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DEPARTMENT OF ACCOUNTING AND FINANCE

Determinants of Performance of Employees saving and Credit Association in Ethiopia

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A Thesis submitted to Addis Ababa University, The Department of Accounting and Finance presented in partial fulfillment of the requirements for the degree of Master of Science in Accounting and Finance

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Statement of Declaration

I, Daniel Etefa, declared that this thesis entitled as Determinants of Performance of Employees saving and Credit Association in Ethiopia is my original work, prepared under the guidance of Abebaw K (Ph.D.). All resources used in the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution to earn any degree.

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Certification

This is to certify that the thesis prepared by Daniel Etefa, entitled as Determinants of Performance of Employees saving and Credit Association in Ethiopia; and submitted in partial fulfillment of the requirements for the degree of Master of Science degree in Accounting and Finance complies with the regulations of the University and meets the accepted standards concerning originality and quality.

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ACRONYMS

ACCOSCA-----	African Confederation of Cooperatives Saving and Credit Association
EASCA -----	Employees Saving and Credit Association
ENTACCS -----	Ethiopian National Thrift and credit cooperative society
EXP-----	Experience of the members
ExR-----	Exchange rate
FDRE -----	Federal Democratic Republic of Ethiopia
GDP-----	Gross domestic product per capita
INF-----	Annual inflation rate
LS -----	Literacy Status of workers and members of the association
LM -----	Loan Management of the association
PESCA -----	Performance of Employees saving and Credit Association
SACCOs -----	Savings and Credit Cooperatives
SACCODO -----	Savings and Credit Cooperatives Development Office
TA-----	Technology adoption
UnR-----	Unemployment rate

Abstract

The study examines the Determinants of Performance of Employees saving and Credit Association in Ethiopia. The study uses explanatory research design and mixed research approach with both primary and secondary source of data utilized. More specifically, the study adopts a multiple linear regression model. The finding of the study reveals that; loan management, and technological adoption have a negative effect on the performance of the saving and credit associations, and statically significant. On the other hand, saving capacity, experience, and literacy level of members has a positive effect on the performance of saving and credit associations, and statically significant. Furthermore, the variables like GDP per capita, annual inflation rate, exchange rate, and unemployment rate has a positive effect on the performance of saving and credit associations but statically insignificant. This study suggests the associations to look over to increase the saving capacity of the members by introducing different incentive mechanisms like banks are doing. In doing so, it is possible to increase the performance of the associations.

Keywords: Determinant of Performance; saving and credit associations; loan management.

CHAPTER ONE

INTRODUCTION

This chapter provides general information about the research topic in order to give some clues to the readers about the study area. The chapter begins with background of the study then followed by statement of problems, research hypothesis, overall objectives of the study, significance of study and finally scope, limitation and organization of the paper.

1.1. Background of the study

Savings and Credit Co-operative Society (SACCOS) are among the Micro Finance Institutions (MFIs) which are owned and managed by their own members using co-operative principles (Bailey, 2001). They are autonomous association of persons who are united together voluntarily for the purpose of meeting their common economic and social needs through jointly owned and democratic controlled enterprise (Mikwamba, 2004). These economic needs include among others; maximization of profits, enhancement of financial accessibility, harnessing skills of the members, boosting social capital, enhancing advocacy and bargaining power. Others include promoting investment, providing educational opportunities and contributing to poverty reduction (Tache, 2006; Magill 1994). The main objective of these associations is to promote economic interests and general welfare of their members by providing them with avenues for borrowing for the purpose of enhancing production and welfare (Cheruiyot et al., 2012).

Savings and credit cooperatives (SACCOs) are association of people who have come together with common a goal at improving their livelihood economically. They are an important part of the financial sector in Ethiopia proving savings and credit services to a large portion of the population ("Microfinance house," 2006). The first cooperative society in the world was formed in 1944 in a village of England known as Rochdale, by a group of people referred to as the Rochdale pioneers, when Britain was undergoing the industrial revolution (KNFC Website). SACCOs first appeared in South Germany in 1846 when there was Agricultural crisis and drought in Europe (Birchall, 2004).

In context of Ethiopia, ESCAs encourages employees to save a minor percentage of their monthly income as a compulsory membership contribution through its saving account services and also grants loans at a minor cost to all its members. The ESCAs in Ethiopia have recent origins. The oldest ones were established in the late 1960s, and they grew very slowly until 1978. One reason behind such slow growth was the political and social instability which followed the 1974 uprising (Tadele, 2004).

Employees' savings and credit associations (henceforth ESCAs) for purpose of savings and credit in Ethiopia started at the work place where by employees save certain percentages of their income which gives them the entitlement to borrow money for reasons they consider important to raise the living standards of their household (in most cases these include the buying of fixed assets like house, car, machinery to start a business, higher education, marriage, medication of family members, and others (Kolocha, 2014).

ESCAs have been in operation in Ethiopia for more than half a century. They were categorized under Savings and credit co-operatives (SACCOs) and designated as semi-formal financial institutions. They are outside the control of the central authorities' with respect to ownership of assets and management. They are established within governmental organizations and private businesses, and play a significant role in mobilizing deposit and in allowing employees access to loans at a cheap rate. Their deposit collection and loan recoveries are integrated to each organizations payroll system, hence reducing administrative costs. The fact that they are protected by operational rules of organizations reduces their credit risk because an employee cannot default as long as he earns salary every month. In the event of default, loans are recovered from earnings of guarantors who work in the same organization. ESCAs also participate in the investment market by buying shares of different financial and non-financial firms in the country.

The ESCAs, as potential sources of savings in the country, need serious study. The existing literature highly limited to only few studies on farmers unions and other agricultural related cooperatives. Similarly the government also highly attempted to expand union and farmers cooperatives on the rural areas of the country while very little attention is given to ESCAs. Based on this reality it is necessary to determine the financial performance of saving and credit association in Ethiopia by taking a case study of saving and credit association found in Addis Ababa.

1.2.Statement of the Problem

Despite the importance and contribution of saving and credit associations in rendering good services of providing access to financial services among the poor people, they are encountered by a myriad of challenges that are likely to affect their performances (Mmari,2019). With this regard a number of studies are conducted across Africa and some of them are highlighted hereunder.

Mvula (2013) conducted study on factors influencing the performance of saving and credit associations in Malawi. The study found some common issues that were affecting performance of saving and credit associations, and those factors are inadequate capital, poor asset quality, poor governance, poor profitability, poor liquidity and noncompliance. On the other hand, Mudibo (2005) noted that some of the factors that were affecting performance of saving and credit associations in Malawi include among others; weak regulation, limited product and services, low marketing and poor image. Furthermore, ESCAs has been providing service in Ethiopia for more than half a century, for the reason that various challenges that impacts on their performance they have not been able to perform well as compared to the other saving institutions(Tadele, 2004). One of the justifications of the advancement of a financial institution is one that is profitable and has financial sustainability to serve the special needs of its customers. This can be possible if and only if an organization smoothly perform its activities by reducing difficulties that might impact on performance(Tadele, 2004).

With this regard there are only a number of studies conducted. For example, Wakgari (2017) conducted study on the determinants of Performance of Employees Savings and Credit associations in Ethiopia (A case study of ETHIO TELE COM), Kolcha (2004) conducted study on Determinants of Employees' Savings and Credit Associations in Ethiopia: The Case of Addis Ababa University, Ethio Telecom and Ethiopian Airlines Employees' Savings and Credit Associations, Ghebremichael (2014) conducted study on Financial Performance of Rural Saving and Credit Cooperatives in Tigray, Ethiopia. Abebe (2017) conducted study on Governance in saving and Credit Associations Operating in Addis Ababa. However, the previous authors analyzed factors influencing performance of credit and saving associations from single organization perspectives which are difficult to represent all credit and saving associations found in Ethiopia.

In addition to this, the authors were focused only on internal factors by ignoring external factors that determine the performance of credit and saving associations. However, this study considers both factors.

Furthermore, this study tries to determine the determinant factors of performance of credit and saving associations by increasing the number of sample size involved in the study. The aim of this study therefore is to fill this knowledge gap by analyzing factors which influence the performance of saving and credit associations with special emphasis to Addis Ababa city administration. In doing so, the study has considered a lot of saving and credit associations from different sectors. Those are, Hulubante, Waliya transport, Federal police, National Alcohol factory, BGI Ethiopia, Ministry of health, Ministry of construction, ministry of culture, National bank of Ethiopia, and Ethiopian broadcasting cooperation. The rationale behind for including these saving and credit associations are to see if the performance of the cooperation's are affected differently in different sectors. Additionally the study considered the variables form the internal and external factors like Loan management, saving capacity of members, Technology adoption, Literacy status of workers and members, exchange rate, unemployment rate, GDP per capita, and inflation rate. The variables are included in the study because they are considered as the proxy to explain the determinant factors that influence the performance of credit and saving institutions. Furthermore, the variables were not used by many authors like Ergetew (2015); Abayneh (2011); Edna (2015); Njihia and Muturi (2016); Hannah (2015); and Nigusie (2015). In addition to this, according to James (2013), the variables like exchange rate, unemployment rate, GDP per capita, and inflation rate are the most macro-economic variables that affect the performance of different financial institutions. Hence, by taking into account the recommendation of the author, the researcher has included those variables as external factors that affect the performance of saving and credit associations.

1.3.Objective of the study

1.3.1. General Objective of the study

The board objective of this study is to identify the determinants of performance of employees saving and credit associations in Ethiopia. By considering the case studies of saving and credit associations found in Addis Ababa.

1.3.2. Specific objective of the study

In line with the above general objective of the study, the following specific objectives are set for the study.

1. To examine the effect of saving capacity of members on performance of employees saving and credit associations.
2. To assess the effect of technology adoption by the association on performance of employees saving and credit associations
3. To identify the effect of management of loan on performance of employees saving and credit associations
4. To identify the effect of Literacy status of workers and members on performance of employees saving and credit associations
5. To examine the effect of exchange rate on performance of employees saving and credit associations
6. To examine the effect of unemployment rate on performance of employees saving and credit associations
7. To examine the effect of GDP per capita on performance of employees saving and credit associations
8. To examine the effect of inflation on performance of employees saving and credit associations
9. To examine the effect of experience on performance of employees saving and credit associations.

