

**MEMBERS' PARTICIPATION AND FINANCIAL PERFORMANCE OF WHEAT
PRODUCERS' COOPERATIVE SOCIETIES IN SOUTHERN ETHIOPIA**

ZENEBE WORKU WOLDEYES

**THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENT FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY IN AGRICULTURAL AND RURAL
INNOVATION OF SOKOINE UNIVERSITY OF AGRICULTURE.**

MOROGORO, TANZANIA.

ABSTRACT

Currently, cooperative enterprises in Ethiopia are growing in terms of numbers and membership. However, despite growing policy attention and researchers' interest on cooperatives, the issue of members' participation, in relation to performance of cooperatives has not been adequately addressed. The overall objective of this study was to determine the influence members' participation in their cooperative financial performance of cooperatives. The study used a cross-sectional research design. Questionnaires and key informant interview checklist were used for data collection. The study covered 371 members from 27 primary cooperatives. Participation attitudes were assessed using likert-scale items, while members' evaluative perceptions about their cooperatives performance were measured by using five score scale measurement. Multiple linear regression were employed to analyze the relationship between participation and financial performance of wheat growers' cooperatives. The study results show that majority of respondents have positive attitude of participation in their cooperatives. Years in membership, number of shares, quantity of seed purchased and quantity of wheat supplied were statistically significant relationship with performance. Overall, on average members evaluated their societies' functioning as good performance. Majority of respondents agreed that they are better off in the market after joining cooperatives. It is recommended that since members' attitude and behavior of participation is affected by the level of information and education, launching of a continuous cooperative extension education is critical. Strengthening those participation aspects having influence on the financial performances. The good performance of agricultural inputs provision service should be considered as best practice of lesson and internal strength. Cooperatives should be able encouraging members to supply more quality produce to their cooperatives by giving them tangible benefits in price reward and patronage dividend. The study indicates issues for further study such as how

to address the financial capacity limitation of primary cooperatives and how to explore and implement tri-modal arrangement in the form of public-cooperative-private partnership model.

Key words: cooperatives, members, participation, performance

DECLARATION

I, ZENEBE WORKU WOLDEYES, declare to the Senate of Sokoine University of Agriculture, that this dissertation is my own original work done within the period of registration and that it has neither been submitted nor being concurrently submitted for an award in any other institution.

Zenebe Worku Woldeyes

(PhD Candidate)

Date

The above declaration is confirmed by:

Prof. A. Z. Mattee

(Supervisor)

Date

COPYRIGHT

No part of this dissertation may be reproduced, stored in any retrieval system, or transmitted in any form or by any means: electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the author or Sokoine University of Agriculture in that behalf.

ACKNOWLEDGEMENTS

First and foremost, I am obliged to thank my Almighty God and Saint Virgin Mary for helping me to reach the status where I am now. I would like to express my sincere and heartfelt gratitude to my supervisors Prof. A. Z. Mattee, and the late Dr. F. T. Magayane for their invaluable and critical comments, tireless encouragement, and comprehensive inputs towards the shaping up of this thesis. Once again, I would like to express condolence for Dr Magayane's sudden death. I will always remember the good time we had in Ethiopia during his field supervision mission, May God rest his soul in eternal peace. I am also grateful to the cooperative staff of Lanfuro, Sankura and Lemo Districts, and Silti and Hadiya Zones' cooperative offices and Regional Cooperative Agency for their assistance during data collection.

Special thanks go to the cooperative member respondents, and key informants for providing relevant and pertinent information, and the enumerators in this study for their commitment during data collection in the field. My highest appreciation and special gratitude goes to the Sasakawa Africa Fund for Extension Education (SAFE) for offering me a scholarship. Special thanks are due to Dr Deola Naibakelao, Dr Jeff Mutimba and Mr. Tesfaye Worku of SAFE.

Finally, very special thanks go to my beloved wife, whom I call my power house, Tenagene Sinishaw, who supported and encouraged me all the time and during my study. I appreciate her endurance, patience, and shouldering the household responsibility besides her own office duties during my absence. Without her strong support, I would never have reached this point. Finally my heartfelt gratitude also goes to my beloved son Dr.

Tewodros and my lovely daughters Eden and Bethi who have been supporting me to get done with my studies despite missing my love during my absence.

DEDICATION

This thesis is dedicated to my father Worku Woldeyes and my mother Kibe Keberet who laid the foundation for my education and my present status.

TABLE OF CONTENTS

ABSTRACT	ii
DECLARATION	iv
COPYRIGHT	v
ACKNOWLEDGEMENTS	vi
DEDICATION	viii
TABLE OF CONTENTS	ix
LIST OF TABLES	xii
LIST OF FIGURES	xiii
LIST OF APPENDICES	xiv
LIST OF ABBREVIATIONS AND ACRONYMS	xv
CHAPTER ONE	1
1.0 INTRODUCTION	1
1.1 Background Information	1
1.2 Statement of the Problem and Justification	8
1.3 Objective of the Study	10
1.3.1 Overall objective of the study	10
1.3.2 Specific objectives of the study	10
1.3.3 Research questions	11
1.4 Theoretical Framework	11
1.5 Conceptual Framework	12
CHAPTER TWO	15
2.0 LITERATURE REVIEW	15
2.1 The Notion of Cooperation and Cooperatives	15
2.2 The Ethiopian Cooperative Movement	17

2.3 The Concept of Attitude and Its Measurement	21
2.4 The Concept of Members Participation	23
2.5 The Concept of Cooperative Performance	27
2.6 Operational Definitions of Terms	32
CHAPTER THREE	34
3.0 RESEARCH METHODOLOGY	34
3.1 Description of the Study Area	34
3.2 Research Design.....	35
3.3 The Study Population, Sampling Procedure and Sample Size	35
3.4 Development of Data Collection Instrument	36
3.5 Data Collection Techniques.....	37
3.6 Data Analysis	38
3.6.1 Descriptive statistics	38
3.6.2 Econometric model.....	39
3.6.3 Definitions of variables	40
CHAPTER FOUR.....	42
4.0 RESULTS AND DISCUSSIONS	42
4.1 Members' Characteristics and Practices of Participation.....	42
4.1.1 Wheat producer cooperative members' attitude towards participation by share purchase.....	45
4.1.2 Wheat producer cooperative members' attitude towards participation by purchase of agricultural inputs.....	46
4. 1.3 Wheat producer cooperative members' attitudes towards participation by supply of wheat produce	48
4.1.4 Wheat producer cooperative members' attitude towards participation in the management and decision making process of their cooperatives	50

4.2 The Influence of Wheat Producer Cooperative members' Participation on the Financial Performance of Cooperative Societies	53
4.3 Members' Evaluative Perception of Wheat Producers' Cooperative Members on the Operational Performance of Their Cooperatives	57
4.3.1 Wheat producer cooperative members' evaluative perception on the performance of the management functions	58
4.3.2 Wheat producer cooperative members' evaluative perception on input provision service performance.....	60
4.3.3 Wheat producer cooperative members' evaluative perception on the wheat produce marketing services	60
CHAPTER FIVE	64
5.0 CONCLUSIONS AND RECOMMENDATIONS.....	64
5.1 Conclusions	64
5.2 Recommendations.....	65
5.3. Areas for Further Research	66
REFERENCES	67
APPENDICES.....	81

LIST OF TABLES

Table 1: Socio-economic characteristics of respondents	43
Table 2: Members objective for joining cooperative societies.....	44
Table 3: Frequency distribution of members’ responses on purchase of share capital	46
Table 4: Frequency distribution of members’ attitude on purchase of agricultural inputs from cooperative	48
Table 5: Frequency distribution of members’ attitude on supplying of wheat produce	50
Table 6: Frequency distribution of members’ attitude on participation by management and decision making	52
Table 7: Financial performance of primary cooperatives as of end of 2015/16 budget year	54
Table 8: Frequency distribution of members' participation along six participation domains.....	55
Table 9: Linear regression for relationship between members’ participation and financial performance of cooperatives	56
Table 10: Members’ evaluation of management performance.....	59
Table 11: Members’ evaluation of the input provision service performance	60
Table 12: Members’ evaluation of the wheat produce marketing service performance	61
Table 13: Respondents’ level of satisfaction and decision about staying in cooperatives and perception of their market position.....	62
Table 14 : Frequency distribution of members' reason for staying in cooperative societies	63

LIST OF FIGURES

Figure 1: Conceptual frame work of the study 13

Figure 2: Location of the study area 34

LIST OF APPENDICES

Appendix 1: Multicollinearity test for variables in the Multiple Linear Regression
Model..... 81

Appendix 2: Balance sheet of sample primary cooperatives as end of 2015/16 budget
year for members per-capita net-worth computation 82

Appendix 3: Questionnaire for assessing members’ participation and performance of
on wheat producing farmers’ cooperatives in Southern Ethiopia 83

Appendix 4: Key informants interview check list 91

LIST OF ABBREVIATIONS AND ACRONYMS

ADPLAC	Agricultural Development Partners Linkage Advisory Council
AfDB	African Development Bank
AGP	Agricultural Growth Program
ATVET	Agricultural Technical and Vocational Education and Training
BMGF	Bill and Melinda Gates Foundation
CSA	Central Statistics Agency
DAs	Development Agents
EB	Ethiopian Birr
EPRDF	Ethiopian Peoples, Revolutionary Democratic Front
FCA	Federal Cooperative Agency
FTCs	Farmers Training Centers
GDP	Gross Domestic Product
GTP	Growth and Transformation Plan
ICA	International Cooperatives Alliance
ILO	International Labour Organization
MOARD	Ministry of Agriculture and Rural development
MoFED	Ministry of Finance and Economic Development
OECD	Organization for Economic Co-operation and Development
PCs	Producers' Cooperatives
SACCOS	Saving and Credit Cooperative Societies
SCOA	South Cooperative Agency
SFCOF	Southern Region Farmers' Cooperative Federation
SNNPR	South Nations Nationalities and Peoples Region
SPSS	Statistical Package for Social Sciences

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

Agriculture, especially smallholder agriculture, is the main pillar of the Ethiopian economy. The overall economic growth of the country is highly dependent on the success of the agriculture sector, thus making the sector one of the priority sectors for the government (African Development Bank (AfDB), 2013; 2010). The sector contributes about 42% of the country's GDP and about 85% of the population obtains their livelihood directly or indirectly from agriculture while up to 80% of the country's export sales come from agriculture (CSA, 2015; AfDB, 2013, 2010; BMGF, 2010). The study by Gurumu *et al.* (1998) reported that smallholder farmers cover 96% of cultivated land, thus they are major suppliers of food in Ethiopia. In line with this, the country has made a significant policy commitment to agricultural-driven economic development and food security through its Growth and Transformation Plan (GTP) launched in 2011 (MoARD, 2010).

The goal of GTP is for the country to gain middle income status by 2025. The first Growth and Transformation Plan (GTP) 2011 to 2015 for instance aimed to (a) Enhance productivity and production of smallholder farmers and pastoralists; (b) Strengthen marketing systems; (c) Improve the participation and engagement of the private sector; (d) Expand the amount of land under irrigation; and (e) Reduce the number of chronically food insecure households. Under GTP there is the National Agricultural Growth Plan (AGP) which has been designed with four strategic objectives of: i) Achieving a sustainable increase in agricultural productivity and production; ii) Accelerating agriculture commercialization and agro-industrial development; iii) Reducing

degradation and improving productivity of natural resources; and iv) Achieving universal food security and protecting vulnerable households from natural disasters.

Agricultural cooperatives are instrumental in the achievement of the first and second AGP objectives through facilitating the provision of inputs and marketing of agricultural produce including bulking and value addition for better prices to both the producers and consumers.

Among the major institutional arrangements put in place to support agricultural development at grassroots level, the establishment of the Agricultural, Technical and Vocational Education and Training (ATVET) colleges to train a large number of grassroots development agents is perhaps the most conspicuous (Abera, 2009).

The Development Agents (DAs) at Kebele level (i.e. at the Farmers Training Centers - FTCs) often constitute one each from plant sciences, animal sciences, and natural resource management trained at ATVET for 3 years at diploma level. The envisaged plan was to assign a team of DAs at each FTC to support farmers in knowledge and information transfer as well as demonstrating modern production practices, which in turn enhances adoption of modern agricultural technologies and subsequently increases productivity. Recently, middle level cooperative organizers are assigned to serve three FTCs. According to Abera (2009), over 69 000 Development Agents have graduated and most of them are working in the public extension service.

In line with GTP there is the Agriculture Growth Programme (AGP) which has been designed and implemented since 2011 (MOARD, 2010). The AGP aims primarily at

increasing agricultural productivity in a sustainable manner, enhancing market performance and facilitating value addition. The main strategic intervention approaches of AGP are: (1) comprehensive (including production, marketing, marketing and irrigation infrastructure development), (2) value chain (dealing with stakeholders including producers, assemblers/traders, processors, distributors, exporters, retailers and finally consumers), and (3) decentralized and demand-driven (bottom-up planning process and equal participation of women and men in problem identification, planning, implementation and monitoring the activities).

More specifically, Component I of the AGP deals with agricultural production and commercialization while its sub-component 1.3 is about Market and Agribusiness Development. AGP also supports key public institutions and private businesses that have multiplier effect on the growth of the agricultural sector along the value chain. AGP gives priority to strengthen and develop relevant institutions for agricultural growth in terms of working facilities and skill development. Cooperatives are among the key institutions identified for AGP intervention (MOARD, 2010).

In particular, component IV of AGP II, which is about Agriculture Marketing and Value Chains development, is where the role of cooperatives is specifically addressed. The objective of this component is to increase the commercialization of agricultural products through increased smallholder farmers' access to input and output markets. Under this component, the Programme support includes, (a) The promotion and distribution of agricultural inputs, specifically seed through support to Community Based Seed Production groups and the scale up of Direct Seed Marketing and strengthening the input tracking system; (b) Strengthening the input and output marketing regulation and

certification; (c) Farmers' organizations, including formal farmer organizations (Unions, Primary Cooperatives) and informal, commercially oriented farmer groups (informal groups establishment would be focused on women and youth groups). The programme would support business plan preparation and implementation, including through the provision of equipment and inputs to qualifying groups. Service providers, including the Cooperative Agency, would receive capacity support. Improved access to credit (both rural savings and credit cooperatives - RUSACCOs and Micro-finance Institutions - MFIs) would be facilitated as stated in the MOARD (2010) document.

The other important policy and institutional support arrangement, that has been supported by AGP, and an entry point in strengthening the cooperative movement is the establishment of a multi-stakeholder platform, known as the Agricultural Development Partners Linkage Advisory Council (ADPLAC). In this multi-stakeholder platform is where the cooperative sector support system and cooperative societies are represented.

Agricultural Development Partners Linkage Advisory Council (ADPLAC) is an innovative institutional arrangement, which can be tapped to create supportive environment to the betterment of the cooperative movement (Woodhill *et al.*, 2011). Since, an effective agricultural development and delivery system requires a good linkage among all actors, including farmers and their organizations, utilizing ADPLAC for cooperative sector development remains indispensable. To this end, the ADPLACs are facilitating a multi-stakeholder platforms to identify problems and set research agenda, assign tasks to pertinent partners to solve research problems and administrative matters constraining agricultural development in which the issues and constraints of cooperatives mentioned in the previous section can be addressed, and to involve partners in scaling

up/out of best practices both in input and output market linkages and value chain development (Woodhill *et al.*, 2011).

In Southern Nations, Nationalities and Peoples Region (SNNPR), cooperatives at different levels participate in marketing of agricultural inputs and outputs. The Southern Regional Farmers' Cooperatives Federation (SFCOF) which became functional in early 2009 is the pioneer regional apex cooperative organization established in Ethiopia (Emana, 2009). A federation has the role of facilitating large scale cooperative activities such as import and export activities. In doing so, federations increase economic efficiency, contribute to capacity building, and networking of cooperative unions. According to the SNNPR Cooperative Agency, by 2016 there were 15 326 primary cooperative societies with a total of 2 707 821 members and a combined capital of 1.27 billion Ethiopian Birr engaged in different functions (SCOA, 2016). The same report indicates that there were 72 secondary level cooperative unions having 2,800 primary cooperative societies and owning a capital of 924 million Ethiopian Birr. Cooperative unions are involved in export and domestic marketing activities, financial transactions, and social capital development and pay dividend to the members (Emana, 2009). Primary cooperatives, through their involvement in inputs marketing and seed production, play an important role in improving access to inputs. Moreover, primary cooperatives collect produce from their members at fair prices during harvest time, when prices usually fall drastically, and sell them when prices improve (Emana, 2009).

Cooperative unions are also entering into agricultural value addition by setting up processing industries. For instance, Melik Siliti and Licha Hadiya Farmers' Cooperative Unions, where this study was conducted, are among some of the secondary level societies

that have been engaged in wheat value addition by establishing wheat flour and animal feed processing agro-industries.

Several success stories have been reported about Ethiopian agricultural cooperatives by different writers (Francesconi and Heerink, 2010; Bernard *et al.*, 2008; and Francesconi and Ruben, 2007). Francesconi and Heerink (2010) found that marketing cooperatives have smallholder commercialization impact, while Abebaw and Haile (2013) and Francesconi and Heerink (2010) show that cooperative membership in Ethiopia increases the adoption of improved agricultural technologies, especially mineral fertilizer, and the rate of commercialization. Holloway *et al.* (2000) showed that cooperatives increased market participation among dairy farmers in Ethiopia, but Bernard *et al.* (2008) and Bernard, and Spielman (2009) indicated that grain marketing cooperatives in Ethiopia, while offering higher prices, have not succeeded in increasing commercialization.

