of return and costs where the members' dividends, operating expenses and return on assets are put into consideration. Compared to other finance institutions, SACCOs have low operating expense ratios- the primary ratio to determine efficiency (Nyanjwa, 2008). These societies have low levels of institutional capital; they are not generating sufficient profit to maintain a strong capital position. This is explained also by their low level of saving mobilization due to the fact that their members are poor sections of the society. The limited capacity of members to utilize loan able funds and deterring lending procedures to utilize the available fund effectively has led to poor performance of the SACCOs (Nyanjwa, 2008).

There are various factors that determine membership these include; easy availability of loans and other benefits; prejudices and discrimination against gender; illiteracy and lack of awareness; factionalism and heterogeneity of population; disparities in wealth and social status; interference by politicians; and misunderstanding about the motivation member perception and objectives of people's organizations. Mishra *et al.*, (1984) classify the factors affecting people's participation and membership into six categories, namely, physical and biological; economic; political; social; cultural; and historical. Further, Korten (1983) identifies three categories of obstacles to people's

participation, namely, obstacles within the (programmed) agency; obstacles within the community; and obstacles within the society. All these factors can be summarized into resource-specific, user community-specific, agency-specific, programme-specific and environment-specific factors.

Resource centrality (importance of the resource as a means of survival), resource scarcity (quantity of the resource/resource products/resource benefits available vis-a-vis the local demand), ownership of the resource(s), gestation (waiting time involved) and uncertainty about availability of the resource/benefits, location of the resource, divisibility of the resource/resource products, and feasibility of exclusion of free riders from sharing the benefits from the resource are the major resource-specific factors affecting people's participation (Korten, 1983).

A number of socio-cultural characteristics including beliefs and values of the community affect their participation in SACCO programmes. The most important community-specific factors determining people's participation and membership include socioeconomic structures for instance Homogeneity and heterogeneity of a community in terms of caste, class, ethnicity, assets, income, etc., (CIRDAP1984). Values and beliefs that are rooted in its culture, tradition, and history, inculcate attitude and behavior and as such influence membership (Korten, 1983). Awareness of locals is conceded as another factor that influences membership either for or against the SACCO.

Mishra *et al.*, (1984), recognize the SACCO-specific factors affecting membership which include; their structures, systems, norms, and personnel policies. The most important is that the locus of decision-making should be centrally placed with the members for the purposes of securing and sustaining membership. Devolution of Financial and Administrative Power is another factor which enhances people's participation and ownership. Lastly, Attitudes, Values and Skills of SACCO Personnel and personnel policies can also make or break membership depending on the perceptions conceived by members upon interaction with personnel.

Kifle (2011) identified some of the challenges facing SACCOs in his research entitled management of savings and credit cooperatives from the perspective of outreach and sustainability: Evidence from Southern Tigray of Ethiopia based on information obtained / data collected through interview schedule and key informants in the study area. According to this

researcher, lack of awareness about the benefits of the services provided by SACCOs in mobilizing savings and poor saving culture, weak organizational arrangement and governance problems.(Nigussie, 2015).

According to Kifle (2011) SACCOs are managed and run by elected committee members since voluntary and member-driven cooperatives are considered to be key tools to build economies of scale, improve management skills and change attitudes. The committees' ability to manage these financial cooperatives depends on the members' willingness, commitment, literacy level and the level of voluntarism. The management committees' commitment, dedication and management style can significantly affect the growth and development of SACCOs. In addition, personal quality is required from each committee member in terms of personal integrity, competence and commitment (Nigussie, 2015).

Zerfeshewa B. (2010), identified in her research entitled determinants of saving and credit cooperatives (SACCOS) operational performance in Gondar town, Ethiopia by using primary and secondary data collection method for sampled SACCOs in Gondar area mentioned that the challenges of SACCOs are Governance weakness: SACCOs are usually governed by a volunteer board of directors elected by the membership i.e. they are not professional persons; small, young. SACCOs are also often staffed entirely by volunteers. Inadequate regulation and supervision, which means competent external regulation and supervision can identify, avoid and resolve many common problems experienced by SACCOs and credit unions, Limited Menu of Products: greater variety of products, such as housing loans and use better tools to assess and manage loan risk., Damage done by external credit, etc. that supports Kifle (2011).

The major challenges inherent in the SACCO in Kenya are the poor governance and limited transparency in the management of cooperatives; lack of capacity in management, market intelligence and market research; weak capital base; infrastructural weaknesses (International Monetary Fund 2007). There is also limited infrastructure, high deployment and maintenance costs, inadequate financing or adoption of 'high-margin low volume' financing models, lack of awareness and 'disposable' income for ICTs within 13 rural areas (Okello 2006) All these challenges may be easily overcome by employing an administrative approach that exploits the potential public private partnership (PPP) in ICT and management information system environments.

Policy and Regulatory Environment: lack of a separate financial cooperatives law to promote cooperative banking is a major constraint to the development of SACCOs. Low Capital Base /share and saving amount very small/: SACCOs are preoccupied with facilitating access to finance for their members only rather than working towards developing savings based financial cooperatives with business concept. Weak institutional capacity, lack of differentiated products: he observed that there is no clearly articulated and defined financial product development and revision policy within the Ethiopian SACCOs. Inappropriate loan security requirements: The personal guarantor requirement inhibits some members from borrowing because a given guarantor has to be a non-borrower and cannot borrow until his obligation as guarantor is settled (transferred), getting a guarantor is difficult and threats from other Financial Institutions (MFIs) (Kifle, 2011).

In addition to this (MulunehAlemu, 2012) in his article Financial Inclusion Buttress incomes, assets, reduce vulnerability to shocks, mentioned as SACCOS faced various challenges, which undermine their institutional and financial sustainability in Ethiopia. The major challenges include inadequate legal, policy and regulation for government: SACCOS as financial regular and voluntary savings are the principal sources of the primary society's capital base and they are very small to support the lending programs and ensure sustainability of SACCOs, Weak governance: SACCOs are unable to employ high caliber management staff and the burden of due diligence is left to SACCO members who may have limited education on financial management and cooperatives, and Poor infrastructure facilities: Most of the RUSACCOs have no adequate infrastructure facilities including office space and office facilities necessary to run their operations so, it is not favorable to saving for SACCOs member. (Nigussie, 2015)

Wolday (2015) revealed the challenges related with the rural primary SACCOs and unions in Ethiopia include: huge demand for loan and limited capacity to meet the demand, limited capacity SACCOs to mobilize saving, limited membership size, lack of financial education, lack of linkages among primary and secondary SACCOs, lack of linkages between SACCOs and formal financial institutions, lack of tailored funding products of commercial banks for the development of cooperatives, limited amount of saving, limited financial products, limited managerial and technical capacity of SACCO management committees and weak financial reporting, and high dependency on government promoters;

Research finding in Tigray region showed that most of the SACCOs were inefficient with a very low overall efficiency score of 0.213. Only 5.5% of the rural saving and credit cooperatives were found to be working at technically efficient level, while the rest are found to be inefficient. The average efficiency was 21.3% which indicates that there is substantial amount of inefficiency among rural saving and credit cooperatives in the study area (Kifle and Haile Michael, 2012).

There are limited saving opportunities for the senior members in the SACCO and this hinders the performance of the with respect to savings mobilization which is a key requirement for any financial institution including SACCOs (MartinMuriuki, 2010).

