



**ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF BUSSINES ADMINSTERATION**

**THE FINANCIAL PERFORMANCE OF COOPERATIVE
CONSUMERS IN ADDIS ABEBA**

**A Thesis Submitted to Department of Business Administration, in
Partial Fulfilment of the Requirements for the Degree of Master
of Business Administration**

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APPROVED BY BOARD OF EXAMINERS

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Statement of Declarations

I, Yunus Shimber Chegen, hereby declare that this Thesis is my original work and that it has not been submitted partially or in full by any other person for an award of a degree in any other University /Institution.

Declared by: - Yunus Shimber Signature.....Date

This Thesis has been submitted for examination with my approval as University Supervisor

Name of advisor - Dr. Mohammed side Ali. Signature.....Date..../03/202

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List of Acronyms

AACAPDC	Addis Ababa City Administration Plan and Development Commission
AACACA	Addis Ababa City Administration Cooperative Agency
BLUE	Best Linear Unbiased Estimator
CLRM	Classical Linear regression Model
CS	Capital Structure
DWT	Durbin Watson Test
EFCA	Ethiopia Federal Cooperative Agency
FS	Firm Size
FEM	Fixed Effect Model
GDP	Gross Domestic Product
HST	Hausman Specification Test
ILO	International Labour Organization
JBT	Jarrqe Berra Test
LOG_FS	Natural Logarithm Firm size
LQ	Liquidity Ratio
MRM	Multiple Regression Model
NBE	National Bank of Ethiopia
OLS	Ordinary Least Square
OPE	Operating Expense Ratio
PRM	Pooled Regression Model
REM	Random Effect Model
RQ	Research Question
ROE	Return on Equity
ROS	Return on Sales
SC	Social Contribution
SG	Sales Growth

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Abstract

This study was conducted to examine the factors affecting of firms' financial performance of the consumer cooperatives in Addis Ababa. The study used secondary source of data, which is panel data in nature, over the period 2016-2020. The data of audited financial statement were collected from consumer cooperatives and macroeconomic data collected from Addis Ababa plan commission and National Bank of Ethiopia. Furthermore, the assumption of classical liner regression model (CLRM) needed to be fulfilled for generalized list square (GLS) or ordinary least square (OLS) were tested using model selection criterion of Hausman specification test random effect model was appropriate to examine the factor affecting of financial performance. Results using random effect panel regression model exhibited that, operational expense ratio, natural log of firm size, social contribution and Inflation were negative and statistically significant effect on financial performance. On other hand, variables like capital structure, sales growth and liquidity ratio have positive and statistically significant effect on consumer cooperatives financial performance. Based on the findings, the researcher recommended that the management bodies of the consumer cooperative should ensure appropriate debit ratio and give greater attention to continuous increasing operating expense ratio because of an increasing operating expense. Besides, Addis Ababa City Government Administration of Cooperative Agency should adhere tight regulation toward the consumer cooperative sectors. Thus, the overall finding indicates that both consumer cooperative factors and macroeconomic factors have statistically significant effect on financial performance.

Keywords: Consumer cooperatives, internal factors, macroeconomic factors, financial performance.

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the study

Financial performance can be measured by growth in profitability, production capacity, sales growth, and utilization of capital and financial resources. That means a manager's ability to operate efficiently, and profitably, survive, grow, and react to environmental opportunities and threats. The financial stability of a firm can be assessed using accounting metrics within the financial management context. A Firm's financial performance is not only important for the firm's owner but also for stakeholders, society as well receive benefits, and researchers as it is important to deal with the factors that affect the financial performance of the firm. If a firm's financial performance is higher, the firm will be more effective and efficient in using its resources and it contributes to more in the country's economy (Sandra, 1997).

Depending on the nature of the industry different ratios are used to measure the financial health of a firm. In the subject of accounting and finance typical firm-specific internal resources which may also be referred as micro-level variables are financial ratios. A financial ratio expresses the relationship between one amount to another. Most users of financial statements find that certain ratios assist them in quickly evaluating the financial position, profitability, and future prospects of a business (Carl et al., 2011). According to Shah Mohd & Ahmed Siddiqui (2020), different ratios are used to measure the financial health of a firm. These ratios are: return on assets, return on equity, sale, revenue, growth, profit margin, stock prices, liquidity ratio, dividend payout ratio, cash flow ratio, and inventory turnover ratio. These ratios are: return on assets, return on equity, sale, revenue, growth, profit margin, stock prices, liquidity ratio, dividend payout ratio, cash flow ratio, and inventory turnover ratio. This idea was also strengthened by Hoang et al.(2019), suggesting firm's financial performance must be measured by using the accounting value of profitability. Basically, the Ratio of net sales to assets, Rate earned on total assets, Rate earned on stockholders' equity, Rate earned on common stockholders' equity, Earnings per share on the common stock, Price-earnings ratio, Dividends per share, and Dividend yield (Of & Flows, n.d.) Profitability ratios measure how effectively a firm's management is generating profits on sales, total assets, and, most importantly, stockholders' investment.

Identifying and evaluating the determinant factors of an organization's financial performance is such an important topic that has drawn the attention of business executives as well as researchers in the world and Ethiopia as well. There are more and more empirical studies on factors affecting the financial performance of institutions that identify the major factor affecting financial performance. The factor affecting a firm financial performance is divided into two-part firm-specific or internal factors and macroeconomic or external determinants (Al-Tamimi,2010). Additionally, Assfaw (2015), internal factors are individual characteristics that are stochastic variables that factor affecting the financial performance of firms capital structure, size, growth, and liquidity are the primary determinants of a firm's financial performance. Commonly, profitability indicator has been used as a proxy of financial performance. Firm-specific factors are individual firm phenomena that affect the financial performance firm and these factors are mainly affected by internal decisions of management.

Macroeconomic variables influence the financial performance of an organization those factors which are external to the management's control are referred to as macroeconomic. The economic and legal environment affects the operation and financial performance of firms. These variables are the variable effects of the economy as a whole or aggregate that the firm operates in its external environment in opposite to microeconomics focused on the influence and choice made by individuals. The most prominent variables used in determining the financial performance of the firm included: the annual change in GDP, inflation rate, the growth of money supply, the ratio of stock market capitalization to total assets, the ratio of total assets to GDP, and concentration(Al-Tamimi, 2010). In our case, only two variables are considered independent variable that affects the financial performance of consumer cooperative in the existing economy.

1.1.1. Consumer Cooperative

According to Aaron (2015), historians of cooperatives consider this organization arose at the time of the industrial revolution which means these organizations exist from very ancient times but it was then that the principles of cooperation were enacted gaining momentum in this revolutionary movement. The concept of cooperative society has the same definition but in practice different from country to country and government to government. As Ortmann & King(2007), a cooperative is a user-owned and user-controlled business that distributes benefits equitably on the basis of use or patronage.

Another researcher, Mesganaw (2015), the Cooperative Society Proclamation No.147/1998 creates a strong forward and backward linkage between government and cooperative society that Cooperatives have been used as instruments by the government to interfere in the economy and also the legal recognition of special privileges to cooperatives like government assistance, Income tax exemptions, Priority Claims, Administrative ease like No Business License, Temporary certificate pushing cooperatives from the social objective model into investor-owned firms (partnership/company) that means the Cooperatives enter into market competition and profit-maximizing model. The government uses Cooperatives as a means to implement policies especially to fight inflation and to control the price and distribution of basic goods Channeling to consumers and the cooperative uses this government motives as a means of business advantage in the form of privileges to cooperatives like government assistance to get land, income tax exemptions, priority claims, administrative ease like no Business license, temporary certificate possible only cooperators are pushing cooperatives from cooperation and social objective model into the realm of investor-owned firms (partnership/company)- competition and profit-maximizing model.

1.2. Statement of the problem

According to Roult (1995), measures of financial performance take a variety of forms. These measures differ from each other on several dimensions, and many issues concern the choice of which particular financial measure to employ. Measuring Firm financial performance is one of the most interesting research topics among the financial management area. According to Matar & Eneizan (2018), not only for measurement but also which tools and indicator factors mostly affect the profitability of the firm. The factors that affect the profitability of the firm are different from financial institution to non-financial institution and also, they are different with in the same financial institution and same non-financial institution. It was still arguing issue among different researchers' effects of various factors on financial performance. Hence, many researchers have conducted a lot of studies on determinants of financial performance due to its significance for the institutional survival.

The study made across the cooperative institutions, non-financial institution studies, and review of previous studies on different types of financial institutions in different countries shows that differentiating firm-specific factors and macroeconomic factors for the specific firms is very important to achieve its financial objective and institutional survival. There are plenty of variables that affect the financial performance of institutions.

The majority of the studies was prepared with reference to financial institutions like banks, insurance, saving, and credit associations (Ayano, 2016), (Ababa, 2016), (Assfaw, 2015) (Ongore & Kusa, 2013), (murerwa, 2015), (Matar & Eneizan, 2018) (Mauwa, 2016) (Habtamu, 2012).

At the same time, there are Similar studies worked with similar titles and variables but in different methodologies resulting in different findings on the non-financial institutions from this studies (Bayaraa, 2017), (singh et al., 2019), (mauwa, 2016), (Tailab, 2014), (Audax, 2018), (Matar & Eneizan, 2018), (demirgünes, 2016) and (Tailab, 2014).

When we see empirical studies on Factors affecting cooperative's financial performance, especially in consumer cooperatives is difficult to get literature but in agricultural cooperatives, there are some empirical studies, These studies include the recent studies of Dube & Ozkan (2019), examining The Financial Performance Of Primary Agricultural Cooperatives In Dinsho District Of Bale Zone Of Ethiopia. An attempt has been made in this study to evaluate the financial performances of multi-purpose primary agricultural cooperatives, An Analysis of the Financial Performance of Selected Savings and Credit Co-Operative Societies in Botswana by Sathyamoorthi et al (2016) had been conducted the research on the factors affecting the financial performance of saving and credit cooperatives. It is obvious that the empirical studies on the consumer cooperative's financial performance determinants are somehow neglected as we explained in above.

Cooperative consumer societies play a crucial role not only for their members but also for the City Administration of Addis Ababa as a means to implement policies especially to fight inflation and channeling of basic goods to consumers, similarly, it is the backbone for low-income groups of Addis Ababa residents because due to existence of consumer cooperatives consumers automatically get the needs as their income capacity and the habit of savings. And establish the fair-trading practice in the goods market. Consumer cooperative also purely acts as investor-owned firms by running for competition and profit-maximizing motive and they operate within the market systems. That is to say, for sustainable multi-function, consumer cooperatives need to be profitable.

Therefore, with this study, we try to address the gap and also analyze the factors that affect the financial performance of cooperatives consumer by evaluating and testing six micro specific factors (internal factor) variables namely firm size, capital structure, operation cost,

liquidity, and sales growth and two macro specific factors (external factor) variables i.e. inflation and real GDP growth rate that can affect the financial performance of cooperatives consumer because we can represent missed variables in stochastic error terms in the regression equation.

1.3. Research questions

Research questions are the basic questions that help to achieve the collective aim of the study. According to the problem that stated on the above, this study was given special emphasize to answering the following specific research questions.

RQ1: What were the cooperative's consumer-specific factors affecting the cooperative's consumer financial performance in Addis Ababa city administration?

RQ2: What were the macroeconomic factors affecting the cooperative's consumer financial performance in Addis Ababa City administration?

1.4. Hypotheses of the Study

In this section the researcher developed testable hypotheses to examine the relationship between cooperative consumer specific and macroeconomic factors of financial performance of cooperative consumers in Addis Ababa, As Gujarati & Econometrics (2004) Such confirmation or refutation of economic theories on the basis of sample evidence is based on a branch of statistical theory known as statistical inference (hypothesis testing). According to Brooks (2013), in the hypothesis testing framework, there are always two hypotheses that go together, known as the null hypothesis (denoted H_0 or occasionally H_N) and the alternative hypothesis (denoted H_1 or occasionally H_A). The null hypothesis is the statement or the statistical hypothesis that is actually being tested. The alternative hypothesis represents the remaining outcomes of interest. The researcher developed the following null hypotheses to estimate the significant effect of consumer cooperative specific and macroeconomic factors on the financial performance of cooperative consumers in Addis Ababa with based on empirical evidence reviewed in the literature parts. Accordingly, the following hypotheses are tested.