According to Tiegist (2008), grain producers' cooperatives played an important role in providing Ethiopian farmers with better prices by reducing seasonal price fluctuations and by stabilizing the local grain markets in favor of the producers. Francesconi and Ruben (2007) found that dairy farmers in Ethiopia perform better under cooperatives than otherwise in terms of quantitative indicators such as herd size, productivity and market access. Based on a case study of coffee farmers' cooperatives, Myers (2004) concluded that cooperatives helped to successfully position Ethiopian smallholder farmers in the international coffee market.

Primary cooperatives and unions have been playing key roles in agricultural inputs and outputs marketing and distribution and to some extent contractual improved seed

production. Cooperative unions are involved in export and domestic marketing activities, financial transaction, and social capital development, and pay dividend to the members. In line with this, in Ethiopia, the contribution of secondary cooperatives has been recognized by Webber and Labaste (2010) as business support units for primary cooperatives, which provide greater economies of scale, and bargaining power for primary cooperatives. Through their role in inputs marketing and seed production, the cooperatives and their unions play important role to create access to inputs. Unions are also instrumental in creating possibilities for credit access by the primary cooperatives. Moreover, cooperative unions are also entering into agricultural value addition by setting up processing industries (Woodhill *et al.*, 2011). Accordingly, some unions such as Lecha Hadiya and Melik Silti, Farmers Cooperative Union (in SNNPR), have engaged in value addition processes by establishing wheat flour and animal feed processing plants.

There are also studies, for instance Getenet and Anullo (2012) that have noted that despite the favorable external environment for the cooperative sector development, there are considerable constraints in the internal environment of most cooperatives that need to be addressed to make cooperatives more viable and competitive enterprises. Among the most important challenges mentioned include lack of skilled manpower to undertake competent managerial services, members' limited participation of in decision making and controlling activities, lack of finances and basic infrastructure.

It is clear from the reviews of what has already been done that cooperatives are contributing and performing well, despite the different challenges and weakness, to improve the Ethiopian small holder agriculture particularly with respect to agricultural input and output marketing. However, there is still lack of clarity on the relationship

between the type and level of members' participation and the performance of cooperative societies. In cognizance of cooperatives as member-based organizations, which are supposed to be owned and managed by members. Members also expect to get tangible benefits from their cooperatives. Among the prerequisites for cooperatives to provide benefits in return to members participation is that they have to be financially sound enterprises, which is also determined by members' participation both as owners and customers. Therefore, this study focused on the issue of members' participation and its influence on the financial performance of cooperative societies in the study area.

1.2 Statement of the Problem and Justification

Different authors (for example, Mure *et al.*, 2012 and Ogunleye *et al.*, 2015) have reported that in Ethiopia cooperatives form an indispensable component in rural and community development. Cooperatives are mainly engaged in marketing of agricultural inputs and outputs. According to Emanu (2009) and Woodhill *et al.* (2011), the major drive of the Ethiopian government policy support for the cooperative sector's development is based on the recognition of the contribution of cooperatives in terms of empowering resource-poor smallholder farmers who are presumed to participate as the main customers and owners of these organizations.

Different studies have reported the importance of members' participation for the better performance of their cooperatives. Ruben and Heras (2012), Siebert and John (2010) and Osterberg and Jerker (2009), have emphasized that the performance and success of cooperatives depend heavily on their ability to establish and maintain trust, confidence, commitment and participation among members both as owners and users. Moreover, Hendriske and Bijman (2002) stated that members' participation is a critical factor that

determines the cooperative development and accomplishment of their organizational objective. Fischer and Qaim (2012b) have focused on the internal dynamics relating to the issues of members' participation in terms of ownership, benefits and control. Among studies that addressed the issue of such low participation and its causes, Bernard *et al.* (2007) have reported that most cooperatives in Ethiopia have a high level of distrust among members, and face major constraints to become effective for improving market commercialization and farmers' welfare.

Despite general conclusions about members' limited participation in Ethiopian cooperative societies, the mentioned studies did not focus on the nature of participation and do not indicate its influences the cooperatives' performance. Similarly, another study by Getenet and Anullo (2012) in southern Ethiopian cooperative movement, has reported members' limited participation with regard to decision making and control of their cooperative societies. However, this study only took a limited view of participation as engagement in the management of the cooperatives.

These studies therefore, did not explicitly indicate the nature and process of different types of participation and members' attributing attitudinal perception on different types of participation. Moreover, the studies did not indicate what possible implications participation types would have on the financial performance of cooperatives.

The need of assessing members' participation, through different participation types has been justified by Mensah *et al.* (2012), who have concluded that, as member-owned and controlled enterprises, and the success of cooperatives can only be realized if members make committed participation through three major aspects. According to Mensah *et al.*

(2012), the first aspect is about to become a member of the cooperative. The second is doing business with their cooperative and the third aspect is participation in the management and decision making process of their organization. Therefore, this study has filled the gap as what are the different participation activities members are engaged in, and how this is related to the financial performance of cooperatives.

Thus, this study contributes to new knowledge about wheat growing cooperatives movement, by presenting empirically the different participation of wheat growing cooperative members and how this influences the financial performance of their cooperatives. The study also assessed attributing attitudes of participation and members' evaluative perceptions on the operational performance of their cooperatives.

1.3 Objective of the Study

1.3.1 Overall objective of the study

The overall objective of this study was to particularize the nature of members' participation in their cooperative societies and its influence on financial performance of wheat producers' cooperatives in the Southern Nations' Nationalities' and Peoples' Region of Ethiopia.

1.3.2 Specific objectives of the study

- I.** To characterize members' participation practices and attitude towards their cooperative societies in the study area;
- ii. To determine the influence of members' participation on the financial performance of the cooperatives in the study area;
- iii. To assess members' evaluative perception towards operational performance of cooperatives in the study area;

1.3.3 Research questions

- i. What are the practices and attitudes of wheat producers' cooperative members towards their cooperative societies?
- ii. What is the influence of members' participation on the members' net-worth share of the wheat producers' cooperative society?
- iii. How do members' perceive the operational performance of their cooperatives?

1.4 Theoretical Framework

This study was guided by theory of participation (Pretty, 1994). Pretty (1994) affirmed that participation can take different forms and varying degrees, ranging from what has been termed as 'passive participation' to 'self- mobilization'. Pretty's seven-step participation ladder includes: Passive participation; participation by information giving; participation through consultation; participation for material incentives; functional participation in which people participate by forming groups to meet predetermined objectives; interactive participation whereby groups take control over local decisions, and so people have a stake in maintaining structures; and participation for self-mobilization. At the level of self-mobilization, people participate by taking initiatives. In cooperative societies member participation is considered from the level of functional participation to self-mobilization. High levels of participation results in strong group action that in turn results in benefiting most of the rural poor that may not be feasible through their individual action (Ogunleye *et al.*, 2015; Mure *et al.*, 2012; Barham and Chitemi, 2009; Gregorio *et al.*, 2004).

In this study, cooperatives are conceptualized as mechanisms in which (group) members with common problem pool their few resources, for instance financial, to create economies

of scale to solve their problems through their participation in business and decision making process. Conceptually the study has attempted to link the different levels of participation to cooperative financial performance (Meinzen-Dick *et al.*, 2006). In the study the financial performance is denoted by members' net-worth share from the total cooperative net-worth. The study enquired how members perceive participation and their practice of participation in cooperatives through different participation types. In this study, purchase of shares and staying in cooperative membership are considered the functional level participation whereas doing business with cooperative society - purchase of agricultural inputs (fertilizer and seed) and supply of wheat produce - are the interactive level participation. Participation in cooperatives management process indicated by attendance of the cooperative's general assembly meetings is equated with Pretty's (1994) interactive and self-mobilization level of participation.

Therefore, the study assumes there is a direct and proportional relation between members' participation and the cooperative financial performance in terms of maximizing members' individual net-worth share level in their cooperatives.

1.5 Conceptual Framework

The study was focused on members' participation and its implication on the cooperative financial performance. In the study, members' participation is measured using a set of six predictor or independent variables namely, (a) Purchase of shares, (b) Years in cooperative membership, (c) Purchasing fertilizer, (d) Purchase of seed, (e) Supplying wheat produce, and (f) Attendance of general assembly meetings. With consideration of variations in the level and members' commitments in their cooperatives, the study operationalized level of participation in relation to the level of commitment from members as both the owners and

users of their cooperative enterprises. That is, participation starts from lower level of just being a member by having at least one share and staying as a cooperative member and goes up to higher level through purchase of inputs (fertilizer and seed), supply of wheat produce, and engagement in the management process by attending cooperative's general assembly meetings. In the study therefore, participation through these different types is the independent variable assumed to influence the financial performance denoted by member's net-worth share as the dependent variable.

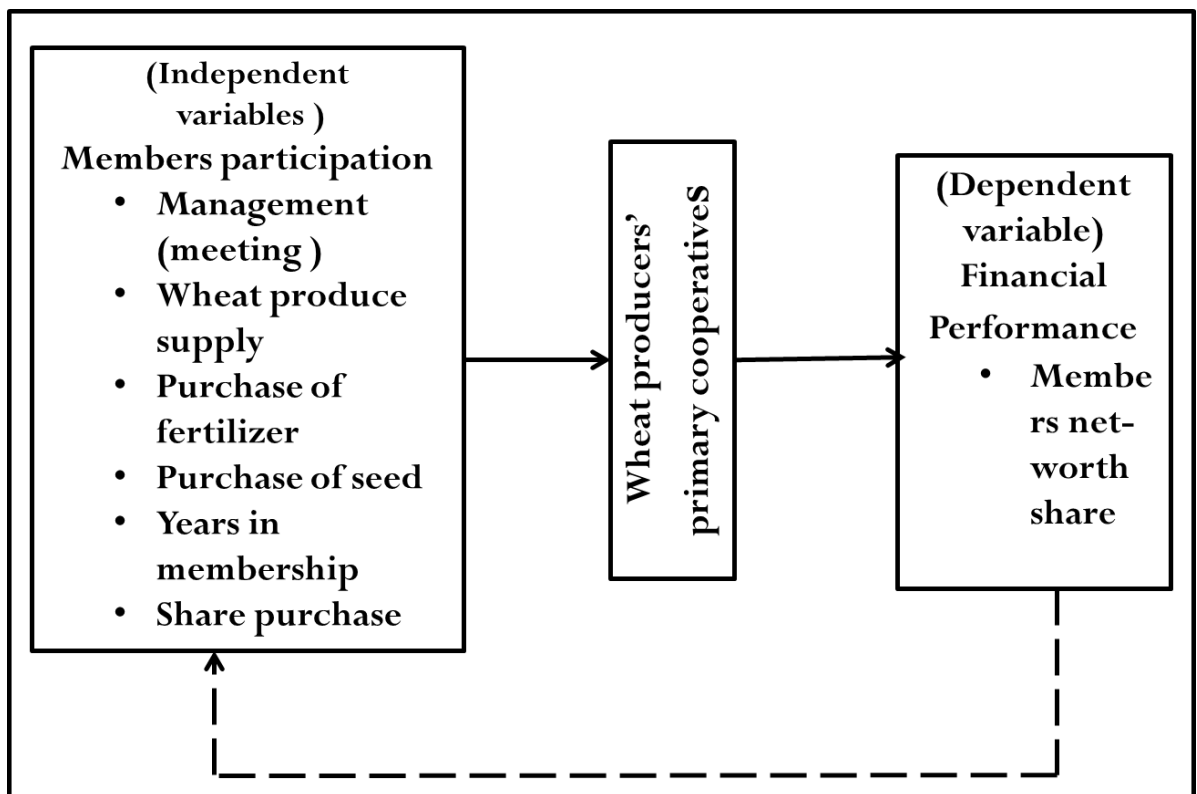


Figure 1: Conceptual frame work of the study

Source: Own formulation

The study conceptualized members' participation as influencing the financial performance of the cooperative by enhancing the networth of the cooperative thereby improving the members' networth share level which results from cooperative's networth that is expected to grow as members engage in business with their cooperatives. The study also considered

that the institutional environment (policies, rules and regulations) in which cooperatives are operating could be an opportunity or constraint in relation to the development of the cooperative subsector as a whole.

CHAPTER TWO

2.0 LITERATURE REVIEW

This chapter reviews the concept of cooperation and cooperatives, which provides the background that supports used to construct conceptual framework used in the study. The historical trend and status review provides background contextualized knowledge how cooperatives were perceived and used in the nation's development endeavors. The review of concepts like participation and performance, guided the study in developing the conceptual framework of the study and establishing type of variables to be considered and their assumed relationships in addressing the main objective of the study. The review of empirical studies also provides insights on formulating the research problem in indicating the gaps to be filled by this study.

2.1 The Notion of Cooperation and Cooperatives

According to Schwettmann (2014), cooperation is not a new phenomenon. In early human societies people learned to cooperate and work together to increase their success in hunting, fishing, gathering food, building shelters and meeting other individual and group needs. Indeed early agriculture would have been impossible without mutual aid among farmers. They relied on one another to clear land, harvest crops, build barns and share equipment (Schwettmann, 2014). These examples of informal cooperation – of working together – were the precursors to the modern cooperative way of doing business. Traditional systems of cooperation, mutuality, reciprocity and solidarity exist in all African societies, and they have remained vibrant till today, particularly in rural areas and in the urban informal economy. Ethiopian cooperation has a long tradition rooted in the culture of the society (Emana, 2012; 2009). There are three traditional forms of

cooperation in the country, namely Debo, Ekub and Edir. These traditional voluntary associations Debo, Ekub and Edir were established with common objectives of labor mobilization in farming activities, financial support among group members in the form of rotating savings and credit schemes, and the welfare financial and/or labor support associations for specific communities in case of social events such as funerals and weddings respectively (Emana, 2012; 2009).

These days, cooperatives are a distinct socio-economic business model as defined by the International Cooperative Alliance (ICA) cooperative identity statement. The International Cooperative Alliance (ICA, 1995, 2013; Birchall, 1995; Ian, 1995) defined a cooperative as ‘an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise’. Co-operatives are based on the values of self-help, self-responsibility, democracy, equality, equity and solidarity (ICA, 2013). Moreover, cooperatives are guided by seven internationally recognized cooperative principles of voluntary and open membership; democratic member control; member economic participation; autonomy and independence; provision of education, training and information; cooperation among cooperatives; and concern for the community (ICA 2013; Birchall, 1995; Ian, 1995).

The above ICA definition of cooperative essentially depicts the philosophical and theoretical foundation constituting the unique organizational feature of cooperatives underlining the concerns of members’ ownership and participants of their socio-economic enterprises. Instrumental to participatory socio-economic development approach the cooperative model of enterprise can be applied to any human activity domain such as

agriculture, industry, trade and services. Ortmann and King (2007) for instance, maintain that in general, agricultural cooperatives can be classified into three broad categories according to their main activity namely: (a) Marketing cooperatives, which may bargain for better prices, handle, process or manufacture and sell farm products; (b) Farm supply cooperatives, which may purchase in volume, manufacture, process or formulate, and distribute farm supplies and inputs such as seed, fertilizer, feed, chemicals, farm equipment; and (c) Service cooperatives, which provide services such as transportation, storage etc. However, it is a common practice that a single cooperative can engage in all the three businesses. Agricultural cooperatives represent a hybrid combination of a voluntary association and a business firm (Levi and Davis, 2008; Bijman and Hemderikse, 2003). Cooperatives in Ethiopia are classified based on the nature of activities with which they are engaged in. A cooperative could engage in a single activity such as production or marketing, among others (Emana, 2009; FCA, 2007). Wheat growing cooperatives are considered as multipurpose – doing input and output marketing and provision of credit for that same purpose - that are organized by smallholder farmers who are mainly producing wheat for the market and thus needing collective services of mainly input provision and marketing of their produce for better market price.

2.2 The Ethiopian Cooperative Movement

The history of formal cooperatives in Ethiopia dates back to 1960 (Emana, 2012; 2009). This was when the first directive of cooperatives was enacted to introduce such formal or modern forms of cooperatives during Emperor Haile Selassie's regime in 1960. Since then, three distinct periods of cooperative movement namely, the Imperial period (1960 to 1974), the Socialist period (1974 to 1991) and the current EPRDF period (1991 to date), have been observed in the country (Getenet and Anullo, 2012; Emana, 2009; Rahimeto, 1999).

During the Emperor's regime, modern cooperatives were enacted under Farm Workers' Cooperatives Decree (Cooperatives Decree No. 44/1960) with the objective of assisting of the development of the agricultural and service sectors. Members of cooperatives during this period, however, included only few big land owners who were mainly engaged in commercial high economic value crops production. Thus, the peasant farmers were excluded from joining cooperatives and therefore, were unable to reap the benefits from the movement (Emana, 2009; Rahimeto, 1999).