1.4. Research Hypothesis

As mentioned in the above research objective, the main objective of this study is to investigate the determinant factors that affect the performance of employees saving and credit associations in Ethiopia. In doing so, the main variables which are assumed to be the main determinants are used. Furthermore, a hypothesis of the study stood on past empirical studies conducted. And those studies are Ames (2013); factors influencing financial performance of savings and credit cooperative societies in Kenya, Ergetew (2015); determinants of the Financial Performance of saving and Credit Cooperative Unions in South Wollo Zone, Abayneh (2011); factors influencing saving and credit in the case of saving and credit cooperatives of North shewa Zone

Amharanational regional state, Edna (2015); factors influencing performance of SACCOs to establish the determinants of performance success/outcomes adopted by Unaitas SACCOs in Kenya, Njihia and Muturi (2016); factors Affecting Financial Performance of Savings and Credit Co-Operative Societies, Hannah (2015); determinants of the Financial Performance of Savings and CreditCo-operatives in the Banking Sector in Kenya, Nigusie (2015); the determinants of Savings and Credit Cooperatives Societies outreach in Addis Ababa.. The results from the literature review were used to establish expectations for the relationship between the different variables. Hence, the present study seeks to test the following hypotheses.

H1: Management of loan has a positive effect on performance of saving and credit associations

H2: Saving capacity has a positive effect on performance of saving and credit associations

H3: Technological adoption has a positive effect on performance of saving and credit associations

H4: Literacy status has a positive effect on performance of saving and credit associations.

H5: Experience has a positive effect on performance of saving and credit associations.

H6: Inflation has a negative effect on performance of saving and credit associations.

H7: GDP per capita has a positive effect on performance of saving and credit associations.

H8: exchange rate has a negative effect on performance of saving and credit associations.

H9: unemployment rate has a negative effect on performance of saving and credit associations.

1.5.Significance of the study

This study will be useful in the determination of the financial performance of saving and credit associations found in Addis Ababa. It will provide knowledge that can help Policy makers in Ethiopia, to appreciate the significance of saving and credit associations while coming up with policies that may deliberately influence the activity of credit and saving associations.

Contribution to existing literature: In addition, scholars and researchers will find this study useful if they wish to use the findings as a basis for current and further research on the subject. Moreover, academic researchers dedicated to studying saving and credit associations in the country will benefit

from this empirical study focused on assessment of employee's financial performance of saving and credit associations.

1.6.Scope of the study

Saving and credit cooperatives in Ethiopia are vast in number in which most of the cooperatives are established voluntarily in private under different sectors. Ethiopian government paid special attention to farmers' cooperatives under agriculture sectors and other saving and credit unions in urban areas. Employees saving and loan association is one among the cooperatives lacking required attention from federal cooperatives agency. Hence this study assessed operation, the growth, and investments or overall financial performance of employees saving and loan associations in Addis Ababa. The fact that at organizational level there are number of employees savings and credit associations. Among employees' saving and credit associations operating in Addis Ababa, therefore, the study is limited to all saving and credit associations found in Addis Ababa by ignoring other regional states. Those are, Hulubante, Waliya transport, Federal police, National Alcohol factory, BGI Ethiopia, Ministry of health, Ministry of construction, ministry of culture, National bank of Ethiopia, and Ethiopian broadcasting cooperation. The rationale behind for including these saving and credit associations are to see if the performance of the cooperation's are affected differently in different sectors, the availability of data among saving and credit associations, and the size of saving and credit associations are were taken into account. The reason for selecting Addis Ababa as a case study is in that; since the city is the capital city of Ethiopia, and has more number of saving and credit associations, as well as the sectors are in well-developed city in terms of infrastructure over the other regional states. The study area covers both primary and secondary source of data. For the secondary source of data, the researcher where used 28 years macro-economic data starting from 1992-2018. The reasons behind for using 28 years data's are in that, some of macro-economic variables (exchange rate and unemployment rate) data are available only during the stated period.

1.7.Limitation of the study

Based on the complexity of the study, the researcher faced the following limitation in conducting the study, among them:

At the time of data collection, some design respondents were not elongate the data on the time provided to them.

There was the unwillingness of some part of respondents to give information about saving and credit associations as expected, and finally, the issue of COVID-19 was very serious and affects the researcher in data collection because most of the respondents were unwilling to respond to the questionnaire. But the researcher has overcomes the problem by avoiding personal contact to conduct the questionnaires' and used different applications likes telegram, email, and what up to collect the questionnaires'.

1.8.Organization of the study

The remaining part of the study is organized as follows. The next section (chapter two) presents an overview of the theoretical and empirical literatures conducted on the study area. Chapter three provides the research design and method of data collection of the study; Chapter four discusses data analysis and interpretation of the study, based on collected data on the issue of the study area. Finally, the last chapter (five) consists of summaries of major findings, conclusions, and recommendation for possible solutions to the problem.

Chapter Two

Literature Review

Introduction

This chapter presents a review of literature related to ESCAs. Essentially, it deals with past studies on ESCA, previously known as Savings and credit cooperatives (SACCOs), financial practice and growth of ESCA. It will highlight the global, regional and national trends in financial practice aspects of SACCOs as they relate to the growth of SACCOs. Accordingly, past researches will be explored to shed light on this pertinent area and identify the gaps in knowledge that this study proposed to fill.

2.1. Conceptual literature

This section of the literature review contains information on the theoretical background of the study. This includes the theoretical explanations of the dependent and independent variables, and their related theories.

A Savings and Credit Cooperative (SACCO) is a type of cooperative whose objective is to pool savings for the members and in turn provide them with credit facilities (Lari, 2009). Other objectives of SACCOS are to encourage thrift amongst the members and also to encourage them on the proper management of money and proper investments practices. Whereas in urban areas salary and wage earners have formed Urban SACCOs, in rural areas, farmers have formed Rural SACCOs. There are also traders, transport, jua-kali and community-based SACCOs. Savings and credit co-operatives are also known as credit unions, thrift and credit co-operatives or savings and credit associations.

Thrift (saving) and credit co-operative is a free association of people with a common bond who save and lend money to one another at low interest rate for productive and provident purpose, (ACCOSCA), 1969, P.3).

Credit union is a co-operative financial organization owned and operated on a not-for –profit basis by its members according to democratic principles. Its purpose is to encourage savings, to use pooled funds, to make loans, and to provide other related services to members and families.

A credit union is part of a co-operative financial system and adheres to the operating principles for credit unions as set forth by the world Council of Credit Unions (ACCOSA, 1990) from these definitions it can be inferred that a SACCO, generally speaking, has three basic purposes: to promote thrift, to provide a source of credit at a slow interest rate, and to teach people the wise use of their money and the efficient management of their limited pooled resources (kibirige,1980, p.7).

2.2. SACCOs in Ethiopia

Saving and credit cooperatives in particular and cooperatives in general have passed through various changes due to continuous political changes in country. Every new government came to the country was interested to promote cooperatives in its own way with no deep analysis on strong and weak points. The main reason for such radical change was believed to be that government change in the country has never been made in peaceful way. Hence, activities of the going government were grossly considered disgraceful so that new governments were interested to start afresh. During the command economy, promotion and registration of cooperatives were given to different ministries.

Accordingly, promotion and registration of savings and credit cooperatives were given to National Bank of Ethiopia (central bank). Issuance of proclamation N. 147/98 by the incumbent government has given the power to respective cooperative promotion offices under different regional offices. The cooperative promotion structure in National Regional states have different names and the way they are structured is not uniform either. In the same Regions the office is named as cooperative Agency (OROMIA, SNNP.), in Addis as cooperative promotion and regulation department, in Afar, Somalia and Gambella as cooperative bureau. The accountability of the offices also differs from Region to Region. In Oromia, it is organized under mass organization (hezebaderejajet) which is one sector that reports to the Regional cabinet meetings, in Amhara it is under the regular and Agricultural development bureau, while in Addis it is under the bureau of trade and industry. In most of these offices including the Federal Cooperative Agency, the activities are departmentalized under promotion, market, supervision and Audit, legal services and support activities. Promotion department is again divided into major teams like Agricultural and non-agricultural cooperatives. Promotion of saving and credit cooperatives is undertaken mostly under then on-agricultural cooperative team(Njihia and Muturi 2016).

The marketing department again can be subdivided into market development, development, effort, loan follow up (for agricultural input and crop loans). The promotion department is divided into teams based on the types of cooperatives while the market is on major marketing and credit activities (Gessese, 2007).

2.2.1. Objectives of SACCOs

WOCCU defines savings and credit cooperatives as democratic member-owned financial cooperatives exist to serve their members and communities through provision of convenient and affordable financial services. This definition tells that the primary objectives of SACCOs is not profit making. However, SACCOs use excess earnings to offer members more affordable loans, a higher return on savings, lower fees or new products and services. Hence, SACCOs have to charge rates on loans that cover all costs (cost of fund, operation costs, administration cost and cost of provision) paying competitive salary to its employee and contribution to increase capital are also vital to growth and success. As cooperatives have been operating on the same founding principles and use similar model by-laws, SACCOs in Ethiopia too have been operating with the same objective. However, SACCOs make profit and pay dividend to its members while giving service to its members.

2.2.2. Contribution of SACCOs to the livelihood of their members

Prior to the issuance of proclamations of cooperatives societies, the provision of financial services to the poor has been going on for several years by projects designed by government ministries and departments and non-governmental organizations. The key government ministries that were frequently involved in designing and operating credit schemes were the ministry of agriculture for rural areas and the ministry of trade and industry for urban areas. Several international and indigenous non-governmental organizations also used to operate micro credit schemes as a component of their integrated programs. These programs had benefited many of their immediate beneficiaries and their families. They also introduced the very concept of saving and credit as well as micro credit, microfinance and market led approaches to offering financial services for the poor. These efforts by governmental and non-governmental organizations had serious limitations since these attempts were not structured and were carried by volunteers without training (Njihia and Muturi 2016).

2.2.3. Perspectives of the SACCOs

Today SACCOS are operating under the new cooperatives' proclamation no. 147/97 of 1998. This new proclamation has tried to give solutions to the previous SACCO'S organization and practices. Because of this, it has created a suitable environment for their development and working conditions. This proclamation has:-

Included all the major and relevant principles adopted by international corporative Alliance (ICA). Gave full freedom, independence, power & authority to the cooperatives to decide there are own affairs and work without government interference but with support based on their request. Gave full right to form their associations at local (primary), region (union) & national (federation) level. SACCOs can be organized at all sectors including government or private employees, or based on residential (community) areas on voluntary bases. Previously, SACCOs were organized by different government offices, but now they are organized, registered and assisted by the legally organized government body i.e. cooperatives organization and promotion offices established by this proclamation.

2.3. Conceptual and Empirical literature review

With regard to saving and credit association a lot of studies were conducted in different countries and come up with different results.

James (2013) discussed on factors influencing financial performance of savings and credit cooperative societies in Kenya. The aim of this study was to establish the factors influencing financial performance of savings and credit cooperative societies. Descriptive research design was used in this study. Data was collected using Interviews/Secondary data sources and questionnaires. Piloting is the study carried out before the actual study as a way of testing the effectiveness of researchers' data collection instruments and the procedures used. The SACCO showed good operational and financial performance with increasing growth but there was weakness in it product diversity. The data analysis showed that the SACCO should also review their interest rates to ensure that their rates are competitive. The default rate in the SACCO also showed a threat to the future financial performance of the SACCO hence the need to put in place policy measure to reduce default rates. There was a positive correlation between duration of loan repayment and retaining of customers.