2.12 Conceptual Framework

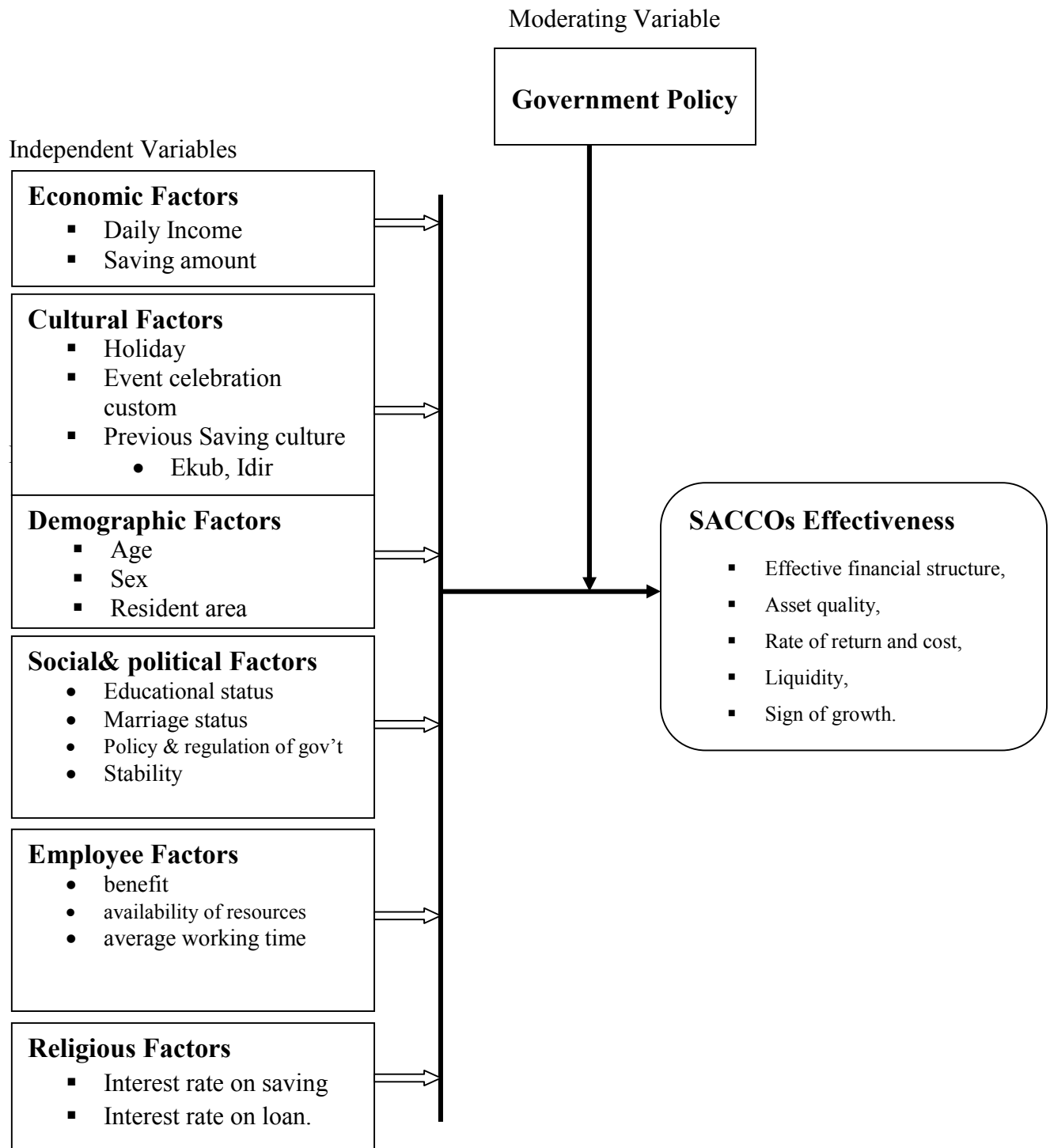


Figure 2.1 conceptual frame work of the study

Source: Adapted from Muriuki (2010, page 24)

CHAPTER THREE

3. MATERIALS AND METHODS

3.1 Description of the Study Area

This study was conducted in Gurage Zone. Gurage zone is one of the thirteen Zone and five special Woredas in SNNPR states. It shares boundary with Hadiya and Yem special Woreda in the southwest and west, Oromia Region in the north and east and Silt'e in the southeast. Its highest point is Mount Zebidar. According to the Gurage Zone Finance and Economic Development (GZFED), 2017, published report, Zone has 13 woredas and two urban administrations with 412 rural and 50 urban kebeles. The Zonal center town wolkite found on the distance of 155 km and 259 km from the capital city of the county Addis Ababa and Regional city Hawassa respectively. Topographically lies within the elevation ranging from 1000 to 3,600 meters above sea level. Gurage Zone has four agro-ecological climates; - Wurchi 4.1%, Dega 27.5%, weyinadega 65.3%, kola 3%. It covers 5893 square kare meter area of land and it had a total population size 1,724,324, from this male covers 836896(48.53%) and Female also shares 887428 (51.47%). Out of total population productive human power (15-64) coverage was 54.4%. The study covers all the thirteen Woredas and the two city administrations in the Zone.

3.2 Data Sources

Primary sources of data were used to answer the research questions. Primary data was collected from the target through scientific data collection method. The primary data was gathered through administering structured questionnaire. The questionnaire was then distributed to selected sample respondents/SACCOs management especially more experienced person board chair person. Unpublished documents and reports from SACCOs office in the study area were used to substantiate the primary data.

3.3. Sampling Design and Sampling Procedures

The target population for this study is all saving and credit cooperatives currently operating in Gurage zone. Simple random sampling method, which is a sampling procedure in which each item or person in the population has the same chance of being included in the sample, was used. The selection of the elements was done by using lottery method after preparing a frame for the whole saving and credit cooperatives in Gurage zone.

3.3.1 Sample size Determination

To determine the sample size, the study employed the following sample size determination formula.(Cochran, 1977),

$$n_0 = \frac{Z_{\alpha/2}^2 S^2}{d^2} n = \begin{cases} n_0, & \text{if } \frac{n_0}{N} < 5\% \\ \frac{n_0}{1 + \frac{n_0}{N}}, & \text{if } \frac{n_0}{N} > 5\% \end{cases}$$

$$n_0 = \frac{(Z_{\alpha/2} \times S)^2}{d^2}$$

$$n = \frac{n_0}{1 + \frac{n_0}{N}}$$

Where, n=the desired sample size

n_0 = The maximum sample size

N = Population size, which is 596

z= standard normal deviation usually set as 1.96

S = the standard deviation which is found from previous studies in this case we took S = 0.8 (Addisu, 2016)

d= degree of accuracy desired, we take 9%

$$n_0 = \frac{(1.96 \times 0.8)^2}{(0.09)^2} = 111.14,$$

$$n = \frac{111.14}{1 + \frac{111.14}{596}} = 93.67$$

Therefore the sample size is 94.

And after adding 10% non-response rate, the total sample size will be 104. After the sample size has been determined, and then the researcher selected the samples from each Woreda and city administration in Guraghe zone based on proportional allocation. The target population and the

sample size to be selected from each of the Woreda and city administration have been presented in the table below.

Table 3.1: Selected number of SACCOs in each Woreda

No.	Woreda	Number of Cooperatives (N _i)	Selected number of Cooperatives (n _i)
1	Geta	12	3
2	Mareqo	28	5
3	Mihur – Aklil	67	12
4	Abeshige	40	7
5	Gummer	24	5
6	Cheha	54	10
7	Meskan	44	8
8	Enemor	68	12
9	Endegagn	58	11
10	Edja	45	8
11	Wolkite	11	2
12	Butajira	17	3
13	Kebena	50	9
14	Sodo	49	9
15	Wellene	29	5
Total		596	109

Source: Guraghe zone cooperative office in 2010 E.C Report.

3.4 Study variables

The variables included in the study were selected from previously related studies and those affect the effectiveness of saving and credit cooperatives.

3.4.1 The Dependent Variable

The response or dependent variable in this study is effectiveness of saving and credit cooperatives; this is measured by some components which will define the property of effective saving and credit cooperative.

Table 3.2 Indicators to assess effectiveness of saving and credit cooperative measure in PEARLS standard

Indicators	Measure / definition
Effective financial structure	Focuses on the use of sources and uses of fund
Asset quality	Loan to members is the main Asset in SACCO and loan delinquency is the critical issue.
Rate of return and cost	Monitor the return earned on each type of asset and the cost of each type of liability.
Liquidity	Liquidity is the ability of SACCO to meet current demands for funds.
Sign of growth	Growth ratios measures annual changes in saving, loans, net income, expenses, asset, liability, equity, membership, or any other indicator.

Source: PEARLS monitoring system (WCCOu, 2002)

3.4.2 The Independent Variables

The explanatory variables that were included in this study are assumed to be contributory factors for the effectiveness of saving & credit cooperatives are presented with their detail codes and descriptions in table given below

3.4.2.1 Definition of Variables and Its Measurement

Table 3.3 List of Variables with their Codes and Descriptions

Explanatory Variables	Categories
Economic factors	Amount of loan provided to the members, the amount of saving deposit per members and its measurement is natural logarithm
Demographic factors	Number of years after the establishment, favorable area
Cultural factor	Equib, Edir affect saving in year and it is measured in terms of natural logarithm
Religious factor	Level of interest rate that the SACCOS pays for members on their saving & Level of interest rate that the SACCOS charge members on loan provided in terms of percentage
Socio-political factor	Good governance, policy & regulation of gov't.
Employee factor	Befits, working time compare to other financial institutions

3.5 Statistical Methods

3.5.1 Bivariate Statistical Analysis,

The bivariate statistical analysis addresses the marginal effect of a predictor variable on the response without taking into account other predictors.

The chi-square test of independence is employed to investigate factors that explain the variation of the response variable. One of the limitations of this approach (bivariate) is that it does not take

into account the effect of other predictors as it ignores the possibility that a collection of variables, each of which might be weakly associated with the outcome, can become an important predictor of the outcome when taken together (Hosmer and Lemeshow , 1989).