HP1: size of consumers cooperative has significant and negative impact on cooperative's consumer financial performance in Addis Ababa,

HP 2: Capital structure of a cooperative consumer has significant and positive impact on cooperative's consumer financial performance in Addis Ababa,

HP 3: liquidity of cooperative consumer has significant and positive impact on cooperative's consumer financial performance in Addis Ababa,

HP 4: sales gross has significant and positive impact on cooperative's consumer financial performance in Addis Ababa,

HP 5: operational efficiency has significant and negative impact on cooperative's consumer financial performance in Addis Ababa,

HP 6: social contribution has significant and negative impact on cooperative's consumer financial performance in Addis Ababa,

HP 7: GDP-Rate has significant and positive impact on cooperative's consumer financial performance in Addis Ababa,

HP 8: Inflation rate has significant and negative impact on cooperative's consumer financial performance in Addis Ababa,

1.5. Objective of the Study

1.5.1. General Objective of the Study

The General Objective of the Study was to examine the factors affect consumer cooperative's financial performance in Addis Ababa.

1.5.2. Specific objective of the study

This study was addressing the following Specific objectives;

- ❖ To determine the significance of six micro specific factors (internal factor) on cooperative's consumer financial performance in Addis Ababa measured by return of equity?
- ❖ To determine the significance of two macro specific factors (external factor) on the cooperative's consumer financial performance in Addis Ababa measured by return of equity?

1.6. Significance of the Research

This research has the following significance,

- ❖ It initiates the cooperatives' consumer management to give due emphasis on the management of those identified variables and provides them with an understanding of activities that will enhance their profitability.
- ❖ It contributes sound strategic alternatives for policymakers for those involved in cooperative consumer institutions at different levels.
- ❖ Finally, it is beneficial for different stakeholders such as the Addis Ababa office cooperative agency, members of cooperative consumers, and other researchers.

1.7. Scope and Limitation of the Study

This research works only in Addis Ababa and the result may not necessarily represent the reality for the entire country of Ethiopia's cooperative consumer; but within the target city, Addis Ababa, the researcher tried to make representative samples in dealing with the research population. In addition to this, it has hard to study in wider terms all factors that affect the performance of cooperatives consumers due to knowledge (experience), time, and budget constraints this study is limited to only financial performance factors. This study is confined to only one dependent variable to measure the performance of consumer cooperatives, and eight indicators as independent factors of financial performance will be used in the regression models. So, future studies may be conducted considering other financial measures indicators such as return on sales, return on equity, etc. and other independent financial performance indicators such as total sales, total assets turnover, etc. can be taken. Moreover, for panel data analysis, random effect models or fixed effect models can be applied instead of multiple OLS regression models. Accordingly, this research methodology is delimited to descriptive, correlation, and multiple ordinary least square regression analysis based on intensive secondary data review.

1.8. Organization of the study

This research work was organized as follows; following the introduction chapter that contains the background of the research, an overview of cooperative consumers, a statement of the problem, the research question, the objective of the research, the significance of the research, the scope of the research, limitation of the research and organization of the paper the second chapter provides an overview of related literature that include, the third chapter was dedicated on research methodology applied for this research work it includes research design, research

approach, sampling technique, population and sample size, data gathering instruments. The fourth chapter is dedicated to data presentation, analysis, and interpretation.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

This section covers the review of the related literature and establishes the theoretical and empirical foundations on which the study learned. Specifically, the literature review covered theoretical analysis including the concept of financial performance, measurement tools of financial performance and models of firm profitability, and other related relevant issues to the study in hand has discussed.

2.1. Theoretical Literature

2.1.1. Definition of words

Performance is an activity applied to a part or all outcomes of an action in a time period, often with a connection to previous or proposed expenditure efficiency, management responsibility, or accountability (Khan et al., 2017).

Finance is the process of distributing capital in the form of loans, credit, or investible capital to those business entities that need the most or can put them to the most productive use (Van Horne, 2005).

Cooperatives as an “autonomous association of individuals, who voluntarily associate on the bases of equal obligation and right; who are grappling with similar economic challenges and tries to solve this challenge mainly by conducting at their own risk and undertaking to which they have transferred one or more of such of their economic activities correspond to their common needs. Utilizing their human, material, and money by making joint associations for their common economic and social benefit. We can understand that people create a cooperative society to deter economic and social problems that cannot achieve individually (Linnea & Bråtenius, 2006).

2.1.2. Overview of cooperative society in general context

The cooperative form of enterprise is widespread use throughout the world. It is applied in most market economy countries and to an increasing amount in newly developing countries. Though cooperatives occurred in the former Eastern Bloc, they differed radically in both form and content from the international mainstream, as well as in the meaning intended here according to Zarnan, (2018), Cooperation is an age-old way of attaining a goal that is beyond

the resources of an individual or when working together offers a more applied or favorable solution. The co-operative as a different form of company is already over a 150-years old. Its birth occurred at the time when the contemporary market economy was in its infancy and the need arose for an alternative structure than one based on the ownership of capital or in modern terminology, a company owned by its members and/or customer-owners.

Despite this glorious background, cooperation remains surprisingly unfamiliar. It is also said—with the explanation of cooperation was weak in theory but strong in practice. These factors together mean that throughout its long history, cooperation has often suffered from an identity or image problem which includes poor recognition, prejudice, and misunderstandings of society. For this reason, it is relevant to briefly discuss what cooperation is really about theoretically, historically, and in practice.

According to Biset Amene & Yadessa (2018), the concept of human cooperation is not new. It was existing even before the formation of modern cooperatives with its own business principles which made it successful. There are quite considerable differences between countries in structures, regulation, and their actual operating principles. However, irrespective of the market conditions in which they operate these cooperatives share a common origin and history in the establishment by the flannel weavers of Rochdale, The Rochdale society of equitable pioneers in 1844 was the first successful consumer cooperative business. Consumer cooperatives originated at a theatrical pace in the 1850s in Britain, the heartland of industrialization and modernization.

Ethiopia has introduced contemporary types of co-operatives in various areas of attempt after the majority of African countries where their co-operatives were established by the Western powers during their colonization period. The first consumer co-operative was established in Addis Ababa in 1945 and after decree No. 44 of 1960 modern or 'imported' co-operatives were officially introduced (ILO, 1975).

According to Mesganaw Kifelew (2015), this cooperative Society Proclamation No.147/1998 create a strong forward and backward linkage between government and cooperative society that cooperatives have been used as instrument by the government to interfere in the economy and also the legal recognition of special privileges to cooperatives like government assistance, Income tax exemptions, priority claims, administrative ease like no business license, temporary certificate pushing cooperatives from the social objective model into

investor-owned firms (partnership/company) that means the Cooperatives enter into market competition and profit-maximizing model. The government uses Cooperatives as a means to implement policies especially to fight inflation and to control the price and distribution of basic goods Channeling to consumers and the cooperative uses this government motives as a means of business advantage in the form of privileges to cooperatives like government assistance to get land, Income tax exemptions, priority claims, administrative ease like no business license, temporary certificate possible only cooperators are pushing cooperatives from cooperation and social objective model into the realm of investor-owned firms (partnership/company) competition and profit-maximizing model.

2.1.3. Financial performance indicator

All business entity has the objective of making a profit and profit maximization but the extent of the appropriate and efficient method used to achieve this objective is determined by the firm's overall efficiency and effectiveness in earning its level of asset, sales, capital employed, and net worth capital employed (Sheik A.M, 2014). There are many conflicting theories in which the firm profitability (financial performance) can be measured and which criterion is best to measure financial performance. However, many researchers commonly used accounting value profitability indicators as a proxy for financial performance. According to Almajali et al (2012), the advantages of financial measures are the easiness of calculation and that definitions are agreed upon worldwide. Traditional, balance sheets and data in the income statements from financial ratios are considered critical measurement tools in determining the financial assets of companies and their performance (Nizam & Hoshino, 2015).

2.1.4. Firm specific Determinants of financial performance

The determinants of firm financial performance are divided into two-part firm-specific or internal factors and macroeconomic or external factors, firm-specific or internal factors are stochastic variables that determine the financial performance firm, these factors are basically influenced by internal decisions of management (Adjé, 2018). In the article of Jensen (1986), on their strategic management thought, they consider firm-specific internal resources as primary factors of a firm's total performance. These are. In the subject of accounting and finance typical firm-specific internal resources or it may also be referred to as micro-level variables are capital structure, size, sales growth, operational efficiency, and liquidity are the

primary determinants of a firm's financial performance. Internal factors are individual firm characteristics that affect the financial performance firm. Each firm-specific indicator is further discussed below how it affects firm financial performance.

2.1.4.1. **Capital structure**

Capital structure is measured by the ratio of total liability to total equity i.e. Debt-to-equity ratio. It shows the extent of the number of loans in real assets. The existing literature on the effect of leverage on a firm's financial performance has come to mixed results and conclusions (Nikolaus, 2014). There is no common agreement accurate proportion of capital structure in the firm. Generally, the cost of equity capital is higher than interest charges on debt while having some debt is good, too much debt is risky. According to Ayano (2016), organizations that are more leveraged are likely to face negative results as there is a risk of default, in case the firm is unable to meet its obligations, it is difficult for a firm to get new debt from the market. According to Matar & Eneizan (2018), leverage is not always bad, however; it can increase the stockholders' earnings on their invested funds and make better utilization of the tax benefits related to debt financing, so capital structure plays an essential role in the financial performance of the firm. Many empirical works of the literature showed mixed results on the relationship between capital structure and financial performance. Margaritas and Pillai (2010) found that capital structure is positively related to a firm financial performance. Recent research by Nikolaus (2014) leads to the conclusion that leverage has a negative relationship with firm performance; he suggested that the efficiency of the country's legal system affects this relationship between a firm's financial performance and capital structure. Accordingly, his suggestion is that a country with an efficient legal system has lessened leverage's negative effect on performance. Mirza (2013) in Pakistan found that leverage significantly and positively impacted financial performance.

2.1.4.2. Firm size

According to Pantea et al (2014) firm size has the most significant impact on performance; especially when measured through ROA. Mirza (2013), the firm's size is measured as the natural log of total assets calculated by moderating the Natural logarithm of Total Assets. $FS = \ln A$. But there is no common agreement because some researchers argue that large firms enjoy economies of scale and scope and have more resources and capacity to undertake more product lines and higher production capacity together with organizational resources (Rotich, 2015). Other says smaller firms may be more flexible, theoretically, equivocal on the precise relationship between a firm's financial performance and firm size (Tailab, 2014). Most of the studies measuring the effect of firm size on financial performance have found positive trends between firm size and financial performance.

2.1.4.3. Liquidity

Liquidity can be measured by calculating the ratio between current assets to current liabilities (current ratio) (Matar & Eneizan, 2018). It refers to the capability of a business to discharge its current liabilities which liabilities being mature in the next year can be repaid from the current assets of the firm. If the liquidity ratio is higher, the firm's ability to meet its current liabilities will be higher in terms of the margin of safety. However, too high a ratio is an indication of poor asset management. According to Khan et al (2017), more liquidity will facilitate the company to face unforeseen events and to manage its responsibility during operational activities of minimum profits. In general, many empirical studies show that there is an inverse relationship between liquidity and financial performance. The studies show that liquidity has a positive significant effect on the profitability of American firms (Tailab, 2014). Matar & Eneizan (2018) reveal that the liquidity variable is positively related to the return on assets. According to Nikolaus (2014), in the fertilizer industry of India, liquidity in terms of the current ratio has a statistically negative effect on financial performance. Even though this evidence supports the theory, some empirical studies reveal contradictory to the theory also exists. According to the studies of Khan et al (2017) on the textile industry in Pakistan analyzing factors affecting the profitability of non-financial U.S. firms, liquidity in terms of the current ratio has a statistically positive effect on financial performance.

2.1.4.4. Sales growth rates

According to Nizam & Hoshino (2015), sales growth rates denote a percentage change in the sales of a company in a given year with respect to the previous year's sales. It tells whether the company's sales increase or decrease during a specific year and the size of the change. According to Tailab (2014), the inventory shortage leads to sales loss, while excess inventory may increase holding costs. Generally, Noel Capon (2020), growth, analyzed in 88 studies, is consistently related to higher financial performance. Growth in sales individually shows positive relationships to performance at both industry and firm/business levels of analysis (Noel Capon, 2020).