The second era of modern cooperative movement in Ethiopia was during the Derg regime. This was when the country was ruled by a socialist oriented military regime. Agricultural and rural based cooperatives were active according to Dorsey and Tesfaye (2005). The Derg regime claimed that the objective of cooperatives was "to bring an end to capitalist exploitation and creating the bases for development of socialist economic system in rural Ethiopia, thereby preventing the re-emergence of capitalism in agriculture". During this period there was a negative image by the public about these organizations, which reflected a situation similar to rural cooperative activities under Marxist socialist systems in many other African countries (Braverman *et al.*, 1991). There was no member's equity or purchase of share by members in cooperatives and membership was not individual based. Rather, the Government designated areas covering more than two peasant associations to be under one cooperative and all farmers paid the same amount of money as registration fee and contribution (Emana, 2009). During this period, there were two types of cooperatives in the rural areas. They were producers' cooperatives (PCs) in which members were forced to pool their land resources under communal tenure. Production and marketing of produce were done collectively. The other types of cooperatives were service cooperatives. As the name indicates, among major activities handled by these cooperatives

were agricultural marketing that included provision of modern inputs, credit, milling services, selling of consumer goods, and purchasing of farm produce.

The third era Ethiopian cooperative movement evolution covers the period from 1991 to date. This is the Ethiopian Peoples' Revolutionary Front (EPRDF) regime. Resulting from negative experience, soon after the downfall of the Derg regime during 1991, most rural based cooperatives were abolished by members and their resources were looted and misused. However, according to Dorsey and Tesfaye (2005), despite bitter experiences and failure during the socialist regime, following enabling policy support environment created by the EPRDF government cooperative activities have been stimulated again since the late 1991. In 1994, the government issued proclamation No. 85/1994 with the objective of restructuring agricultural cooperatives to enhance the development of the national economy. Proclamation No. 85/1995 (Transitional Government of Ethiopia - TGE, 1995) which was considering ICA's international cooperative principles, members' equity share were established by computing net-worth of each cooperatives based on the audit report balance sheet items. Since then, the study by Kodama (2007) affirms that cooperatives are considered by the government, as an appropriate model to promote agricultural and rural development in the country.

The Government has increased its involvement in cooperative development through policy formulation, including a five year cooperative development plan on cooperatives. Moreover, government enacted cooperative proclamations and established federal and regional government institutions that promote and support the cooperative movement. Such enabling policy and legislative environment, as stated by Getenet and Anullo (2012), has resulted in significant and continuous growth of the country's cooperative enterprises

both in terms of their typology and number of membership. The same authors reported that unlike the previous regimes in which cooperatives were limited to only primary level, during this period the policy and legislative environment encouraged the establishment of secondary and the third and even forth tier cooperatives.

According to the current cooperative proclamation no. 985/2016 (EFDR, 2016), there are four tiers of organizational hierarchy, namely: Primary (first level cooperatives), Unions (secondary level cooperatives), Federation (third level cooperatives) and League (fourth level cooperatives). Nevertheless, currently, only the first three hierarchies are functioning.

Recently, the Ethiopian government issued the new cooperative societies proclamation (Proclamation No.985/2016), which further emphasized the creation of enabling environment for cooperatives to play vital role in market economy with better control and use by participating members.

The need for national policy incentive has been reported in several reports and surveys on aspects of capacity development in tropical agriculture. For instance, Aerni *et al.* (2015) reported that institutional support incentives are prerequisites to sustain more collaboration among the various actors involved including producer organizations. Moreover, Ojijo *et al.* (2013) asserted if policies are in line with the needs articulated by the local farmers, farm cooperatives and agribusiness, they foster demand-oriented agricultural innovation which can be further strengthened through the fostering of institutional capacity development and the creation of an appropriate enabling environment for better organizational performance.

In Ethiopia, in general, there exists favorable policy and institutional support environment for agricultural and rural development. The Ethiopian cooperative sector development is said to be embedded in agriculture and rural development domain. The study by Woodhill *et al.* (2011) further confirmed that, the country is a making a very significant policy commitment to agriculture-driven economic development and food security. This is already underpinned by a large investment in agricultural extension, research and education. In Ethiopia, in recent years, there has been an explosion of innovative examples illustrating effective agricultural development with good linkages to domestic and international markets.

A core aim of government policy is to ‘scale up best practices; the government therefore, established several public service support arrangements for agricultural and rural development intervention domains, under which cooperative sub-sector development is addressed. The national apex public support system responsible for agricultural development is the Federal Ministry of Agriculture. There are corresponding regional state bureaus of agriculture at Regional, Zonal, Woreda (District) and Kebeles Development Centers (Farmers’ Training Centers- FTCs) levels, providing grassroots services for agricultural development. In similar structural levels cooperatives development agencies organized at federal and regional levels are instrumental in supporting agricultural and related rural cooperatives sector development. Universities also play key roles in capacity building, research and outreach services.

2.3 The Concept of Attitude and Its Measurement

Many psychologists have given different definitions for attitudes. Eagly and Chaiken (1998) defined an attitude is “a psychological tendency that is expressed by evaluating a

particular entity with some degree of favor or disfavor”. Others, for example Petty *et al.* (1997), have agreed that the concept of evaluation is central to the definition of attitude, noting that “attitudes have been defined in a variety of ways, but at the core is the notion of evaluation” (Petty *et al.*, 1997). Adding to this, Malhotra (2005) argued that an attitude is a summary evaluation of an object or thought. The object or phenomenon can be anything a person discriminates or holds in mind and may include people, products, and organizations. Likewise, Crano and Prislin (2006) brought together diverse characterizations of attitudes through their definition: “Attitudes are the evaluative judgments that integrate and summarize cognitive/affective reactions”.

Jain (2014) argued that the study of attitude is gaining importance because of its influence over an individual’s behavior. One possible reason for the popularity of the attitude concept is that social psychologists have assumed that attitudes have something to do with social behavior (Wicker, 1969). Concepts referring to behavioral dispositions, such as social attitude and personality trait, have played an important role in these attempts to predict and explain human behavior (Ajzen, 1991). Attitudes are believed to directly influence behavior. Walley *et al.* (2009) submits that attitudes may be positive, negative, or neutral. Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor. In practice, the term attitude is often used as an umbrella expression covering such concepts as preferences, feelings, emotions, beliefs, expectations, judgments, appraisals, values, principles, opinions, and intentions. Adding to it, Conner and Armitage (1998) indicated that the attitude component is a function of a person’s salient behavioral beliefs, which represent perceived outcomes or attributes of the behavior. The above definitions of attitude imply that it can be represented as points along an evaluative continuum.

However, since people's attitudes cannot be measured directly, researchers agree it can be measured indirectly using people's emotions, thoughts, or behaviors, which are observable manifestations of attitudes using psychometric response scale Bohner (2001). Thus, in measurement model, a person's attitude towards a statement is represented by a single parameter that takes one of the values and affects the person's Likert responses. Studies by Bohner (2001) investigating how attitude statements are processed suggests that, in a person's mind, the statements fall along a continuum which is bipolar and the attitude can be represented as points on an evaluative continuum that runs from extremely anti-object to extremely pro-object. In this study, a psychometric response scale is primarily used in questionnaires to obtain participants' preferences or degree of agreement with a statement or set of negative statements. This study assumed the process and nature of members' decision to participate or not participate is an outcome of their prevailing positive or negative attitudinal opinion towards their respective society's performance and benefits.

2.4 The Concept of Members Participation

Participation is a very broad concept and there is no single common definition used by different scholars. Even though there exist a variety of views on how participation is defined, they all are agreed that the concept underlines the aspects of: who it is expected to involve, what it is expected to achieve, and how it is to be brought about (Agarwal, 2001). Many definitions of participation hint at the participation continuum and the various levels of community involvement. In line with this, Ndekha *et al.* (2003) provided good holistic definition of participation as 'a social process whereby specific groups with shared needs living in a defined geographic area actively pursue identification of their needs, take decisions and establish mechanisms to meet these needs'. Devas and Grant's (2003) definition emphasizes the basic requirement of involvement in decision-making stating

that participation is all about the involvement of the local population actively in the decision-making concerning development in such a way the citizens exercise influence and have control over the decisions that affect them (Devas and Grant, 2003). Likewise, Tikare *et al.* (2001) expanded the scope of decision-making in their definition, articulating that participation is the process through which stakeholders influence and share control over priority setting, policy-making, resource allocations and access to public goods and services, while Lane (1995) had noted the importance of involvement at different stages of action stating that participation is meaningful if individuals and groups are involved at all stages of the development process including that of initiating action.

Agarwal (2001) adds another dimension in his definition, stating that at its narrowest, participation is defined in terms of nominal membership and at its broadest in terms of a dynamic interactive process in which all stakeholders, even the most disadvantaged, have a voice and influence in decision-making. In line with Agrawal (2001), Ndekha *et al.* (2003) suggested that the overall objective of community participation is twofold in that it is a mechanism to empower and facilitate an improvement in the lives of the world's poor people.

Empowerment is a term frequently associated with participation. In line with this, Lyons *et al.* (2001) and Holcombe (1995) argued that participation and empowerment are inseparably linked, they are different but they depend on each other to give meaning and purpose. Participation represents action, or being part of an action such as a decision-making process. Empowerment represents sharing control, the entitlement and the ability to participate, to influence decisions, as on the allocation of resources. This is because as further explained by Holcombe (1995) empowerment refers to access, control, entitlement,

deciding, enabling, acting, awareness, and participation. Participation is often seen as an essential ingredient of empowerment (Holcombe, 1995).

Giving the detail of power dimension, Rowlands (1997) explained four dimensions of power. However, three are relevant to the context of this study as related to cooperatives. These are; 'Power to' referring to the ability to see possibilities for change, 'Power with', that is, the power that comes from individuals working together collectively to achieve common goals and, 'Power within', referring to feelings of self-worth and self-esteem that come from within individuals. Such a capacity is the subsequent synergized effect of group action that results in benefiting the rural poor that may not be feasible through their individual action (Ogunleye *et al.*, 2015; Mure *et al.*, 2012; Barham and Chitemi, 2009; Gregorio *et al.*, 2004).

In this study, cooperatives are conceptualized as mechanisms in which (group) members with common problem pool their few resources, for instance financial, to create economies of scale to solve their problems through their participation in business and decision making process. This is in line with Gow and Vasant (1983) who identified four affirmations that summarize the importance of participation in development that includes: People organize best around problems they consider most important. Local people tend to make better economic decisions and judgments in the context of their own environment and circumstances, voluntary provision of labor, time, and money to create own capacity to solve common problems.

The primary objective of cooperative organization in third world countries is to achieve a sufficient control of their members (supply, participation, investment) to reduce

transaction costs and achieve higher competitiveness (Fischer and Qaim, 2012a). Bijman and Ton (2008) asserted that agricultural cooperatives are socio-economic organizations formed by farmers to pool their resources thereby increasing productivity and their negotiating power on the market while Siebert and John (2010), stated the members are the controllers of their cooperative societies. Bijman and Ton (2008) however, also argued that there must be two fundamental principles of mutual help co-existence - principle of utility and principle of identity – which should be observed in the functioning of cooperative societies. The utility principle ensures that producer organizations are useful to members and that members' commitment is crucial to achieve their jointly agreed upon objectives. The identity principle refers to the fact that members usually share social capital such as a history and a geographical space; that they have agreed upon a set of rules that govern internal relations among members, and external relations with the outside world, and that they have a common vision of the future, both for themselves and for the group.

According to Mensah (2012), Hansen *et al.* (2002) and Hakelius (1996), there are three levels of commitment pertinent to the performance in any form of cooperative organization. The first one is about whether or not to become a member of the cooperative. Without sufficient membership, the cooperatives would not get the operational size to profit from potential economies of scale and will decrease the potential market power of their trading partners (Bruynis *et al.*, 2001; Sexton and Iscow, 1988). The second level of commitment regards how much business the member decides to do with the cooperative and hence, whether or not to deepen commitment. The cooperatives need their members to do business exclusively with the cooperative channel for the sake of increased market share and financial performance (Fulton and Adamoviz, 2001). The third level of

commitment concerns the member's involvement in the democratic process by attending meetings, voting at member meetings, becoming an elected representative (Hakelius, 1996).

This study considered the above-mentioned three actions of commitments required from members, which are, becoming a member, doing business and engaging in the management processes. In line with Anthony (2001), this study considers operationalization of participation as actionable and measurable variables. It has already been mentioned that members are expected to act as both owners and users in the development of cooperative organizations through participation at three levels. These are: a) input participation, that is, participation in provision of resources for instance contribution of capital, and supply of produce, b) process participation which is mainly participation in the management and decision-making processes of the cooperative organization, and c) output participation that is mainly focused on benefiting from the cooperative, for example through patronage dividend and the use of joint facilities and services.

2.5 The Concept of Cooperative Performance

There are a variety of definitions of the concept of performance due to its subjective nature. For Wholey (1999), performance is not an objective reality, waiting somewhere to be measured and assessed, but a socially constructed reality that exists in people's minds, if it exists somewhere. In this study the specific objective on assessing members' evaluative perception of their cooperatives' performance is in line with this. According to the author, performance may include components, products, consequences, impacts and can also be linked to economy, efficiency, effectiveness, cost-effectiveness or equity.

Wholey (1999) considered performance as subjective and interpretative, not least being related to the cost lines, which emphasizes the ambiguous nature of the concept.

On the other hand, Bartoli and Blatrix (2015) points out that performance should be defined as the sum of the effects of work, because they provide the strongest relationship with the organization's strategic objectives, the customer's satisfaction and the economic contributions. As the author notes, performance must take into account both inputs (the effort put in) and outputs (the result of the effort). This definition equates performance with the 'sum of the effects of work'. Performance is achieved when all efforts are focused towards achieving the set objectives and meeting customer's satisfaction, which, in this study, was considered as the satisfaction level of a cooperative member with the benefits of services from their society.

In general, the concept has been defined as the capability of a firm to accomplish its goals and objectives with the help of good governance and has a constant re-dedication to accomplish business objectives (Mahapatro, 2010).

According to Hult *et al.* (2008), organizational performance includes: financial performance, operational performance and overall effectiveness. However, the dominant indicator in empirical strategy research is financial performance. It is based on financial indicators that are assumed to reflect the fulfillment of the economic goals of the firm (Venkatraman and Ramanujam, 1986). Operational performance refers to non-financial dimensions, and focuses on operational success factors that might lead to financial performance, which in this study are the management and decision making processes. It includes measures like effectiveness in terms of product quality and quantity, delivery

time and place (Neely *et al.*, 2005). In the same view, in this study both input provision and wheat produce marketing services were assessed as an evaluative perception by members with consideration of quality, quantity and timeliness of these services by the cooperatives.

Cooperative societies as member-based organizations have peculiar organizational behaviors (Valerie *et al.*, 2012; Siebert and John, 2010; Levi and Peter, 2008) emanating from their guiding principles and values, whereby they are expected to balance between their economic objectives and social objectives. Such organizational behavior influences how individual members, the board of directors and employees work together within the organizational structures and institutional frameworks (Siebert and John, 2010; Levi and Peter, 2008). Cooperative members provide financial resources to their cooperative enterprise through equity investments and the cooperative is controlled by the membership through the board or committee. The board or committee members hire the manager and establish a policy under which the manager operates (Gray and Kraenzle, 2002). Cooperative members also expect to obtain advantages from the coordination of production decisions, access to inputs, enhanced market power and more effective bargaining capacity (Di-Falco *et al.*, 2008); Thyfault, 1996). When the cooperative performs well, its business volume and value are expected to grow from year to year so that it will benefit its members as owners, users and controllers of the cooperative business (Gray and Kraenzle, 2002).

The cooperative performance measurement results by Gray and Kraenzle (2002) indicated that financial difficulties are commonly experienced by agricultural cooperatives in Africa. Several financial ratios for cooperatives (revenue growth, return on assets and operating

margins) were calculated which indicated weak performance in the cooperative sector. In their study, Gray and Kraenzle (2002) found that governance, accountability, transparency, members' participation, education and training contributed to the performance of cooperatives.

Performance measurement in cooperatives has mostly focused on its financial dimension including financial stability (Shamsuddin *et al.*, 2018). The literature concerning performance of cooperatives shows that there still exists an unresolved question of performance measurement. The financial ratios, mostly based upon efficiency measures, do not seem adequate to estimate cooperative performances. Dealing with cooperatives financial performance, the empirical studies that dominate the literature use financial ratios applied to investor-owned firms, with the necessary adjustments to capture the specific nature of each cooperative (Soboh *et al.*, 2009). Kulandaiswamy and Murugesan (2004) stated that literature on cooperatives was predominantly narrative. Whatever little empirical work is available on cooperatives is based on case studies. While some case studies employed primary data obtained through surveys, others made use of balance sheet information.

In this study the cooperative financial performance is indicated by the members' net-worth share or net-worth (equity) from the total net-worth (equity) of the cooperatives. The cooperative's Net-worth or equity is determined by subtracting total liabilities from total assets (Williamson, 1987). Members' net-worth equity or per-capita net-worth is computed by dividing the cooperatives net-worth to the total number of members. It describes the cooperative society's solvency in terms of its equity capital versus debt capital. A solvency ratio measures the portion of the cooperative's assets held by the

members. This number reflects members' equity in the cooperative. If the cooperative is sold or liquidated, net-worth indicates the amount of money available for distribution to members. This ratio measures the proportion of all assets which the member patrons own, out of the co-operative's total assets. Generally, the higher the ratio the better the position of a cooperative in its financial performance (Williamson, 1987). In the same line, Baourakis *et al.* (2002) stated that equity is the net-worth, or risk capital, of the organization and represents the members' ownership interest in the total assets of the company. In balance sheet terms, equity is total assets less total liabilities (Baourakis *et al.*, 2002; Robert, 1997).