3.5.2 Classical Logistic Regression Analysis

Logistic regression analysis extends the techniques of multiple regression analysis to research situations in which the outcome variable is categorical. (Gellman A. and Hill J., 2007).

Generally, the dependent or response variable is dichotomous (binary) such as (saving or dis-saving, presence or absence, success or failure, etc.). The logistic regression is preferred from multiple regression and discriminate analysis as it results in a biologically meaningful interpretation, it is mathematically flexible and easily used distribution and it requires fewer assumptions (Hosmer and Lemeshow, 1989).

Unlike the discriminate analysis, the logistic regression does not have the requirements of the independent variables to be normally distributed.

There are two main uses of logistic regression: Firstly, to predict the group membership. Secondly, logistic regression also provides knowledge of the relationships and strengths among the variables.

3.5.3 Assumptions of Logistic Regression

As indicated in the above sections, one advantage of the logistic regression is it gives us relaxation and flexible assumptions. There are, however, other assumptions one should consider for the efficient use of logistic regression as detailed in Hosmer and Lemeshow, (1989).

- Logistic regression assumes meaningful coding of the variables. Logistic coefficients will be difficult to interpret if not coded meaningfully. The convention for binomial logistic regression is to code the dependent class of greatest interest as 1 and the other class as 0.
- Logistic regression does not assume a linear relationship between the dependent and independent variables.
- The independent variables need not be interval, nor normally distributed, nor linearly related, nor of equal variance within each group.

- The groups must be mutually exclusive and exhaustive; a case can only be in one group and every case must be a member of one of the groups.
- Larger samples are needed than for linear regression because maximum likelihood coefficients are large sample estimates.
- The logistic regression equation should have a linear relationship with the logistic form of the dependent variable.

3.5.4 Model Description

Since the response variable in logistic regression is usually dichotomous; we usually denote such a response variable as Y , and denote the event $Y=1$, when the subject has the characteristic of interest and $Y=0$, when the subject does not have that characteristic of interest. In logistic regression, a single outcome variable Y_i ($i=1... n$) follows a Bernoulli probability function that takes the value 1 with probability of success $P(x_i)$ or the value 0 with probability of failure $1 - P(x_i)$. This type of variable is called a Bernoulli variable. The independent or predictor variables in logistic regression could be discrete, continuous or a mix of both.

In logistic regression, the relationship between the predictor and response variable is not linear. Instead, the logistic regression function is used, which is the logit transformation of $\log\left(\frac{P(x_i)}{1-P(x_i)}\right)$, and we assume that Y is dichotomous, taking on values of 1 (success) and 0 (failure). In theory population proportion of cases for which $Y_i = 1$ is defined as $P(x_i) = P(Y_i = 1)$ and $Y_i = 0$ is defined as $1 - P(x_i) = P(Y_i = 0)$.

Because of the reasons discussed above, the logistic regression model will be used in order to address the issues under objectives of this study. And in this case, we represent that $Y_i = 1$ if the SACCOs are not effective and $Y_i = 0$, other wise

The expression $P(x_i)$ in logistic regression model can be expressed in the form of:

$$P(x_i) = \frac{e^{(\beta_0 + \beta_1 X_{i1} + \dots + \beta_p X_{ip})}}{1 + e^{(\beta_0 + \beta_1 X_{i1} + \dots + \beta_p X_{ip})}} = \frac{e^{X\beta}}{1 + e^{X\beta}} = \frac{1}{1 + e^{-X\beta}}$$

The relationship between the predictor and response variables is not a linear function in logistic regression; instead, the logarithmic transformation of equation yields the linear relationship

between the predictor and response variables. So an alternative form of the logistic regression equation is the logit transformation of $P(x_i)$ given as follows:

$$\text{logit}[P(x_i)] = \log\left(\frac{P(x_i)}{1 - P(x_i)}\right) = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_p x_{ip} \quad i = 1, 2, \dots, n$$

The coefficient can be interpreted as the change in the log-odds associated with a one unit change in the corresponding independent variable or the odd increases multiplicatively by e^β for every one unit change increase in x .

3.5.5 Parameter Estimation

In logistic regression model an iterative algorithm is necessary for parametric estimation. The general method of estimation that leads to the least squares function under the linear regression is called maximum likelihood. It is this method that provides the foundation for our approach to estimation with the logistic regression model. In a very general sense the method of maximum likelihood yields values for the unknown parameters which maximize the probability of obtaining the observed set of data. In order to apply this must first construct a function called likelihood function. The maximum likelihood estimators of these parameters are chosen to be those values which maximize this function. Thus, the resulting estimators are those which agree most closely with the observed data.

If Y is coded as zero or one then the expression for $P(x_i)$ above provides (for an arbitrary value of β , the vector of parameters) the conditional probability that Y is equal to 1 given x (i.e. $P(Y = 1|x)$). It follows that $1 - P(x_i)$ gives the conditional probability that Y is equal to 0 given x , $P(Y = 0|x)$. Thus, for those pairs (x_i, y_i) , where $y_i = 1$ the contribution to the likelihood function is $p(x_i)$, and for those pairs where $y_i = 0$ the contribution to the likelihood function is $1 - p(x_i)$, where the quantity $p(x_i)$ denotes the value of $P(x_i)$ computed at x_i . A convenient way to express the contribution to the likelihood function for the pair (x_i, y_i) is through the Bernoulli distribution.

$$f(x_i, y_i | \beta) = p(x_i)^{y_i} [1 - p(x_i)]^{1 - y_i}, \text{ where } p(x_i) = \frac{e^{a + \beta x_i}}{1 + e^{a + \beta x_i}}, \quad i = 1, 2, \dots, n$$

Since the observations are assumed to be independent, the likelihood function is obtained as the product of the terms given in the above expression as follows:

$$L(\beta|y, X) = \prod_{i=1}^n f(x_i, y_i|\beta) \dots \dots \dots (*)$$

The principle of maximum likelihood states that we use as our estimate of β the value which maximizes the expression in equation (*). However, it is easier mathematically to work with the log of equation (*). This expression, the log likelihood is defined as:

$$\ln[L(\beta|y, X)] = \sum_{i=1}^n \{y_i \ln[p(x_i)] + (1 - y_i) \ln[1 - p(x_i)]\}$$

To find the value of β that maximizes $L(\beta|y, X)$, we differentiate the above equation with respect to μ and β set the resulting equation to zero. These equations are as follows:

$$\sum_{i=1}^n [y_i - p(x_i)] = 0 \dots \dots \dots (**)$$

$$\sum_{i=1}^n x_i [y_i - p(x_i)] = 0 \dots \dots \dots (***)$$

And these equations are called the likelihood equations. For logistic regression the expressions in (**) and (***) are non – linear in μ and β , and thus require special methods for their solution.

3.1.5.6 Assessing the Goodness of Fit

Measures of goodness of fit are statistical tools used to explore the extent to which the fitted response obtained from the postulated model compares with the observed data. Clearly, the fit is good if there is a good agreement between the fitted and the observed data. As explained above logistic regression model was used to describe and make inferences about the effects of predictors on the response.

There is no guarantee, however, that a particular model of this form is appropriate or that it provides a good fit to the data. So, we need to assess the goodness of fit of the model (Agresti, 1996).

- The likelihood ratio test (LRT or Deviance analysis)
- Hosmer - Lemeshow test

The Wald tests are the most commonly used measures of goodness of fit for categorical data (Hosmer D. and Lemeshow S., 1989). For this particular study the above tests were conducted to assess the goodness of fit of the data.

3.6 Data Analysis

The objective of data analysis is to prepare raw data for statistical interpretation and presentation. The collected data was subjected for a sequence of operations which included editing, coding, classification and analysis using statistical package for social sciences (SPSS). The data was analyzed through descriptive statistics such as percentages and inferential statistics.

CHAPTER FOUR

4. RESULTS AND DISCUSSION

4.1 Discussion

In the sample, there were 109 saving and credit cooperative whose board chairperson or most knowledgeable person in the SACCOs were collect data based on designed questionnaire. These cooperatives are spread throughout the two city administrations and thirteen woredas of the study area. The number of cooperatives found in each Woreda, however, varies considerably. As presented in Table 3.1, out of the 596 saving and credit cooperatives, maximum SACCOs 68 and 67 were found in Enamor and Mohir-Aklil woredas of Guraghe zone respectively, while minimum SACCOs only 11 SACCOs were found in Wolkite city administrative of Guraghe zone. When analyzing the number of cooperatives in relation to the number of each woredas, the highest concentration of sample SACCOs found in the Mohir-Aklil & Enamor woredas in Guraghe zone, while the least was in Wolkite city administration, indicating strong zonal differences in the importance of SACCOs.