2.1.4.5. Social responsibility

According to Cho et al (2019), social responsibility refers broadly to a firm's legal, economic, ethical, and philanthropic responsibilities. Nana et al (2018), defines social responsibility as the pursuit of the right policy in terms of social goals or values, describing it as the duty of businesspeople to follow such decisions and actions. When concluding the relationship between a firm's social responsibility and financial performance, we should consider the size of the firm. As Zoubir (2015), the size is therefore a factor of mediation in the relationship between CSR and financial performance. For a large firm in the correlation between CSR performance and profitability (ROA), only social contribution has a positive (+) relationship at a significance level below 5%. Still, a small firm has a negative impact of CSR on the performance measured by several indicators (Zoubir, 2015). And also as revealed by Linnea & Bråtenius (2006) there was no significant reaction to the top-performing companies' stock returns, but the general direction of the impact was negative.

2.1.4.6. Operating Expense Ratio

The operating expense ratio is the ratio between the total operating expenses (TOE) and operating income or the effective gross income for an income producing property. This ratio represents the total amount of expenditures the society pay for earning total revenue. Therefore, the lower percentage of this ratio means that societies earn better income in a particular year. Accordingly, from the above profitability table: --- everybody understands that the society incurs high expenditure to earn revenue; therefore this implies that the society's financial performance is unhealthy and inefficient to generate income by using less expenditure. Mugun (2020), indicated that the operating expense ratio had a negative and statistically significant relationship with a return to assets ratio.

2.1.5. Macro(external) determinants of financial performance

Macroeconomic variables influence the financial performance of an organization (Mirza, 2013). Macroeconomic factors are also important contributors to firm performance, but they are external to firms' control. These factors are beyond the management's control are referred to as external. Economic and legal environment that affects the operation and financial performance of firms. These variables are variable to affect the economy as a whole or aggregate that the firm operating in its external environment in opposite to micro economic focused on the influence and choice made by individual (Haider et al., 2018). The most prominent variables that used in determining financial performance of the firm are Inflation, gross domestic product, exchange rate, unemployment, interest rate and other (Panayiotis et al., 2005). In our case, only two variables are considered as independent variable that affects the financial performance of consumer cooperative in the existing economy.

2.1.5.1. Inflation

Inflation is the relative rise of the price of goods and services or a decrease in purchasing power of money. It is measured by the annual percentage change in the general price level (Ifeanyi C. & Chuskwuma C., 2016). A perfect negative relationship between inflation and the value of the firm and the insignificant relationship between inflation, economic value added and profitability. According to Nikolaus (2014), the inflationary condition of a country affects the firm's financial performance and also, on the other hand, a higher inflation rate has a negative effect on firm performance. On the other hand, Hailegebreal (2016), inflation has a negative and significant effect on financial performance. However, some studies show that inflation has positive effect on firms' financial performance. As Shah Mohd & Ahmed Siddiqui (2020), inflation has a positive effect on the ROA. Berk et al.(2006), there is a strong positive between financial performance by commercial banks in Kenya and macroeconomic variables. The reason why as we have seen in the above different researchers found that the effect of inflation on financial performance is as explained by Habtamu (2012), that the determination of inflation effect on firm performance depends on anticipation because inflation is high and unexpected it can be very costly to an economy.

2.1.5.2. Gross domestic product

Gross domestic product is the market value of all final goods and services produced within an economy in a given period of time (Mankiw, 2005). Ifeanyi C. & Chuskwuma C (2016), examined gross domestic product had a positive significant effect on firms' financial

performance. And also Hailegebreal (2016), found a similar result that gross domestic product had a positive significant relationship with the profitability of the Ethiopian insurance industry. According to Shah Mohd & Ahmed Siddiqui (2020), the gross domestic product had a positive significant relationship effect on ROA. Egbunike & Okerekeoti (2018), found it to have an insignificant positive effect on ROA. Similarly, research of Tambo (2016), examined that return on asset is positively affected by GDP and Kangal and Nadeem (2013) found that real GDP has an insignificant positive effect on financial performance. As Murunga (2014), on a sample of insurance firms found that GDP had significant positive effects on performance, (Berk et al., 2006), there is a strong positive between financial performance by commercial banks in Kenya and macroeconomic variables.

2.2. Review of Empirical Literature

This subchapter provides so much evidence which identifies the major determinants of financial performance. In case, some studies are conducted on particular institutions and others on a panel of institutions. Hence many researchers have conducted a lot of research on determinants of financial performance due to its significance for institutional survival. In this case, the researcher starts reviewing empirically related literature from the study made across the cooperative institutions, and non-financial institution studies and also review of previous studies on different types of financial institution in different countries. There are plenty of variables that affect the financial performance of institution. In this study, the researcher focused on both consumers cooperative specific and macroeconomic determinants of financial performance cooperative consumers in Addis Ababa. Cooperative consumer-specific variables like; firm size, capital structure, liquidity, operational efficiency, sales growth, and macroeconomic variables like gross domestic product and inflation.

2.2.1. Review of Empirical Literature on cooperative institutions

When we see empirical studies on determinants of the financial performance of cooperatives, especially in cooperative consumers is difficult to get literature but in agricultural cooperatives, there are some empirical studies, These studies include the recent studies of Examining The Financial Performance Of Primary Agricultural Cooperatives In Dinsho District Of Bale Zone Of Ethiopia (Dube & Ozkan, 2019). An attempt has been made in this study to Evaluate the financial performances of multipurpose primary agricultural cooperatives in the study area was the main objective of this study. Consequently, different

ratios measurements that were commonly utilized to measure the financial performance of cooperatives were liquidity ratios, leverage and profitability ratio of nine multipurpose cooperatives were examined for the period of 2015/16 and 2016/17. The final conclusion of this study indicates that the cooperative's financial position had not maintained a satisfactory level of financial assessment. Dube & Ozkan (2019) concluded that the current ratio of these cooperatives indicated that these cooperatives had enough liquid assets to pay off their short-term obligations. Consequently, The Liquidity ratio of the cooperative was not sound enough during the study period. Similarly, the capital structure that measured by debt to asset ratio as an indication of the financial risk of the cooperatives also implied that the cooperatives have a shortage of their own capital.

According to Sathyamoorthi et al (2016), the variables include interest expense percentage, net profit ratio, return on total assets, total assets turnover, sales to capital employed, fixed interest cover, interest on loans to interest on savings, current ratio, net book value per share, earnings per share are independent variables and return on capital employed is considered as a dependent variable. The approach used to estimate the parameters of the model is the analytical techniques used including descriptive statistics of financial aggregates and ratios, correlation, regression and common size analyses. The study revealed that the selected SACCOSs had appreciable profitability potential which could be associated with effective utilization of resources, controlled spending on administrative and financial expenses, and effective control over credit. The findings of this study further revealed that the selected SACCOSs had a sound short term and long-term solvency positions supported by huge cash, and cash equivalent balances and very low external funds.

Another researcher Singh et al (2019), a study on the determinants of financial performance of U.S agricultural cooperatives indicated that there are certain internal as well as macroeconomic determinants that influence agricultural cooperatives' performance in a significant manner. The conducted research allowed them to investigate the possibility of the macro aspect of economic policy uncertainty. The results also suggest that economic policy uncertainty in the U.S. in recent years may have harmed the Agricultural cooperatives' financial performance. In the case of the internal factors, growth is found positively associated with performance, while Size indicates that small agricultural cooperatives usually earn higher rates of return on assets than large asset- rich cooperative firms. With respect to size, it could be hypothesized that small agricultural cooperatives, with a relatively small

asset base, prefer to maintain higher liquidity and have a better market access ability than large firms.

2.2.2. Review of Empirical Literature on Non-Financial institutions

In the case of non-financial institutions there are similar studies worked in similar title and variables but in different methodology result different findings on non-financial institution, from this studies Hoang et al (2019), ROS, ROA and ROE as proxies of financial performance and capital structure, firm size, current ratio, growth rate, fixed asset investment, receivables management are independent variables. The approach used to estimate the parameters of the model is the ordinary least squares and quintile regression approach using regression method on panel data for econometric models to examine the determinant factors and degrees of impacts of factors on financial performance of listed firms on Vietnam stock exchange. The results revealed that firm size is positively related to financial performance; and on the contrary, capital structure, current ratios, fixed asset investments have negative relationship with business performance. At the same time, factors affecting financial performance when measured by ROA, ROE and ROS were not similar.

The Case of Mongolian Companies Bayaraa (2017), who has conducted a research to show the variables included were (ROA), (ROE), and (ROS) were chosen as dependent variables, while growth in assets, growth in profit, return on costs, cost to revenue ratio, sales growth, earnings per share, cost to revenue ratio, gross profit margin, were used as explanatory variables. The study found that capital structure, cost structure and profitability are the determinants of financial performance in Mongolia. In addition to this, there are some determinants attached with certain sector, such as long-term debt to total assets ratio is significant for the mining and agricultural sector only; however, short-term debt to total assets ratio is the determinant factor only for the service sector. In general, return on asset has more determinants than return on equity and return on sales, such as earnings per share, return on costs have positive impacts.

Analyzing Factors Affecting Profitability of Non-Financial U.S. Tailab (2014) was conducted a study on random-effects panel regression model for 100 firms. The variables included were leverage, liquidity, inventory, growth, size and firm's age as factors effecting financial performance. Findings also presented that inventory turnover, sales growth; firm size and capital structure have a negative significant impact on ROA, while liquidity and size in terms

of sales have positive significant effect on profitability of the American firms. However, an insignificant negative relationship was found between size in terms of total assets and return on assets.

Chytis et al (2018) also conducted a study to determinants of factors affecting Firm Performance in periods of Financial Crisis: Evidence from the listed on the Athens Stock Exchange Food Companies, in the study, samples of 13 food companies were examined for the period 2008 - 2012. The variables included were Corporate profitability was selected as a proxy for company financial performance and was regressed on firm characteristics and key financial performance indicators like firm size, liquidity, leverage, receivables/ payables turnover and capital employed to net fixed assets ratio. On the other hand, a negative association was found between profitability and capital employed to net fixed assets ratio and inventory turnover days. The remaining variables were not found to be significantly correlated. Our results about the impact of firm size on firm performance confirm the findings of previous studies in Greece.

2.2.3. Review of Empirical Literature on Financial institutions

In case, some studies are conducted on a particular financial institution and others on panels of financial institutions. Hence many researchers have conducted a lot of studies on determinants of financial performance due to its significance for institutional survival. The study made across the cooperative institutions, non-financial institution studies, and also review of previous studies on different types of financial institutions in different countries shows that differentiating firm- specific factors and macroeconomic factors for the specific firms is very important to achieve its financial objective and institutional survival. There are plenty of variables that affect the financial performance of institutions. From the financial institutions, the recent studies of determinants of commercial banks' financial performance in Ethiopia Ayano (2016) by taking panel data of seven sample commercial banks out of eighteen commercial banks operating in the country over the period 2000-2014. In this study both bank-specific and macroeconomic determinants of commercial banks' financial performance were conducted; the internal factors used in this study include asset quality capital adequacy, liquidity management, earning ability, and bank size whereas, the external factor is the foreign exchange rate. Moreover, (ROA), (ROE) and (NIM) were used to measure the financial performance.

By using the quantitative research approach that incorporates the three Panel data estimation method, pooled OLS regression, the random effect model and runs a redundant fixed effects test using Hausman specification test were used for extracting good result, and F-test ascertained the appropriateness of Pooled OLS regression model. Hence, based on the result capital adequacy and bank size, have significant impact on ROA with a positive relationship; which means any increase/decrease in the value of these variables leads to an increase/decrease in the financial performance of commercial banks. Accordingly, earning ability and foreign exchange rate have a significant impact on return on asset with a negative relationship; which means any increase/decrease in the value of these variables follows a similar direction on the financial performance of commercial banks. But, capital adequacy, asset quality, earning ability, liquidity management, and foreign exchange rate have a significant impact on return on equity with a negative relationship. In this study, Bank size has a significant impact on the return on an asset with a positive relationship; it shows that any increase/decrease in the value of these variables follows a similar direction on the financial performance of Commercial banks.