Several financial ratios been used in evaluating the performance and financial condition of a firm. Among financial ratios offer an indication of the firm position in the dimensions of profitability, liquidity, solvency and efficiency. Researchers (Pinches et al., 1973) have empirically attempted to reduce the set of financial ratios to represent seven ratios – return of investment, financial leverage, capital turnover, short-term liquidity, cash position, inventory turnover, and receivables turnover. Performance of a cooperative is measured in two main categories: the first category consists of profitability and efficiency ratios that show the ability and the efficiency of equity capital to generate return. The second category consists of capital financing ratios to show the ability of the firms to pay debt and how a cooperative finances its equity (Sooboh *et al.*, 2011). Furthermore, financial ratio analysis is useful to measure member benefits transmitted by the cooperative to members in the short-run (McKee, 2008). However, since cooperatives are owned by their users and owners contribute equity through direct investment, retained profits, or other means, such equity enables the cooperative to finance a portion of its assets, to provide desired services over an extended period of time, and to qualify for debt capital to finance the remaining

portion of its assets Gregory (2008). Therefore, in this study, member's equity ratio was used to measure the financial performance of the wheat producers' cooperatives. Furthermore, the selection of members' equity share as a performance indicator has a historical reason pertinent to Ethiopian cooperative movement. It has been indicated in the introduction section that during 1995 (TGE, 1995) in the beginning of the third Ethiopian cooperative era share equity of members was established by dividing the net-worth of the cooperatives to the total number of members. Thus, it was considered worthy to verify whether or not this equity has been influenced by wheat producers' participation in their cooperatives.

2.6 Operational Definitions of Terms

Participation: In this study, participation is refers to members engagement in terms of joining and sustaining their membership, doing business with the cooperative societies and taking part in the management and decision making process in the affairs of their society.

Positive attitude: In this study, a respondent was considered as having a positive attitude if he or she agreed with a positive statement about respective participation domain and disagreed with negative statement about the same participation domain under consideration.

Negative attitude: In this study, a respondent was considered to have a negative attitude if he or she agreed with negative statement about respective participation domain and disagreed with a positive statement about the same participation domain under consideration.

Performance: In this study the performance of the sampled primary cooperatives were considered as their financial performance in terms of improving the amount of their proprietorship or equity capital (net-worth capital and per-capita net-worth of each

member) from the business operations they have been undertaking with members participation as owners and customers. The operational performance was measured as members evaluation of the functioning of their cooperatives in three major eras namely: the management, input provision service and wheat marketing service provision operations.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

This chapter provides details of the methodology used to address the objectives of the study. It includes description of the study area, sampling design, data type and collection method, methods of data analyses, and description of the study variables.

3.1 Description of the Study Area

This study was conducted in South Nations', Nationalities' and Peoples' Region (SNNPR), one of the nine federal regional states of Ethiopia. The study area focused on major wheat growing central highland areas of Siliti and Hadiya administrative zones. Two districts, namely, Lnfuro and Sankura from Siliti zone and Lemo District from Hadiya zone were specifically selected for the study.

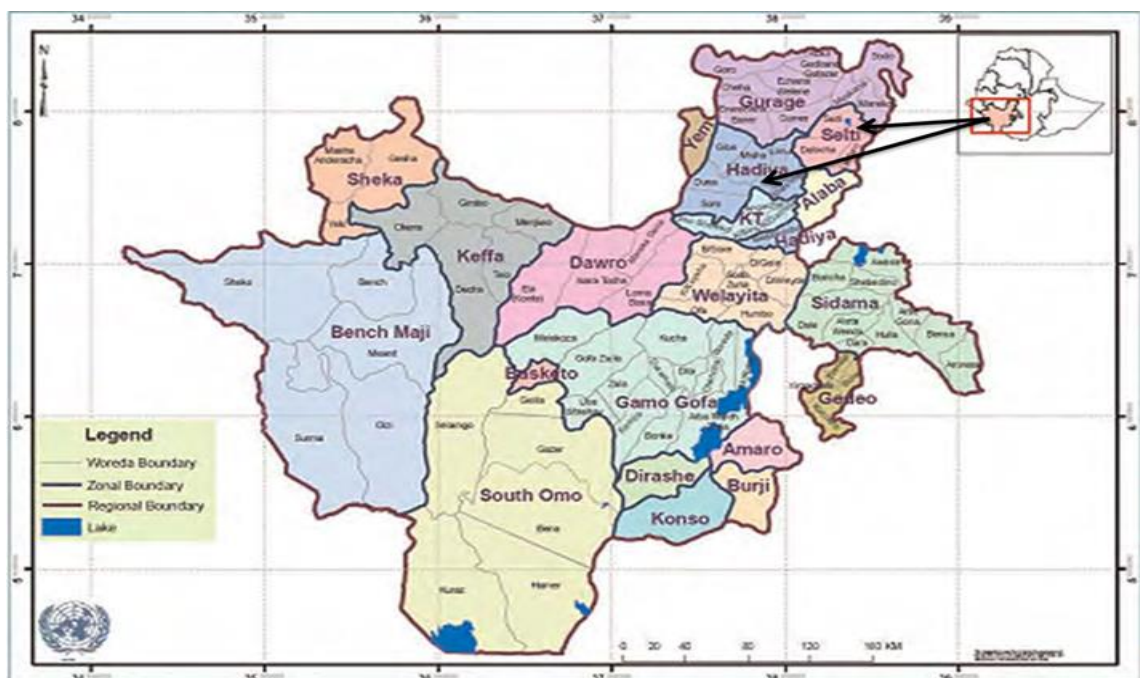


Figure 2: Location of the study area (Source: www.rippleethiopia.org/page/snnpr)

3.2 Research Design

The study used a cross sectional design where data were collected at one point in time (from May-July, 2017). The study had employed mixed method approach. A survey method was used for collection quantitative data on individual respondents, and key informant interview checklist were used to collect qualitative data.

3.3 The Study Population, Sampling Procedure and Sample Size

The study obtained its sample based on a multi-stage stratified sampling. Out of 22 SFCOF member unions, based on commodity homogeneity, six wheat growing unions were identified. This was meant to reduce variability resulting from differences in the commodity production that respondents may be involved in. The next stage was selection of two unions, from identified six wheat growing cooperative unions in the region. Licha Hadiya and Melik Silti Unions were selected purposively based on their better wheat growing potential compared to others. The next stage was again to purposively select the specific study districts based on their wheat production potential within the area of operation of the selected unions. Accordingly, from Melik Silti Union which covers Silti administrative zone Lnfuro and Sankura Districts, and from Licha Hidayat Union that also covers the Hadiya administrative zone, Lemo District was selected. In the three selected districts, the study covered the total of 27 wheat growing multi-purpose farmers' primary cooperatives in the leading wheat growing districts. These were 7, 10 and 10 from Lanfuro, Sankura and Lemo Districts respectively. The total membership of the 27 primary cooperatives that constituted the study population of the study was 55 212 (43 212 male and 11 691 female) individual farmers. The study applied Yamane (1967) formula to compute the sample size. Based on the study population, the computed sample size of the study is 371 member respondents, determined as follows:

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

Where n= sample size, N= population size, and e-is the level of precision;

$$n = 55212/1+55212(0.0025)$$

$$n=371$$

Finally, using the primary cooperatives members' register as the sampling frame, individual study member respondents were selected using systematic random lottery method, in proportion to the total membership size of each primary cooperative society.

3.4 Development of Data Collection Instrument

The study mainly used psychometric response likert item questionnaires (Bohner, 2001) to collect data on respondents' opinion on participation and how they evaluate the performance of their cooperatives. A Likert scale was used due to its appropriateness for assessing attitudes (Spector, 1992; 1976; DeVellis, 1991; Sharon and Peter, 2000). Researchers for instance, Sharon and Peter (2000), while explaining the construction of response categories, suggested that the number of responses must be broad enough to covary, and to provide the respondent with the ability to discriminate meaningfully. In this study, data about members' attitude about different participation domains (objective one) was assessed using the Likert items where each item involves choosing a response category of 'Agree' or 'Disagree or 'have no idea', to reflect one's level of agreement with a statement about the respective participation dimension. Data on the third objective were collected through an evaluative scale allocated value for different performance rates that runs from very poor performance to excellent performance. The five score values point scale (as 5 = excellent, 4 = very good, 3 = good, 2=poor and 1 = very poor) along the three main functioning areas of (a) management, (b) input provision and (c) wheat produce

marketing operations of respective societies were constructed. Numerous statements and response options were initially written with the intent of eliminating those statements and response options that do not reflect the underlying construct during the pre-testing of data tools before the actual data collection started, in order to ensure consistency in measurement. The questionnaire was pre-tested with 25 (21 male and 4 female) cooperative members at Getem gurbaye Primary Cooperative in Sankura District. Each instrument was validated through discussions with Regional Cooperative Development Agency senior experts to ensure that the instruments would yield appropriate, meaningful and useful data. After pretesting, in redesigning the Likert item (question statements) reconsideration was given to their total number and their wording. Those statements and response options that did not reflect the underlying construct during the pre-testing of data tools were eliminated. For instance, the number of response options on participation attitude, were reduced from five to three. This is because during pretesting, it was observed that respondents were unable to differentiate between 'strongly agree' and 'agree'; and 'strongly disagree' and 'disagree' it was observed that they preferred just to say 'agree', 'disagree' or to remain silent. The length and clarity of each statement were also considered.

3.5 Data Collection Techniques

Data were collected using a questionnaire and checklists. Structured and semi-structured questions were included in the questionnaire to collect information from individual respondents through face to face interviews (Appendix 3). A total of 27 enumerators were recruited from district cooperative offices and development centers and were trained on how to collect data through face to face interviews on question by question discussion. A checklist (Appendix 4) was used to collect primary data from key informants such as

cooperative board of directors, managing directors, and cooperative development staff at regional, zone and district cooperative development offices.

Relevant documents, including the audit reports, policy and proclamations and reports pertinent to the cooperative movement were reviewed as secondary data sources to: (a) compute the member's net-worth share or equity of respective societies as a performance indicator, (b) assess what policy and institutional support opportunities and or constraints are existing, and (c) gain insight on current national and regional socio-economic development interventions that are directly or indirectly related to the cooperative sector.

3.6 Data Analysis

To address the research objectives, using the Statistical Program for Social Sciences (SPSS) version 16 for data analysis, the study employed descriptive statistics such as mean, median, mode, percentage and frequencies, and multiple linear regression model.

3.6.1 Descriptive statistics

Assessment of participation attitudes (objective one), used a likert scale measurement. The frequency counts of responses were computed to determine whether members had a positive or negative attitude towards participation in their cooperative organizations. Members' evaluative perception of cooperative performance (objective three) was analyzed through descriptive analyses of median and mode average values of the five score values scale along the three main functioning areas of (a) management, (b) input provision and (c) wheat produce marketing operations of respective societies. With consideration of score of 3 (good performance) as average performance, the descriptive mean scale value results were computed to determine how members' evaluate the organizational performance along the above mentioned three major areas of operation.

3.6.2 Econometric model

To determine the relationship between practice of participation of members and the performance of their cooperative societies (member equity net-worth share), the study used multiple linear regression model or Ordinary Least Squares (OLS). This model was chosen for the reason that the dependent variable, net-worth or member equity is a continuous as well as uncensored (Gujarati, 2003) and other assumptions of ordinary least square are fulfilled in the field survey data. Consequently, the study employed multiple linear regression model to analyze the relationship between members’ participation and cooperative performance. The multiple linear regression model is specified as stated in Gujarati (2003):

$$Y_i = \alpha + X_i\beta_i + U_i \dots \dots \dots (2)$$

Where, Y_i = is the amount of members equity net-worth in Ethiopian Birr (ETB)

X_i = explanatory variables determining the performance of organization

α = intercept

β_i = coefficient of i^{th} explanatory variable

U_i = unobserved disturbance term

$$Y_i = \alpha + \beta_1 pSC + \beta_2 y + \beta_3 pF + \beta_4 S + \beta_5 pWS + \beta_6 pM + \mu_1 \dots \dots \dots (3)$$

Where, Y_i = is per capita net worth in Ethiopian Birr (ETB),

α = intercept

pSC = participation in purchase of share capital,

pY = participation in years of membership,

PF = participation by purchase of Fertilizer,

PS = participation by seed purchase,

pWS = participation by wheat seed supply,

pM = attendance and participation in meetings,

μ_1 = stochastic error term,

β_i = coefficients, $i=1, 2, 3, \dots, 5, \dots$).

Ordinary Least Squares assumes that the unobserved disturbance term follows normal distribution with zero mean and constant variance. The successive values of the unobserved disturbance term are also assumed to be independent. Furthermore, the model assumes also that the explanatory variables are non-stochastic and they are not perfectly linearly related to one another (Gujarati, 2003).

Important variables that could determine performance of cooperative performance assumed in this study include purchase of share capital, duration of years in membership, purchase of fertilizer, purchase of seed, supply of wheat produce, and attending cooperative general assembly meetings and decision making process. Therefore, the major variables hypothesized to affect cooperative financial performance and included the model are discussed below.

3.6.3 Definitions of variables

Dependent variable

Net-worth per member: a continuous variable. It is to indicate the cooperatives' financial performance. It was computed as the net-worth of a cooperative society divided by the total members of the cooperative society (Appendix 2). It has been mentioned in section 2.1 that at the beginning of the third era of Ethiopian cooperative movement history cooperatives were restructured cooperatives were restructured by proclamation number 85/95 from socialist oriented to capitalist oriented entities by establishing members'

equity based on the cooperatives net-worth or equity divided by the total number of members.

Independent variables

Number of shares purchased in cooperative: continuous variable. It is the total number of shares the member has purchased from the cooperative.

Duration of membership in the cooperative: a continuous variable. It is the number of years the since member joined the cooperative.

Quantity of fertilizers purchased from cooperative: a continuous variable. It is the quantity of fertilizer the member purchased from the cooperative during the 2015/2016 production season in quintals.

Quantity of improved wheat seeds purchased from cooperative: a continuous variable. It is the quantity of improved wheat seed variety the member purchased from the cooperative during the 2015/2016 production season in quintals.

Wheat produce quantity sold to cooperative: a continuous variable and is the quantity of wheat produce the member supplied to the cooperative during the 2015/2016 production season in quintals.

Attending cooperative meetings: a continuous variable. It is the number of the cooperative general assembly meetings that the member attended during the year 2015/2016.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSIONS

This section presents and discusses the findings of the study. The first sub-section covers the members' socio-economic characteristics, their attitude and practice of participation and the major reasons for becoming cooperative members. The second sub-section discusses the influence of the of members' participation on the members' net worth share of the wheat producers cooperative society. The third sub-section is about the members' evaluative perception of the operational performance of their cooperatives.

4.1 Members' Characteristics and Practices of Participation

The study sampled 371 respondents of which 300 (80.9%) were males and 71 (19.1%) females. The sampling maintained the male-female ratio of the total membership in the study area. Table 1 summarizes the demographic and socio-economic characteristics of the sample. The mean age of respondents was 44 years with the youngest age being 22 and the oldest 85 years. With regard to educational background of the respondents, 27.2% were illiterate and 72.8% were literate with different educational levels. From the literate respondents the disaggregated educational levels, 19.0% were just able to read and write, while 32.6 % had completed elementary school. The remaining 9.9% and 9.7% had attained junior secondary and secondary level education respectively, with only 1.6% having achieved college education.

Table 1: Socio-economic characteristics of respondents (n=371)

	Min.	Max.	Mean
Age of the respondents in years	22	85	43.9
Number of years since membership in the cooperative	1.0	30.0	11.3
Farm size of the respondent in hectares	0.75	6.0	1.9
Land size allocated for wheat production in hectares	0.04	2.0	0.5
Educational level	Frequency		Percent
Illiterate	101		27.2
Literate	70		19.0
Primary	121		32.6
junior secondary	37		9.9
Secondary	36		9.7
college/university	6		1.6

Majority of respondents (82.8%) are growing wheat mainly as a cash crop while only 64 respondents (17.2%) are producing wheat mainly for home consumption. The total land holding size of the members ranges from 0.75 ha to 6.0 ha, with an average of about 2.0 ha. The farm land size allocated for wheat production ranges from minimum of 0.4 ha to maximum of 2.0 hectares, with an average of about 0.5 ha. The duration of membership in cooperatives ranges from just one year to 30 years, with an average duration of membership in cooperatives of 11 years.

In joining cooperatives, wheat growing farmers expected some tangible benefits. Cooperatives have both social and economic objectives for their members. However, in this study the economic benefits that are related to the improvement of wheat farming which is their main livelihood were assessed. Respondents were asked to rank among the problems of (a) agricultural input problem, (b) wheat produce market, (c) credit, and (d) expectation of external support, which they considered to be the main objective for joining the cooperative.