The study used factors that affect the effectiveness of saving and credit cooperative in the zone. Logistic regression models was developed and used to know the effect of the factors associated with the probability of being not saving & credit cooperative societies. A number of variables were used to explain the status of SACCOs effectiveness.

To address the objectives of the study, number of techniques in data collection and analysis were applied. Questionnaires were designed and used for collected the data from the SACCO's management committee or board chair persons or more knowledgeable person compare to other management committee. The collected data was analyzed and interpreted in line with the aims of the 109 questionnaires distributed for this research, 109 useable questionnaires were returned giving a response rate of 100 percent, which was considered satisfactory for subsequent analysis. Through the process, shortcomings with the current approaches of running the SACCOs that affect their effectiveness at Guraghe zone were identified.

4.1 Effectiveness of SACCOs in Guraghe Zone

Table 4.1: Effectiveness of SACCOs

Effectiveness of SACCO	Frequency	Percent
Effective	35	32.1
Not effective	74	67.9
Total	109	100.0

Source: Survey Result, 2019

From the above table 4.1, it is revealed that 35 (32%) of saving & credit cooperative societies were effective in Guraghe Zone. While the majority, 74 (67.9%) of the respondents claimed that saving and Cooperative Societies in Guraghe zone were not effective.

4.2 Indicator of Dependent Variable for Effectiveness of SACCOs

Table 4.2: Indicator of dependent variable

Variables	Frequency	Percent
Asset quality		
Applicable	79	72.5
Not applicable	30	27.5
Sign of growth		
Applicable	62	56.9
Not applicable	47	43.1
Liquidity		
Applicable	66	60.6
Not applicable	43	39.4
Rate of return & cost		
Applicable	83	76.1
Not applicable	26	23.9
Effective financial structure		
Applicable	61	56
Not applicable	48	44

Source: Survey Result, 2019

From the above table (Table 4.2), which shows indicator of the effectiveness of SACCOs in Guraghe zone, most of the sample Savings & Cooperative Societies 79 (72.5%) believed that SACCOs Asset Quality has been shown a sign of growth and 72.5 percent of Asset quality were applicable. On the other hand, 30 (27.5%) reported that SACCOs Asset quality didn't show sign of growth, and replied not applicable. 62 (56.9%) of sample saving & credit cooperative societies has been show liquidity and 56.9 percent of sign of growth were applicable. On the other hand, 47(43.1%) reported that SACCOs sign of growth didn't show liquidity, and replied not applicable. Majority sample saving and credit cooperative societies 66(60.6%) has been show a rate of return & cost and 60.6 percent of liquidity were applicable. On the other, 43(39.4%) reported that SACCOs liquidity didn't show a rate of return, and replied not applicable. 83(76.1%) of sample saving and credit cooperative societies believed that most SACCOs rate of return & cost has been show effective financial structure and 76.1 percent of rate of return & cost are applicable. The remaining 26(23.9%) of SACCOs rate of return & cost didn't show effective financial structure, and 23.9 percent of SACCOs were not applicable. Most of sample saving and credit cooperative societies 61(56%) believed that SACCOs effective financial structure has been show rate of return and cost and 56 percent effective financial structure were applicable. On the other hand, 48(44%) reported that SACCOs effective financial structure didn't show rate of return & cost, and replied not applicable.

4.3 Percentage of Independent variable for effectiveness of SACCOs

Table 4.3 Descriptive Statistics Results of Independent Variables

Variables	Frequency	Percent
Place of SACCOs		
Rural	74	67.9
Urban	35	32
SACCOs Favorable for deposit to member		
Yes	63	57.80
No	46	42.20
Amount of saving for member		
Low	66	60.60
High	43	39.40
Equib and Edir		
Yes	45	41.30
No	64	58.70
Compliance to SACCOs By-law adhered		
Regularly	16	14.70
Sometimes	20	18.30
Not adhered	73	67.00
Fair of policy and regulation		
Yes	33	30.30
No	76	69.70
Most member religions		
Orthodox	62	56.90
Muslim	34	31.20
other	13	11.90
Deposit saving without interest		

	Yes	44	40.40
	No	65	59.60
challenges of interest payment			
	Yes	42	38.50
	No	67	61.50
Political influence			
	Low	52	47.70
	High	57	52.30
Staff benefits			
	Poor	54	49.50
	Good	22	20.20
	None	33	30.30
Working time compare to other financial sector			
	Poor	81	74.30
	Good	10	9.20
	None	18	16.50
Membership size growth annually			
	Yes	73	67.00
	No	36	33.00

Source: Survey Result, 2019

From the above table (table 4.3) which shows indicator of the effectiveness of SACCOs in Guraghe zone the majority, 74 (67.9%) of SACCOs in Guraghe Zone were rural SACCOs, whereas, 35 (32.1%) of them were urban SACCOs. On the other hand, 63 (57.8 %) of SACCOs in Guraghe Zone were favorable to saving, while the rest 46 (42.2%) of the SACCOs in the zone were not favorable to savings. Regarding to the amount of saving for members, it is indicated by majority of the members 66 (60.6%) that it was low. 73(67%) of Compliance to SACCOs By-law are not adhered. 33(30.3%) of SACCOs in Guraghe zone were fair of policy & regulation, whereas, majority of the member 76(69.7%) it is not fair of policy & regulation. 62(56.9%) of SACCOs member religion are Orthodox,34(31.2%) of SACCOs member religion are Muslim

&the remainingSACCOs member religion are other.44(40.4%) of SACCOs in Guraghe zone deposit saving without interest, whereas, majority of SACCOs member were not deposit saving without interest. The majority of SACCOs member 67(61.5%) were not challenges interest payment. Most sample SACCOs member 57(52.3%) has been a political influence, on the other hand, the remaining 43(47.7%) were not a political influence. 54(49.5%) of sample SACCOs member were poor staff benefits. Most sample saving and credit cooperative member 81(74.6%) working time compare to other financial sector are poor. The majority of sample saving and credit cooperative societies 73(67%) were membership size growth increase annually.

4.4 Chi- square

Table 4.4: Summary for variable in chi-square

Variable	Category	Effectiveness of SACCOs				Total	Chi square
		Effective		Not effective			
		count	%	count	%		
SACCOs are Favorable for deposit	Yes	32	50.8	31	49.2	63	23.905 (0.000)
	No	3	6.5	43	93.5	46	
Place of SACCOs	Rural	17	23	57	77	74	8.826 (0.003)
	Urban	18	51.4	17	48.6	35	
Equip and Edir factor for deposit	Yes	7	15.6	38	84.4	45	9.635 (0.002)
	No	28	43.8	36	56.2	64	
Compliance to SACCOs By-law adhered	Regularly	8	50	8	50	16	5.733 (0.005)
	Sometimes	9	45	11	55	20	
	Not adhered	18	24.7	55	75.3	73	
Fair of policy and regulation	Yes	14	42.4	19	57.6	33	2.910 (0.012)
	No	21	27.6	55	72.4	76	
Most member religions	Orthodox	26	41.9	36	58.1	62	6.484 (.039)
	Muslim	7	20.6	27	79.4	34	

	Other	2	15.4	11	84.6	13	
Deposit saving without interest	Yes	9	20.5	35	79.5	44	4.598
	No	26	43.9	37	56.1	65	(0.032)
Most member challenges of interest payment	Yes	9	21.4	33	78.6	42	3.576
	No	26	38.8	41	61.2	67	(.051)
Amount of saving for member	Low	29	43.9	37	86	43	10.639
	High	6	14	37	56.1	66	(.001)
Staff benefits	Poor	21	38.9	33	61.1	54	8.984
	Good	10	45.5	12	54.5	22	(.011)
	None	4	12.1	29	87.9	33	
Working time compare to other financial institutions	Poor	24	29.6	57	70.4	81	7.622
	Good	7	70	3	30	10	(.022)
	None	4	22.2	14	77.8	18	
Membership growth annually	Yes	32	43.8	41	56.2	73	13.940
	No	3	8.3	33	91.7	36	(.000)

Source: Survey Result, 2019

From the above table which shows indicator of the effectiveness of SACCOs in Guraghe zone SACCOs favorable for saving and effectiveness of SACCOs, 93.5% were not effective, Most of member religions and effectiveness of SACCOs were not effective. Place of SACCOs and effectiveness of SACCOs, 74% were not effective. Equip&Edir factor for saving and effectiveness of SACCOs 38(84.4%) were not effective. It was indicated by 75.3% of the respondents that the compliance to SACCOs by-laws were not being adhered to means by-law not adhered to and effectiveness of SACCOs 75.3% were not effective. Fair of policy and regulation and effectiveness of SACCOs, 72.4% were not effective. Deposit saving without interest and effectiveness of SACCOs, 79.5% were not effective. Most member challenges of interest payment and effectiveness of SACCOs, 78.6% were not effective, Amount of saving for member and effectiveness of SACCOs, 86% were not effective,

About 87.9 % of the participants felt that the staff benefits were not effective means Staff benefits and effectiveness of SACCOs, 87.9% were not effective, Working time compare to other financial institutions effectiveness of SACCOs, 77.8% were not effective, Membership growth annually and effectiveness of SACCOs, 91.7% were not effective.