Mauwa (2016), by using generalized least squares on panel data to estimate the parameters. The inquirer examined managerial efficiency, asset quality, and capital adequacy affects significantly the performance of Kenyan commercial banks. The other bank-specific factor liquidity management represented by liquidity ratio was found to have no significant effect on determinants of financial performance. Habtamu (2012), conducted a study on South African commercial banks, and he found that deteriorating credit quality, low liquidity and profitability in the South African commercial bank resulted in a decrement in south African commercial banks' financial performance.

In the study made by Assfaw (2015), analytical approaches were applied. In this study, return on asset, return on equity, and net interest margin as the dependent variables, and bank-specific (internal) factors like management efficiency, bank size, asset quality, liquidity management, and capital adequacy as independent variables were used.

Murerwa (2015), tried to examine the key determinants of banks' financial performance in developing economies: evidence from Kenyan commercial banks. This study used a census of all 44 banks of data for five years, and the analysis was based on descriptive and inferential analysis and presented by using charts and tables. The study has brought out that firm-specific factors (internal factors) influence bank financial performance; a positive

relationship between capital adequacy and performance of commercial banks in Kenya was established. Competition is the deepest industry-specific determinant while macro-economic factors did not have that much impact on the bank's financial performance.

A research conducted by Ongore & Kusa (2013), determinants of financial performance of commercial banks in Kenya the main objective of the study was to investigate the internal and external determinants of Kenya's commercial banks financial performance over the period 2000 - 2014 by using linear multiple regression model and generalized least square on panel data to estimate the parameters. In This empirical study, the authors examined that capital adequacy and management efficiency significantly affect performance.

A study conducted by Ifeacho & Ngalawa (2014), Performance Of The South African Banking Sector Since 1994. They used financial ratios to measure the credit quality performance, liquidity, and profitability of five large South African commercial banks. In their final result, they examined overall bank performance increased considerably in the first two consecutive years of the analysis. A significant change in trend is noticed at the beginning of the global financial crisis in 2007, reaching its climax during 2008-2009. This resulted in falling deteriorating credit quality, low liquidity and profitability in the South African commercial Bank.

In a study made by Almajali et al (2012), leverage has a significant statistical impact on the financial performance of insurance companies an increase in leverage has a positive impact on their performance. Liquidity has a significant statistical impact on the financial performance of insurance companies. This implies that high liquidity obviates the need for management to improve annual operational performance. Company age has no significant statistical impact on financial performance of insurance companies.

2.3. Literature gap

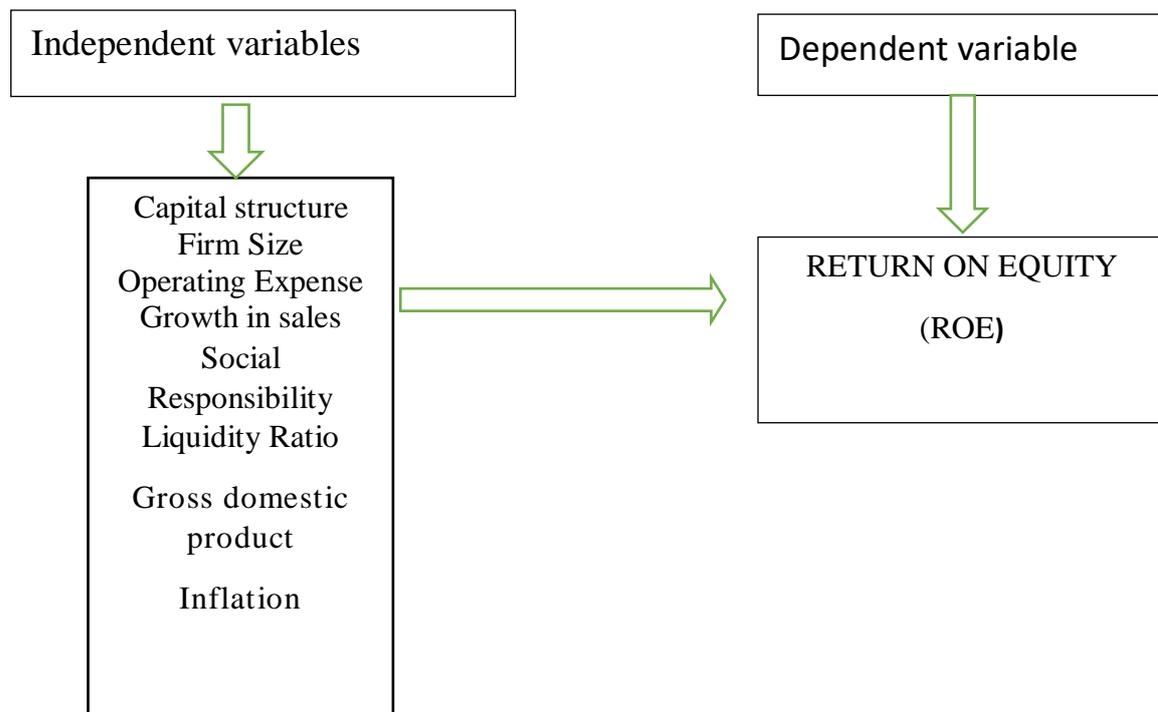
As we have discussed in the above section there is large volume of literature in the area of financial performance in the light of financial institution like bank, insurance, saving and credit associations some of previous studies are (Ayano, 2016); (Ababa, 2016) (Assfaw, 2015) (Ongore & Kusa, 2013); (murerwa, 2015). (Matar & Eneizan, 2018) (Mauwa, 2016) similarly there are studies of non-financial institution from this studies like (Bayaraa, 2017), (singh et al., 2019), (mauwa, 2016), (Tailab, 2014), (Audax, 2018), (Matar & Eneizan, 2018), (demirgünes, 2016) and (Tailab,2014), addressed different dynamics of financial

performance. However, very few studies Dube & Ozkan (2019) and Sathyamoorthi et al., (2016), assessed financial performance of Agricultural cooperatives but when we see empirical studies on determinants of financial performance of consumer cooperative is difficult to get literature. Therefore, with this study, we try to address the gap and also analyzing the financial performance determinant factors influence performance of consumer cooperatives

2.4. Conceptual framework

The theoretical and empirical literature reviews suggested that the financial performances of institutions are determined by firm-specific (internal) and macro (external) factors. Both firm-specific, and macro factors used in this study include capital structure, Firm Size, Operating Efficiency, Growth in sales, Liquidity, Real GDP growth rate and Inflation rate only for the study proposed.

Figure 2.1 conceptual frameworks



Source: Researchers own computation

CHAPTER THREE

3. RESEARCH METHODOLOGY

This chapter discussed about the methodology and technique used in conducting the thesis and it is organized into different sub-sections. Research Methodology is defined as the systematic way of answering a research problem, by using various methods for data collection and drawing conclusions about the research data. This chapter covered the research design, research approach, sampling technique, population and sample size, instruments, and data analysis.

3.1. Research Design

This research used an explanatory research design of doing research because it helps the researcher to explain the causality relationship between variables and measure the concepts quantitatively because the aim of this research was to examine the relationship and effect of the independent variables with the dependent variable in which causation is used. According to Saunders, M., Lewis, P.Tornhill (2007), the research design is the general plan of how we will go about answering our research question. The design of research is the master plan that specifies the procedure and method for gathering and analyzing collected information. As noted by C.R. KOTHARI (2004) research design is guided by the objective of the study, the purpose of the study, the type of investigation, the significance of the study, the stage of knowledge in the study area, the time period over which the data is to be collected and the type of analysis to be carried out, that is, whether quantitative or qualitative and the type of data analysis tools that the researcher use. Having this in mind the research design of this research is discussed in brief as follows.

3.1.1. Research Approach

According to Creswell, John W (2003), three research approaches are the advanced Quantitative research approach, research approach and mixed research approach, and the three approaches are not as discrete as they first appear. C.R. KOTHARI (2004) quantitative research is based on the measurement of quantity or amount as the term indicated, dealt with the collection and analysis of data in numeric form. It consists of the research that the data gathered must be analyzed in terms of numbers. According to Saunders M., Lewis, P.Tornhill (2007), quantitative research is generally associated with positivist philosophy. Quantitative

methods formulate assumptions within their structure through the process of asking questions or posing hypotheses by incorporating words, such as "cause," "difference between," "effect," and "predicts," which all assist in the general quantitative research aim of developing generalizations that allow better predictions, explanations, and understanding of specific factors by the researcher. A quantitative method of doing research was used in this research because, quantitative research answers questions through a controlled deductive process, allowing for the collection of numerical data, the prediction, the measurement of variables, and the use of statistical procedures to analyze and develop inferences from that data.

3.1.2. Research Type and Purpose

According to Saunders et al (2019), the classification of research purpose most often used in the research methods' literature is the threefold one of exploratory, descriptive and explanatory. For the concern of this thesis, the researcher will be using casual research design by building blocks of descriptive research design. William_G._Zikmund,_Barry_J._Babin, (2012), descriptive research as the name implies, the major purpose of descriptive research is to describe characteristics of objects, people, groups, organizations, or environments. Descriptive research tries to "paint a picture" of a given situation by addressing *who*, *what*, *when*, *where*, and *how* questions it will enable the researcher has gained a firm grasp of the situation being studied and to identify the variability in different phenomena. In contrast, causal research seeks to identify cause and-effect relationships. Explanatory or Causal research will enable to examine and explain relationships between variables, in particular cause and-effect relationships. The effect is the outcome. Explanatory design will be used to assess the effect of factors on profitability of cooperative consumer organization. Saunders, M., Lewis, P.Tornhill (2007), the emphasis in explanatory research is to study a situation or a problem in order to explain the relationships between variables. Since, the purpose of this research is to describe the behavior of the subject under the study and descriptive format can do better than other formats for quantitative research method so, it will be used in this study and the other purpose is to examine the relationship and effect of the independent variables with dependent variable in which causation is used. Thus, the research formats for this study will be both explanatory (Causal) and descriptive design. Taking important of this the researcher was used explanatory research approach of doing research because it helps the researcher to explain the causality relationship between variables and measure the concepts quantitatively.

3.2. Sampling Design

Sample design refers to the sample frame, sample size, and sampling technique. Sampling is the technique of selecting the target respondent that accurately represents the population that has been studied. The primary objective of sampling is that by selecting some elements of a population, the researcher can infer generalization for the entire population. Since, taking an entire population for the study does not result in efficiency, taking a sample is justifiable. Unless in some circumstances all units within the population were identical in all respects there would be no need to sample at all. Especially when there is perfect homogeneity of units, taking a single unit for study reflects the population perfectly. In opposite to this, Saunders et al (2019), for some research questions it is possible to collect data from an entire population as it is of a manageable size. However, we should not consider that a census will necessarily provide more useful results than collecting data from a sample that represents the entire population (Saunders, M., Lewis, P.Tornhill, 2007). Sampling provides a valid alternative to a census when there are budget constraints and time constraints preventing surveying the entire population. it is possible to collect data from an entire population as it is of a manageable size (Saunders, M., Lewis, P.Tornhill, 2007). The following section examines the target population and sample size, the sampling technique that will be used by the researcher for the study, and the motivation for selecting the sampling method. It also examines the sample size and sampling technique that was used for this study.

3.2.1. Target Population

It refers to entirety of members from a formulation of people, events, or objects that are either real or hypothetical, as the researcher attempts to create a generalization of the findings from the results of the study (Barreiro &Albedos, 2001). The target population of the current research encompasses all cooperative consumer organizations registered and certified by Addis Ababa office cooperative agency before 2008 E.C and currently working in the list of Addis Ababa Cooperative Agency. In September 2013 E.C Addis Ababa Cooperative Agency report showed that the total number of cooperative consumer organizations was 148. Of 148 consumer cooperative organizations 116 were organized before 2008 E.C.

3.2.2. Sample Size

According to Brooks (2013), the sample size is the number of observations or data points per series in the sample. Here are some of the factors which relate to proper sample size. The

correct sample size in a study is dependent on the homogeneity of the Population and the purpose of the study (Abowd, 2005). That means if the population under study is homogeneous a set of participants is selected which is less in number (size) but adequately represents the population from which it is selected so that true inferences about the population can be made from the results obtained from the sample. Although there are no general rules of thumb, the sample size usually depends on the population to be sampled. In this study to select a sample size, a list of 116 consumer cooperative organizations was taken as a sample frame.