Ergetew (2015) studied about the determinants of the Financial Performance of saving and Credit Cooperative Unions in South Wollo Zone. The general objective of the study is to assess the determinants of financial performance of saving and credit cooperative unions. The research is descriptive and analytical in nature. The secondary data collected were analyzed by using simple statistical analysis like percentages, tables, and financial ratio analysis tools such as liquidity ratios, leverage ratios, profitability ratios, and trend analysis of balance sheets. Liquidity level of the SACCO union is fairly high but in a decreasing rate. The leverage ratio of SACCO unions is highly leveraged. Their profitability rate is below the minimum required rate.

Abayneh (2011) studied about factors influencing saving and credit in the case of saving and credit cooperatives of North Shewa Zone Amhara national regional state. The study analyzed factors influencing saving and credit of saving and credit cooperatives in North Shewa Zone, Debre Birehan city and woreda Amhara region Ethiopia. Mixed method approach of both qualitative and quantitative is adopted. The data is gathered through both interview and questionnaire methods. The sample population is selected by random sampling method. Both primary and secondary source of data were used. In order to analyze the data both descriptive and inferential statistics were used. Factors that mostly influence the saving of people in saving and credit cooperatives are marital status, consumption plane, awareness, trust and loan use. But educational level, income and family size are not significantly influence the cooperative saving and credit.

Edna (2015) discussed on factors influencing performance of SACCOs to establish the determinants of performance success/outcomes adopted by Un Aitas SACCOs in Kenya. This study adopted a case study method. The researcher used quantitative techniques in analyzing the data. Descriptive analysis and inferential statistics were employed. ANOVA Test was computed as the preliminary test for multiple regression model adopted in the study. The study concluded that Organizational subculture, organizational structure, organizational leadership capacity and organization rewarding.

Njihia and Muturi (2016) studied about factors Affecting Financial Performance of Savings and Credit Co-Operative Societies. The main aim of the study is to investigate the factors that mostly affect the financial performance of Savings and credit societies. This study was employed descriptive research design. Secondary data was used. The inferential statistics was applied to practices influence the Performance of SACCOs. Establish a casual effect relating independent variables to the dependent variable. The significance of linear regression model used was tested by

the use of ANOVA statistical model which is the Analysis of Variance. The following factors that are membership size, dividend policy and loan default affects the financial performance of SACCOs.

Hannah (2015) assessed on the determinants of the Financial Performance of Savings and Credit Co-operatives in the Banking Sector in Kenya. The general objective of this study was to establish the determinants of financial performance of savings and credit co-operatives in the banking sector. This study adopted a descriptive survey design. Stratified sampling technique was used to obtain a sample for the study. Secondary data was collected from the annual reports and the questionnaires were issued to the respondents. To check the validity and reliability of the questionnaire a pilot test was conducted. The data collected was both qualitative and quantitative. Linear regression model and ANOVA statistical model test was used. The study sought to establish the influence of competition, operating costs, internal politics and saving culture on the financial performance of SACCOs in the banking.

Nigusie (2015) discussed on the determinants of Savings and Credit Cooperatives Societies outreach in Addis Ababa. The general objective of this research is to identify and examine the Determinants of Saving and credit cooperatives outreach in Addis Ababa. The research followed exploratory research design. The study used secondary data source. The panel data parameters can be estimated using fixed effect or random regression models. There is a positive relationship between income per capital of the country and dividend. And there is a negative relationship between interest rate on borrowing and loan size.

Karki (2005) conducted study and found that in developing countries; cooperative was one of the income sources of their rural economy whereas in developed countries, it took a sustainable business. This is where it was recommended that strategic plans were necessary to bring about the internal improvement in co-operative societies, provide quality services through skill, trained and educated manpower, and e-commerce.

Duncan (2014) looks at the effect of Sacco's societies regulatory authority's regulations on financial performance of SACCOs to determine the effects of SASRA regulations on financial performance of SACCOs in Nairobi. The study adopted descriptive research design. The study was facilitated by use of secondary data. A cross-sectional study analyzed the data collected by applying

multiple regression models. ANOVA Test was computed as the preliminary test for multiple regression model adopted in the study. The study revealed that the major variation in financial performance of SACCOs could be accounted to changes in size, liquidity, nonperforming loans, CAR compliance, managerial quality and cost of income.

Jared, Charles and Willy (2013) assessed on the challenges facing deposit-taking savings and credit cooperative societies' regulatory compliance in Kenya. The main objective of the study was to assess the challenges that face SACCOs in meeting their regulatory requirements. The study adopted a descriptive survey design with Purposive sampling to sample 5 SACCOs and simple random sampling to draw employees from each of sampled SACCOs. The data was collected by questionnaire and personal interviews from primary data source. The data collected were analyzed using descriptive and statistics. Majority of the deposit taking SACCOs in this region were agricultural based and had challenges in regulatory compliance at various levels in terms of capital, credit management, liquidity ICT and governance.

Kipngetich (2015) studied about the effect of credit risk management on financial performance of savings and credit co-operative society in Kenya. The study was aimed at analyzing the effect of credit risk management on financial performance of savings and credit co-operative society in Kenya. A cross-sectional descriptive research design has been used in this study. The study has employed purposive sampling technique in identifying the SACCOs. And, Secondary data was used. The data collected were analyzed using inferential statistics. One-Sample Kolmogorov-Smirnov Test was used to ascertain the normality of the study variables before employing linear regression that requires the assumption of normality. The findings confirm that there is a statistically significant and insignificant influence of Capital Adequacy and Management Efficiency respectively on Financial Performance of SACCOs.

2.4. Conclusion and Knowledge gap.

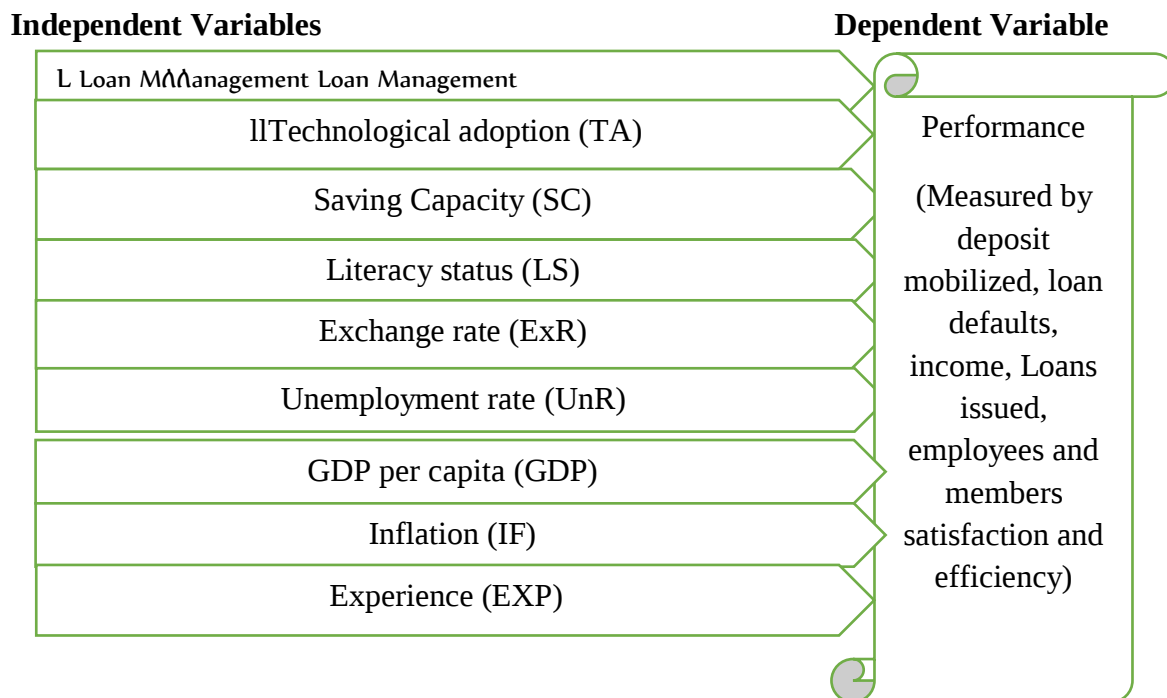
Most research studies on SACCOs have been done globally, regionally and locally. But, those studies are highly focused on the issues of governance, SACCOs' financial health capital structure, loan default, loan management, capital structure, outreach and SACCOs' sustainability. Other studies addressed such issues as financial stewardship (e.g. effects of governance on wealth, loan default), funds allocation strategy (for example investment), capital structure (e.g. effects of external debt) and growth of wealth independently. However, this study focuses on the determinant

factors of financial performance. In addition to this some studies were conducted on the title in Ethiopia by different authors like Abayneh (2011), Edna (2015), and Nigusie (2015), all studies were conducted on a single SACCO which is difficult to represent all SACCO found in the city administration. And, the variables used by the authors were (loan management ratio, technological adoption, saving capacity, and literacy status. However, the important variables like liquidity ratio, and leverage ratio was not included in the study. Yet, a lot studies (James, 2013, Njihia and Muturi 2016, Hannah, 2015) were argued liquidity and leverage ratios are the most determinant of performance in saving and credit associations. In addition to this, all authors were ignored the external factors that determine the financial performance of SACCOs. However, this study considers both external and internal factors that determine financial performance of SACCOs.

2.5. Conceptual Framework

As a result of the empirical review and theoretical assumptions; the study has developed the following schematic representation of the conceptual framework. In doing so, the data for determining the factors that influence the financial performance of SACCOs was chosen according to the characteristics that they create more impact in the SACCOs.

Figure 2.1: a conceptual framework of the study



Adopted from James, 2020 and Hannah, 2015)

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

INTRODUCTION

This chapter provides the reader an overview of the methodological considerations and assumptions underlying the research process. It describes the methods and procedures that the researcher used in order to achieve the research objectives. The chapter covers the research approach used in the study, research design, target population, sample size, source of data and data collection and finally how the data is analyzed.