4.2.1 Results from Binary Logistic Regression

Before talking about the results and interpretation of the binary logistic regression analysis we need to see the accuracy of the mode how fit to the data. Below we have some common methods of model adequacy checking for binary logistic regression.

4.2.2 Assessing Logistic Regression Model

The omnibus tests are measures of how well the model performs, the chi – square tests the difference between the initial model and the regression model in terms of number of correctly classified subjects or it is the change in the -2 log-likelihood from the previous step. Since the omnibus test is significant the model in final step is better that includes variable.

Table 4.5 Omnibus Tests of Model Coefficients

		Chi – square	Df	Sig.
Final step	Step	6.100	1	0.014
	Block	67.678	7	0.000
	Model	67.678	7	0.000

Cox & Snell R - Square and Nagelkerke R – Square, these are pseudo R - squares. Logistic regression does not have an equivalent to the R-squared that is found in OLS regression. The Model Summary with -2log-likelihood statistics shows the overall fit of the model. In this study Cox and Snell R square is 0.463.

Table 4.6 Model Summary

	-2log likelihood	Cox and Snell R - square	Nagelkerke R - square
Final step	69.160	0.463	0.647

And Hosmer and Lemeshow test a goodness of fit test of the null hypothesis that the model adequately fits the data, since the Hosmer - Lemeshow goodness-of-fit test statistic is greater than 0.05, we fail to reject the null hypothesis that there is no difference between observed data and model-predicted values, implying that the model fits the data at an acceptable level, this proves that the predicted data are not significantly different from the observed data.

Table 4.7 Hosmer and Lemeshow Test

	Chi – square	Df	Sig.
Final step	3.003	8	0.548

Source: Survey Result, 2019

Another way of assessing the goodness of the fitted model is to see how well the model classifies the observed data. So that rather than using a goodness-of-fit statistic, we often want to look at the proportion of cases we have managed to classify correctly. For this we need to look at the classification table. In the classification table, cases with probabilities ≥ 0.50 are predicted as having the event; other cases are predicted as not having the event. According to the result SACCOS who are not effective are 90.5% predicted correctly, for SACCOS who are effective, 74.3 % correctly predicted, and all SACCOS who are included in the model 85.3% were correctly predicted. This table shows how many cases are correctly and how many cases are not correctly predicted, 67 cases from not effectiveness of SACCOS and 26 cases from effectiveness of SACCOS are correct predictions.

Table 4.8 Classification Table

Observed			Predicted		
			Effectiveness of SACCOs		Percentage correct
			Effective	Not effective	
Final step	Effectiveness of SACCOs	effective	26	9	74.3
		Not effective	7	67	90.5
	Overall percentage				85.3

Source: Survey Result, 2019

4.4 Interpretation of the Results

After doing model assessment we can interpret the result which we get from the SPSS software (version 22.0) by Forward Stepwise (likelihood ratio) method, from the method we get 6 variables which significantly predict the dependent variable (effectiveness of SACCOs) which are SACCOs favorable for saving, Equib and Edir affect saving deposit, fair policy and regulation, amount of saving, working time compare to other financial institutions, and membership size annually at 5% level of significance. The log-odds units estimates tell us about the relationship between the predictor variables and the dependent variable (effectiveness of SACCOs), where the dependent variable is on the logit scale. S.E's are the standard errors associated with the coefficients, which is used for testing whether the parameter is significantly different from 0. Wald and Sig., these columns provide the Wald chi-square value and 2-tailed p-value used in testing the null hypothesis that the coefficient (parameter) is 0, the Wald statistic indicates the importance of the predictor variable in the model, If the Wald statistic is significant (i.e., less than 0.05) then the parameter is useful to the model so the 6variables mentioned above are important to the dependent variable (effectiveness of SACCOs) since they are significant at 5% level of confidence. df, this column lists the degrees of freedom for each of the tests of the coefficients. Exp (β), these are the odds ratios for the predictors, they are the exponentiation of the coefficients.

Table 4.9 Binary logistic regression output

Variables	B	S.E	Wald	Df	Sig.	Exp(β)	95.0%C.I for Exp(β)	
							Lower	Upper
Favorable for saving								
No (ref.)								
Yes	-2.490	.808	9.510	1	.002	.083	.017	.404
Equib&Edir affect SACCOs								
No (ref.)								
Yes	1.630	.678	5.786	1	.016	5.105	1.352	19.272
Fair policy & regulation								
Low (ref.)								
High	-1.895	.829	5.233	1	0.022	0.150	.031	.744
Amount of saving								
Low(ref.)								
High	-1.889	0.813	5.398	1	0.020	0.151	0.031	0.744
Working time			6.529	2	0.038			
None (ref.)								
Good	0.306	0.958	0.102	1	0.749	1.359	0.208	8.884
Poor	-2.767	1.278	4.690	1	0.030	0.063	0.005	0.769
Membership growth								
No (ref.)								
Yes	-3.861	1.321	8.543	1	.003	0.021	0.002	0.280
Constant	7.039	1.731	16.534	1	.000	1140.684		

Source: Survey Result, 2019

The regression equation can therefore be expressed as:

$$y = \beta_0 + \beta_1x_{i1} + \beta_2x_{i2} + \beta_3x_{i3} + \beta_4x_{i4} + \beta_5x_{i5} + \beta_6x_{i6}$$

$$y = 7.039 - 2.490x_{i1} + 1.630x_{i2} - 1.895x_{i3} - 1.889x_{i4} - 2.767x_{i5} - 3.861x_{i6}$$

Where,

Y = effectiveness of SACCOs

7.039 = effectiveness of SACCOs in the absence of factor under the study. The other results are interpreted as likewise.

4.9 Interpretations of the result

For the Binary logistic regression analysis we used 12 variables, out of them six variables become significant at 5% level of significance and remaining six variables are insignificant. When we see the significant variable they can tell us something about their relationship with the dependent variable.

From the above table 4.9, SACCOs Favorable for saving is significantly affecting the Effectiveness of SACCO in Guraghe Zone. The board chairpersons who says the saving and credit cooperative is favorable for saving were 0.083 times less likely to be effective than who say yes. Equib&Edir also affect Sacco's effectiveness; the experienced person who says Equib&Edir affect saving deposit were 5.105 times more likely to be effective than not having Equib & Edir, not SACCOs effective. Means Equib and Edir not affected than affected saving for SACCOs effectiveness

Fair policy and regulation the another significant that contribute to SACCOs effectiveness, Board chairperson who says that saving and credit cooperative is Fair policy & regulation were 0.150 times less likely not effective than who say were low. SACCOs board chairperson who says amount of saving is small were, 0.151 times less likely effective than who says high. Working time compare to other financial institutions SACCOs is not compare were, 0.063 times

less likely effective than who says poor, and also board chairperson who says that membership size growth increasing annually in saving & credit cooperative were, 0.021 times less likely effective than who say yes.

The remaining six variables are insignificant these insignificant variables are: - Place of SACCOs, Compliance to SACCOs By-law adhered, Most member religions, Deposit saving without interest, Most member challenges of interest payment, Staff benefits, means we use the data analysis using statistical package for social sciences then put the data the result is above 5% level of significant because these six variables above 5% level of significant so, the insignificant variable they cannot tell us something about their relationship with the dependent variable.