Thus, among 116 consumer cooperative organizations, due to time and financial limitations and the nature of the population, the researcher determined the samples size by using sample determination method developed by (Carvalho, 1984).

Table 3.1 J. Carvalho Sample size determination

Population size	Small	Medium	Large
51–90	5	13	20
91–150	8	20	32
151–280	13	32	50
281–500	20	50	80
501–1200	32	80	125
1201–3200	50	125	200
3201–10,000	80	200	315
10,001–35,000	125	315	500
35,001–150,000	200	500	800

Source: (Carvalho, 1984)

Based on the above Carvalho (1984), sample size determination table fifteen (15) cooperative consumer organizations were selected as a sample size from 148 cooperative consumer organizations certified by the city administration of Addis Ababa office of the cooperative agency and currently working in Addis Ababa. The selected sample twenty-one (21) is greater than the small medium sample size of 20 for population size of 91–150 and less than the large sample size of 32 for the population size 91–150 in Carvalho’s sample size determination table. In addition to this, Abowd (2005) provided his research students (fall,

1984) with the "rule of thumb" on sample size for a population Size of 101-1,000 we can use a sample of 10% from this point. The researcher used twenty-one (21) samples equal to Dr. John Curry's 18% of consumer cooperatives which is 105 observations. Since there is homogeneity in cooperative consumer organizations, Homogeneity in a population means that the members of the population are similar in the characteristic under study the natures and type of services provided by consumer cooperative organizations to their customers are homogeneous, the researcher believed that the sample size represents the target population.

3.2.3. Sampling Technique

To do this study, the researcher used probability sampling methods to obtain representative data. Probability sampling is a sampling method in which each element has a known or non-zero probability of being selected in the sample. Since there is homogeneity in the target population so the researcher determines to use the most common method of sampling known as simple random sampling (Abowd, 2005). Because the target population is small and it is possible to record and list for the lottery so, every individual in the target population has an equal probability of becoming the possible selected sample.

3.2.4. Data Gathering Method

Data collection refers to the process of gathering raw and unprocessed information that can be processed into meaningful information, following the scientific process of data analysis. According to Kotler & Keller (2010), the researcher can gather secondary data, primary data, or both. Secondary data are data that were collected for another purpose and already exist some. Where Primary data are data freshly gathered for a specific purpose or for a specific research project. For the purpose of this study, the researcher uses secondary data type quantitative in nature that can best fit the panel data analysis because as clearly explained by Saunders, M., Lewis, P.Tornhill (2007), that secondary data provide the only possibility of undertaking longitudinal studies.

According to Gujarati & Econometrics (2004), panel, longitudinal, or micro panel data is a special type of pooled data in which the same cross-sectional unit is surveyed over time. Panel data has the dimension of both cross-section and time series. It involves the activity of pooling all observations on time series over a period of time or a cross-section of units over several time periods and also the researcher got a result that is not simply detectable in pure time series or pure cross-section studies. As clearly explained by Brooks (2013), there are

three important advantages of a panel data set. First and most importantly, the researcher can address a broader range of issues and tackle more complex problems with panel data relative to pure cross-section data and pure time-series data alone. The Second important advantage, is to investigate which variables, or their relationship between the variables, change dynamically (over time) by combining cross-sectional and time series data, one can increase the number of degrees of freedom, The last or third important advantage is by structuring the model in an appropriate way, the researcher can remove the impact of certain forms of omitted variables bias in regression results. Hence, by combining cross-sectional data and time series data, the researcher can increase the number of degrees of freedom, and thus the power of the test, by employing information on the dynamic characteristic of a large number of sample units at the same time.

Accordingly to Saunders, M., Lewis, P.Tornhill (2007), the main advantage of using secondary data is the enormous saving in resources, in particular, your time and money a secondary source of data that is a panel in nature preferred by the researcher since it is less expensive in terms of time and money while collecting. The data that verify cooperative consumer-specific factors variables which will be gathered from the audited annual financial statements of the consumer cooperative in Addis Ababa and also extracted from the financial statements and annual reports of those selected sample consumer cooperatives. The data that verify macroeconomic factors variables obtained from (NBE) the National Bank of Ethiopia, AACAPDC) Addis Ababa City Administration Plan and Development Commission all data collected on an annual basis and the figures for the variables on June 30 of each year under study.

3.3. Method Of Data Analysis

To comply with the objective of this research, the research is primarily based on quantitative data, which adopted an econometric model to identify and measure determinant factors has an effect on the financial performance of cooperative consumers of Addis Ababa. The researcher adopted multiple linear regression models to identify and measure possible factors that could have an effect on financial performance as measured by the ratio of net income to total capital. Furthermore, descriptive analysis, trend analysis, diagnostics test, the *independent variables* correlation matrix analysis, F-test, Huisman test, and regression analysis were conducted. Regression is concerned with describing and evaluating the relationship between a given variable and one or more other variables(Brooks, 2008).

The data that is collected from audited annual financial statements of the cooperative consumer in Addis Ababa and also it was extracted from the financial statements and annual reports of those selected sample cooperatives consumer were rearranged, and calculated in order to make it complete. The data obtained from (NBE) National Bank of Ethiopia, (AACAPDC) Addis Ababa City Administration Plan and Development Commission were entered into the EViews Statistical software which is used to quantitatively analyze the panel data both in the form of descriptive statistics and inferential statistics. The descriptive statistics is used to analyze the general trends of the data that including minimum, mean, maximum and standard deviation is used to describe and provide detailed information about selected variables; diagnostics tests of CLRM assumptions including Mean zero, Normality, Multicollinearity, Heteroscedasticity and autocorrelation tests were conducted to ensure safe application of least square method; this study also conducted correlation analysis, specifically correlation matrix to measure the degree of association between the variables under considerations; F-test is used to test more than one coefficient simultaneously different from zero and to check the significance level of all independent variables in this research models; and panel data regression analysis (panel least square method) is used to examine the effect of independent variables on dependent variable in order to conclude based on the collected data about the determinant factors in financial performance of consumer cooperative; the P-value will be used to determine the significance of the constant term and the coefficients terms for the regressions. The importance of each of the regressions will be determined by applying the F-test at a 95% confidence level. The coefficient of determination R^2 is used to measure the strength to which Explanatory variables explain the variations in the explained variables.

3.4. Model Specification

The literature reviewed in the previous chapter identified determinants of financial performance. This subchapter presents a framework of analysis on the basis of these studies, and involves adopting a model that helped to demonstrate the responsiveness of certain key variables that determine financial performance. In order to determine the kind of relationship, positive or negative, and also the strength of this relationship a linear regression model is used. Linear regression models gauge the relationship between independent and dependent variables. To examine the significance of factors that determine the financial performance of

cooperative consumers an Ordinary Least Square method in which a multiple regression model will be used to link the independent variables to the dependent variables.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

According to Brooks (2013), the dependent variable is usually denoted by y that the model tries to explain or that depends on the independent variables; they are the outcomes or results of the influence of the independent variables. The variables which are thought to affect the dependent variable are referred to as independent (explanatory or repressors) (denoted by $X_1, X_2, X_3, \dots, X_6$). This paper will be using the Ordinary Least Square of the multiple regression model the panel regression to examine the determinants of cooperative consumer's financial performance. Return on asset is representing the consumer cooperative's financial performance which is the dependent variable Firm size, Operating efficiency, Growth in sales, Liquidity, Real GDP growth rate, and Inflation are independent variables.

The finally employed model becomes:

$$ROE = \alpha + \beta_1 LnFS + \beta_2 OPE + \beta_3 GiS + \beta_4 LQ + \beta_5 SC + \beta_6 D1 + \beta_7 GDP + \beta_8 IF + \varepsilon$$

Where;

ROE is Return on Equity

CS is capital structure

LnFS is natural Logarithm of Firm Size that is natural Log to total asset.

OPE is Operating Expense Ratio

GS is Growth in sales

D1 is Social Contribution

LQ is Liquidity

GDP is Real GDP growth rate

IF is Inflation rate

3.5. Model Assumptions

3.5.1. The Classical Linear Regression Model (CLRM)

There are many diagnostic tests were conduct to decide whether the model used in the study appropriate and to fulfill the classical linear regression model assumption. According to (Brooks, 2013). These were required to show that the estimation technique, ordinary least squares (OLS), had a number of desirable properties, and also so that hypothesis tests regarding the coefficient estimates could validly be conducted.

The following diagnostic tests were carried out to ensure that the data suits the classical linear regression model.

Test for average value of the error term is zero ($E(u_t) = 0$) Assumption

This is the first assumption that tells the mean value of the disturbances term is zero.

The mean of the residuals is always zero provided that there is a constant term in the regression.

Tests for Heteroscedasticity $\text{var}(u_t) = \sigma^2 < \infty$ Assumption

According to (Brooks, 2013) It has been assumed thus far that the variance of the errors is constant, σ^2 – this is known as the *assumption of homoscedasticity*. This Assumption tells that the variance of the errors is constant, σ^2 this is known as the assumption of homoscedasticity.

Test for absence Autocorrelation Assumption ($\text{cov}(u_i, u_j) = 0$ for $i \neq j$)

This Assumption tells that the covariance between the error terms over time is zero or there is no autocorrelation between the error terms. That means there is no pattern in the errors or errors are uncorrelated with one another. If there are patterns in the residuals from a model, we say that they are autocorrelated.

Testing for Multicollinearity Assumption

One of an implicit assumption that is made when using the OLS estimation method is that the explanatory variables are not correlated with one another. If this assumption is violated multicollinearity is existing. This problem occurs when the explanatory variables are very highly correlated with each other.

Testing for the Normality Assumption

To test the normality Assumption, descriptive statistics were applied. One of the most commonly applied tests for normality is the Bera Jarque normality test (Brooks, 2008) A normal distribution is not skewed and is defined to have a coefficient of kurtosis of 3. By formalizing these ideas by testing whether the coefficient of Skewness and the coefficient of excess kurtosis are zero and three respectively. (Brooks, 2008) Also states that, if the residuals are normally distributed, the histogram should be bell-shaped and the Bera-Jarque statistic would not be significant at a 5% significant level.

CHAPTER FOUR

4. RESULT AND DISCUSSION

4.1. Descriptive Statistics

This section presents the descriptive statistics of the dependent and independent variables used in the study sample consumer cooperatives. The dependent variables used in this study were ROA and ROE while the independent variables were capital structure, sales growth, liquidity ratio, operational expense ratio, firm size, social contribution, GDP rate, and inflation. Thus, the total observation for each explained and explanatory variables were 105 (panel data of 21 cooperatives consumer for 5 years). Table 4.1 demonstrates the mean, median, standard deviation, and minimum and maximum values for dependent and independent variables for sample consumer cooperatives over the years 2008 to 2012 E.C.

Table 4.1 summary of descriptive statistics

	DEPENDENT VARIABLES		INDEPENDENT VARIABLES							
	ROA	ROE	CS	SG	LQ	OPE	LOG_FS	GDP_RATE	IF	D1
Mean	0.148	0.196	0.303	0.072	6.338	0.626	6.833	0.106	0.184	0.381
Median	0.039	0.076	0.235	0.058	3.911	0.641	6.831	0.109	0.183	0.000
Maximum	0.105	0.298	.904	0.321	10.220	0.918	7.533	0.119	0.282	1.000
Minimum	0.004	0.005	0.001	-0.169	1.202	0.254	6.315	0.088	0.091	0.000
Std. Dev.	0.085	0.106	0.266	0.099	2.71	0.172	0.224	0.012	0.064	0.488
Observe.	105	105	105	105	105	105	105	105	105	105

Source: Authors computation of the EVIEWS 10 output from consumer cooperatives financial statements

Note: Return on Asset (ROA), Return on Equity (ROE), Capital Structure (CS), Sales Growth (SG), Liquidity Ratio (LQ), Operating Expense ratio (OPE), Firm Size (Log_FS), Growth Domestic Product Growth Rate (GDP Rate), Inflation (IF) and Social Responsibility or Dummy(D1)

The ROA measured by the net income before tax divided by total assets has a mean value of 14.8%. This indicates that sample consumer cooperatives on average earned a NIBT of 14.8% of total asset. Since ROA indicates the efficiency of the management of a firm in generating NIBT from all resources of the institutions. The higher ROA shows that the firm is

more efficient in using its resource. The maximum value of ROA was 14.8% and the minimum value of ROA was 0.4%. That means the most profitable cooperatives consumer and least profitable consumer cooperative among sampled consumer cooperative earned 14.8 cents and 0.4 cents of net income for a single birr invested in the asset of the firm respectively.