Table 2: Members objective for joining cooperative societies (n=371)

Objective	Level of importance	Frequency	Percent
Agricultural input	Less important	5	1.3
	Important	155	41.8
	Most important	211	56.9
Wheat produce marketing	Less important	34	9.2
	Important	183	49.3
	Most important	154	41.5
Credit	Less important	121	32.6
	Important	154	41.5
	Most important	96	25.9
Expecting external support	Less important	158	42.6
	Important	126	34
	Most important	87	23.5

To identify member's objectives for becoming member in cooperatives, Likert statements were set with itemized scale ranging from 1 that represents least important problem to 3 to indicate the most important problem. The descriptive frequency statistics results in Table 2 show that the most important objective for farmers to join cooperatives is getting agricultural inputs, similar to what was reported by Abebaw and Haile (2013) and Francesconi and Heerink (2011) who showed that cooperative membership in Ethiopia increases the adoption of improved agricultural technologies, especially mineral fertilizer, and the rate of commercialization. The same has been reported by Bernard *et al.* (2008) that a large number of cooperatives in Ethiopia participate in marketing of agricultural inputs and produce. The second important objective for joining cooperatives is to access market for their wheat produce. However, Bernard *et al.* (2008) and Bernard and Spielman (2009) indicated that grain marketing cooperatives in Ethiopia, while offering higher prices, have not succeeded in increasing commercialization. Solving credit access problems, and lastly, expectation of tapping support from government and non-governmental organizations respectively were the least important objectives for joining the cooperatives.

The study has assessed members' attitude towards the different ways of participating in their cooperatives. This is because, one's decision to participate or not, is the result of his or her attitude towards the matter. This is in line with Wicker (1969), Ajzen (1991), and Conner and Armitage (1998), who stated that, attitudes are believed to directly influence behavior. In practice, the term attitude is often used as an umbrella expression covering such concepts as preferences, feelings, emotions, beliefs, expectations, judgments, appraisals, values, principles, opinions, and intentions. This starts from making a decision in joining the cooperative membership and engagement in the operational activities undertaken by the society. The four ways of participation are: a) purchase of shares, b) purchase of agricultural inputs, c) supply of wheat produce, and d) attending the general assembly meetings.

4.1.1 Wheat producer cooperative members' attitude towards participation by share purchase

Purchase of at least one share is a prerequisite for becoming a member and is among the essential resources members are required to pool as the initial source of equity capital that the society is expected to have before becoming operational. The total number of shares availed for sale and the unit price is usually indicated in the by-laws of each cooperative society. The study assessed the members' attitude with regard to this domain of participation. Respondents were therefore asked to choose whether they agree or disagree with the statements about participation by share purchase.

The results (Table 3), show that on average, about 84.1% of respondents have positive attitude towards purchasing of more shares. These members are agreed that the number of shares they have currently is not adequate, and that they would increase the equity capital of their society by purchasing more shares.

**Table 3: Frequency distribution of members' responses on purchase of share capital
(n=371)**

Likert item	Agree		Disagree		Have no idea	
	n	%	n	%	n	%
The share I have in coop is adequate no need of purchasing more share	30	8.0	341	91.4	0	0
I don't think purchasing more share increases equity capital of my cooperative	24	6.4	347	93.0	0	0
I wish I would sell-off part of my share capital	96	25.7	275	73.7	0	0
Purchasing share capital is just waste of my money	64	17.2	307	82.3	0	0
Average	59	15.9	312	84.1	0	0

However, it is important to note that the results also show that about 15.9 % of the respondents had a negative attitude. It has been reported by Bernard *et al.* (2008) that most cooperatives in Ethiopia have a high level of distrust among members, and face major constraints to become effective for improving market commercialization and farmers' welfare. More importantly, looking into specific stimuli likert items, from this negative category of respondents 8.0% agreed they have adequate shares while about 25.7% of respondents would like to even sell part of the shares they have. Moreover, 17.2% of respondents felt that purchasing more shares is just a waste of their money. This has a strong negative implication on mobilizing the financial resource which limits its full-scale operation.

4.1.2 Wheat producer cooperative members' attitude towards participation by purchase of agricultural inputs

Purchasing agricultural inputs from cooperatives is the first among the major business participation that members are engaged with their respective societies. This service is the most important objective for joining a cooperative, as indicated Table 2. However,

respondents showed both positive and negative attitude about their participation of purchasing agricultural inputs from their societies. The most important inputs are chemical fertilizer and seed of improved wheat variety. The results (Table 4) show that on average about 61.4% of respondents have positive attitude and 35.5% have negative attitude about purchasing the agricultural inputs they required from their cooperatives. Among critical issues that the negative attitude manifested are complaints about cooperatives monopolizing the input supply market (69.4%), members being forced to get their inputs from the cooperatives due to lack of alternatives (28.7%), while others preferred cooperatives input provision on credit only (57.9%).

The issue of monopoly by cooperatives was also raised by key informants from a different perspective. The key informants, particularly the board of directors and managing directors were more concerned that the input supply, particularly of fertilizer business, serves more as an instrument for implementing government agricultural development policy, because it does not discriminate between members and non-members. This means that members do not have any special incentive for their participation in this domain. In line with this, according to the current agricultural input credit modality, cooperatives are not entitled to manage the input credit. Rather, the credit is given by Omo Micro-finance, the ruling party affiliated regional micro-finance institution.

During the key informant interview with the chairperson of one primary cooperative in Sankura District and the Manager of Primary Cooperative from Lemo District, they expressed their grievances about their warehouse being used by the district government to store fertilizer for free and the commission which the society earns from Omo Micro-finance does not cover even their operational expenses for distributing the fertilizer. They

further stated that fertilizer provision is no more their profit-making enterprise. They confirmed that it is not the cooperative but the government that monopolizes the fertilizer business and cooperatives are just conduits.

Table 4: Frequency distribution of members' attitude on purchase of agricultural inputs from cooperative (n=371)

Likert item	Agree		Disagree		Have no idea	
	N	%	n	%	N	%
Cooperative is not my first priority choice to get my agricultural inputs	29	7.8	342	91.7	0	0
Cooperative never provides inputs as per my demand	107	28.7	264	70.8	0	0
Cooperative is a monopoly in agricultural inputs market	259	69.4	112	30.0	0	0
I often prefer credit than cash purchase of agricultural inputs from cooperative	216	57.9	155	41.6	0	0
Had there been an alternative input supplier in my area, I would be the first one to go there	103	27.6	268	71.8	0	0
Average	143	38.6	228	61.4	0	0

4. 1.3 Wheat producer cooperative members' attitudes towards participation by supply of wheat produce

It has been mentioned that the level members' participation in their cooperative societies goes from the lower level of just becoming a member by purchasing the minimum required number of shares and then getting into business with the society. The business engagement also moves from input marketing participation to produce supply market. Respondents were exposed to Likert statements with regard to their opinion, agreement or disagreement on supplying their wheat produce to their cooperatives.

The attitudes towards supplying wheat produce participation results (Table 5) show that on average, about 54.1% of respondents are positive in their attitude of selling their wheat produce through their cooperatives. This also implies about 45.9% of respondents have

negative opinion about this participation domain. The results also indicate that there are some issues on which members have negative attitudes about participation in supplying their wheat to their respective cooperatives. These include the fact that members have strong clientele relation to private wheat traders whom they believe give them better incentives than the cooperative (78.0%). Other (49.9%) members agree that they are more concerned about maintaining the quality of produce when selling it to the private dealers than when supplying to the cooperatives. This negative attitudinal response is similar to what has been reported by Bijman and Ton (2008), while appreciating the important roles cooperatives are playing in improving activities of production and marketing by smallholder farmers, they have also mentioned constraints that are challenging these organizations among which is having members who are heterogeneous in their interests. This is also further substantiated by results that 53.4% of respondents do not trust market information provided by the cooperative, and 34.0% are influenced or pressured by local middlemen, who are mostly donkey cart transport service providers, to take their wheat to other private dealers rather than supplying to the cooperatives.

The discussion with board members and managing directors, though, indicates that the most important factor with regard to members' attitude towards wheat marketing service is shortage of operating capital by primary cooperatives, given that farmers need immediate cash for their wheat supply, and the middlemen especially donkey cart owners who provide transport service from village to the local market, are able to influence members to take their produce to private dealers in the local assembly and district markets where they can be paid in cash.

Table 5: Frequency distribution of members' attitude on supplying of wheat produce (n=371)

Likert item	Agree		Disagree		Have no idea	
	n	%	n	%	n	%
Cooperative is not the first priority market outlet for selling my wheat produce	76	20.4	295	79.1	0	0
I don't believe my cooperative pays me fair price for my wheat compared to other markets	84	22.5	287	76.9	0	0
I will never accept if the coop asks me to supply my produce on credit	137	36.7	234	62.7	0	0
I am always influenced by local middlemen pressure to take wheat to other markets rather than my cooperative	127	34.0	244	65.4	0	0
I am more concerned about quality of my wheat when selling it to other markets than to cooperative	186	49.9	185	49.6	0	0
I don't trust market information from my cooperative	199	53.4	172	46.1	0	0
I have strong clientele relation to private wheat traders whom I believe give me better incentives than the cooperative	291	78.0	80	21.5	0	0
I am not happy with my co-operatives profit dividends (patronage) every year	311	83.4	60	16.1	0	0
I don't trust the weighing scale of cooperative any more than other buyers	40	10.7	331	88.7	0	0
As a cooperative member, I don't see substantial improvement in my wheat marketing position	107	28.7	264	70.8	0	0
Average	156	45.9	215	54.1	0	0

4.1.4 Wheat producer cooperative members' attitude towards participation in the management and decision making process of their cooperatives

As mentioned earlier, participation in management and decision making process is a higher level of participation. This is where members are assumed to demonstrate their sense of ownership and control in the affairs of their societies. The study results (Table 6) show that almost three-quarters (72.15%) of the respondents have positive attitude about participating in the management decision making process of their cooperatives.

However, when the results are examined in more detail regarding the four sub-dimensions of this participation, a different picture emerges. The four sub-dimensions are about participation in meetings, elections and sense of ownership.

With regard to participation in cooperative meetings about 80.7% and 78.3% of respondents consider it important to take part in cooperative meetings and believe that the comments and ideas they raise on such meetings are heard and actually influence how their cooperative should operate, respectively. Closer to meeting participation is the members' concern about their participation in elections that determine who leads the management operation itself. Like the meeting attendance participation, majority (75.0%) of the respondents do have positive attitude about the importance of participating in elections of the cooperative leaders. This means that they give priority to elections among other issues, and they believe that elections of cooperative leaders are conducted in a democratic manner regularly as per their by-laws. More importantly, the results show that respondents do believe that their vote counts and they are the determinants in electing their leaders.

Table 6: Frequency distribution of members' attitude on participation by management and decision making

Likert item	Agree		Disagree		Have no idea	
	n	%	n	%	n	%
About meeting participation						
I do not believe it is important to take part in cooperative meetings	70	18.8	301	80.7	0	0
I don't think my voice on coop meeting are heard	78	20.9	292	78.3	0	0
Average	74	19.85	297	80.0	0	0
About elections						
I do not take priority consideration to participate in electing my cooperative leaders	105	28.2	266	71.3	0	0
Often election of leaders of my society are not conducted timely after each term of services	98	26.3	273	73.2	0	0
I don't think my election vote counts	87	23.3	284	76.1	0	0
I don't believe election of leaders of my society are democratic	78	20.9	293	78.6	0	0
I feel the leaders of my cooperative are assigned than elected	99	26.5	272	72.9	0	0
Average	93	25.0	278	75.0	0	0
About sense of ownership						
I fell that I am not the owner of my cooperative	75	20.1	296	79.4	0	0
I feel cooperatives are belongs to government	170	45.6	201	53.9	0	0
I have never thought of collaboration with other farmer members to check the performance of my cooperatives	122	32.7	249	66.8	0	0
I am not familiar with the bay-law of my cooperative	92	24.7	279	74.8	0	0
My cooperative does not keeps me well informed about its plan and performances	251	67.3	120	32.2	0	0
I never thought that I have a good chance to influence decisions concerning the future of my cooperative	261	70	110	29.5	0	0
I feel as members I have no any influence on how my cooperative operation is run	140	37.5	231	62	0	0
I think there is nobody else in my family who has interest in joining cooperative	63	16.9	308	82.6	0	0
I think even without belonging to coop membership I feel much more relaxed	67	18	304	81.5	0	0
To me, the cooperative is just another place to do business	125	33.5	246	66	0	0
I would discontinue my membership with the co-op if an alternative was available	62	16.6	309	82.8	0	0
I don't believe the coop address my interest	130	35	241	65	0	0
I don't see any difference between members and nonmembers on benefiting from the cooperative	295	79.1	76	20.4	0	0
Average	143	38.7	228	61.3	0	0
Overall average	103	27.85	268	72.15	0	0

The third sub-dimension of management and decision making participation type was on members' sense of ownership. The attitudinal magnitude of this sub-dimension is critical to the survival of cooperatives as member-based organizations. The results show that, more than half (61.3%) of respondents has a sense of ownership of their cooperative enterprise. This is exemplified by, among others, the fact that they know the institutional framework and the bylaws of their cooperative; they are doing business with their cooperatives by choice and would like to stay in. Furthermore, majority of the respondents agree that cooperatives do not belong to the government but rather to them.

However, in contrast, there is considerable number of respondents with negative attitude particularly with regard to some aspects of sense of ownership. For instance, almost half (45.6%) of respondents, still believe that cooperatives belong to the government. This was explained by one key informant, who is the head of Silti zone cooperative office, who said that this is a negative legacy from the situation during the previous socialist military regime.

4.2 The Influence of Wheat Producer Cooperative members' Participation on the Financial Performance of Cooperative Societies

Financial performance, in this study is based on the respective cooperatives balance sheet items (appendix 2). This is because as indicated (Shamsuddin *et al.*, 2018). Performance measurement in cooperatives has mostly focused on its financial dimension including financial stability. There is a considerable variation of the per-capita net-worth, among the 27 primary cooperatives sampled for this study. It ranges from the minimum 44.21-1426.15 Ethiopian Birr (EB) and with the average of 254.48 Ethiopian Birr (EB) per member (Table 7).

Table 7: Financial performance of primary cooperatives as of end of 2015/16 budget year

District	Name of primary coop	Total Asset (ETB)	Total Liability (ETB)	Net worth (Capital) ETB	Total N.Membrs	Members Per-Capita Net-worth (ETB)
Lanfuro	Shefode	461 585.94	19 441.79	442 144.15	6 931	63.79
	Md. Bodity	529 050.47	18 218.80	510 831.67	3 668	139.27
	Gb.Repi	335 565.20	65 274.40	270 290.80	3 210	84.20
	To. Sidistu	517 410.76	104 207.00	413 203.76	2 241	184.38
	To.Aratu	726 339.75	22 000.00	704 339.75	3 109	226.55
	Sh Belechi	117 190.15	4 951.00	112 239.15	2 539	44.21
	Edersiso	423 970.04	9 160.90	414 809.14	2 200	188.55
	Adesha	421 057.00	85 000.00	336 057.00	1 333	252.11
	G.Gurbaye	494 944.00	125 000.00	369 944.00	3 128	118.27
	Getem	441 364.00	145 240.00	296 124.00	2 993	98.94
Saankura	Gutancho	490 914.00	102 294.00	388 620.00	2 802	138.69
	Regdina	290 346.00	20 000.00	270 346.00	1 163	232.46
	En. Deneb	412 524.00	92 500.00	320 024.00	1 279	250.21
	Berecho	290 200.00	100 000.00	190 200.00	1 331	142.90
	M.feten	320 466.00	60 364.00	260 102.00	1 353	192.24
	Kore	424 996.00	130 000.00	294 996.00	1 529	192.93
	Weteto	465 363.00	40 000.00	425 363.00	1 646	258.42
	Sheta	1 670 947.68	25 372.62	1 645 575.06	1 291	1 274.65
	Bobicho	1 247 593.64	1 019 944.38	227 649.26	1 658	137.30
	Sedema	283 071.06	11 191.46	271 879.60	870	312.51
Lemo	Shekbira	521 243.83	460 375.60	60 868.23	599	101.62
	Amshira	36 261.06	7 984.75	28 276.31	1 106	25.57
	Shurmo	1 834 764.03	1 169 812.03	664 952.00	2 090	318.16
	Lisana	1 396 621.44	936 988.45	459 632.99	1 957	234.87
	B.Ambichu	1 752 260.44	1 547 117.40	205 143.04	1 767	116.10
	Lenbuda	1 240 425.88	19 643.96	1 220 781.92	856	1 426.15
	Jewe	1 308 422.56	1 134 913.33	173 509.23	1 497	115.90

Source: audit reports of respective cooperative society's for the 2015/16 budget year

Following the assessment of members' attitude about participation in their society; the study has determine the influence of members' participation on the financial performance of their cooperative societies. However, before analyzing the relationship between different participation domains and their influence for the performance, it is worth to recognize that there is considerable variation among members' participation practice in their cooperatives in all six participation domains (Table 8).