Demographic factor Favorable for saving

A researcher in Kenya supported SACCOs poor governance and limited transparency in the management of cooperatives; lack of capacity in management, market intelligence, and market research; weak capital base; infrastructural weaknesses (International Monetary Fund 2007). There is also limited infrastructure, high deployment and maintenance costs, inadequate financing or adoption of 'high-margin low volume' financing models, lack of awareness and 'disposable' income for ICTs within 13 rural areas (Okello, 2006). All these challenges may be easily overcome by employing an administrative approach that exploits the potential public-private partnership (PPP) in ICT and management information system environments

According to (Kifle, 2011) study factor affecting outreach of SACCOs challenges is Poor infrastructure facilities: Most of the RUSACCOs have no adequate infrastructure facilities including office space and office facilities necessary to run their operations so; it is not favorable to saving for Sacco's member the result is a positive relationship with SACCOs outreach. The study further established that good public relations of the Sacco with its members will strong association membership size and the fact that returns from the Sacco grew with the increasing membership as indicated by 112(80%) and 58(83%) of the respondents against 18(13%) and 14(10%) who were in disagreement respectively. (JOHN MAINA MWANGI, 2011)

Sacco's effectiveness in table 4.9 analysis the result 0.002 significant at 0.05% level of significance which show that there is a strong association between favorable for saving and SACCOs effectiveness. This implies that in the study area SACCOs which have adequate

infrastructure means; they have their own office, equipment, and professional employee and Sacco's infrastructure like office appearance, office equipment so, SACCOs in study area take well office appearance, office equipment, and software for financial monitoring part to attract member as a result member save to SACCOs.

Economic factor for saving amount

Saving as a requirement appears good for any institution that deals with credit" Patrick (2008). Saving is basic in SACCOs to get any benefit. Forced saving is common in SACCOs that are formed in different organizations by employees and also there is voluntary saving. Forced saving means members are expected to save at least the minimum level to be a member in SACCOS. As it can be seen from the above tables 4.9 amount of saving has a strong association with SACCO's effectiveness at 0.05% significance level which shows that there is strong association between saving amount and SACCOS effective. In the study area SACCOs focusing the internal fund mobilization from member saving this implies that as SACCOS continue to get more deposit, the total asset of SACCOs & internal resources more. Also loan disbursement per individual member is more.

Researcher(Nigusie Dibissa, 2015) used the classical linear regression model ,This is supported by amount of saving has a positive relationship which is 0.79 with loan size at 1% significance level which shows that there is strong relationship between saving and loan size similarly with MEMB which is also 0.41. This implies that as SACCOS continue to get more funds, members also receive higher loan size in average (NigusieDibissa, 2015). Ndiege B.O, Haule T.B. and Kasungu I. (2013) when they conducted a research on Relationship between Sources of Funds and Outreach in Savings and Credits Cooperatives Societies: Tanzanian case. Their finding was SACCOS continue to get more funds from commercial banks their members also receive higher loan size in average. In addition Okumu (2007) also clarified that savings has been an important microfinance product which has significant effect on outreach. Regression analysis was conducted to empirically determine whether saving culture was a significant determinant of financial performance. Regression results reveal that there was a positive relationship between the two variables. Therefore, an increase in saving culture affects financial performance positively. However, it is evident that members' savings can only influence the financial performance of SACCOs positively up to a certain level, beyond which the financial performance tends to decrease ; The results further indicated that the relationship between

financial performance and saving culture was positive and significant ($b_1 = 0.193$, p value, 0.000). This implies that an increase in saving culture by 1 unit leads to an increase or improved financial performance by 0.193 units. (HANNAH WAITHERA KIARITHA, 2015)

Also other researcher (NyankomoWamburaMarwa, 2015) used a multiple linear regression to investigate the joint causal relationship between the independent and dependent variables. Objective of the study was to establish if savings culture influences the financial performance of SACCOs in the banking sector in Kenya. 60% agreed that SACCOs that have more savings make more profit than SACCOs with fewer saving, 62% agreed that the government should set a mandatory minimum for savings by all Sacco members in order to promote SACCO growth and 63% agreed that for SACCOs to perform better, they need to be aggressive in encouraging member savings. The mean score for the responses was 3.71 which indicate that many respondents agreed that saving culture was a key driver of financial performance of SACCOs. The findings imply that there was a constant saving culture for the SACCOs.(NyankomoWamburaMarwa, 2015)

Membership size

The study sought to find out the growth of SACCOs by the number of members the SACCOs had. Results indicate that a slight decline in the year 2007 from 3823 members to 3685 in the year 2009 and then an incline to 4658 in the year 2012. The findings imply that the SACCOs were doing well as an increase in the member's performance of SACCOs. This is contrary to the findings of Gicheru, MigwiandM"Imanyara (2011) whose findings indicated those members' contributions were low due to low patronage.

The study further established that good public relations of the Sacco with its members will strong association membership size and the fact that returns from the Sacco grew with the increasing membership as indicated by 112(80%) and 58(83%) of the respondents against 18(13%) and 14(10%) who were in disagreement respectively. (JohnmainaMwangi, 2011)

The other indication of SACCO Performance is the impact of on income and asset position of the SACCO. In spite of capital shortage, SACCOs are generating income and also have increased their assets. However, this may not be felt in the coverage and share of the financial market (Wan Yama, 2008). From the available literature, SACCOs have seen a tremendous change in their

assets and income in which most progress is obtained from the increase in the number of SACCOs and with that membership size. The study further established that good public relations of the Sacco with its members and the fact that returns from the Sacco grew with the increasing membership as indicated by 112(80%) and 58(83%) of the respondents against 18(13%) and 14(10%) who were in disagreement respectively. (JOHN MAINA MWANGI, 2011)

We study SACCOs effectiveness in table 4.9 analysis the result 0.003 significant at 0.05% level of significance which shows that there is a strong association between membership size and Sacco's effectiveness. Membership size increase saving and credit cooperative effectiveness also increase

Cultural factor for Equib and Edir

Aklilu (2002) reviews the importance of microfinance institutions in developing economies based on countries' experiences with multiple linear regression models. In the review she suggested for promotion of the existing well-developed institution 'Iddir' to facilitate the growth of formal MFIs like Cooperative, DECSI) so, Edir positive relationship for the development of MFIs.

The researcher used a comprehensive review of annual reports and articles on the development of the financial sector in Ethiopia and for open discussion. The big "traders Eqqub", for example, is different from other types of Eqqub in that the big "traders" 'Eqqub' has a stronger linkage with banks and other MFLs: it is business – oriented. It has developed sophisticated mechanisms for compensating those members with longer waiting time for collecting the pool its transaction costs are considerable and its operations are quite complex, participation in the 'Eqqub' is affected by household characteristics. For example, poorer households have access to 'Eqqub' and not to banks, better off households use the banking system more than poorer ones. People from different age groups and levels of education participate in 'Eqqub's used saving culture in Cooperative Mauri (1987). We study Sacco's effectiveness analysis the result is in table 4.9 Equib and Edir is 0.016 significant at 0.05% level of significance, means SACCOs effectiveness and Equip &Edir are strong associations because every individual member before joining in saving and credit cooperative previously money save for Equip and Edir association so, informal institutions like Equip and Edir saving culture normally developed and also Equip and Edir are internal resource recap for SACCOs especially saving and credit cooperative union the amount of

this money deposit voluntary saving type. Finally, Equib and Edir are the baselines of not only SACCOs but also other formal and informal financial institution so; SACCOs effectiveness is not affected by Equib and Edir.

Socio- political factor for Policy and regulatory environment

Lack of appropriate supervisory and regulatory environment for financial cooperatives including SACCOs could hamper the development of sustainable, financially prudent, and economically viable institutions. There is a need for special financial cooperative law due to the unique feature of financial cooperatives. Due to the lack of an appropriate financial cooperative law, their resources have been tied up and deposited in commercial banks. We analysis binary logistic regression model that fair policy & regulation and SACCOs effectiveness are strongly associated, means if there is no fair policy and regulation for SACCOs saving and credit cooperative are not effective. So, the government establishes cooperative banks; then was initiated as cooperative banks had to regulate under the commercial banks like public & private banks. This cooperative bank each type of cooperative controlled by different policy and regulated method because each type of cooperative is a different character. Especially SACCOs lead by senior manpower in the finance area based on standard financial principles then, it should ensure that this financial sector rules are appropriately applied to protect members against poor financial management, liquidity & source of fund allocation problem solved and also well financial statement prepared for SACCOs. Finally the government should have a regulatory role emanating from its responsibility of establishing procedures to protect both the cooperatives and their representatives.

According to (KifleTefamariam, 2015), lack of a separate financial cooperatives law to promote cooperative banking is a major constraint to the development of SACCOs. Some of the big SACCOs in Addis Ababa (in terms of savings mobilized and assets owned) have surpassed the minimum requirement to establish even a commercial bank according to the banking law of the country, so formed cooperative bank

The major constraint is the lack of adequate trained manpower in the finance area to regulate and supervise SACCOs according to standard financial principles. Many SACCOs complain about the restrictive legal requirement that their accounts be audited by an appropriate authority. Without audit it is difficult to assess whether cooperatives are operating efficiently and are

providing the necessary service to their members or not. Audit is also important to build public confidence in the SACCOs thereby enabling them to mobilize more voluntary savings. Yet, the authority has not been able to regularly audit the accounts of SACCOs due to a shortage of auditors. Recently some have opted to hire external audit firms, but is too expensive for most.