The ROE which is measured by the net income before tax divided by total equity has a mean value of 19.6%. This implies that sample consumer cooperatives on average earned a NIBT of 19.6% of total capital. Accordingly, during the study period, the sample cooperatives consumer in Addis Ababa had relatively good performance which was measured by ROE when compared to ROA.

According to Brooks (2013), a low standard deviation shows that the data point tends to very close to the mean, a high standard deviation shows that the data point are spread out over a large range of value. As we have seen in table 4.1. The standard deviation of ROA and ROE are 0.085 and .106 respectively. This indicates that variation among consumer cooperatives in terms of their financial performance varies from the mean by 0.063, so it is very close to the mean.

Regarding to the firm-specific determinants of independent variables of the model capital structure which was measured by the ratio of total debt to total equity capital with mean value of 0.303 which indicate that consumer cooperatives very much rely on debt and preferred to use equity than debt. The table presents minimum and maximum value were 0.001 and 0.904 respectively. This indicate that there was a huge gap between consumer cooperatives level of solvency. The standard deviation was 0.226 shows the existence of variation of debt to equity ratio between the selected consumer cooperative level dispersion toward the mean.

Among the firm specific variables of the model is sales growth which is measured by a percentage change in the sales of a company in a given years with the respect to the previous year sales with mean value of 0.072 and standard deviation of 0.099. This shows that less variance in sales growth in selected consumer cooperatives. The minimum and maximum value of sales growth was -0.169 and 0.321 respectively. A negative sign of sales growth indicates that the existence of different conditions that decreased sales of consumer cooperatives over the sample period that could be due to difference in supply, demand or a combination of both.

The other firm specific determinant independent variable is liquidity ratio measured by the ratio of current asset to current liability revealed the highest standard deviation of 2.71, which means, it was the most deviate variable from its mean value of 6.338 compared to other firm specific variables. This indicates the existence of high variation among Addis Ababa consumer cooperatives in terms of their liquidity ratio. The minimum and maximum values were 1.202 and 10.220 respectively.

Operating Expense ratio that measured by total operating expense divided by net sales mean value of 0.626, this implies most consumer cooperatives incurred 62.6 percent operating expense out of the operating income per year. In other word consumer cooperatives incurred 62.2 cents as operating expense out of one-birr operating income. The most efficient consumer cooperatives incurred 25.4 percent operating expense ratio and the most inefficient consumer cooperatives incurred 91.8 percent operating expense ratio. This indicates that the most efficient consumer cooperatives have cost management advantage over inefficient consumer cooperatives. The standard deviation of 17.2 percent shows that relatively high managerial efficiency disparity among Addis Ababa consumer cooperatives.

Regarding firm size (log FS) which was measured by natural logarithm of total asset mean value of 6.338 and standard deviation of 0.224. It shows less variance among consumer cooperatives in terms of their size. The minimum and maximum value of Firm size was 6.315 and 7.533 respectively.

The last descriptive statistic for firm specific independent variable is Social responsibility. It is qualitative in nature so we used dummy variable that is Cooperatives in certain contribution represented by '1', otherwise "0" from this point of view the minimum and maximum value of social contribution was 0 and 1 respectively because only have two chances that is present or absent. The standard deviation was 0.488 shows the existence of variation of social contribution between the selected consumer cooperative level dispersion toward the mean.

The remaining explanatory variables were the macro determinant variables that can affect consumer cooperatives financial performance over time. The mean value of Growth Domestic Product Rate (GDP_ Rate) was 10.6 percent indicating the average growth rate of the city's economy over the past five years. The minimum growth of the economy was recorded in the year 2009 (i.e. 0.088) and the maximum was in the year 2009 (i.e. 0.119). Since the year 2008 the city has been recording double digit growth rate with little dispersion

toward the average over the period under study with the standard deviation of 1.2 percent. This indicates the economy of the city continued to grow.

At the last, Inflation rate of the city on average 18.4 percent over the past five years was more than the average GDP growth rate. The minimum inflation rate was recorded in the year 2008 (i.e. 0.091) and the maximum inflation rate was in the year 2012 (i.e. 0.282). The rate of inflation was dispersed over the period under study towards its mean with the standard deviation of 6.4 percent. There is greater variability in the general rate of inflation which has large standard deviation in relative to growth rate GDP. This indicates that inflation rate in Addis Ababa during the study period remain unstable and it continued in double digit.

4.3. Correlation Analysis

Correlation analysis is a statistical analysis technique known as product moment correlation person or PPM, is found by Pearson (1904). Correlation is measured by a statistic called the correlation coefficient, which represents the strength of the putative linear association between the variables in question (M.M Mukaka, 2012). The correlation between two variables measures the degree of linear association between two or more stationary variable that is completely a symmetrical way. This correlation technique is generally used in the study to analyze the phenomena that occurred and connect between one variable with other variables related (Assagaf & Ali, 2017). The movements in the two variables are on average related to an extent given by the correlation coefficient. If the correlation coefficient is +1, there is strong direct relationship; the correlation coefficient is 0 (zero) there is no or weak relationship on other hand the correlation coefficient is -1 there is strong inverse relationship. The strength of relationship can be anywhere between -1 and +1.

The sample size or observation no is crucial element to determine whether or not the correlation coefficient is different from zero or statistically significant. As observation number approaches to 100 the correlation coefficient of about or above 0.2 is significant at 5% level of significance. The sample size of the study was 5*21 matrixes of 105 observations which were almost 100 hence the study was used this justification for significant correlation coefficient. Correlation analysis is displayed in what is called a correlation matrix. Each cell in the matrix contains the Pearson correlation coefficient and the 2-tailed significance level. Hypothesis testing because there is sampling distribution for Pearson r which can compare the statistics to check whether it is statistically significant or not.

The null hypothesis states that no relationship exists between the variables.

$$H_0: r_1=0, r_2=0, r_3=0, r_4=0, r_5=0, r_6=0, r_7=0, r_8=0$$

The alternative hypothesis states that no relationship exists between the variables.

$$H_1: r_1 \neq 0, r_2 \neq 0, r_3 \neq 0, r_4 \neq 0, r_5 \neq 0, r_6 \neq 0, r_7 \neq 0, r_8 \neq 0$$

Table 4.2 shows the correlation matrix for the phenomena associated with consumer cooperatives financial performance of variables Return on Asset, Return on Equity, Capital Structure, Sales Growth, Liquidity Ratio, Operating Expense ratio, Firm Size (Log_FS), Growth Domestic Product Growth Rate (GDP Rate), Inflation and Social Responsibility or Dummy. In this correlation analysis resulting correlation coefficient between these variables and significant degree of relationship between these variables.

Table 4.2 Pearson Correlation Matrix for dependent and independent variables

		Pearson Correlations matrix									
		ROA	ROE	CS	SG	LQ	OPE	log FS	GDP _RA TE	If	d1
RO A	Pearson Correlation	1.000									
	Sig. (2-tailed)										
ROE	Pearson Correlation	.818**	1.000								
	Sig. (2-tailed)	.000									
CS	Pearson Correlation	-.27**	.124	1.000							
	Sig. (2-tailed)	.005	.206								
SG	Pearson Correlation	-.347*	.288*	-.049	1.000						
	Sig. (2-tailed)	.000	.003	.619							
LQ	Pearson Correlation	.214*	.262*	-.057	.257*	1.000					
	Sig. (2-tailed)	.029	.007	.563	.008						
OPE	Pearson Correlation	-.59**	.44**	.324*	-.178	.190	1.000				
	Sig. (2-tailed)	.000	.000	.001	.069	.052					
log FS	Pearson Correlation	-.31**	.37**	-.223*	-.167	-.086	-.073	1.000			
	Sig. (2-tailed)	.002	.000	.022	.089	.382	.457				
GDP _RA TE	Pearson Correlation	.297**	.039	-.58**	.033	-.117	-.35**	.135	1.000		
	Sig. (2-tailed)	.002	.692	.000	.740	.234	.000	.171			
If	Pearson Correlation	-.55**	.48**	.073	-.087	.270	.397*	.407**	-.149	1.000	
	Sig. (2-tailed)	.000	.000	.462	.377	.020	.000	.000	.129		
d1	Pearson Correlation	-.071	.058	-.036	-.013	.000	-.087	-.123	.183	-.33**	1.000
	Sig. (2-tailed)	.591	.324	.715	.894	.086	.377	.210	.062	.000	

** . Correlation is significant at the 0.01 level (2-tailed).* . Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS 25 output from consumer cooperatives financial statements

As can be seen in table 4.2 Operating Expense ratio was the most negatively correlated firm specific variables with the movement of Return on Asset with a correlation coefficient of -0.590. This correlation results clearly indicates the existence of inverse linear relationship between ROA and OPE. It indicates that as operating expense ratio increase in one unit, the return on asset decreased in 0.59 units. And also sig. (2-tailed) value is 0.029 implies there is a statistically significant correlation between ROA and OPE. Therefore, the researcher rejects the null hypothesis that has no relationship between Return on Asset and Operating Expense ratio. Similarly, Operating Expense ratio was the most negatively correlated firm specific variables with the movement of Return on Equity with a correlation coefficient of -0.44. This correlation results clearly indicates the existence of inverse linear relationship between ROE and OPE. It indicates that as operating expense ratio increase in one unit, the return on asset decreased in 0.44 units. And also sig. (2-tailed) value is 0.000 implies there is a statistically significant correlation between ROA and OPE. Therefore, the researcher rejects the null hypothesis that has no relationship between Return on Equity and Operating Expense ratio.

Besides, Firm size (LOG_FS) is negatively correlated firm specific variable with the movement of consumer cooperative's ROA with a correlation coefficient of -0.31 and ROE -0.37 indicate that as firm size increase in one unit, the financial performance decreased by 0.37. And sig. (2-tailed) value is 0.000 implies there is statistically significant correlation between firm size and financial profitability. Therefore, the researcher rejects the null hypothesis that has no relationship between Return on Asset and firm size as well as ROE.

In opposite to this, Sales Growth (SG) is positively associated with ROA with the coefficient of 0.347 and sig. (2-tailed) value of 0.000. This correlation coefficient clearly shows that as sales growth increase in one unit, the ROA also increased by 0.347 units and it is statistically significant at 0.000. Thus, the researcher rejects the null hypothesis that has no relationship between Return on Asset and Sales Growth. In similar, Sales Growth is positively associated with ROE with the coefficient of 0.228. And sig. (2-tailed) value of 0.003. This correlation coefficient clearly shows that as sales growth increase in one unit, the ROA also increased by 0.228 units and it is statistically significant at 0.003. Thus, the researcher rejects the null hypothesis that has no relationship between Return on Equity and Sales Growth.

Person's correlation coefficient value of Liquidity ratio (LQ) and Return on Asset (ROA) of cooperatives is 0.214*. As Liquidity ratio of cooperatives increase in one unit the ROA increase in 0.214 units. And sig. (2-tailed) value of 0.029. This correlation coefficient clearly

shows that as Liquidity ratio increase in one unit, the ROA also increased by 0.214 units and it is statistically significant at 0.029. Thus, the researcher rejects the null hypothesis that has no relationship between Return on Equity and Sales Growth (SG). In similar fashion correlation coefficient value of Liquidity ratio and Return on Equity is 0.262.

The last and the least consumer cooperative specific variable is social contribution, its correlation coefficient is -0.071 in relation to ROA and -0.058 in relation to ROE and sig. (2-tailed) value is 0.591 and 0.324 for ROA and ROE respectively. This negative correlation coefficient results clearly expresses that as social contribution increases in one unit the financial performance of consumer cooperatives decreased by 0.324 unit and statistically insignificant. Therefore, the researcher rejects the null hypothesis that there is a relationship exist between social contribution and cooperative financial performance.