Table 8: Frequency distribution of members' participation along six participation domains (n=371)

Participation domain	Min.	Max.	Range	Mean
Number of years since joining coop	1.00	30.00	29.00	11.3
Number of current shares held	1.00	11.00	10	3.1
Quantity of fertilizer purchased (Qts)	0.25	7.00	6.75	2.1
Quantity of wheat seeds purchased (Qts)	0.25	8.00	7.75	0.9
Wheat produce quantity supplied(Qts)	0.00	36.00	36.00	8.3
Number of GAM attended during last 12 months	0.00	2.00	200	1.1

There is great variation particularly with regard to years in membership (29 years) and shareholding (10 shares) respectively; and wheat produce supply (from zero to 36 quintals supplied) during the last production season. The relationship between actual practice of participation of members and the organizational performance of their cooperative societies are presented in Table 8. The model had good overall fit and most variables performed as expected [F(6, 364)=16.821, P<0.001]. To test for multicollinearity, the study employed Variance Inflation Factor (VIF). VIF values for all the variables in the model is less than 10, which implies that multicollinearity is not a serious problem in the model (Appendix 1).

Table 9: Linear regression for relationship between members' participation and financial performance of cooperatives

Variables	Coeff.	Std. Err.	t value	P value
(Constant)	64.327	52.13	1.234	0.218
Duration of membership in the cooperative	17.082	2.826	6.044	0.000
Number of shares in cooperative	-26.941	6.49	-4.151	0.000
Quantity of fertilizers purchased from cooperative	14.551	14.158	1.028	0.305
Quantity of improved wheat seeds purchased from coop	-86.508	21.398	-4.043	0.000
Wheat produce quantity sold to cooperative	10.04	2.438	4.118	0.000
Number of days attending general assembly meetings	19.603	20.747	0.945	0.345
Number of observations	371			
R Square	0.217			
Adjusted R Square	0.204			
F(6,364)	16.821			
Prob.>F	0.000			

The results (Table 9) show that out of the six explanatory variables considered in the econometric model, four variables significantly influence the cooperatives' financial performance. Number of shares in cooperative and quantity of seed of improved wheat variety purchased from the cooperative negatively and significantly influences the performance of cooperative, while duration of membership in the cooperative and wheat produce quantity sold to the cooperative both positively and significantly influence performance. There are two possible explanations for the negative influence. The first one is because, in the case of shares purchased, even though members' purchase of more share capital increases the cash inflow to the society, and hence solves its working capital the societies are not paying interest on shares to members; in real terms it is members' money which implies a liability to the society. It is clear according to voluntary and open membership principle one can leave the society any time he or she wanted and withdraw the share equity amount paid to the cooperative. The second possible reason would be since there is a considerable variation in number of shareholding among members and the

per-capita net-worth is an aggregate average, those who contribute in terms of shares may not get proportional reward as it offsets for those who are having minimum number of shareholding; and thus the result shows negative predatory relation.

The reason for the negative predatory relation between the purchase of improved seed and that of the per-capita net-worth is that because improved seed was sold on credit during the previous growing season and due for repayment, which constitutes the major portion of short term liability thus reducing the equity or net-worth of the societies and so members' per-capita. Loss incurred in the seed provision business, that results in reduction of net-worth would be another reason for the negative influence on the predictor variable.

4.3 Members' Evaluative Perception of Wheat Producers' Cooperative Members on the Operational Performance of Their Cooperatives

It has been said earlier that cooperative members are the owners, users and controllers of their societies. That is the essence of cooperatives as a member based organizations. The fore, from their direct interaction with their cooperatives it is believed that members observe how the cooperatives are functioning in their today operations towards achieving their organizational objectives.

Following assessment of members' attitudes about participation and the influence of of their participation on the financial performance, the third objective of the study focused on how members evaluate the operational performance of their cooperative societies. This objective was concerned with members' evaluative perception towards their cooperatives operational performance. This is how others for instance, Crano and Prislín (2006); Malhotra (2005); and Petty *et al.* (1997) have agreed that the concept of evaluation is

central to the definition of attitude, that it is as a summary of evaluative judgments that integrate cognitive reactions, which in this study started with the members' perception and action of participation followed by their evaluative attitudinal perception of the operational performance of their cooperative societies. Accordingly, performance of three organizational operations namely the management functions, the input provision service and the wheat produce marketing services was assessed by members. Five score values were given for each statement to evaluate the issue under consideration. That is 1 for very poor, 2 poor, 3 good, 4 very good and 5 excellent. The score of 3 denoting 'good' was considered as an average level of operational performance. The descriptive analysis results for members' evaluation of the operational performance in the three major areas of operation are presented in the following sub-sections.

4.3.1 Wheat producer cooperative members' evaluative perception on the performance of the management functions

The management performance was evaluated through "how do you rate" scale statements. Based on the organizational behavior and cooperative societies as members owned, managed and controlled entities, the management performance evaluation statements were focused on: elected board members and employees, the level of engaging members in the management and decision making process, transparency in communication of rules and regulation, plans and activity and auditors report, the regularity and democracy in elections and the regularity and fairness of patronage benefits which is expected by members in return for doing business with their societies (Levi and Peter, 2008; Siebert and John, 2010).

The descriptive analysis results (Table 10) show that members evaluated their societies' performance in terms of management functions as average, which is shown by a score of three as both median and mode values of all performance criteria.

Table 10: Members' evaluation of management performance (n=371)

Evaluation criteria (How do you rate the following?)	Median	Mode
Performance of committee/board members	3	3
Regularity of holding general assembly meetings	3	3
Familiarization of rules and regulations to members	3	3
Provision of training and education	3	3
Engagement of members in decisions making processes	3	3
Communication of decisions to members	3	3
Communication of annual plan and performance reports to members	3	3
Performance of employees	3	3
Regularity of year end patronage dividend on time	3	3
Sufficiency patronage dividend earnings	3	3
Communicating Auditor's report reports to members	3	3
Regularity of elections at end of each term of services	3	3

Scale score values, 5 = excellent, 4 = very good, 3 = good, 2=poor and 1 = very poor

Other management and organizational behavior studies (Levi and Peter, 2008; Siebert and John, 2010) have noted that a decrease in members' participation will result into a poor democratic life of cooperatives. Provision of cooperative training and education as well as the communication activity reports, decisions and auditors report have a direct impact on the level of information and thus knowledge of members about their cooperatives. This is also reported in the study by Getenet and Anullo (2012), that there are considerable constraints in the internal environment of most cooperatives. Among the most important challenges mentioned include lack of competent managerial services, limited participation of members in decision making and controlling activities, and lack of information and linkage of cooperatives with their members. On the other hand, economic incentive, for instance better market price, has a direct impact on the members' attitudes and active participation in their cooperatives. This is because, regardless of the size of the cooperative society, it should be able to provide tangible economic benefits. Getting better market price and thus income from their participation in supply of wheat produce is critical in this regard.

4.3.2 Wheat producer cooperative members' evaluative perception on input provision service performance

Respondents were asked how they rate the performance of their cooperatives in terms of nine issues related to the agricultural inputs delivery and distribution operations. These were mainly related to major areas of timeliness, placement, price and quality of inputs. The descriptive analysis of performance score evaluation results (Table 11), show good performance of input supply operation with the average value of about 3.

Table 11: Members' evaluation of the input provision service performance (n=371)

Evaluation criteria (How do you rate the following?)	Median	Mode
Timeliness of input delivery	4	4
Appropriateness of input delivery place	4	4
Appropriateness of delivering required type of input	4	4
Fairness of input price	3	4
Quality input delivery	4	3
Adequacy of quantity of input	3	3
Technology mix balance of input provision in your coop	3	3
Timeliness of input credit provision in your coop	3	3
Fairness of input credit management in your coop	3	3

Scale score values, 5 = excellent, 4 = very good, 3 = good, 2=poor and 1 = very poor

It has been reported in the previous sections that solving their agricultural inputs problem is the major reason why respondents join cooperatives. This is in line with result by Bernard *et al.* (2008) that a large number of cooperatives in Ethiopia participate in marketing of agricultural produce and that agricultural inputs provision service is the priority need of members from their cooperative societies.

4.3.3 Wheat producer cooperative members' evaluative perception on the wheat produce marketing services

Next to input supply, wheat produce marketing service was the second most important service demanded by members from their cooperative. Like other service operations,

respondents were requested to assess the performance of their respective cooperatives in this important service.

Table 12: Members' evaluation of the wheat produce marketing service performance (n=371)

Evaluation criteria (How do you rate the following?)	Median	Mode
Timeliness starting of wheat collection market in your coop	3	3
Accuracy of weighing of wheat in your coop	3	3
Fairness of price in wheat collection market by your coop	3	3
Timely payment of wheat collection market by your coop	3	3
Value addition of wheat collection market by your coop	2	3
Provision of transport service of wheat collection market	2	2
Provision of storage service of wheat collection market	2	2
Provision of market information service	3	3

Scale scores: 5 = excellent, 4 = very good, 3 = good, 2=poor and 1 = very poor

The overall rating questions were concerned the issues of produce marketing function such as timeliness, accuracy of weighing, price and other related provisions such as provision of information, transport and storage services. The median and mode performance scores of members' evaluation (Table 12) show that the performance of cooperatives with regard to aspects like value addition, storage and transportation service is below average performance. The same result was reported by Getenet and Anullo (2012), who concluded that the most important challenges facing cooperatives include lack of competent staff, lack of basic infrastructure and limited market information.

Following the performance assessment, respondents were also asked whether or not they are satisfied with the benefits from their respective cooperative societies. The majority, (71.7%) are satisfied, while 28.3% are not (Table 13). Among unsatisfied respondents, however, regardless of their dissatisfaction, about 98.1% of them would like to continue

with their membership. Moreover, respondents also expressed their perception of their market position due to their membership in cooperatives. About 83.0% and 81.1% responded that they are better off in input and output market situation respectively after joining cooperatives. This implies cooperatives have an opportunity to become strong member-based organizations if they correct the weaknesses of their operations as indicated by the members' evaluation. In line with this, studies conducted by Bernard and Spielman (2009) in Ethiopia asserted that cooperatives as producer organizations have benefited smallholder farmers by reducing transaction costs in input and output markets and improving bargaining power vis-à-vis buyers. However, Bernard *et al.* (2008) and Bernard and Spielman (2009) indicated that grain marketing cooperatives in Ethiopia, while offering higher prices, were not able to support commercialization. A study by Tiegist (2008) also showed that grain producers' cooperatives played an important role in providing Ethiopian farmers with better prices by reducing seasonal price fluctuations and by stabilizing the local grain markets in favor of the producers.

Table 13: Respondents' level of satisfaction and decision about staying in cooperatives and perception of their market position

Members decision response factors	Yes		No	
	n	%	n	%
Are you satisfied with the benefits you expected from your coop?	266	71.7	105	28.3
Do you still need to continue with membership in your coop?	366	98.1	5	1.3
		Better off		No change
How do rate your position of input market utilization before and after you joined coop membership?	308	83.0	63	17.0
How do rate your wheat market position before and after you joined coop membership?	301	81.1	70	18.9

In examining the reasons for members to want to stay in cooperatives, results in Table 14 show that 57.7% of members are staying in cooperatives because of agricultural inputs

provision service. In addition, 39.1% of members need cooperatives for wheat produce marketing service. The other important reasons are credit service and maintenance of social networks (Table 14).

Table 14: Frequency distribution of members' reason for staying in cooperative societies

Reason to stay in cooperative	Level of importance for the reason to stay in coop	Frequency	Percent
Agricultural input service provision	least important	5	1.3
	Important	152	41.0
	most important	214	57.7
Wheat produce marketing service	least important	26	7.0
	Important	200	53.9
	most important	145	39.1
Credit service	least important	134	36.1
	Important	145	39.1
	most important	92	24.8
Maintaining social network	least important	126	40
	Important	135	36.4
	most important	110	29.6

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

The overall objective of this study was to determine the participation of wheat producers' cooperative members in their societies and its influence on the financial performance of the farmers' cooperatives in the study area. The study attempted to determine the attitudes of members towards different participation domains in their cooperative societies, and the relationship between such participation and the financial performance of primary level cooperatives. Moreover, the study endeavored to determine how members are evaluating the performance of their cooperatives in three major operational areas: This chapter presents the important conclusions and recommendations based on the findings.

5.1 Conclusions

From the study results it is possible to conclude that majority of members of wheat growing cooperatives have positive attitude towards their organizations. However there is variation of attitudinal responses along different participation types.

The financial performance of cooperatives is not equally influenced by different participation members in their cooperatives. From the six predictor variables only four namely: number of years in the cooperative membership, number of shares, and the quantity of improved wheat seed purchased and wheat produce supplied to cooperatives has statistically significant influence on the members' net-worth share or equity.

Members have average score evaluative perception about the operational performance of their cooperative. This is true mainly with regard to management functions and input

provision service. Members perceived agricultural input provision operation as good performance in all aspects of timeliness, quality, quantity, price, and delivery place and technology mix balance of package. The good performance of this service can be considered as an internal strength on which cooperative members' motivation to participate can be built up on. In general, majority of respondents are satisfied, with operational services rendered by their cooperatives and would like to stay in cooperatives. This implies cooperatives have an opportunity to become strong member-based organizations if they correct the weaknesses of their operations as indicated by the members' evaluation.

5.2 Recommendations

Since members' attitude and behavior of participation is affected by the level of information and education at grassroots level, there is need to launch a coordinated and continuous awareness enhancement cooperative extension education program. The existing positive attitude aspects can serve as a springboard through members' peer learning arrangement. It is critical to give emphasis to launch continuous modular training on cooperative management and related issues by the regional cooperative agency at FTC level to build the capacity of primary cooperative management board members and employees.

The Regional Cooperative Agency and its affiliated structures should work on how to strengthen those participation aspects having influence on the financial performances and more importantly focus should be given to improve members' participation on the management and decision making process, because it has a fundamental organizational ownership and control essence of cooperatives as a member based organization.

The good performance of agricultural inputs provision service should be considered as best practice of lesson and internal strength that cooperative should be used to motivate members' participation and inculcate sense of ownership in their cooperatives. Cooperatives should be able encouraging members to supply more quality produce to their cooperatives by giving them tangible benefits in price reward and patronage dividend, and more importantly, improving services such as transportation, storage and value addition by primary cooperatives with the help form their unions is critical.

5.3. Areas for Further Research

The way financial capacity limitation of primary cooperatives should be addressed is critical and needs through investigation by further studies. Among the issues is either how to establish a special cooperative development fund or create an institutional (legal framework) arrangement to facilitate mobilization of idle capital available at savings or credit cooperatives at different levels for provision of short term (seasonal) loans to wheat produce cooperatives.

The other issue that needs further enquiry is how to explore and establish a tri-modal such as public-cooperatives-private sector partnership collaboration and coordination between different actors to address the manpower, financial, infrastructural limitations of cooperatives. Cooperatives can play an important role to build new partnership model.

REFERENCES

- Abebaw, D. and Haile, M. (2013). The Impact of Cooperatives on Agricultural Technology Adoption: Empirical Evidence from Ethiopia. *Food Policy* 38: 82-91.
- Abera, D. (2009). Achievements and Challenges in Ethiopian Agriculture [<https://www.slideshare.net/ILRI/>] site visited on 19/07/17.
- Aerni, P., Nichterlein, K., Rudgard, S. and Sonnino, A. (2015). Making Agricultural Innovation Systems (AIS) Work for Development in Tropical Countries. *Journal of Sustainability* 2015 (7): 831-850.
- AfDB, African Development Bank (2010). Ethiopia's economic growth performance: Current situation and challenges. *Economic Brief Vol. 1, Issue 5*. AfDB, Tunis, Tunisia. 5pp.
- AfDB, African Development Bank (2013). *African Development Bank Statistics Pocket Book*. Vol. 15. AfDB, Tunis, Tunisia. 175pp.
- Agarwal, B. (2001). Participatory Exclusions, Community Forestry, and Gender: An Analysis for South Asia and a Conceptual Framework. *World Development* 29: 1623-1648.
- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes* 1991(50): 179–211.
- Anthony, G. (2001). *Sociology*. 4th Ed. Norton, W. W. and Company, New York. 768pp.

- Baourakis, G., Doumpos, M., Kalogeras, N. and Zopounidis, C. (2002). Multi-criteria Analysis and Assessment of Financial Viability of Agribusinesses: The Case of Marketing Cooperatives and Juice-producing Companies, *Agribusiness* 2002 (18): 543-558.
- Barham, J. and Chitemi, C. (2009). Collective action initiatives to improve marketing performance: Lessons from farmer groups in Tanzania. *Food Policy* 34(1): 53–59.
- Bartoli, A. and Blatrix, C. (2015). *Management in Public Organizations* - 4th Edition, Dunod, Paris. 384pp.
- Bernard, T. and Spielman, D. (2009). Reaching the Rural Poor through Producer Organizations. A study of Agricultural Marketing Cooperatives in Ethiopia. *Food Policy* 34(1): 60–69.
- Bernard, T., Gabre-Madhin, E. and Taffesse, A. (2008). Impact of Cooperatives on Smallholders' Commercialization Behavior: Evidence from Ethiopia. *Journal of Agricultural Economics* 39: 147–161.
- Bijman, J. and Hendrikse, G. (2003). Co-operatives in Chains: Institutional Restructuring in the Dutch fruit and Vegetables Industry. *Research Paper ERS* 2003; 089-122.
- Bijman, J. and Ton, G. (2008). Producer Organizations and Value chains – Producer Organizations as key Actors in Agricultural Development. *Capacity* 2008(34): 4–6.
- BMGF, Bill and Melinda Gates Foundation (2010). Accelerating Ethiopia's Agricultural Development for Growth, Food Security and Equity. BMGF, Seattle, USA. 119pp.