Even though the establishment of an appropriate supervisory and regulatory environment is from borrowing because, given that the guarantor has to be a non-borrower and cannot borrow until his obligation as guarantor is settled (or transferred), getting a guarantor is difficult. It is sometimes argued that the low level of operation of SACCOs as well as the 100% security (through borrower's own savings and guarantee) rendered risk assessment unnecessary. However, this might not be a prudent approach in view of the importance of sustainability in the context of a dynamic environment. SACCOs requirement of 100% security through own saving and member-guarantor is too rigid and restrictive, hence is not a viable option; more so in view of the fact that most members tend to demand loans. Financial cooperatives should thus design an advanced strategy to expand outreach and become a sustainable service provider for the grass root level community. (KifleTeshamariam, 2015)

Employee factor for working time

Findings show that the majority of the firms (61%) were classified in the low efficiency, low efficient time allocation, low profitability category. Only 12% (12 out of 103) of the SACCOs are classified as best performers in both efficiency and profitability dimensions. It can be concluded that the performance of SACCOs in Tanzania needs a well thought through a turnaround strategy to mitigate the problem of low performance. For the majority of the SACCOs, both profit- and efficiency-increasing strategies are required (NyankomoWamburaMarwa, 2015). Resource centrality (importance of the resource as a means of survival), resource scarcity (quantity of the resource/resource products/resource benefits available vise-a-vise the local demand), ownership of the resource(s), gestation (waiting time involved) and uncertainty about availability of the resource/benefits, location of the resource, divisibility of the resource/resource products, and feasibility of exclusion of free riders from sharing the benefits from the resource are the major resource-specific factors affecting people's participation (Korten, 1983).

Research finding in Tigray region showed that most of the SACCOs were inefficient with a very low overall efficiency score of 0.213. Only 5.5% of the rural saving and credit cooperatives were found to be working at a technically efficient level, while the rest are found to be inefficient. The average efficiency was 21.3% which indicates that there is a substantial amount of inefficiency among rural saving and credit cooperatives in the study area (Kifle and Haile Michael, 2012).

An appropriate Monitoring and Evaluation system developed in order to investigate the performance level of SACCOs it is important for improved growth. SACCOs should be properly monitored and evaluated if they are delivering their services to members as planned. The proper and efficient utilization of their resource with the given time frame should be assessed and positively related to the factor affecting the performance level of SACCOs (Porteous et al., 2005)

We study Sacco's effectiveness in the above table 4.9 result working time and SACCOs effectiveness are 0.030 significant at 5 % of the level of significance implies, working time and SACCOs effectiveness positively associated. The majority of SACCOs in the study area saving time are monthly and weekly. From this context most SACCOs office open monthly and weekly but very fewer SACCOs open office daily in the study area, implies SACCOs not use resources effectively but other financial institution working time effectively used not only used standard working time but also uses part-time as a result, SACCOs member saving habit not effective, member shifted to other financial institutions, sense of ownership for member does not happen because SACCOs not use standard time. The Majority of SACCOs in the rural area indicated that there is a not efficiently used time resource in the study area the result is not Sacco's effectiveness in the study area. SACCOs time resources effectively used means member awareness about saving more and more, the employees of SACCOs more benefits because sense of ownership for member will happen when the number of internal resources increase and also income from SACCOs are increase within this time SACCOs employees more salary and other benefits finally, the employees satisfied compare to the previous time so, SACCOs without time and other internal resources effectively nothing to effective and not benefits to member and employee .

CHAPTER FIVE

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

The study revealed that 35 (32.1%) of saving & credit cooperative societies were effective. And also Descriptive Statistics which show the indicator, 63 (57.8 %) of SACCOs in Guraghe Zone were favorable to saving, while the rest 46 (42.2%) of the SACCOs in the zone were not favorable to savings. Regarding to the amount of saving for members, it is indicated by majority of the members 66 (60.6%) that it was low. 67% of SACCOs compliance to by-laws not adhered. 33(30.3%) of SACCOs in Guraghe zone were fair of policy & regulation, whereas, majority 76(69.7%) of sample SACCOs is not fair of policy & regulation. 44(40.4%) of SACCOs in Guraghe zone deposit saving without interest, whereas, majority SACCOs member were not deposit saving without interest. The majority of SACCOs member 67(61.5%) were not challenges interest payment. Most sample SACCOs member 57(52.3%) has been a political influence, on the other hand, the remaining 43(47.7%) were not a political influence. 54(49.5%) of sample SACCOs member were poor staff benefits. Most sample saving and credit cooperative member 81(74.6%) working time compare to other financial sector are poor. The majority of sample saving and credit cooperative societies 73(67%) were member size growth increase annually

In the chi- square significance variable relationship with independently. This significance variable which shows indicator of the effectiveness of SACCOs in Guraghe zone SACCOs favorable for saving and effectiveness of SACCOs, 93.5% were not effective, Most of member religions and effectiveness of SACCOs were not effective. Place of SACCOs and effectiveness of SACCOs, 74% were not effective. Equip&Edir factor for saving and effectiveness of SACCOs 38(84.4%) were not effective. It was indicated by 75.3% of the respondents that the by-laws were not being adhered to means by-law not adhered to and effectiveness of SACCOs 75.3% were not effective. Fair of policy and regulation and effectiveness of SACCOs, 72.4% were not effective. Deposit saving without interest and effectiveness of SACCOs, 79.5% were not effective. Most member challenges of interest payment and effectiveness of SACCOs, 78.6% were not effective, Amount of saving for member and effectiveness of SACCOs, 86% were not effective, about 87.9 % of the participants felt that the staff benefits were not effective means Staff benefits and effectiveness of SACCOs, 87.9% were not effective, Working time compare to

other financial institutions effectiveness of SACCOs, 77.8% were not effective, Membership growth annually and effectiveness of SACCOs, 91.7% were not effective.

Study research binary logistic regression model used and also identified pertinent issues that factor affect the effectiveness of the SACCOs. This study challenges the SACCOs management to consider favorable for saving, policy and regulation, amount of saving, working time and membership size in the effectiveness of the institutions in the zone. It also shows that these institutions are vital in the economic growth of the country as it involves the lower cadre of citizens.

5.2 Recommendation

This study examined factor affecting effectiveness of saving and credit cooperative from selected samples. On the basis of the findings and conclusions reached, the following recommendations were forwarded.

Over all from the result the researcher see that the major effectiveness of SACCOS is saving amount (deposit) from members, policy and regulation and favorable to saving. Therefore SACCOS should give high attention in attracting members to increase their source of fund by providing awareness about the benefit of joining SACCOS by using different social Medias, by creating training programs, through distribution of brochure to clients etc. To be viable financial institutions, SACCOs should attract members to save by setting compatible interest rate that encourage members to save above forced saving that they take to banks. And also the government establishes cooperative bank then bank of cooperative to regulate SACCOs cooperative every activities. . Especially SACCOs lead by senior manpower in the finance area based on standard financial principles then, it should ensure that this financial sector rules are appropriately applied to protect members against poor financial management, liquidity & source of fund allocation problem solved and also well financial statement prepared for SACCOs.

If saving of member is high, SACCOs should encourage members to take loan to improve their life and enhance investment culture in members' also to expose benefits of joining SACCOs as well as to increase dividend payout to members. This could be done by adding their service package such as training on entrepreneurial skills.

SACCOs take well office appearance, office equipment, and software for financial monitoring part to attract member as a result member save to SACCOs.

Finally Federal cooperatives agency should pay attention to decide for the government to establish cooperative bank of SACCOS as they help many peoples in providing loan as well as saving services and they are one of the financial service providers that highly contribute for effective financial services for the country

Recommendations for Further Research

- 1)* It is recommended that further research on the effect of externalities including inflation, on the effectiveness of the SACCOs should be done since its business environment is subject to much external market forces.
- 2)* On the other recommends that further studies should be done on the effect of other factors in the SACCOs such as number of customers, level of technological adoption among others.