The macroeconomic variables that affect firm financial performance are inflation and gross domestic product rate are included in this study. Gross domestic product rate (GDP-Rate) is positively associated with ROA with the coefficient of 0.297 and sig. (2-tailed) value of 0.002. This correlation coefficient clearly shows that as Gross domestic product rate (GDP-Rate) increase in one unit, the ROA also increased by 0.297 units and it is statistically significant at 0.002. thus, the researcher rejects the null hypothesis that has no relationship between Return on Asset (ROA) and Gross domestic product rate (GDP-Rate). In opposite to this, Gross domestic product rate (GDP-Rate) is negatively associated with ROE with the coefficient of -0.039. And sig. (2-tailed) value of 0.692. This correlation coefficient clearly shows that as Gross domestic product rate (GDP-Rate) increase in one unit, the ROE decreased by 0.039 units and it is statistically insignificant at 0.692. thus, the researcher rejects the null hypothesis that has relationship between Return on Equity and Gross domestic product rate (GDP-Rate).

Inflation rate was the most negatively correlated macro variables with the movement of Return on Asset with a correlation coefficient of -0.55. This correlation results clearly indicates the existence of inverse linear relationship between ROA and inflation rate. It indicates that as inflation rate increase in one unit, the return on asset decreased in 0.59 units. And also sig. (2-tailed) value is 0.000 implies there is a statistically significant correlation between ROA and IF. Therefore, the researcher failed to rejects the null hypothesis that has relationship between Return on Asset and inflation rate. Similarly, inflation rate was the most negatively correlated macro variables with the movement of Return on Equity with a

correlation coefficient of -0.48. This correlation results clearly indicates the existence of inverse linear relationship between ROE and IF. It indicates that as inflation rate increase in one unit, the return on asset decreased in 0.48 units. And also sig. (2-tailed) value is 0.000 implies there is a statistically significant correlation between ROA and If. Therefore, the researcher fails to rejects the null hypothesis that has relationship between Return on Equity and inflation rate.

4.4. Regression Model Diagnostic Test

4.4.1 Test for average value of the error term is zero

The constant term (i.e. α) was included in this regression model the mean value of the residuals in this research expected to be zero. And also R^2 and \bar{R}^2 are non-negative that means the average value of the errors term was zero.

4.4.2 Test for absence of Autocorrelation

Following the general null hypothesis of The Breusch-Pagan-Godfrey Serial Correlation LM Test, the researcher developed the following hypothesis to check the absence of autocorrelation:

H_0 : No autocorrelation in error term

H_1 : Autocorrelation in error term

Table 4.4 The Breusch-Pagan-Godfrey Serial Correlation LM Test for ROE

Breusch-Godfrey Serial Correlation LM Test:

Null hypothesis: No serial correlation at up to 2 lags

F-statistic	2.259982	Prob. F(2,94)	0.1100
Obs*R-squared	4.817259	Prob. Chi-Square(2)	0.0899

Source: View 11 output from consumer cooperatives financial statements

As we can be seen in the above Table 4.4 The Breusch-Pagan-Godfrey Serial Correlation LM Test for ROE F test result and the P-value of F-statistics for ROE was 0.1100. This was above the significance level of 5 percent. Therefore, we can be concluded that, the covariance between error terms is zero; data is absence of serial correlation.

4.4.3 Heteroskedasticity Test

The Breusch-Pagan-Godfrey tests of null hypothesis is the error variance are all equal and opposite to this the alternative hypothesis that the error variances are multiplicative function of one or more variable.

Therefore, the researcher developed the following hypothesis:

H₀: homoscedastic error term

H₁: heteroskedastic error term

Table 4.6 Breusch-Pagan-Godfrey test of heteroskedasticity test for ROE

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	1.984360	Prob. F(8,96)	0.0565
Obs*R-squared	14.89935	Prob. Chi-Square(8)	0.0611
Scaled explained SS	20.90039	Prob. Chi-Square(8)	0.0074

Source: EViews 11 output from consumer cooperatives financial statements

As we have seen in the above Table 4.6 Breusch-Pagan-Godfrey test of heteroskedasticity test for ROE both F-statistics test and chi-square test statistics give the same conclusion that there is no significant evidence for the existence of heteroskedasticity in ROE.

4.4.4 Multicollinearity Test

To detect the problem of multicollinearity researcher was applied the correlation matrix for independent variable.

Table 4.7 the correlation matrix for independent variable

	CS	SG	LQ	OPE	LOG_F S	GDP_RA TE	IF	D1
CS	1.000	0.0359	-0.5229	0.4349	-0.179	-0.07375	0.09871	-0.14779
SG	0.0359	1.0000	-0.0022	-0.193	-0.166	-0.01321	-0.08706	0.19595
LQ	-0.5229	-0.0022	1.0000	-0.385	0.0465	0.06641	-0.07386	-0.12085
OPE	0.4349	-0.1938	-0.3856	1.0000	-0.125	-0.10752	0.37637	-0.22044
LOG FS	-0.179	-0.1669	0.0465	-0.125	1.0000	-0.12341	0.40667	0.12028
GDP RATE	-0.073	-0.0132	0.0664	-0.107	-0.123	1.00000	-0.33392	-1.49e-7
IF	0.0987	-0.0870	-0.0738	0.3763	0.4066	-0.33392	1.00000	6.34e-18
D1	-0.147	0.1959	-0.1208	-0.220	0.1202	-1.75e-7	6.34e-18	1.00000

Source: Output of EViews 11 from consumer cooperatives financial statements

Table 4.7 showed that there is no strong pair-wise correlation between the independent variables (CS, SG, LQ, OPE, LOG_FS, GDP Rate, IF and D1). In this research the highest correlation coefficient is -0.522 between liquidity ratio (LQ) and capital structure (CS). Therefore, we can be concluded using the rule of (Kennedy, 2008) that all variables have low correlation power which indicates no multicollinearity problems in the independent variables selected to financial performance of consumer cooperative.

4.4.5 Normality Test

If the data is well modeled the residuals are normally distributed that means the histogram is bell shaped and the Jarque-Bera statistics is not significant.

Therefore, the following hypothesis tests for normality distribution.

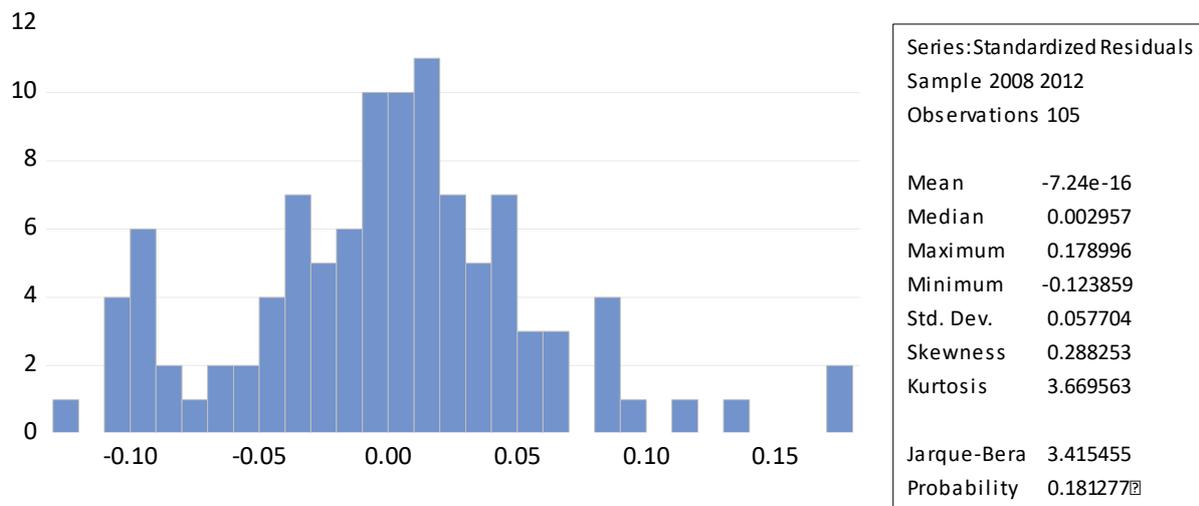
H₀: Residuals follows a normal distribution

H₁: Residuals do not follow a normal distribution

Decision rule for hypothesis: accept H₀ if P-value of JB greater than significance level of 0.05. Otherwise do not accept H₀.

As shown in the histogram above in figure 4.1 kurtosis is almost nearest 3(3.260735) and skewness close to 0 (0.344951). The Jarque-Bera statistics was not significant at 5% level of significance as per the P_ value shown in the histograms (i.e. 0.304256). then, null hypothesis of the error term follows a normal distribution accepted at 5%of significance level.so, we conclude that there is no normality problem on ROA.

Figure 4. 2 The Jarque-Bera normality test for ROE



Source: EViews 11 output from consumer cooperatives financial statements

As shown in the histogram above in figure 4.1 kurtosis is almost nearest 3 (3.669563) and skewness close to 0 (0.288253). The Jarque-Bera statistics was not significant at 5% level of significance as per the P_ value shown in the histograms (i.e. 0.181277). Then, null hypothesis of the error term follows a normal distribution accepted at 5% of significance level. so, we conclude that there is no normality problem on ROA.

4.5 . Regression Analysis Result

4.5.1.1 Operational Regression model Result of Return on Equity (ROE)

This section presents the overall results of regression analysis on determinants of financial performance of consumer cooperatives measured by ROE. Table 4.10 shows the regression analysis for dependent variable ROE and Independent variables CS, SG, LQ, OPE, LogFS, D1, GDP-Rate and IF. As shown in the above table the model was

$$ROE = 1.164 + 0.08CS + 0.09SG + 0.06LQ - 0.413OPE - 0.0995LnFS - 0.025D1 - 1.6^{-5}GDP - 0.348IF + \varepsilon$$

Dependent Variable: ROE

Method: Panel EGLS (Cross-section random effects)

Date: 04/21/21 Time: 07:34

Sample: 2008 2012

Periods included: 5

Cross-sections included: 21

Total panel (balanced) observations: 105

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.164459	0.256619	4.537693	0.0000
CS	0.080289	0.021350	3.760647	0.0003
SG	0.089429	0.074618	1.198491	0.2337
LQ	0.060681	0.017924	3.385521	0.0010
OPE	-0.412760	0.062177	-6.638433	0.0000
LOG_FS	-0.098740	0.036815	-2.682039	0.0086
GDP_RATE	-1.62E-05	2.37E-05	-0.682796	0.4964
IF	-0.347456	0.130850	-2.655384	0.0093
D1	-0.024974	0.020229	-1.234583	0.2200

Effects Specification		S.D.	Rho
Cross-section random		0.008575	0.0159
Idiosyncratic random		0.067391	0.9841

Weighted Statistics			
Root MSE	0.068930	R-squared	0.571474
Mean dependent var	0.188543	Adjusted R-squared	0.535763
S.D. dependent var	0.105802	S.E. of regression	0.072088
Sum squared resid	0.498887	F-statistic	16.00296
Durbin-Watson stat	1.853476	Prob(F-statistic)	0.000000

Unweighted Statistics			
R-squared	0.573219	Mean dependent var	0.196026
Sum squared resid	0.506501	Durbin-Watson stat	1.825613

Source: EViews 11 output from consumer cooperatives financial statements

As shown in the above table 4.11 results the model was: -

$$ROE = 1.164 + 0.08CS + 0.09SG + 0.06LQ - 0.4130PE - 0.0995LnFS - 0.025D1 - 1.6^{-5}GDP - 0.348IF + \varepsilon$$

➤ ***Capital Structure (CS) and Return on Equity (ROE)***

As the above random effect regression EViews output table 4.11 shows that, the coefficient of Capital structure (CS) measured by the ratio of total liability to total equity is 0.080 and its p= value is 0.0003. Holding other explanatory variables constant at their average value, when consumer cooperative's Capital structure increased by one birr, Return on Equity of sampled Addis Ababa consumer cooperatives is decreased by 8% and statically significant at 5% significant level. That means there is significant positive relationship between cooperative's consumer Capital structure and consumer cooperative's ROE. Therefore, the researcher failed to reject the null hypothesis that there is positive relationship between consumers cooperative's Capital structure and consumer cooperative's ROE. In other word, there is no sufficient evidence to support the negative relationship between consumer cooperative's Capital structure and consumer cooperative's ROE.