- Birchall, J. (1995). Co-operative Principles Ten Years on. *Review of International Co-Operation* 98(2): 45-63.
- Bohner, G. (2001). Attitudes. In: Hewstone, M. and Stroebe, W. (Eds), *Introduction to Social Psychology*, 3rd ed., Oxford: Blackwell. pp. 239-382.
- Braverman, A., Guasch, J., Huppi, M. and Pohlmeier, L. (1991). Promoting Rural Cooperatives in Developing Countries: the case of sub-Saharan Africa. World Bank Discussion Papers; no. 121. Washington. pp60.
- Bruynis, C., Goldsmith, P., Hahn, D. and Taylor, W. (2001). Critical Success Factors for Emerging Agricultural Marketing Cooperatives. *Journal of Cooperation* 16(2001): 14-24.
- Central Statistical Agency (2007). *Ethiopian National Population and Housing Census Report*. November 2007. The Office of the Population Census Commission, Addis Ababa, Ethiopia. 1202pp.
- Conner, M. and Armitage, C. (1998). Extending the Theory of Planned Behavior: A Review and Avenues for Further Research. *Journal of Applied Social Psychology* 28(15): 1429–1464.
- Crano, W. D. and Prislin, R. (2006). Attitudes and Persuasion. *Annual Review of Psychology* 57: 345 – 374.
- CSA, Central Statistical Agency (2015). Population Projection Year 2014, Based on the May 2007 National Population and Housing Census. Central Statistics Agency, Addis Ababa Ethiopia. 75pp.

- Devas, N. and Grant, U. (2003). Local government decision-making – citizen participation and local accountability: some evidence from Kenya and Uganda. *Public Administration and Development* 23: 307-316.
- DeVellis, R. F. (1991). Scale Development: Theory and Applications. *Applied Social Research Methods Series*, Vol. (26). Sage Publications. Newbury Park, CA: 121pp.
- Di-Falco, S., Smale, M. and Perrings, C. (2008). The role of Agricultural Cooperatives in Sustaining the Wheat Diversity and Productivity: the Case of Southern Italy. *Environmental and Resource Economics* 2008(39): 161–174.
- Dorsey, J. and Tesfaye, A. (2005). Final Evaluation Report of Agricultural Cooperatives in Ethiopia (ACE) Program Activities. USAID, Washington, D.C. [http://pdf.usaid.gov/pdf_docs/PDACG205.pdf] site visited on March 15, 2017.
- Eagly, A. and Chaiken, S. (1998). Attitude Structure and Function. In: D. T. Gilbert, S. T. Fiske, and G. Lindzey (Eds.), *The Handbook of Social Psychology* 4th ed. New York: McGraw - Hill. pp. 269 – 322.
- EFDR, The Federal Republic of Ethiopia (2016). Cooperative Societies’ proclamation. 985/2016 *Negarit Gazeta*, 23rd Year No. (7), 23 December 2016, Addis Ababa. pp49.
- Emana, B. (2009). Cooperatives: A Path to Economic and Social Empowerment in Ethiopia, *International Labour Office. Coop AFRICA Working Paper* 1(9) Dar es Salaam. 44pp.

- Emana, B. (2012). *Cooperative Movement in Ethiopia*, Workshop on perspectives for Cooperatives in Eastern Africa. October 2-3, 2012, Kampala, Uganda. 44pp.
- FCA, Federal Cooperative Agency (2016). Cooperative Annual Magazine. Department of Public Relation FCA. Volume I no14, Ethiopia Addis Ababa. 43pp.
- Fischer, E. and Qaim, M. (2012a). Linking smallholders to Markets: Determinants and Impacts of Farmer Collective action in Kenya. *World Development* 40(6): 1255 – 1268.
- Fischer, E. and Qaim, M. (2012b). Smallholder Farmers and Collective action: What determines the intensity of participation? *Journal of Agricultural Economics* 56(3): 683-702.
- Francesconi, G. and Heerink, N. (2011). Ethiopian Agricultural Cooperatives in an era of global Commodity Exchange: Does Organizational Form Matter? *Journal of African Economies* 20(1): 153–177.
- Fulton, J. R. and Adamowicz, W. L. (2001). Factors that Influence the Commitment of Members to their Cooperative Organization. *Journal of Agricultural Cooperation* 8: 39-53.
- Getenet, K. and Anullo, T. (2012). Agricultural Cooperatives and Rural Livelihoods: Evidence from Ethiopia. *Annals of Public and Cooperative Economics* 2(83): 181–198.
- Gow, D. and Vansant, J. (1983). Beyond the rhetoric of rural development participation: How can it be done? *World Development* 1983(11): 427-443.

- Gray, T. W. and Kraenzle, C. A. (2002). Member Participation in Agricultural Cooperatives: A Regression and Scale Analysis. Research Report 165. Rural Business-Cooperative Service. United States Department of Agriculture, Washington, D.C. 30pp.
- Gujarati, D. N. (2003). *Basic Econometrics. Fourth Edition*. Tata McGraw-Hill Publishing Company Limited, New Delhi, India. 1032pp.
- Gurumu, D., Gudissa, S. and Zewdie, B. (1998). The Ethiopian Seed Industry. *Focus on Seed Programs* 11: 1-13.
- Hakelius, K. (1996). Cooperative Values. Farmers' Cooperatives in the Minds of the Farmers. Dissertation for the Award of PhD at The Swedish University of Agricultural Sciences Uppsala, Sweden. 145pp.
- Hansen, M., Morrow J. and Batista, J. (2002). The Impact of Trust on Cooperative Membership Retention, Performance, and Satisfaction: an Exploratory Study. *International Food and Agribusiness Management Review* 5(2002): 41-59.
- Hendriske, G. and Bijman, J. (2002). On the Emergence of new Growers' Associations: Self-selection versus Countervailing Power. *European Review of Agricultural Economics* 29(2): 255-269.
- Holcombe, S. H. (1995). Managing to Empower: *the Grameen Bank's experience of poverty alleviation*, Zed Press, London. pp203.
- Holloway, G., Nicholson, C., Delgado, C., Staal, S. and Ehui, S. (2000). Agro-industrialization through Institutional Innovation Transaction costs, Cooperatives

and Milk-market Development in the East-African Highlands. *Agricultural Economics* 23(3): 279-288.

Hult, G. (2008). An Assessment of the Measurement of Performance in International Business Research. *Journal of International Business Studies* 39: 1064–1080.

Ian, M. (1995). Co-operative Principles for the 21st Century. International Co-operative Alliance, Geneva. 93pp.

ICA, International Cooperative Alliance (1995). The International Co-operative Alliance Statement on Co-operative Identity. *Review of International Co-operation* 88(3): 3-4.

ICA, International Cooperative Alliance (2013). Cooperative Identity, Values and Principles.[<http://ica.coop/en/whats-co-op/co-operative-identityvalues-principles>] site visited on 22/06/2017.

Jain, V. (2014). 3D Model of Attitude. *International Journal of Advanced Research in Management and Social Sciences* 3(3): 1-12.

Kodama, Y. (2007). New role of Cooperatives in Ethiopia: The case of Ethiopian Coffee Farmers' Cooperatives. *African Study Monographs, Suppl.* 35: 87–108.

Kulandaiswamy, V. and Murugesan, P. (2004). Performance of PACS: An empirical evaluation. *Indian Cooperative Review* 42(2): 122-130.

Lane, J. (1995). Non-governmental organizations and participatory development: The concept in theory versus the concept in practice. In: Nelson, N. & Wright, S.

(Eds.). Power and participatory development: Theory and practice, London: Intermediate Technology Publications. pp.181-191.

Levi, Y. and Peter, D. (2008). Cooperatives as the "Enfants Terribles" of Economics: Some Implications for the Social Economy. *The Journal of Socio-Economics* 37(6): 2178-2188.

Lyons, M., Smuts. C. and Stephens, A. (2001). Participation, empowerment and sustainability: (how) do the links work? *Urban Studies* 2001(38): 1233-1251.

Mahapatro, B. (2010). Human Resource Development. In; Mahapatro, B. B. (Editors), *Human Resource Management*. New Age International (P) Ltd., Publishers. New Delhi, ND. pp. 272-289.

Malhotra, N. (2005). Attitude and affect: New Frontiers of Research in the 21st Century. *Journal of Business Research* 58(4): 477–482.

McKee, G. (2008). The Financial Performance of North Dakota Grain Marketing and Farm Supply Cooperatives. *Journal of Cooperatives* 21: 15-34

Meinzen-Dick, R., Gregorio, D. and Mccarthy, N. (2006). Methods for Studying Collective Action in Rural Development. *CAPRI Working Paper* No. 31, Washington DC, International Food Policy Research Institute (IFPRI). 36pp.

Mensah, K., Karantininis, A. A. and Okello, J. (2012). *Determinants of Commitment to Agricultural Cooperatives: Cashew Nuts Farmers in Benin*. International Association of Agricultural Economists (IAAE) Foz doIguaçu, Brazil. 21pp.

- MOARD, Ministry of Agriculture and Rural Development (2010). *Agricultural Growth Program (AGP): Program Implementation Manual (PIM)*. Addis Ababa, Ethiopia. 236pp.
- Mure, U., Oluwakemi, S., Sodiaya, C., Oludare, A. and Joel, T. (2012). Accelerating Rural Growth through Collective Action: Groups' Activities and Determinants of Participation in South Western Nigeria. *Journal of Rural Social Sciences* 27(1): 110-114.
- Myers, A. (2004). *Old Concepts Revisited: Are Cooperatives the Way Forward for Smallholder Farmers to Engage in International Trade?* London School of Economics and Political Science, London. pp. 949.
- Ndekha, A., Hansen, E. H., Molgaard, P., Woelk, G. and Furu, P. (2003). Community participation as an interactive learning process: experiences from a schistosomiasis control project in Zimbabwe. *Acta Tropica* 85: 325-338.
- Neely, A. (2005). Performance Measurement System Design: A Literature Review and Research Agenda. *International Journal of Operations and Production Management* 25(12): 1228–1263.
- Ogunleye, A., Oluwafemi, Z., Arowolo, K. and Odegbile, S. (2015). Analysis of Socio-economic Factors Affecting Farmers Participation in Cooperative Societies in Surulere Local Government Area of Oyo State. *IOSR Journal of Agriculture and Veterinary Science* 8(5): 40-44.

- Ojijo, N., Jakinda, D. and Frempong, I. (2013). Assessment of Current Capacities and Needs for Institutional and Individual Capacity Development in Agricultural Innovation Systems. [<http://www.tropagplatform.org/sites/default/files/>] site visited on 27/6/2017.
- Ortmann, G. and King, R. (2007). Agricultural Cooperatives I: History, Theory and Problems. *Agrekon* 46(1): 46-68.
- Osterberg, P. and Jerker, N. (2009). Members' Perception of their Participation in the Governance of Cooperatives: The key to Trust and Commitment in Agricultural Cooperatives. *Agribusiness* 25(2): 181-197.
- Petty, R., Wegener, D. and Fabrigar, L. (1997). Attitudes and Attitude Change. *Annual Review of Psychology* 48: 609 – 647.
- Pinches, G., Mingo, K. and Caruthers, J. (1973). The Stability of Financial Patterns in Industrial Organizations. *Journal of Finance* 28(4): 389-396.
- Pretty, J. N. (1994). Alternative Systems of Inquiry for Sustainable Agriculture. *IDS Bulletin* 25(2): 37-48.
- Rahimeto, D. (1999). Cooperatives, State farms and Smallholder Production. In: *Ethiopia: Rural Development Options*. (Edited by Pausewang, S., Cheru, F., Brune, S. and Chole, E.) Zed Books, London. pp. 100-110.
- Robert, C. (1997). Managing your cooperatives' equity. US department of Agriculture, Rural business cooperative service. Cooperative information report. 56. 34pp.

- Rowlands, J. (1997). *Questioning Empowerment*, working with women in Honduras, Oxfam, London UK. 192pp.
- Ruben, R. and Heras, J. (2012). Social Capital, Governance and Performance of Ethiopian Coffee Cooperatives. *Annals of Public and Cooperative Economics (CIRIEC)* 83(4): 463–484.
- Schwettmann, J. (2014). *Cooperatives and Sustainable Development Goals: The Case of Africa*. International Symposium ILO, 2 September 2014, Berlin. 19pp.
- Sexton, R. and Iskow, J. (1988). Factors Critical to the Success or Failure of Emerging Agricultural Cooperatives. *Guanine Foundation Information Series* 88(3). [<http://ageconsearch.umn.edu/bitstream/123456789/24368/1/is880003.pdf>] site visited on 18/05/2017.
- Shamsuddin, Z., Mahmood, S., Ghazali, P. Salleh, F. and Nawi, F. (2018). Indicators for Cooperative Performance Measurement. *International Journal of Academic Research in Business and Social Sciences* 8(12): 577–585.
- Sharon, K. and Peter, J. (2000). Developing a scale for Assessing Risk Attitudes of Agricultural Decision Makers. *International Food and Agribusiness Management Review* 3: 9–25.
- Shigetomi, S. (1992). From ‘loosely’ to ‘tightly’ Structured Social Organizations: The Change Aspects of Cooperation and Village Community in Rural Thailand. *Development Economics* 30(2): 154-178.

- Siebert, J. and John, P. (2010). Maintaining a Healthy Equity Structure: A Policy Change at Producers Cooperative Associations. *International Food and Agribusiness Management Review* 13(3): 87-96.
- SNNPR, South Nations Nationalities and Peoples Region Cooperative Agency (2016). Regional Cooperative Movement Report. Hawassa Ethiopia unpublished. 34pp.
- Soboh, R., Lansink, A. Giesen, G. and Van Dijk, G. (2009). Performance measurement of the agricultural marketing cooperatives: The gap between theory and practice. *Review of Agricultural Economics* 3 (31): 446–469.
- Soboh, R., Lansink, A., and Van Dijk, G. (2011). Distinguishing Dairy Cooperatives From Investor-Owned Firms in Europe Using Financial Indicators. *Agribusiness* 27(1): 34-46.
- SCOA, Southern Cooperative Agency (2016). Annual Report, Hawassa, Ethiopia. 37pp.
- Spector, P. E. (1976). Choosing Response Categories for Summated Rating Scales. *Journal of Applied Psychology* 61: 374–375.
- Spector, P. E. (1992). Summated Rating Scale Construction: An Introduction. *Sage University Paper series on Quantitative Applications in the Social Sciences*, Series no. (07-082). Newbury Park, CA: Sage. 84pp.
- TGE, Transitional Government of Ethiopia (1995). Agricultural Co-operative Societies Proclamation No. 85/1995, *Negarit Gazeta*, Year 53, No. 45, 1, February, Addis Ababa. 12pp.

- The Imperial Government of Ethiopia Ministry of Pen. (1960). Farm workers' cooperatives Decree no.44/1960. *Negarit Gazeta*, 20th year No. 4, 27, October, 1960. Addis Ababa. 11pp.
- Thyfault, C. (1996). Developing new generation co-ops: getting started on the path to success. *Rural Cooperatives* 63(4): 26–31.
- Tiegist, L. (2008). Growth without Structures: The Cooperative Movement in Ethiopia. In: *Cooperating out of Poverty: the Renaissance of the African Cooperative Movement*. (Edited by Develtere, P., Pollet, I. and Wanyama, F.). International Labor Office and World Bank. pp. 128–152.
- Tikare, S., Youssef, D., Donnelly-Roark, P. and Shah, P. (2001). *Organizing Participatory Processes*. World Bank Resource Book. Chapter 7: The World Bank, D C. pp237-266.
- Valerie, D., Marie, H. and Asad, A. (2012). The Relationship Between Members' Trust and Participation in Governance of Cooperatives: The Role of Organizational Commitment. *International Food and Agribusiness Management Review*, *International Food and Agribusiness Management Association* 15 (1): 1-24.
- Venkatraman, N. and Ramanujam, V. (1986). Measurement of Business Performance in Strategy Research: A Comparison of Approaches. *Academy of Management Review* 11(4): 801–814.
- Walley, K. Adams, H., Lindgreen, A. and Hingley, M. (2009). Longitudinal Attitude Surveys in Consumer Research: A Case Study from the Agri-food Sector. *Qualitative Market Research: An International Journal* 12(3): 260–278.

- Webber, M. and Labaste, P. (2010). *Building Competitiveness in Africa's Agriculture: a Guide to Value chain Concepts and Applications*. Agriculture and Rural Development. Washington, DC: World Bank. 204pp.
- Wholey, J. (1999). Performance-based Management: Responding to the Challenges. *Public Productivity and Management Review* 22(3): 288–307.
- Wicker, A. (1969). Attitudes versus Actions: The Relationship of Verbal and Overt Behavioral Responses to Attitude Objects. *Journal of Social Issues* 25(4): 41–78.
- Williamson, L. (1987). The Farmer's Cooperative Yardstick: Financial Ratios Useful to Agricultural Cooperatives *College of Agriculture Extension Publication* 1987(55): 4-17.
- Woodhill, J., Heemskerk, W., Emanu, B., Elias, E. and Ludemann, R. (2011). Market Linked Innovation Systems: Opportunities for Strengthening Agricultural Development in Ethiopia. Report for the Netherlands Embassy in Ethiopia. Wageningen UR Centre for Development Innovation. The Netherlands. 100pp.
- Yamane, T. (1967). *Statistics: An Introductory Analysis*. 2nd Ed. Harper and Row. New York. 915pp.
- Zelhuda, S., Suraya, M., Puspa, G., Fauzilah S., Farah A. and Nawim. (2018) Indicators for Cooperative Performance Measurement. *International Journal of Academic Research in Business and Social Sciences* 8(12): 577-585.