3.1. Research Approach

There are three types of research approach, namely qualitative, quantitative and mixed approach. Qualitative approach used mostly when the researcher needs to develop a complex, holistic picture, analyzes words, reports, detailed view of informants, and conducts the study in a natural setting and involves studies that do not attempt to quantify their results through statistical summary or analysis (Creswell, 2009). The rational reason for adoption of quantitative approach includes: to develop knowledge of cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories, employee strategies of inquiry such as experiments and surveys (Creswell, 2009). Quantitative approach uses surveys of cross-sectional or longitudinal using self-administered semi structured questionnaires with the intent of generalizing from a sample to a population. So well designed and implemented quantitative research approach has the advantage of making generalization to a wider population from the sample. The mixed research approach is a means to collect both qualitative and quantitative data and analyses together to answer the research questions. In other words, it involves the collecting and “mixing” or integration of both quantitative and qualitative data in a study. A mixed methods approach is one in which the researcher tends to base knowledge claims on pragmatic (Creswell, 2009). Even though, each approach has its own objective and application time, in the selection process one should take into account the nature of the research problem or issues being addressed. Consequently, the study in hand requires assessing the financial performance of saving and credit association and for this purpose the researcher adopts mixed

research approach. The reason behind for using mixed research approach is in that; the study adopted both qualitative and quantitative type of data (questionnaire and macro-economic data's).

3.2.Research Design

According to Creswell (2009) research design is a plan or proposal to conduct research. It involves the intersection of philosophy, strategies of inquiry and specific methods. The researcher should define and evaluate research design before conducting the research since it is a blueprint for the collection, measurement, and analysis of data or conceptual structure which research is conducted (Kothari, 2004). For this study, explanatory research design was used to identify the factors that influence the performance of saving and credit association in Addis Ababa.

3.3.Target Population

The target population for this study contains all the saving and credit cooperation found in Addis Ababa. The number of total saving and credit associations found in Addis Ababa are 1140 in numbers.

3.4.Sampling techniques and sample size

To select the sample of respondents from total population, purposive sampling technique was applied. The rationale behind for selecting purposive sampling is that; the researcher sets a lot criteria like year of establishment, availability of data, number of customers and etc.based on this fact, the researcher selects 10 saving and credit associations in Addis Ababa. Those are, Hulubante, Waliya transport, Federal police, National Alcohol factory, BGI Ethiopia, Ministry of health, Ministry of construction, ministry of culture, National bank of Ethiopia, and Ethiopian broadcasting cooperation. The rationale behind for including these saving and credit associations are to see if the performance of the cooperation's are affected differently in different sectors. The reason for selecting Addis Ababa as a case study is in that; the sector is well developed in terms of administration and control over other regional states. Furthermore, the researcher has purposively selected seven (7) respondents to participate in the study from each saving and credit associations. The selections of the respondents were made purposively based on their educational level, experience, and position of the respondents. Hence, the total sample size of the study was 70 respondents selected purposively from different saving and credit associations.

The information was collected by the judgment of the researcher in order to get full information about the study area, because judgmental consider things like representative, adequacy, homogeneity of the sample

3.5. Data Source and Type

There are mainly two sources of data, namely; primary and secondary source. In order to gather the required information to attain the research objective, the main source of data for this study was the primary data which includes questionnaires distributed to managers, accountants and auditors.

The secondary data was obtained from different website like (IMF regional outlook, World Bank, and National bank of Ethiopia).And also related published documents were reviewed to get information about the performance of employee saving and credit associations. The information were covered a period of twenty eight years from year 1992 to 2018.

3.6.Data Analysis Method

To provide a better indication of the true performance of saving and credit associations and facilitate comparisons among them, the collected data was analyzed and interpreted through descriptive statements, tabulation, and regression analysis. The data was also analyzed using different statistical tools like mean, &standard deviation to address the scientific evidence in performances of saving and credit associations.

3.7.Model specification and Description of Variables

To examine the determinants of Performance of Employees saving and Credit Association in Ethiopia, there is an estimated equation where financial performance is reflected as a function of the following variables

$$P = f(LM, TA, SC, LL, EXP, INF, GDP, ExR, UnR,) \dots \dots \dots (1)$$

P = performance

TA = Technological adoption

LM = Loan management

SC = saving capacity

LL = Literacy level

GDP = GDP per capita

ExR = Exchange rate

INF = Annual inflation rate

UnR = Unemployment rate

EXP = Experience of members

3.8. Model equation of the study

The above equation number (1) can be rewritten in the following econometric model with its functional forms.

$$P_t = \beta_0 + \beta_1 LM_t + \beta_2 TA_t + \beta_3 SC_t + \beta_4 LL_t + \beta_5 Expt + \beta_6 Inf_t + \beta_7 GDP_t + \beta_8 ExR + \beta_9 UnR_t + c \dots \dots \dots (2)$$

Whereas; β_0 is the intercept and β_i (i=1, 2, 3, 4, 5, 6, 7, 8, 9) represents the coefficient for each of the independent variables.

P = Performance of the company (measured by deposit mobilized, loan defaults, income, Loans issued, employees and members satisfaction and efficiency).

LM = Loan management (measured by questions ranked by Likert scale)

TA = Technological adoption (measured by proxy questions ranked by Likert scale).

SC= saving capacity (measured by proxy questions ranked by Likert scale).

LL = literacy level (measured by proxy questions ranked by Likert scale)

ExR = Exchange rate (measured by the amount of local currency against USD)

UnR = unemployment rate (measured by percentage of unemployment rate from year to year).

GDP = GDP per capita (Measured by GDP per capita income)

INF = Annual inflation rate (measured by yearly average inflation rate)

EXP= Experience (Measured by number of years worked)

C = is the constant term of the regression.

3.9. Reliability test

Reliability refers to the consistency of the measurements of variables (Hair, et al., 2010). Moreover, Rovai, et. al., (2014) recommended that Cronbach's alpha is a very important tool for measuring internal consistency and assess the reliability of the variables. Hence, George and Mallery (2003) mentioned that Cronbach's alpha coefficients have ranged from 0.5 to 0.90. A test is considered reliable if the same results are gotten repeatedly.

The closer the Cronbach's alpha is to 1, the higher the internal consistency reliability of the research instrument. Furthermore, Hinton et al. (2004) have suggested four cut-off points for reliability as follow:

Table 3.1: Cronbach's alpha value

Cronbach's Alpha	Results
Above 0.9	Excellent reliability
0.70-0.90	High reliability
0.50-0.70	Moderate reliability
Below 0.50	Low reliability

Therefore, as per the discussion above the researcher used Cronbach's alpha to evaluate the internal consistency of variables designed to collect the respondents' views concerning the research topics. The reliability of the data was tested by taking 10 percent of the total respondents. The items (variables) are both dependent and independent variables. From the result of reliability data it possible to conclude that the questions included in the questionnaire have internal consistency.

Cronbach's Alpha	N of Items
.777	6

Source: SPSS output

Table 3.2: Summary of Expected sign of Variables used in regression

Variables	Abbreviation	Descriptions	Expected signs
Performance	P	Performance of the company (measured by deposit mobilized, loan defaults, income, Loans issued, employees and members satisfaction and efficiency).	
Loan management	LM	Measured by proxy questions ranked by Likert scale	-/+
Technological adoption	TA	Measured by proxy questions ranked by Likert scale	+ /-
Saving capacity	SC	Measured by proxy questions ranked by Likert scale	+ /-
Literacy level	LL	Measured by proxy questions ranked by Likert scale	+/-
Exchange rate	ExR	(measured by the amount of local currency against USD)	-/+
Unemployment rate	UnR	(Measured by percentage of unemployment rate from year to year).	-/+
GDP per capita	GDP	(Measured by GDP per capita income)	-/+
Annual inflation rate	INF	(Measured by yearly average inflation rate)	-/+
Experience of the members	EXP	(Measured by number of experience in the associations)	-/+

Source:*Compiled by the researcher based on earlier studies.*

Chapter Four

Data Analysis and Interpretation

4. Introduction

In the preceding chapters, important literatures which give understanding about the topic was reviewed and used to identify knowledge gap on the area of the study. In line with reviewed literatures; the research problem, research objectives, research hypotheses & the research design used for this study were also discussed. This chapter deals with the descriptive statistics of the data collected, correlation analysis, normality tests and other important assumptions are discussed to see if the model viable.

4.1. Descriptive analysis of the study

To achieve the objective of the study; the researcher was used judgmental sampling; to select a sample of respondents from the total population, So that the data collected through a questionnaire distributed to respondents were analyzed and discussed. The researcher has distributed 70 questionnaires to respondents but only 56 questionnaires were returned and the rest of the respondents did not return the questionnaire. As it can be discussed in the following subsections of the chapter; the study was targeted credit and saving associations. The questionnaire was prepared and distributed to the respondents; each variable was represented by proxy questions; the independent variable selected for the study was loan management, Saving capacity, technology adoption, literacy level, Exchange rate, Unemployment rate, GDP per capita, and inflation rate. The data collected were analyzed through SPSS version 20. In this chapter of the study, the researcher has discussed the data collected from the target population based on different tools.

4.1.1. Response Rate

The study distributed a total of 70 (100%) questionnaires for the respondents and 56 (80%) questionnaires were filled and returned but 14 of them are not properly filled and ignored by a researcher.

Table 4.1: Commutative of Respondent's response rate.

Response from SMEs			
Distributed		Collected	
In No	In Per	In No	In Per
70	100%	56	80%

Source: Survey data, 2020.

4.2. Demographic characteristics of the respondents

In the following subsection, the respondent's demographic characteristics like gender, age, and educational level were discussed using the frequency distribution table.

4.2.1. Gender, age, and educational level Distribution of the Respondents

Accordingly, the researcher gathered and presented the demographic characteristics of the respondents covering their gender, age educational level, marital status and position (status) distribution in the following table.

Table 4.2: Gender of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	29	51.8	51.8	51.8
female	27	48.2	48.2	100.0
Total	56	100.0	100.0	

Source: Survey data, 2020.

As can be seen in the above gender distribution table, the majority of the respondents who participated in the study were male respondents. And this can be evidenced from the above respondent response rate table distribution. The data collected implies that; 29 (51.8%) of respondents were male respondents and 27 (48.2%) of respondents are female respondents. From

this the researcher can conclude that; the majority of male respondents who participated in this study are more than female respondents. And this is helpful for a researcher to get adequate answer with regard to the study because male respondents are expected to accept more risk than female respondents.

Table 4.3: Age of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-25	11	19.6	19.6	19.6
26-35	17	30.4	30.4	50.0
36-45	11	19.6	19.6	69.6
45-60	17	30.4	30.4	100.0
Total	56	100.0	100.0	

Source: Survey data, 2020.

The data collected on the age of respondents are described in the above age distribution table of the respondents. As can be seen in the above table, the majority of the respondents participated in the study area are in the age bracket of 26-35 and 45-60 years. And the second-largest respondents are between the 20-25 and 36-45 age brackets. From this, the researcher concludes that the majority of the respondents who participated in the study have an age of greater than 26 and less than 60. And this implies that, the majority of the employees saving and credit associations are at productive age and simply they can perform the activities with great performance and satisfy the associations as well as the customers.

Table 4.4: Educational level of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid diploma	28	50.0	50.0	50.0
BA	22	39.3	39.3	89.3
degree	6	10.7	10.7	100.0
masters				
Total	56	100.0	100.0	

Source: Survey data, 2020.