➤ ***Sales Growth (SG) and Return on Equity (ROE)***

As the above random effect regression EViews output table 4.11 shows that, the coefficient of sales growth (SG) measured by percentage change in the sales of a company in a given years with the respect to the previous year sales is 0.089 and its p=value is 0.2337. Holding other explanatory variables constant at their average value, when consumer cooperative's sales growth increased by one birr, Return on Equity of sampled Addis Ababa consumer cooperatives is increased by 0.089 birr and statically insignificant at 5% significant level. That means there is insignificant positive relationship between consumer cooperative's sales growth and consumer cooperative's ROE. Therefore, the researcher failed to reject the null hypothesis that there is positive relationship between consumer cooperative's sales growth and consumer cooperative's ROE. In other word, there is no sufficient evidence to support the negative relationship between consumer cooperative's sales growth (SG) and consumer cooperative's ROE.

The possible reason for the significant positive relationship could be the consumer cooperatives increase their sales because they retail basic consumer goods received by government so, that could make a profit from additional sales.

➤ ***Liquidity ratio (LQ) and Return on Equity (ROE)***

The estimation result reported in table 4.11 depicted that, the coefficient of liquidity ratio measured by the ratio of current asset to current liability is 0.06 and its p-value is 0.0010. Holding other explanatory variables constant at their mean value, when consumer cooperative's liquidity ratio increased by one birr, Return on Equity of sampled Addis Ababa cooperatives consumer is increased by 0.06 birr and statically significant at 5% significant level. That means there is significant positive relationship between consumer cooperative's liquidity ratio and cooperative's consumer ROE. Therefore, the researcher failed to reject the null hypothesis that there is positive relationship between consumer cooperative's liquidity ratio and consumer cooperative's ROE. In other word, there is no sufficient evidence to support the negative relationship between consumer cooperative's liquidity ratio and consumer cooperative's ROE.

The possible reason for the significant positive relationship could be consumer cooperatives are non-financial firms. They could be increasing their operating cash flow, through reduction of credit repayment period may lead to increment in liquidity ratio and financial performance.

➤ ***Operating Expense ratio (OPE) and Return on Asset (ROE)***

As the above random effect regression EViews output table 4.11 shows that, the coefficient of Operating Expense Ratio (OPE) measured by the ratio of operating expense and the net sale is -0.413 and its p=value is 0.0000. Holding other explanatory variables constant at their average value, when consumer cooperative's Operating Expense Ratio increased by one birr, Return on Equity (ROE) of sampled Addis Ababa consumer cooperatives be decreased by 0.413 birr and statically significant at 5% significant level. That means there is significant negative relationship between consumer cooperative's Operating Expense Ratio (OPE) and consumer cooperative's ROE. Therefore, the researcher failed to reject the null hypothesis that there is negative relationship between consumers cooperative's Operating Expense Ratio and consumer cooperative's ROE. In other word, there is no sufficient evidence to support the positive relationship between consumer cooperative's Operating Expense Ratio and consumer cooperative's ROE.

This ratio represents the total amount of expenditures the society pay for earning total revenue. It is related with the capability of the management to use its resources efficiently, income intensification, decreasing operating costs (Assfaw, 2015). Management quality in this regard, determines the level of operating expenses and in turn affects profitability

(Ongore & Kusa, 2013). The researcher concluded that the poor management quality especially poor financial skill, Extravagancy, corruption and embezzlement lead to high operating expense resulting decrement of profitability.

As expected, cooperatives consumer Operating Expense Ratio has a negative effect on ROA in Addis Ababa consumer cooperatives. This results support the research results of Ongore & Kusa (2013), Assfaw (2015), Operating expense ratio had negative and significant relationship with return to assets ratio (Mugun, 2020).

➤ ***Firm size (LOG-FS) and Return on Equity (ROE)***

As it presented in the table 4.11 above, the coefficient of firm size (LOG_FS) measured by natural logarithm of total asset is -0.099 and its p-value is 0.0086. Holding other explanatory variables constant at their average value, when cooperative's consumer size (LOG_FS) increased by one birr, Return on Equity of sampled Addis Ababa consumer cooperatives is decreased by 9.9% and statically significant at 5% significant level. That means there is significant negative relationship between consumer cooperative's size and consumer cooperative's ROE. Therefore, the researcher failed to reject the null hypothesis that there is negative relationship between cooperative's consumers' size and consumer cooperative's ROE. In other word, there is no sufficient evidence to support the positive relationship between consumer cooperative's size and consumer cooperative's ROE.

➤ ***Social Contribution(D1) and Return on Equity (ROE)***

As the above random effect regression EViews output table 4.11 shows that, the coefficient of Social Contribution measured by dummy variable that is Cooperatives in certain contribution represented by '1', otherwise "0". Is -0.025 and its p-value is 0.2200. Holding other explanatory variables constant at their average value, when consumer cooperative's Social Contribution increased by one birr, Return on Equity of sampled Addis Ababa consumer cooperatives be decreased by 3.64 percent and statically insignificant at 5% significant level. That means there is insignificant negative relationship between consumer cooperative's Social Contribution and consumer cooperative's ROE. Therefore, the researcher failed to reject the null hypothesis that there is negative relationship between cooperative's consumer Social Contribution and consumer cooperative's ROE. In other word, there is no sufficient evidence to support the positive relationship between consumer cooperative's Social Contribution and consumer cooperative's ROE.

According to Cho et al (2019) small firm has negative impact of CSR on the performance measured by several indicators (Zoubir, 2015). And also as revealed by (Linnea & Bråtenius, 2006) there was no significant reaction for the top performing companies' stock returns, but the general direction of the impact was negative. The companies that are making efforts in the areas of social welfare and the protection of the environment, achieve operating results lower than the other companies, the consequent negative effects on the value of their shares on the stock exchange (Wang & Gao, 2016). Social commitment by firms has no impact on the financial performance of firms (Nyeadi et al., 2018).

➤ ***Inflation (IF) and Return on Equity (ROE)***

The estimation result reported in table 4.11 depicted that, the coefficient of Inflation measured by the relative rise of price of good and service or a decreasing of a purchasing power of money is -0.347 and its p-value is 0.0093. Holding other explanatory variables constant at their average value, when Addis Ababa city price level increased by one percent, Return on Equity of sampled Addis Ababa consumer cooperatives is decreased by 0.347, and statically significant at 5% significant level. That means there is significant negative relationship between Addis Ababa city Inflation and consumer cooperative's ROE. Therefore, the researcher failed to reject the null hypothesis that there is negative relationship between Addis Ababa city Inflation and consumer cooperative's ROE. In other word, there is no sufficient evidence to support the positive relationship between Addis Ababa city Inflation and consumer cooperative's ROE.

The possible reason for the negative relationship could be GDP growth rate affect some shareholders jump from low income level to middle income level this leads to change consumption character from subsidiary basic goods to necessity good this leads to decreasing of some customer resulted decrement of financial performance.

CHAPTER FIVE

5 CONCLUSION AND RECOMENDATION

Based on the findings of the study summary and conclusion are drawn and possible recommendations are forwarded. In this chapter accordingly, the first section presents the conclusion and the possible recommendation consecutively.

5.1. Conclusion

Following the interpretation of collected data during the course of the research, we can be concluded that there is certain micro as well as macroeconomic determinants' that influence consumer cooperatives' financial performance in a significant manner. Based on the result of the regression analysis, the researcher came up with the following conclusion.

- ❖ Regarding consumer cooperative specific variables, effect of Operating Expense Ratio on consumer cooperatives financial performance in Addis Ababa. The finding indicates that Operating Expense Ratio was negative and statistically significant in explaining the financial performance of Addis Ababa consumer cooperatives. This implies that the society incurred more expenditure to get additional income. The researcher concluded that the poor management quality especially poor financial skill, Extravagancy, corruption and embezzlement lead to high operating expense resulting decrement of profitability.
- ❖ Effects of Liquidity ratio on financial performance in Addis Ababa consumer cooperatives.
The finding indicates that Liquidity ratio was positive and statistically significant in explaining the financial performance of Addis Ababa consumer cooperatives. This implies that consumer cooperatives increasing their operating cash flow, through reduction of credit repayment period may lead to increment in liquidity ratio and financial performance because consumer cooperatives are non-financial firms.
- ❖ The other consumer cooperative specific variables, effect of firm size on consumer cooperatives financial performance in Addis Ababa. The finding indicates that firm size was negative and statistically significant in explaining the financial performance of Addis Ababa consumer cooperatives. This implies that as a small firm consumer cooperative have no ability to attain economies of scale to enhance their profitability and they are not able to mitigate their cost to boost financial performance

- ❖ Effect of sales growth on consumer cooperatives financial performance in Addis Ababa. The finding indicates that Liquidity ratio was positive and statistically significant in explaining the financial performance of Addis Ababa consumer cooperatives. This implies that the consumer cooperatives increase their sales because they are retailers of basic consumer goods received by government with a certain profit margins' hence, when they increase their sale at same time they get additional profit margin that makes to increase a profit from additional sales.
- ❖ Regarding consumer cooperative specific variables, effect of capital structure on consumer cooperatives financial performance in Addis Ababa. The finding assures that leverage is not always bad, it increases the stockholders' earnings on their invested funds and makes better utilization of the tax benefits related to the debt financing and also, high leverage makes beneficial by improving managerial efficiency by making them to efficient utilization of debt hence increase in financial performance. Therefore, optimal debt financing is essential for the firm to realize better financial performance.
- ❖ The other consumer cooperative specific variables, effect of social contribution on consumer cooperatives financial performance in Addis Ababa. The finding indicate that social contribution was negative and statistically significant in explaining the financial performance of Addis Ababa consumer cooperatives. This implies that the social contribution activities have been conducted as mandatory activities rather than benevolently activities as a result the society did not give attention and did not add value for the business rather it is a cost for the consumer cooperatives as a result it deteriorate financial performance
- ❖ Regarding to macro variables, Effects of inflation on financial performance in Addis Ababa consumer cooperatives. The finding indicates that inflation was negative and statistically significant in explaining the financial performance of Addis Ababa consumer cooperatives. This implies that the existing higher inflation rate in Addis Ababa costly to the consumer cooperatives in Addis Ababa and that result from inability of consumer cooperatives to accurately predict the level of inflation.
- ❖ Effect of GDP growth rate on consumer cooperatives financial performance in Addis Ababa. The finding indicated a surprising result that GDP growth rate was negative and statistically insignificant in explaining the financial performance of Addis Ababa consumer cooperatives. This implies that GDP growth rate affect income of shareholders as a result some of them jump from low income level to middle income

level this leads to change consumption character from subsidiary basic goods to necessity good this leads to decreasing of some customer number resulted decrement of financial performance.

- ❖ Thus, the overall finding of the research indicates that both micro and macroeconomic factors do have statistically significant effect on financial performance.

5.2. Recommendation

Based on the research findings of regression analysis and conclusion the following recommendations were forwarded for stakeholders: -

- ✚ The Management bodies of the consumer cooperative has control over the consumer cooperative specific factors so, they have possibility to improve the financial performance of consumer cooperatives by giving more attention on the identified internal factors such as operating expense ratio, firm size, capital structure, liquidity ratio and sales growth.
- ✚ Great attention should be paid to operating expense ratio because in regression analysis it is the major factor that affect consumer cooperative and also this ratio increases continuously during study period hence, The Management bodies of the consumer cooperative should reduce operating expense by creating transparent financial system to reduce corruption and embezzlement
- ✚ . The Management bodies of the consumer cooperative should ensure appropriate debit ratio (capital structure) to enhance their financial performance because listed consumer cooperatives have almost low debit ratio as a result they loss the advantage of tax shield so, they could increase their debt ratio.
- ✚ The Management bodies of the consumer cooperative should have to build their own asset in order to make building more fixed asset this makes consumer cooperative have an ability to attain economies of scale to enhance their profitability and they able to mitigate their cost to boost financial performance
- ✚ Addis Ababa city government administration should adhere tight regulation toward the consumer cooperative sectors were one of the major government instruments as a means to implement price stability policies specially to fight inflation and to control the price and distribution of basic goods Channeling to consumers

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