References

- (Adissu, 2016): The impact of saving and credit service on the socio-economic status of the rural women in MidaWoremo District.
- Chundu, P. P. (2014). Determinants Of Savings And Credit Co-Operative Society.
- FCA (Federal Cooperative Agency) (2005), Cooperative“ in *Annual Magazine*, vol. 2, n°1, (Amharic), published by Public Relations Section, Ministry of Rural Development, Addis Ababa.
- Gellman A. and Hill J. (2007): *Data Analysis Using Regression and Multilevel or Hierarchical Models*, Columbia University and Columbia University.
- Hosmer D. and Lemeshow S. (1989): *Applied Logistic Regression*. John Wiley and Sons, Inc., New York.
- John MainaMwangi, 2011. The role of saving and credit cooperative societies in financial Intermediation in Nairobi country
- (KifleTsfamariam, 2012). The Impact of Savings and Credit Cooperatives in OflaWereda Tigray Region of Ethiopia.
- (Kifle Tesfamariam, 2011). Management of Savings and Credit Cooperatives from the Perspective of Outreach and Sustainability: Evidence from Southern Tigray of Ethiopia.
- (M.Muriuki, 2010) Factor affecting SACCOs performance in meru south district.
- (Dejene, 1993). Informal and semi-formal financial sectors in Ethiopia: case of Equub, Eddir, &saving and credit cooperative society.
- (Magali, 2013) SACCOs Sustainability in Tanzania.
- (Mohammed.S, 2011) Financial sustainability and outreach of SACCOs in Uganda
- Mwelukilwa, J. S. 2001 the Role Cooperatives Play in Poverty Reduction in Tanzania
- Mauri, A. 1987.The role of financial intermediation in the mobilization and allocation of household saving in developing countries
- Effect of internal factors on performance of SACCOs in Kenya: a case of kisii country. (Nkurun, 2015)
- (Nigusse, 2015) Determinants of Savings and Credit Cooperatives Societies (SACCOs) outreach in Addis Ababa.
- (Proclamation No.985/2016) Cooperative society’s proclamation.
- (Porteous *et al.*, 2005) Factor affecting performance level of SACCOs

(WCCOu, 2002) Annual report, world council credit union 2002

Tabachnick B. and Fidel L. (1996): Using Multivariate Statistics, 3rd edition. Harper Collins

Zerfeshewa B, 2010. Determinants of saving and credit cooperatives operational performance in Gondar town.

(NyankomoWamburaMarwa, 2015)Efficiency and sustainability of Tanzania saving and credit cooperative

Aklilu (2002) reviews the importance of micro finance institutions in developing economies based on countries' experiences

Cochran, 1977 sampling techniques third Edition

The International Cooperative Alliance (ICA, 2004).

Ndiege B.O, Haule T.B. and Kazungu I. (2013) Relationship between Sources of Funds and Outreach in Savings and Credits Cooperatives Societies: Tanzanian case

(Korten, 1983) The major resource-specific factors affecting people's participation.

Appendix: 1 letter of introduction

Re: Research Report Questionnaire

This is introducing to you academic based research study being conducted by Ginbaru Tekele. The research topic is **factors affecting the effectiveness of saving and credit cooperative**. I kindly request for your assistance in filling the attached questionnaire to enable me complete my research. The questionnaire is strictly for academic purposes and any information given shall be treated with strict confidentiality; please give the information as accurately as possible. Thanking you in advance and I look forward for your support and cooperation.

Yours sincerely

Ginbaru Tekele

Appendix 2: Questionnaire for RUSACCOs in Guraghe Zone

The questions below are meant to be answered by SACCO's management committee/board chair person/ in Guraghe Zone.

Instruction:-

- i. Do not write your name in the questionnaire.
- ii. Where there are boxes please tick the appropriate boxes as per your SACCO
- iii. Where there are lines please give your views as per the questions.

SECTION A

Demographic factor

Respondent Profile

1. Most of your SACCOs member age bracket (Years:]
18-29 30-39 40-49 50-59 60-69 70 and above
2. Most of your SACCOs member Gender: - Male Female
3. Most of your SACCOs member Marital status: - Married single any others
4. In your SACCOs favorable to member for saving? Yes No
5. Where is your SACCO occupation area? Rural Urban
6. From your SACCO, membership growth in annually? Yes No

SECTION B

Economic factor

1. Did Most of Your SACCO member can get daily income? Yes No
2. How often do member save in your SACCOs? Monthly quarterly
semi-annually annually Other-----
3. In your SACCOs, monthly amount of saving contribution for members? low high
4. Did there any benefits that member develop from the SACCOs? Yes No
5. Did you believe that sources and use of fund are properly used for your SACCOs?
Yes No

SECTION C

Cultural factor on effectiveness of SACCOs

1. Is there Equib&Edir for your SACCOs occupation area? Yes No
2. Do Equib&Edir affect your SACCO's member monthly saving deposit? Yes No
3. In your SACCOs, did member take a loan for the purposes of event celebration custom?
Yes No
4. In your SACCOs, did any saving type of deposit with in Holiday is effective? Yes
No

SECTION D

Social & Political factor on effectiveness of Guraghe Zone SACCOs

1. Does your SACCO have by-laws? YES NO
2. If yes, to what Compliance to SACCOs By-law adhered? Regularly Sometimes not adhered to
3. According to by laws, the maximum number of terms should a committee member serve two terms with a six year are fair. YES NO
4. Did Gov't policy and regulation with in the SACCOs are fair. Yes No
5. In what terms can you describe the following aspects about your SACCO (Tick where appropriate)

Biased recruitment	Low	Medium	High	None
Bribery	Low	Medium	High	None
Improper use of funds	Low	Medium	High	None
Stability	Low	Medium	High	None
Staff turnover	Low	Medium	High	None
Political influence	Low	Medium	High	None

SECTION E: Religious factor on effectiveness of SACCOs

1. Most of your SACCOs member’s religions? Orthodoxewahido Muslim other
2. From your SACCOs member’s religions interest is challenged? Yes No
3. Without interest rate member’s want to save from your SACCOs? Yes No
4. Without interest rate member’s want to take loan from SACCOs? Yes No

SECTION F: employees factor on effectiveness of SACCOs

1. In what terms can you describe the following aspects about your SACCO (Tick where appropriate)

Working time compare to other financial institutions	Poor	Good	None
Staff benefits	Poor	Good	None
Availability of resources	Poor	Good	None

SECTION G: - effectiveness of SACCOs on dependent variable

Indicators	Measure		
Effective financial structure	From your SACCO sources and use of fund are effective. i.e.		
	Indicators	Applicable	Not applicable
	Net loans/total Asset from your SACCO is 70-80%?		
	Financial investment/total Asset from your SACCO is max 20%?		
	Non-financial investment/total Asset from your SACCO is 0%?		
	Saving deposit/total Asset from your SACCO is 70-80%?		
	External credit/total Asset from your SACCO is 5%?		
	Institutional capital/total Asset from your SACCO is min 20%?		
Asset quality	Loan to members is the main Asset in SACCO and loan delinquency is the critical issue.		
	Indicators	Applicable	Not applicable
	Total loan delinquency/gross loan portfolio is less or equal to 5%?		
	Non-Earning asset/total asset from your SACCO is equal to 5%?		

Rate Of return and cost	Monitor the return earned on each type of asset and the cost of each type of liability.		
	Indicators	Applicable	Not applicable
	On the Asset side, earn highest return are effective?		
	On the liability, the least & the most expensive sources of fund are effective?		
Liquidity	Liquidity is the ability of SACCO to meet current demands for funds.		
	Indicators	Applicable	Not applicable
	From your SACCO liquid Asset /saving deposit are min 15%?		
	Liquidity reserve/saving deposits from your SACCO are 10%?		
Sign of growth	Growth ratios measures annual changes in member share, net income, expenses, asset, or any other indicator.		
	Indicators	Applicable	Not applicable
	From your SACCO financial performance growth in annually like asset?		
	Growth in member share from your SACCO is 10-20% annually?		

Appendix: 3

Effectiveness of saving and credit cooperative in study area

Table 4.1: Effectiveness of SACCOs

Effectiveness of SACCOs	Frequency	Percent
Effective	35	32.1
Not effective	74	67.9
Total	109	100.0

Table 4.9 Binary logistic regression output

Variables	B	S.E	Wald	Df	Sig.	Exp(β)	95.0%C.I for Exp(β)	
							Lower	Upper
Favorable for saving								
No (ref.)								
Yes	-2.490	.808	9.510	1	.002	.083	.017	.404
Equib&Edir affect SACCOs								
No (ref.)								
Yes	1.630	.678	5.786	1	.016	5.105	1.352	19.272
Fair policy & regulation								
High (ref.)								
Low	-1.895	.829	5.233	1	0.022	0.150	.031	.744
Amount of saving								
Low(ref.)								
High	-1.889	0.813	5.398	1	0.020	0.151	0.031	0.744
Working time			6.529	2	0.038			
None (ref.)								
Good	0.306	0.958	0.102	1	0.749	1.359	0.208	8.884
Poor	-2.767	1.278	4.690	1	0.030	0.063	0.005	0.769
Membership growth								
No (ref.)								
Yes	-3.861	1.321	8.543	1	.003	0.021	0.002	0.280
Constant	7.039	1.731	16.534	1	.000	1140.684		