Concerning the educational level of the respondents, as can be seen in the above table; the majority of the respondents are a holder of Diploma, and this can be evidenced from the above table since 28 (50%) of respondents responded as saying they were the holder of Diploma. The second-largest respondent of the study was those holders of BA degree since in their study and this can be confirmed by 22 (39.3%) of respondents. The third-largest respondents of the study are those employees the holder of masters 6 (10.7%). From this, the researcher concludes that the majority of the respondents (50%) have an educational level of Diploma.

Table 4.5: Marital status of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid single	11	19.6	19.6	19.6
married	45	80.4	80.4	100.0
Total	56	100.0	100.0	

Source: Survey data, 2020.

The data collected on the marital status of respondents are described in the above marital status distribution table of the respondents. As can be seen in the above table, the majority of the respondents 45 (80.4%) participated in the study area are married. The remaining 11 (19.6%) of the respondents participated in the study area are single.

Table 4.6: Status of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid manager	17	30.4	30.4	30.4
worker	22	39.3	39.3	69.6
member	17	30.4	30.4	100.0
Total	56	100.0	100.0	

Source: Survey data, 2020.

The data collected on the position of respondents are described in the above status distribution table of the respondents. And this can be evidenced from the above respondent response rate table distribution. The data collected implies that 22 (39.3%) participated in the study area are workers, 17 (30.4%) of the respondents are at managerial position and 17 (30.4%) of the respondents are members of the employees saving and credit association.

4.3. Descriptive statistics for the dependent variable

In this study, a dependent variable (**performance**) has been used to measure the overall performance of employees saving and credit association. The mean values are used to reveal the average for all variables used in this study and standard deviation has been used to analyze the variations in explanatory variables, and dependent variable.

Table 4.7: Descriptive statistics for dependent variable

Descriptive Statistics

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>performance</i>	56	2.71	4.00	3.0765	.30574
<i>Valid</i>	<i>N</i>				
<i>(listwise)</i>	56				

Source: Survey data, 2020.

As presented above on Table 4.7, the average value of performance for the employees saving and credit association is 3.0765 with a maximum and minimum value of 4 and 2.71, respectively. The standard deviation is 30.57 percent from the average value. By taking the bench mark of Best (1977), the mean value of the score from 1-1.80 is lowest, from 1.81- 2.61 is lower, from 2.62-3.41 is average/moderate, from 3.42-4.21 is good/high, and 4.22-5 is considered very good; Besides, the decision rules used in the analysis was average mean less than 3 was considered as low, the average mean equal to 3 was considered as medium and average mean greater than 3 was considered as high (Best and khan1995). Hence, the result indicates that employees saving and credit association relatively shows better financial and operating performance with a mean value of 3.0765, since the mean value is greater than the moderate level. This implies that, employees saving and credit association is effective in saving and loan management activities.

On the basis of standard deviation from the mean value, again performance shows higher standard deviation with a value of 30.57 percent indicating high deviation of employee saving and credit association performance on its mean value.

4.3.3. Descriptive statistics for explanatory variables

In this study nine explanatory variables (loan management, saving capacity, technology adoption, literacy, inflation, GDP, exchange rate, unemployment rate, and year of experience) have been used. Thus, the descriptive statistics for independent variables is summarized and analyzed in table 4.7, bellow.

Table 4.8: Descriptive statistics for independent variables

	N	Minimum	Maximum	Mean	Std. Deviation
Loan management	56	4.00	5.00	4.3071	.37166
Saving capacity	56	2.80	4.40	3.5536	.45125
Technology adoption	56	2.00	4.40	3.1643	.96642
literacy	56	2.40	4.00	3.1357	.52998
inflation	56	-8.48	44.39	9.9756	10.66021
GDP	56	111.93	771.52	302.9025	215.01259
Exchange rate	56	2.07	29.07	12.4023	7.17060
Unemployment rate	56	2.08	3.71	2.7036	.53329
Year of experience	56	1.00	4.00	3.1071	.96632
Valid N (listwise)	56				

Source: Survey data, 2020.

According to Best (1977), the mean value of the score from 1-1.80 is lowest, from 1.81- 2.61 is lower, from 2.62-3.41 is average/moderate, from 3.42-4.21 is good/high, and 4.22-5 is considered very good; Besides, the decision rules used in the analysis was average mean less than 3 was considered as low, the average mean equal to 3 was considered as medium and average mean greater than 3 was considered as high (Best and khan1995). In the following section, the details of all variables are going to discuss.

The first independent variable considered in this study was loan management. The above table 4.2 shows that the mean value of this variable is 4.307 with a standard deviation of 0.37166. The standard deviation result of 0.37166 indicates that loan management for the association varies by 0.37166 from the average value of 4.307. The result indicates that effective loan management practice improves the financial and operating performance of the employees saving and credit

association. On the other hand saving capacity that influences the associations' performance scored a mean value and a standard deviation of 3.5536 and 0.45125 respectively. The standard deviation of 0.45125 shows that members saving capacity deviates by 0.45125 from the average value of 3.5536. The result indicates that respondents are agreeing with that saving capacity of members determines the performance of the association.

As presented above on table 4.8 technology adoptions is another variable that is considered in this study in the part of the independent variable. The descriptive statistics of the variables imply that the technology adoption has a mean value and a standard deviation of 3.1643 and 0.96642 respectively. The descriptive statistics also prove that employees saving and credit association is better in adopting new technologies and this may come in to sight to have better financial and operating performance of the association. On the other hand the variable literacy has scored the mean value of 3.1357 with a standard deviation of 0.52998.

The other variable that is considered in this study in the part of the independent variable is inflation. The descriptive statistics of the variables also demonstrate that inflation has a mean value and a standard deviation of 9.9756 and 10.66021 respectively.

It is also clearly indicated in the above table, that the mean value of Gross Domestic Product (GDP) is 302.9025 with a standard deviation of 215.01259. Exchange rate has scored the mean value of 12.4023 with the standard deviation of 7.1706 and unemployment rate scored the mean value of 2.7036 with the standard deviation of 0.53325.

Finally, year of experience has scored a mean value and standard deviation of 3.1071 and 0.96632 respectively. This mean value of 3.1071 indicates that employees saving and credit association has qualified employees with an average working experience of 5 to 10 years and this may come in to sight to have better financial and operating performance of the association. As discussed before the standard deviation of each variable implies how much each observation is deviated from its mean value.

4.4. Multiple regression analysis

The study employed multiple regression models in the form of linear regression analysis and used a cross-sectional data from saving and credit associations. The researcher undertook the

diagnostic tests for the assumption of classical linear regression model (CLRM) before directly going to the multiple linear regression models.

4.4.1. Results for test of classical linear regression model (CLRM) assumptions

Diagnostic test is made to make sure that the classical linear regression model assumption violated or not. In this study an attempt is made to test Heteroscedastic, Autocorrelation, and normality and Multi-collinearity tests, as the result they are presented and discussed as follows.

4.4.1.1. Test for no heteroscedasticity (homoscedasticity) $\{var(u) = \sigma^2 < \infty\}$

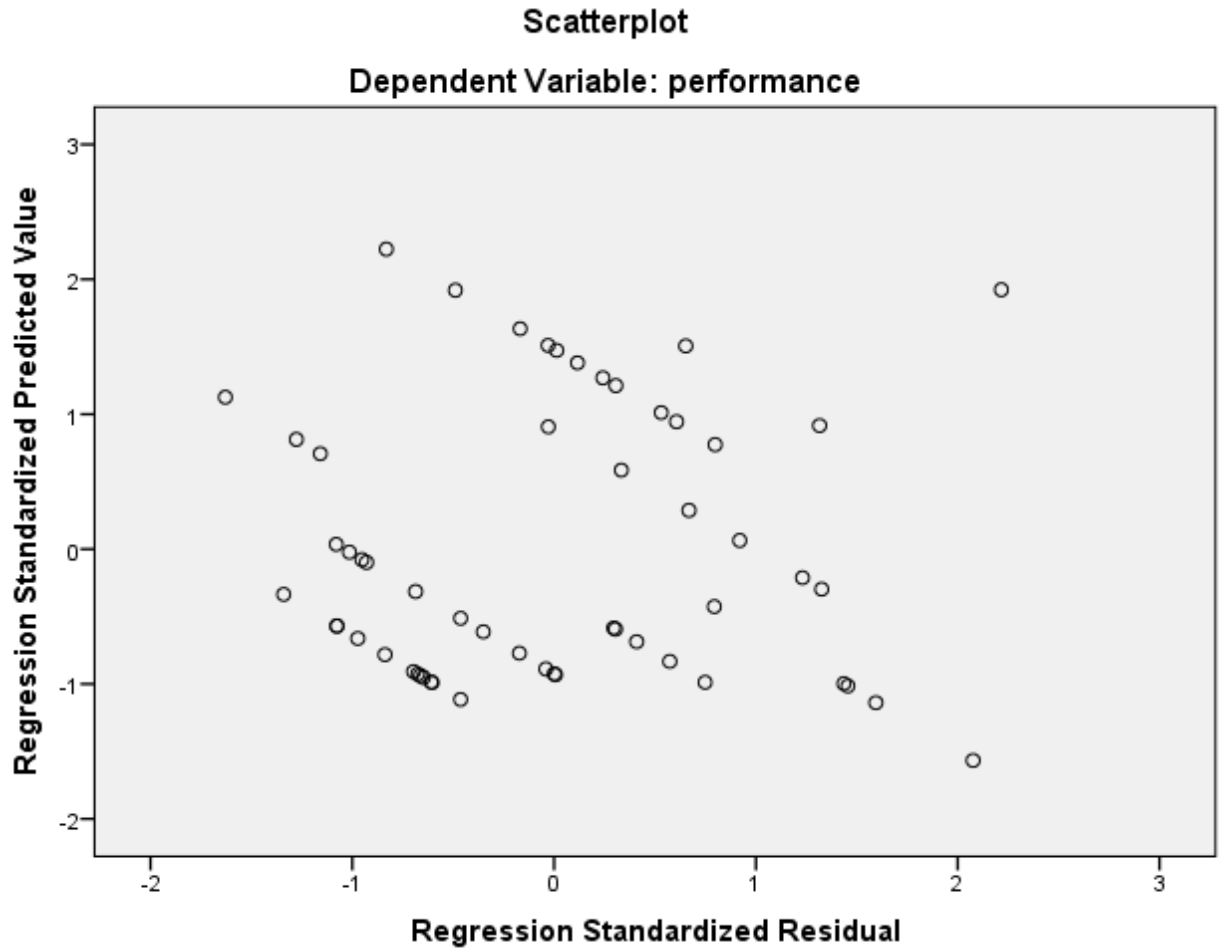
One of the important assumptions of the classical linear regression model is Heteroscedasticity. As noted by Brooks (2008) Heteroscedasticity assumption states that the disturbances appearing in the population regression function are homoscedasticity; that is, they all have the same variance. The variance of each disturbance term u_i , conditional on the chosen values of the explanatory variables, is some constant number equal to σ^2 . This is the assumption of Heteroscedasticity, or equal (homo) spread (scedasticity), that is, equal variance (Gujarati, 2004). If the error term u_i does not have constant variance it is said to be there is Heteroscedasticity problem.

Heteroscedasticity makes our parameter estimates no longer BLUE – they are still unbiased, but no longer have a minimum variance. Unfortunately, SPSS does not have built in procedure to test for heteroscedasticity. The test can be done by writing some codes. Despite not having built in procedure to test for heteroscedasticity, we can plot standardized residuals (ZRESID) against the standardized predicted values (ZPRED). If there is no heteroscedasticity, the plot should look random. If you see a pattern, such as a funnel shape or a curve, this indicates heteroscedasticity.

A curve shape, in particular, could indicate some non-linearity in the relation that you failed to take into account. The following figure shows the result of heteroscedasticity of the model. The following hypothesis is set for the heteroscedasticity test.

H0: There is no Heteroscedasticity problem in the model.

H1: There is Heteroscedasticity problem in the model.



Source: SPSS 20 output

Figure 4.1; the result of Heteroscedasticitytest

As we can observed from the above figure 4.1; the plot the residuals have a random pattern, which signifies that there is no sign of heteroscedasticity. So, the null hypothesis of no heteroscedasticity should not reject.

4.4.1.2. Test for assumption of no autocorrelation $\{cov(u_i, u_j) = 0 \text{ for } i \neq j\}$

The diagnostic test for CLRM assumption of no autocorrelation was tested by this study. According to Gujarati, (2004) the assumption of no autocorrelation between the disturbances assumes that given any two X values, X_i and X_j ($i \neq j$), the correlation between any two u_i and u_j ($i \neq j$), is zero. According to Chris Brooks (2008) it is assumed that the errors are uncorrelated with one another. If the errors are not uncorrelated with one another, it would be stated that they are 'auto correlated' or that they are 'serially correlated'.

This assumption was tested by Durbin Watson (DW) test of autocorrelation. Durbin--Watson (DW) is a test for first order autocorrelation-- i.e. it tests for a relationship between an error and its immediate previous value. The hypothesis of the test formulated as follows.

H0: There is no autocorrelation problem in the model

H1: There is autocorrelation in the model.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.776 ^a	.602	.524	.21093	1.829

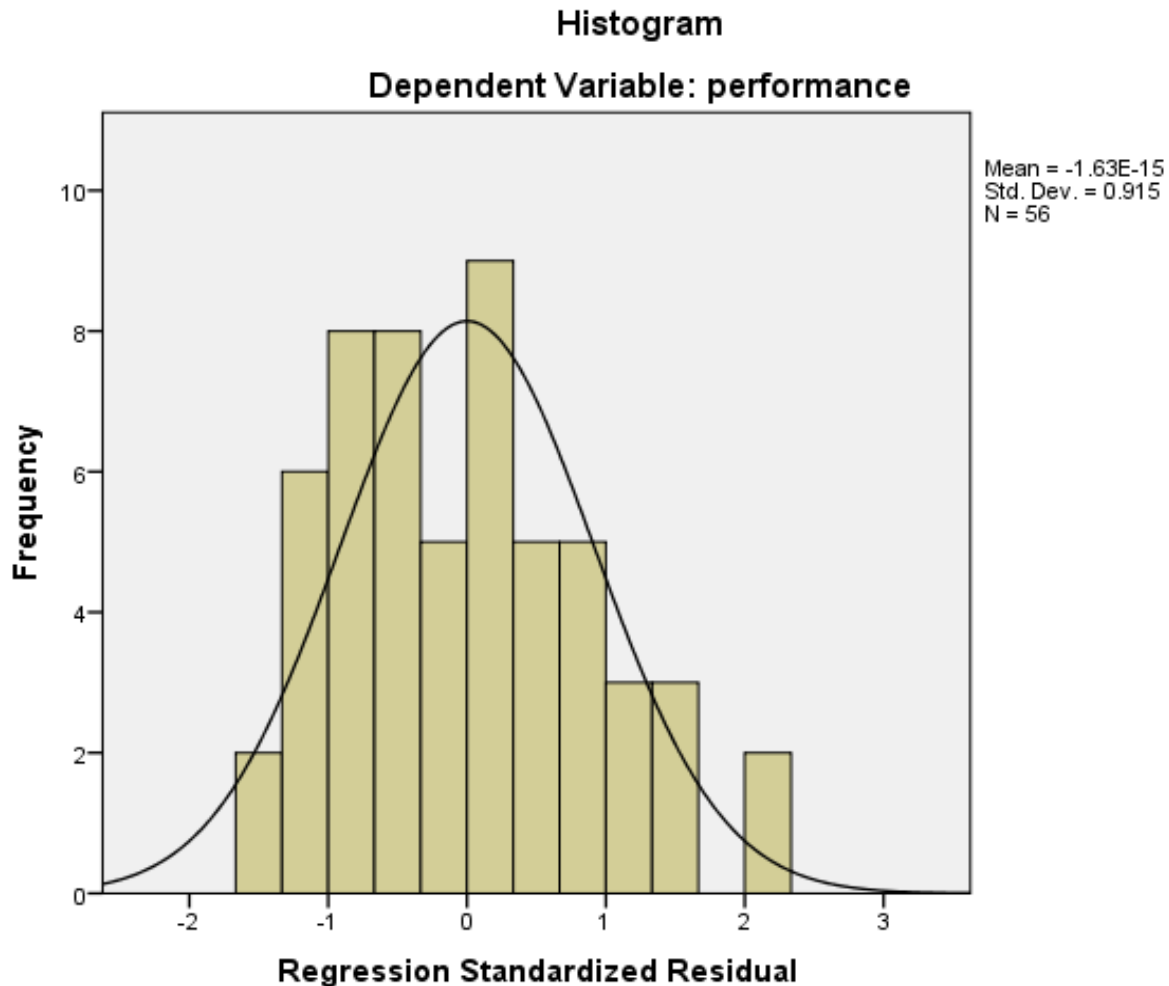
a. Predictors: (Constant), yearofexperience, GDP, inflation, loanmanagement, literacy, technologyadoption, savingcapacity, unemploymentrate, exchangerate

b. Dependent Variable: performance

The DW test statistic value for the model was 1.829 for the total observation of 56 responders with 10 independent variables. Thus the decision value for the test implies that there is no autocorrelation problem in the model. According to Brooks (2008) if the DW test lies between 1.5 and 2.5 there is no issue of autocorrelation in the model. So, the null hypothesis of no autocorrelation is accepted because there is no evidence of autocorrelation in the study.

4.4.1.3. Test for normality

The other diagnostic test for CLRM assumption is normality assumption. The assumption says that disturbances are normally distributed. Frequency distributions come in many different shapes and sizes. It is quite important, therefore, to have some general descriptions for common types of distributions. In an ideal world our data would be distributed symmetrically around the center of all scores. As such, if we drew a vertical line through the center of the distribution then it should look the same on both sides. This is known as a normal distribution and is characterized by the bell-shaped curve. This shape basically implies that the majority of scores lie around the center of the distribution (so the largest bars on the histogram are all around the central value). The following figure shows the result of normality test with regard to the data conducted.



Source: SPSS 20 output

Figure 4.2: the result of normality test

4.4.1.4. Test for presence of multi-collinearity in the model

The other CLRM assumption tested in this study was the multicollinearity assumption. According to Brooks (2008) the absence of multicollinearity assumption says that the explanatory variables are not correlated with one another. If there is no relationship between the explanatory variables, they would be said to be orthogonal to one another. If the explanatory variables were orthogonal to one another, adding or removing a variable from a regression equation would not cause the values of the coefficients on the other variables to change. A small degree of association between explanatory variables will almost always occur but will not cause too much loss of precision.

However, a problem occurs when the explanatory variables are very highly correlated with each other, and this problem is known as multicollinearity. Perfect multicollinearity occurs when there is an exact relationship between two or more variables. In this case, it is not possible to estimate all of the coefficients in the model. Perfect multicollinearity will usually be observed only when the same explanatory variable is inadvertently used twice in a regression. According to Gujarati, (2004) multicollinearity refers to the existence of more than one exact linear relationship, and according to the author, the assumption of no multicollinearity says that there are no perfect linear relationships among the explanatory variables. Correlation matrix is very helpful to check any existence of strong correlations between the independent variables. The variables which have this strong relationship might be assumed as not explaining the model with the other correlated variable. This means that; the two correlated variables cannot explain together the model and in this case, one of the variables (the one that is considered as insignificant for the study) must be eliminated from the model. In doing so, analyzing the multicollinearity issues that, the model can have is important. If existence of high correlation between any two independent variables in the model is confirmed; the problem of multicollinearity arises; and this makes significant variables insignificant by increasing its standard error. So, here under the issue of multicollinearity is performed through correlation matrix.

Table 4.9: The result of multicollinearity test

		Correlations								
		loanmanage ment	savingcapacit y	technologyad option	literacy	inflation	GDP	exchangerate	unemploye ntrate	yearofexperie nce
loanmanagement	Pearson Correlation	1	.130	-.127	.379**	-.002	-.080	.048	-.015	.281
	Sig. (2-tailed)		.340	.352	.004	.987	.557	.723	.915	.036
	N	56	56	56	56	56	56	56	56	56
savingcapacity	Pearson Correlation	.130	1	.516**	.599**	-.051	.101	.058	-.055	.620**
	Sig. (2-tailed)	.340		.000	.000	.710	.459	.672	.689	.000
	N	56	56	56	56	56	56	56	56	56
technologyadoption	Pearson Correlation	-.127	.516**	1	.305*	-.106	.045	-.015	-.019	.658**
	Sig. (2-tailed)	.352	.000		.022	.436	.740	.915	.890	.000
	N	56	56	56	56	56	56	56	56	56
literacy	Pearson Correlation	.379**	.599**	.305*	1	-.126	-.013	.084	-.005	.355**
	Sig. (2-tailed)	.004	.000	.022		.355	.926	.539	.970	.007
	N	56	56	56	56	56	56	56	56	56
inflation	Pearson Correlation	-.002	-.051	-.106	-.126	1	.216	.239	-.519**	-.078
	Sig. (2-tailed)	.987	.710	.436	.355		.110	.076	.000	.567
	N	56	56	56	56	56	56	56	56	56
GDP	Pearson Correlation	-.080	.101	.045	-.013	.216	1	.085**	-.744**	.039
	Sig. (2-tailed)	.557	.459	.740	.926	.110		.000	.000	.778
	N	56	56	56	56	56	56	56	56	56
exchangerate	Pearson Correlation	.048	.058	-.015	.084	.239	.085**	1	-.710**	.045
	Sig. (2-tailed)	.723	.672	.915	.539	.076	.000		.000	.742
	N	56	56	56	56	56	56	56	56	56
unemploymentrate	Pearson Correlation	-.015	-.055	-.019	-.005	-.519**	-.744**	-.710**	1	-.066
	Sig. (2-tailed)	.915	.689	.890	.970	.000	.000	.000		.628
	N	56	56	56	56	56	56	56	56	56
yearofexperience	Pearson Correlation	.281	.620**	.658**	.355**	-.078	.039	.045	-.066	1
	Sig. (2-tailed)	.036	.000	.000	.007	.567	.778	.742	.628	
	N	56	56	56	56	56	56	56	56	56

Source: SPSS 20, output

Based on the result of correlation matrix, please refer the above table 4.9; it is better to discuss about the issue of multicollinearity by taking the benchmarks of Cooper & Schindler (2009); which suggests that, a correlation above 0.8 should be considered as a problem of multicollinearity. So, as it can be seen from the table of correlation matrix, there is no worry of multicollinearity issue in this model; since, the highest correlation is -0.744 which is found between unemployment rate and GDP per capita.

4.5. Multiple regression output and its discussion

From the regression analysis Constants = 3.064 for performance, shows that if all the independent variables are all rated as zero, the financial and operating performance of employees saving and credit associations in Ethiopia would rate at 3.064. The level of confidence for the analysis was set at 90%. Therefore, the P- value less than 0.10 imply that the independent variables are significant otherwise not.

The regression results of (Table 4.10 and Table 4.11) below indicated that there was a strong relationship between the dependent and the independent variables. The value of R-Square for the dependent variable performance was 60.2%, indicating that 60.2 % of the changes in financial and operating performance of the association could be explained by the independent variables (loan management, saving capacity, technology adoption, literacy, inflation, GDP, exchange rate, unemployment rate and year of experience) for the study. The remaining 39.8% the change in financial performance of the regression model is explained by other factors which are not included in the regression line.

The dependent variables explained here for this study is financial performance of employee saving and credit association in Ethiopia. As indicated in (Table 4.9 and Table 4.10) below, all explanatory variables (loan management, saving capacity, technology adoption, literacy, inflation, GDP, exchange rate, unemployment rate and year of experience) are found to be significant regressors of performance employees saving and credit association. The interpretation of each explanatory variable is presented after the table for regression results of determinants of operating and financial performance of employees saving and credit associations in Ethiopia.

The overall reliability and validity of the model was also further improved by the fact that the F-value of 0.0000 for the model, which indicates strong statistical significance. Thus the null hypothesis of the overall test of significance that all coefficients are equal to zero was rejected as the p-value was sufficiently low (less than 0.10).

Table 4.10: Result of Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.776 ^a	.602	.524	.21093	1.829

a. Predictors: (Constant), year of experience, GDP, inflation, loan management, literacy, technology adoption, saving capacity, unemployment rate, exchange rate

Table 4.11: Result of Anova table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.095	9	.344	7.728	.000 ^b
	Residual	2.047	46	.044		
	Total	5.141	55			

a. Dependent Variable: performance

b. Predictors: (Constant), year of experience, GDP, inflation, loan management, literacy, technology adoption, saving capacity, unemployment rate, exchange rate

Table 4.12: Result of coefficients**Coefficients^a**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.064	.573		5.346	.000
	Loanmanagement	-.195	.100	-.237	-1.954	.057
	Savingcapacity	.390	.101	.576	3.851	.000
	Technologyadoption	-.237	.045	-.748	-5.212	.000
	literacy	-.292	.079	-.506	-3.705	.001
	experience	.161	.051	.509	3.182	.003
	inflation	.002	.003	.067	.574	.569
	GDP	.000	.000	.183	.767	.447
	Exchangerate	.009	.009	.212	.975	.335
	Unemploymentrate	.154	.098	.269	1.574	.122

a. Dependent Variable: performance

$$P_t = \beta_0 + \beta_1 LM_t + \beta_2 SC_t + \beta_3 TA_t + \beta_4 LL_t + \beta_5 EXP_t + \beta_6 Inf_t + \beta_7 GDP_t + \beta_8 ExR_t + \beta_9 UnR_t + c \dots \dots \dots (1)$$

$$p = 3.064 - 1.95(LM) + 0.390(SC) - 0.237(TA) - 0.292(LL) + 0.161(Exp) + 0.002(INF) + 0.00(GDP) + 0.009(ExR) + 0.154(UnR)$$

4.3.3. Hypothesis testing

Test of the research hypotheses has been performed based on the relationship between dependent variable and nine explanatory variables. Therefore, this subsection deals with hypothesis testing and their interpretation of the regression results in comparison with prior empirical literatures conducted in different countries or regions.

4.3.3.1. Loan management and performance of the association

Loan management is hypothesized as positive/negative significant relation with performance of employees saving and credit association. The regression analysis also supports that by indicating a negative relation with employee saving and credit associations performance with a coefficient of (-0.195), at 10 percent level of significance. The result implies that loan management is negatively related with the performance of employees saving and credit association. That means, 1 unit increase loan management causes the performance of credit and saving associations to decrease by 0.195 units. In other words, the tightened the loan management system of the association the lower its operating and financial performance. The implication of their relationship implies that the tightened loan management system could lead the association to lower performance of loan disbursement system. Furthermore, the tightened loan management decreases collection period which forces the borrowers to pay early. Hence, the borrower loses interest on borrowing which indirectly decreases the revenue of associations, and affects performance.

Recalling that loan management was hypothesized as it has a positive/negative and significant relation with performance of employee saving and credit association; the finding proves this and the hypothesis is not rejected. Meaning that the null hypothesis which states loan management has no a positive/negative relation with performance of employee saving and credit association is rejected.

The finding of the study supports the finding establishment by James (2010), however it is inconsistent with the finding established by Wakgari (2017).

4.3.3.2. Saving capacity and performance of employee saving and credit association

The other explanatory variable considered in this study was saving capacity of the members of employee saving and credit association. The study found out that saving capacity has positively and significantly related with performance of employee saving and credit association, with the coefficient of 0.390. That implies, 1 unit increase in saving capacity of the members causes the performance of saving and credit association to increase by 0.39 units and statically significant at 1 percent significance level. The statistically significant relation of saving capacity with performance of employee saving and credit association, indicates that saving capacity of the members of the association affect performance of the association, this may be because of, the association disburse loans which is deposited by the members through saving who have an impact on and are impacted by the company's performance. Consequently the null hypothesis that saving capacity of the members of the association hypothesized as it has no positive/negative and significant relationship with the performance of employee saving and credit association is rejected or the result of the study fails to reject the null hypothesis which states that saving capacity has a positive/negative and significant relationship with the performance of employee saving and credit association. In this case, saving capacity has hypothesized as positive or negative impact, in that; the more the saving capacity increases, the liability on the association will increase, so to overcome the interest due on deposit the more loan disbursement should issue. Hence, saving capacity may benefit or harsh the associations. The finding of the study was consistent with the finding established by Wakgari (2017).

4.3.3.3. Technology adoption and performance of employee saving and credit association

The relationship between service technology adoption by the association and performance of employee saving and credit association is negative and significant with a coefficient of -0.237. The result indicates that having newly adopted technologies in the association would have a negative impact on the performance of employee saving and credit association. Which means, adoption of new technologies needs huge amount of funds however, saving and credit associations are with limited amount of capital in nature, so once they have used their capital for technology adoption it is difficult to fulfill the loan disbursement properly, hence decreases in interest revenue and decrease in performance.

On the other way the higher having new technologies, the lower would be the performance of employee saving and credit association. The result of regression analysis implies that; 1 unit increase in technology adoption causes performance of credit and saving association to decrease by 0.237 units. This implies that, the more credit and saving associations make investment on technology, there is an assumption that the performance may decrease. Furthermore, it implies that, the more the performance of the associations the more loan disbursement and the more return from the loan in from of interest and causes to increase the performance. However, if the associations minimize the loan disbursement and focused on technology adoption, the less performance may register.

Hypothesis **H3** predicts that adoption of new technology is positively/negatively and significantly associated with performance of employee saving and credit association. The negative and significant coefficient of the regression result supports this hypothesis; meaning that the null hypothesis which states the adoption of new technology has no positive/negative and significant impact on performance of employee saving and credit association is rejected. The finding of the study was inconsistent with the finding established by Wakgari (2017).

4.3.3.4. Literacy Level and performance of the association

The other explanatory variable of the study was level of literacy of members in the association. The result of regression analysis implies that; the performance of credit and saving association has a negative and significant relationship with literacy level of members in the associations and statically significant at 1 percent significance level. Furthermore, the result implies that; 1 unit increase in literacy level of the members causes the performance of the associations to decrease by 0.292 units. The result of regression output implies that; the more the members educated the more consideration for risk. Hence, the less loan disbursement by the associations and affects the performance of the associations. Which implies that; when one person education level increases from time to time, that person become risk averse hence loss confidence to borrow, and this indirectly affects the performance of the associations.

Hypothesis **H4** predicts that literacy level is positively/negatively and significantly associated with performance of employee saving and credit association. The negative and significant coefficient of the regression result supports this hypothesis; meaning that the null hypothesis

which states the level of literacy has no positive/negative and significant impact on performance of employee saving and credit association is rejected. The finding of the study was inconsistent with the finding established by Wakgari (2017).

4.3.3.5. Experience and performance of the association.

Experience of the members has a positive and significant relationship with performance of the association. The result of regression output implies that; 1 unit increase in experience causes the performance the association to increase by 0.162 units and statically significant at 5 percent significance level. From the result, it is possible to understand that; every increase in the experience of each member helps the associations to improve its performance. The more the experience, the more the usage of loan disbursement, and the more the performance of credit and saving associations

Hypothesis **H5** predicts that Experience is positively/negatively and significantly associated with performance of employee saving and credit association. The positive and significant coefficient of the regression result supports this hypothesis; meaning that the null hypothesis which states the Experience has no positive/negative and significant impact on performance of employee saving and credit association is rejected.

4.3.3.6. Inflation and performance of the association.

Among other macro-economic variables, annual average inflation rate was used in this study to examine the relationship between the variables. The result of regression output implies that; annual inflation rate and performance of saving and credit association has positive relationship and statistically insignificant. The result further implies that; 1 unit increase in annual inflation rate causes the performance of saving and credit associations to increase by 0.002 units. The implication of the result is that; an increase in inflation causes a surplus of money on the market, hence numerically the performance of the associations may increase.

Hypothesis **H6** predicts that inflation rate is positively/negatively and significantly associated with performance of employee saving and credit association. The positive and insignificant coefficient of the regression result supports this hypothesis; meaning that the null hypothesis

which states the inflation rate has no positive/negative and significant impact on performance of employee saving and credit association is rejected.

4.3.3.7. GDP per capita and performance of the association.

GDP per capita was used as another explanatory variable of the study to examine how change in GDP per capita of the citizen reacts to change in the performance of saving and credit associations. With this regard, the study implies that; GDP per capita and performance has a positive relationship and statistically insignificant. Increase in GDP per capita shows increase in average earning of the society, hence an increase in income causes increase in saving and more loan disbursement by associations and more revenue with high performance.

Hypothesis **H7** predicts that GDP per capita is positively/negatively and significantly associated with performance of employee saving and credit association. The positive and insignificant coefficient of the regression result supports this hypothesis; meaning that the null hypothesis which states the GDP per capita has no positive/negative and significant impact on performance of employee saving and credit association is rejected. The finding of the study was consistent with the finding established by (Hair, et. al.2006).

4.3.3.8. Exchange rate and performance of the association.

Exchange rate is another variable which is found positively related to performance of saving and credit associations. The result of regression output implies that; exchange rate (devaluation) of currency has a positive relationship with performance of the associations but statically insignificant. The implication of the result is in that; devaluation attracts more foreign direct investment which indirectly decrease unemployment rate and encourage saving, hence more loan disbursement and more revenue.

Hypothesis **H8** predicts that Exchange rate is positively/negatively and significantly associated with performance of employee saving and credit association. The positive and insignificant coefficient of the regression result supports this hypothesis; meaning that the null hypothesis which states the exchange rate has no positive/negative and significant impact on performance of employee saving and credit association is rejected. The finding of the study was inconsistent

with the finding established by (Malhotra 2007).

4.3.3.9. Unemployment rate and performance of the association.

The last variable used in this study was the level of unemployment rate, as indicated in the result of regression output, unemployment rate and performance of the association has a positive relationship but statistically insignificant. The result may indicate; the higher unemployment rate the lower operating costs, since the labor cost is become cheaper and cheaper.

Hypothesis **H9** predicts that Exchange rate is positively/negatively and significantly associated with performance of employee saving and credit association. The positive and insignificant coefficient of the regression result supports this hypothesis; meaning that the null hypothesis which states the exchange rate has no positive/negative and significant impact on performance of employee saving and credit association is rejected. The finding of the study was consistent with the finding established by James (2010).

CHAPTER FIVE

SUMMARY OF MAJOR FINDING, CONCLUSION AND RECOMMENDATION

INTRODUCTION

This chapter is the last chapter of this study; which sum up the whole thesis in comprehensive manner. Accordingly, in the first part of this chapter, an overview of the thesis and its major findings are presented and finally the chapter ends up with recommendations for policy implications.

5.1. Summary of Major Findings.

The study is conducted to examine the Determinants of Performance of Employees saving and Credit Association in Ethiopia (taking as a sample of Addis Ababa city administration). In doing so, some variables measured as factors to performance (which was measured by deposit mobilized, loan defaults, income, Loans issued, employees and members satisfaction and efficiency) were included. The study was conducted through primary and secondary data conducted from sampled saving and credit associations.

The study adopted explanatory research design and mixed research approach. In order to estimate the extent of the effects of each variable, several tests were needed to be done. Firstly, a multicollinearity test was checked through correlation matrix; in order to see, if there was any issue between variables. Then, other tests (such as the auto correlation, normality, and heteroscedasticity tests), were confirmed that a model is feasible.

To analyze the descriptive statistics, the researcher used the mean, maximum, minimum and standard deviation of all variables. Further, the researcher discussed regression analysis to determine the effect of independent variables on the dependent variable. Therefore, in line with the specific objective of the study the researcher reached at the following conclusion. Subsequently the following sections discuss the finding of each variable.

The result of regression analysis indicates that; the variable loan management (which is measured by, Proper loan management system will enhance performance of the association. The association has proper loan evaluation structure. The association has an effective loan disbursement system. The association has an effective loan repayment system. The association has an effective loan protection system.) Has a negative effect on performance of saving and credit associations and statistically significant at 1 percent significance level.

However; the variable saving capacity (which is measured by; the incomes of the members are enough to encourage the saving capacity of Employees saving and credit association. Saving capacity of members determines the performance of Employees saving and credit association. Economic activity of the country is well balanced to encourage saving capacity in order to improve the performance of Employees saving and credit association. Voluntary savings can enhance deposit of the association. Involuntary savings can enhance deposit of the association.) Has a positive effect on performance of saving and credit associations and statistically significant at 10 percent significance level.

The variable technology adoption (which is measured by; technological innovations need to be accepted and actually used by the association to enhance performance, using social media supports performance of the association, using website supports performance of the association, using internet supports performance of the association, adoption of modern technology supports performance of the association) has a negative effect on the performance of the saving and credit associations and statically significant at 1% significance level.

Additionally, the variable literacy level (which is measured by; Literacy status of workers and members of the association has impact on performance of the association. More educated worker is more committed to the desired jobs of the association than less educated. More educated member is more committed to loan repayment than less educated. Less educated worker is more committed to the desired jobs of the association than more educated. Less educated member is more committed to loan repayment than more educated.) Has a negative effect on the performance of saving and credit associations and statically significant at 1% significance level.

Besides, the variable experience of the members found positively correlated with performance of saving and credit associations.

With regard to macro-economic variables, all variables (inflation, GDP per capita, Exchange rate, and Unemployment rate) has a positive effect on performance of saving and credit associations, but they are statistically insignificant.

5.2. Conclusion

Based on the study finding it is possible to conclude that factors loan management, saving capacity, technological adoption, literacy level, and experience have a high impact on determining the performance of saving and credit associations. However, other factors from macro-economic side have no impact in determining the performance of saving and credit associations.

5.3. Recommendations

Based on the finding of the study the following points are forwarded as a recommendation of the study.

On the first hand, the management of different saving and credit associations shall focus on internal factors that influence the performance than external factors as indicated in the finding of the study.

The study recommends the management of saving and credit association to set proper loan evaluation structure with regard to maturity value and maturity date. Only tightening of collection period will not increase the performance of associations.

The study recommends the associations to look over to increase the saving capacity of the members by introducing different incentive mechanisms like banks are doing. In doing so, it is possible to increase the performance of the associations.

The study also recommends the management of the associations to hire and accept more experienced member, as the more experienced member the more performance of the associations as more commitment and knowledge on the issue.

5.4. Further research study

In this study, the researcher has tried to determine the determinants factors of performance of saving and credit associations. In doing so, the study only delimited to Addis Ababa city administration and the researcher highly recommends other researchers to conduct an additional study on the country level or by taking other regional states as a shared of evidence to see if the factors that influence the performance of the saving and credit associations. Furthermore, the researcher recommends other researchers to add more explanatory variables to examine the factors that influence the performance of saving and credit associations.

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ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF ACCOUNTING AND FINANCE

Dear respondent,

I am a graduate student in the department of Accounting and Finance, Addis Ababa University. The purpose of this questionnaire is to collect information on —***Determinates of Performance of Employees saving and Credit Association in Ethiopia***” The information that you share me will be kept confidential and only used for academic purpose and cannot affect you in any case. So, your genuine, honest and timely response is vital for accomplishment of this study on time. Therefore, I kindly ask you to give your response to each items/questions carefully.

Instruction

- ☐ No need of writing your name.
- ☐ For Likert scale type statements mark (✓) sign only once for the given variables depending on your level of agreement.

Part-I: Demographic Characteristics of Respondents

1. Gender: 1. Male 2. Female
2. Age: 1. 20-25 2. 26-35 3.36-45 4. 46-60
3. Marital status: 1. Single 2.Married
4. Educational level: 1. Diploma and below 2.First Degree 3. 2nd degree 4. PhD
5. Years of experience: 1.> 2 years 2. 2 to 5 years 3.5 to 10 years 4.More than 10 years
6. Status: 1.Managerial 2. Worker 3.Member

Part-II: Please kindly indicate the appropriate scale for your opinion by ticking (✓) on the spaces that indicate your choice from the options that ranging from (SA-Strongly Agree, (5) A, Agree, (4) UD- Undecided, (3) DA- Disagree (2), and SDA- Strongly Disagree (1)).

No	Statements	SA 5	A 4	NU 3	DA 2	SDA 1
	Please indicate your opinion as per level of disagreement or agreement with outline statement using 1 to 5 scale guideline. Your assessment shall be based on loan management practice					
1	Proper loan management system will enhance performance of the association.					
2	The association has proper loan evaluation structure.					
3	The association has an effective loan disbursement system.					
4	The association has an effective loan repayment system.					
5	The association has an effective loan protection system.					
	Please indicate your opinion as per level of disagreement or agreement with outline statement using 1 to 5 scale guideline. Your assessment shall be based on Saving capacity of members					
1	The incomes of the members are enough to encourage the saving capacity of Employees saving and credit association.					
2	Saving capacity of members determines the performance of Employees saving and credit association.					
3	Economic activity of the country is well balanced to encourage saving capacity in order to improve the performance of Employees saving and credit association.					
4	Voluntary savings can enhance deposit of the association.					
5	Involuntary savings can enhance deposit of the association.					
6	Please indicate your opinion as per level of disagreement or agreement with outline statement using 1 to 5 scale guideline.					

	Your assessment shall be based on Technology adoption.					
1	Technological innovations need to be accepted and actually used by the association to enhance performance.					
2	Using social media supports performance of the association.					
3	Using website supports performance of the association.					
4	Using internet supports performance of the association.					
5	Adoption of modern technology supports performance of the association					
	Please indicate your opinion as per level of disagreement or agreement with outline statement using 1 to 5 scale guideline. Your assessment shall be based on Literacy status of workers and members.					
1	Literacy status of workers and members of the association has impact on performance of the association.					
2	More educated worker is more committed to the desired jobs of the association than less educated.					
3	More educated member is more committed to loan repayment than less educated.					
4	Less educated worker is more committed to the desired jobs of the association than more educated.					
5	Less educated member is more committed to loan repayment than more educated.					
	Please indicate your opinion as per level of disagreement or agreement with outline statement using 1 to 5 scale guideline. Your assessment shall be based on performance of saving and credit associations.					
1	The association has experienced an improvement in profitability.					
2	The association has experienced an improvement in total deposit.					

3	The association has experienced an improvement in member's satisfaction.					
4	The association has experienced an improvement in internal processes.					
5	The association has experienced an improvement in worker's satisfaction.					
6	The association has experienced an improvement in increasing amount of loan issued.					
7	The association has experienced an improvement in reducing amount of loan defaults.					