APPENDICES

Appendix 1: Multicollinearity test for variables in the Multiple Linear Regression

Model

Variable	VIF	1/VIF
Duration of membership in the cooperative	4.62	0.216394
Number of shares in cooperative	3.89	0.256999
Quantity of fertilizers purchased from coop	3.35	0.298078
Quantity of improved wheat seeds purchased from coop	2.63	0.380872
Wheat produce quantity sold to coop	1.63	0.611975
Number of days attending general assembly meetings	1.52	0.656224
Mean VIF	2.94	

Appendix 2: Balance sheet of sample primary cooperatives as end of 2015/16 budget year for members per-capita net-worth computation

District	PRIMARY	Total N.Membrs	Assets						Liabilities			Capital Net Worth	
			Cash	Acc. Receivable	Inventory	Total Current Asset	Total Fixed Asset	Total Asset	Short Term	Long Term	Total Liability	Net Worth	P.Capita NW.
Lanfuro	Shefode	6931	162884.00	45527.94	0.00	208411.94	253174.00	461585.94	19441.79	0.00	19441.79	442144.15	63.79
	Md. Bodity	3668	34794.70	165508.11	76053.16	276355.97	252694.50	529050.47	18218.80	0.00	18218.80	510831.67	139.27
	Gb.Repi	3210	59111.80	26407.00	3358.00	88876.80	246688.40	335565.20	65274.40	0.00	65274.40	270290.80	84.20
	To. Sidistu	2241	72960.84	130472.52	23828.00	227261.36	290149.40	517410.76	104207.00	0.00	104207.00	413203.76	184.38
	To.Aratu	3109	70542.00	118980.75	0.00	189522.75	536817.00	726339.75	22000.00	0.00	22000.00	704339.75	226.55
	Sh Belechi	2539	31271.47	12760.68	378.00	44410.15	72780.00	117190.15	4951.00	0.00	4951.00	112239.15	44.21
	Edersiso	2200	19916.42	88873.62	2305.00	111095.04	312875.00	423970.04	9160.90	0.00	9160.90	414809.14	188.55
Saankura	Adesha	1333	142522.00	22491.00	36044.00	201057.00	220000.00	421057.00	85000.00	0.00	85000.00	336057.00	252.11
	G.Gurbaye	3128	150000.00	28190.00	46754.00	224944.00	270000.00	494944.00	125000.00	0.00	125000.00	369944.00	118.27
	Getem	2993	69600.00	21764.00	25000.00	116364.00	225000.00	441364.00	95240.00	50000.00	145240.00	296124.00	98.94
	Gutancho	2802	92744.00	24170.00	34000.00	150914.00	340000.00	490914.00	22294.00	80000.00	102294.00	388620.00	138.69
	Regdina	1163	52000	4300	54046	110346.00	180000.00	290346.00	20000.00	0.00	20000.00	270346.00	232.46
	En. Deneb	1279	124324.00	18200.00	45000.00	187524.00	225000.00	412524.00	92500.00	0.00	92500.00	320024.00	250.21
	Berecho	1331	40000.00	9200.00	21000.00	70200.00	220000.00	290200.00	100000.00	0.00	100000.00	190200.00	142.90
	M.feten	1353	80905.00	3021.00	61540.00	145466.00	175000.00	320466.00	60364.00	0.00	60364.00	260102.00	192.24
	Kore	1529	140086.00	26910.00	28000.00	224996.00	200000.00	424996.00	130000.00	0.00	130000.00	294996.00	192.93
	Weteto	1646	60000.00	18000.00	48363.00	126363.00	339000.00	465363.00	40000.00	0.00	40000.00	425363.00	258.42
Lenno	Sheta	1291	388868.61	537924.07	405155.00	1331947.68	339000.00	1670947.68	25372.62	0.00	25372.62	1645575.06	1274.65
	Bobicho	1658	46532.24	869000.00	64978.12	980510.36	267083.28	1247593.64	1019944.38	0.00	1019944.38	227649.26	137.30
	Sedema	870	0.00	15987.78	0.00	15987.78	267083.28	283071.06	11191.46	0.00	11191.46	271879.60	312.51
	Shekbira	599	1653.71	504370.12	0.00	506023.83	15220.00	521243.83	460375.60	0.00	460375.60	60868.23	101.62
	Amshira	1106	10367.98	24708.78	0.00	35076.76	1184.30	36261.06	7984.75	0.00	7984.75	28276.31	25.57
	Shurmo	2090	136856.66	1208107.37	328000.00	1672964.03	161800.00	1834764.03	1169812.03	0.00	1169812.03	664952.00	318.16
	Lisana	1957	27203.84	1021466.11	0.00	1048669.95	347951.49	1396621.44	936988.45	0.00	936988.45	459632.99	234.87
	B.Ambichu	1767	20504.20	1620856.01	1664.55	1643024.76	109235.68	1752260.44	1547117.40	0.00	1547117.40	205143.04	116.10
	Lenbuda	856	18095.50	33292.85	0.00	51388.35	1189037.53	1240425.88	19643.96	0.00	19643.96	1220781.92	1426.15
	Jewe	1497	25688.43	1049367.01	0	1075055.44	48212.9	1308422.56	1134913.33	0.00	1134913.33	173509.23	115.90

Source: audit reports of respective cooperative society's for the 2015/16 budget year

Appendix 3: Questionnaire for assessing members' participation and performance of on wheat producing farmers' cooperatives in Southern Ethiopia

Introduction

Dear respondents,

I am Zenebe Worku Worldeyes a PhD student from Sokoine University of Agriculture, college of Agriculture, Department of Agricultural Extension and Community Development. I am conducting a study on **“MEMBERS’ PARTICIPATION AND FINANCIAL PERFORMANCE OF WHEAT PRODUCERS’ COOPERATIVE SOCIETIES IN SOUTHERN ETHIOPIA”**. I would like to assure you that confidentiality will be maintained throughout the study (No any identification such as participant’s name will appear in this study) and your honesty answers to questions that will be asked are important for the results of this study. Therefore, I request for your kind cooperation in responding to this interview for the completion of this study.

We thank you in advance

For more information please contact me through the following contacts:

Zenebe worku woldeyes

Cell phone

Ethiopia 0982 06 8383

Tanzania +255 625 938289

Email: zenebewld@gamil.com

INSTRUCTION TO ENUMERATORS

1. Make brief introduction to each farmer before starting any question, get introduced to the farmers (greet them in the local way), get his/her name, tell them yours, the institutions you are working for, and make clear the purpose and objective of your questions.
2. Please ask each question so clearly and patiently until the farmer understands (gets your point).
3. Please fill up the questionnaire according to the farmers reply (do not put own opinion).
4. Please do not try to use technical terms while discussing with farmers and do not forget local unit.

QUESTIONNAIRE IDENTIFICATION

Date of interview	
Time started at	
Questionnaire No.	
Interviewer's	Name:
	Cell phone:
Respondent's	
Cell phone	
Kebele	
Name of Farmers' cooperative	
Name of farmers' coop union	
Woreda (District)	

Section A. respondent's information/ characteristics

Please provide response (s) for each question. For questions with multiple answers put circle the response number of your choice (s) from the list of choices given and for other questions fill your response in the space provided.

1. Identification number
2. Name (optional) _____
3. Sex
 1. Male
 2. Female
4. What is your age? (Years) (AGE).....
5. What is your marital status?(MARISTAT)
 1. Married
 2. Single

3. Divorced/separated
4. Widowed
6. How many are you in your family (FAMILY)
 - 6.1. Total Family members of respondent (TOFAMSZ).....
 - 6.2. Male Family members of respondent (MALEFAM)
 - 6.3. Female Family members of respondent (FEMALEFM).....
7. What is your highest level of education? (EDULV)
 1. Illiterate
 2. Read and write (non-formal education)
 3. Primary (1-6 grade)
 4. Junior secondary (7-8 grade)
 5. Secondary (9-12 grade)
 6. College/ University education
 7. Others (specify)
8. What is your farm land holding size in (ha)?(FARMSIZ)
 - 8.1. Total holding (TOTAHOLD).....
 - 8.2. Annual crops (ANNCROP).....
 - 8.3. Perennial crops (PRINCROP).....
9. What is your land size allocated for wheat production (ha) (WHETLAND).....
10. Which one of the following is the major purpose you grow wheat? (GROWWHET)
 1. Mainly for home consumption /food
 2. Mainly for market/cash income
11. How many years have you been a member of the cooperative society (YEARINCO).....
12. What were your main purposes (objectives) when deciding to join your cooperative (please rank among the following)? (multiple answers are possible) (MAINOBJCT).

Objective	Most important (3)	Important (2)	Less important (1)
12.1. To solve my input supply problem(INPUTPRO)			
12.2. To solve my produce marketing problem(PRODMART)			
12.3. To solve my access to credit problems(CREDIT)			
12.4. To tap external support from government or non-government organizations(EXSUPPORT)			
12.5. Other specify-----			

Section B: MEMBERS' ATTITUDE TOWARDS PARTICIPATION

13. Please tell your opinion on the following statements about participation in your cooperative society

Participation types	Statements	Agree (1)	Disagree (2)	Have no idea (3)
13.1. Attitude towards Purchase of share capital (APRSHARE)	13.1.1. The share capital I have in my cooperative is adequate (ADQSHARE)			
	13.1.2. I don't think purchasing more share capital increases equity capital of my coop(PRMRSHRE)			
	13.1.3. I wish I would sell-off part of my share capital(SELSHRE)			
	13.1.4. Purchasing more share capital is just wastage of my money(SHWSTMNY)			
13.2. Attitude towards	13.2.1. Cooperative is is not my first priority choice to get my			

Purchase agricultural inputs (APRAGIN)	agricultural inputs (CHOICCOP)			
	13.2.2. Cooperative never provide input as per my demand (COMETDMD)			
	13.2.3. Cooperative is a monopoly in agricultural input market(CMONOINM)			
	13.2.4. I often prefer credit than cash purchase of agricultural inputs(CRDITINP)			
	13.2.5. Had been there alternative input supplier in my area, I would be the first one to go there (CHOALTSUP)			
13.3. Attitude towards Supply wheat produce (ASUPAGPR)	13.3.1. Cooperative is not the first priority for selling my wheat produce (CHCWTMRT)			
	13.3.2. I don't believe my cooperative pays me fair price for my wheat compared to other markets (COPFAIRP)			
	13.3.3. I will never accept if the coop asks me to supply my produce on credit			
	13.3.4. I am always influenced by local middle men pressure to take wheat to other markets rather than my cooperative			
	13.3.5. I am more concerned about quality of my wheat when selling it to other markets than cooperative			
	13.3.6. I don't trust market information from my cooperative			
	13.3.7. I have strong clientele relation to private wheat traders whom I believe gives me better incentive than cooperative			
	13.3.8. I am not happy with my cooperatives profit dividend(patronage) every year			
	13.3.9. I don't trust the weighing scale of cooperatives any more than other buyers			
	13.3.10. As a cooperative member, I don't see substantial improvement in my wheat marketing position (NCHGMPOS)			
13.4. Attitude towards Attending cooperative meetings (AMETATND)	13.4.1. I do not believe it is important to take part in cooperative meetings (NIMPCMET)			
	13.4.2. I don't think my voice on coop meeting are heard (NOTHEARD)			
13.5. Attitude towards cooperatives elections (AELC&DM)	13.5.1. I do not take priority consideration to participate in electing my cooperative leaders(NPRTY2EL)			
	13.5.2. Often election of leaders of my society are conducted timely after each term of services (TIMLYELC)			
	13.5.3. I don't think my election vote			

	counts (NVOICUNT)			
	13.5.4. I don't believe election of leaders of my society are democratic(NODEMOEL)			
	13.5.5. I feel the leaders of my cooperative are assigned by Governemnt than elected by members (ASGNMGMT)			
13.6. Attitude towards Members ownership, of the cooperatives (AOWNRSHP)	13.6.1. I fell that I am not the owner of my cooperative(OWNCOOP)			
	13.6.2. I feel cooperatives are belongs to government(CBLO2GOV)			
	13.6.3. I have never thought of collaboration with other farmer members to check the performance of my cooperatives(NCLB2CHP)			
	13.6.4. I am not familiar with the bay-law of my cooperative(KNOWBLAW)			
	13.6.5. My cooperative does not keeps me well informed about its plan and performances(PLN_PRINF)			
	13.6.6. I never thought that I have a good chance to influence decisions concerning the future of my cooperative (NoCHANCE)			
	13.6.7. I feel as members I have no any influence on how my cooperative operation is run(NMEBINFU)			
	13.6.8. I think there is nobody else in my family who has interest in joining operative(NFMEBERI)			
	13.6.9. I think even Without belonging to coop membership I feel much more relaxed(RLXWTHOUT)			
	13.6.10. To me, the cooperative is just another place to do business (LANYBUSP)			
	13.6.11. I would discontinue my membership with the coop if an alternative was available			
	13.6.12. I don't see any difference between members and nonmembers on benefiting from the cooperative societies (NODIFRNC)			

Section C.MEMBERS' PARTICIPATION IN THEIR COOPERATIVE SOCIETIES

14. Participation by purchase of share capital (PSHARE)

- 14.1. Number of Share when joined the cooperatives (NSHAREBG)
- 14.2. Total value share (birr) when joined the cooperative (VSHAREBG).....
- 14.3. Number of current number of share in your cooperative (NSHARCUR)
- 14.4. Total value current .share (birr) in your cooperative (VSHARCUR).....
- 14.5. Do you have a plan to purchase more shares in future?(PLNPSHAR)
 1. No
 2. Yes

- 14.6. If your answer to Q14.5 is 'No' what is your reason not to buy more shares(RESONPSH)
1. Have no information
 2. Don't think it worth
 3. Other (specify)_____

15. Participation by purchase agricultural inputs (PINPUT)

- 15.1. What inputs you purchased from your cooperative during the last production season (INPUTCOP)

Input type	Quantity (QUANTY)	Value (birr) (VLUE)
15.1.1. Fertilizers(Qts) (FERT)		
15.1.2. Improved wheat seeds(Qts)(SEED)		
15.1.3. Herbicides(Lit) (HERB)		
15.1.4. Pesticides(Kg)(PEST)		

- 15.2. What are your reasons of preference of cooperative supply source for input? (REASONCO)

Preference reason	Most important (3)	Important (2)	Less important (1)
15.2.1. Quality of product(QUALITY)			
15.2.2. Fairness of the price(PRICE)			
15.2.3. Appropriateness Delivery time(TIME)			
15.2.4. Accessibility of delivery place(PLACE)			
15.2.5. Availability of advisory service(ADV SERV)			
15.2.6. Because sole supplier (no other alternative)(SOLSUPPL)			
15.2.7. Other (specify)			

16. Participation in wheat produce supply (PPRODUCE)

- 16.1. How much yield quantity of wheat (Qts) you harvested during previous production season (HARVEST).....
- 16.2. How much wheat produce (In quintals) you sold to respective market outlets from last production season (WHEATMART)?

Outlets	Quantity (Qts) (QUANTITY)	Sales value birr (VALUE)
16.2.1. Sold to coop(COPMART)		
16.2.2. Sold to other market (OTHRMART)		

- 16.3. What is/are the reasons for your preference of choosing the coop sales outlet of your wheat (COPMART)

Preference reason	Most important(3)	Important(2)	Less important(1)
16.3.1. Better Price(PRICE)			
16.3.2. Prompt payment(PAYTIME)			
16.3.3. Easily accessible collection centre (COLPLACE)			
16.3.4. Trust in weighing(WEIGH)			
16.3.5. Expectation of patronage dividend(EXPCTDEV)			
16.3.6. Other (specify).....			

- 16.4. Have you ever received patronage (profit) dividend for your produce supply participation?(RESVPTDV)

1. Yes
2. No

- 16.5. If your answer to Q 16.5. is “Yes”, how much many did you receive from the patronage dividend during the past two years?(AMTDRESV)
17. Participation by attending meetings (PMEET)
- 17.1. Have you ever attended your cooperatives general assembly meeting during the last 12 months (GASMEET)
1. Yes
 2. No
- 17.2. If your answer to Q.no 17.1 is “Yes “how many times you attend your cooperative society general assembly meeting during last 12 months? (NGASMET)
- 17.3. Have you ever read /discussed the contents of to your cooperative by-laws? (READBLAW)
1. Yes
 2. No
- 17.4. Have you ever read or discussed about the auditor’s report of your cooperative society? (REDAUDRP)
1. Yes
 2. No
- 17.5. Have you received any cooperative education training by your cooperative society during the last two years? (COPTRAIN)
1. Yes
 2. No
18. Participation in decision making(PDSCION)
- 18.1. Have you ever been elected in any committee serving in your cooperative(ELECTED)
1. Yes
 2. No
- 18.2. Have you ever participated in electing your cooperative leaders? (ELECTION)
1. Yes
 2. No

Section D. MEMBERS’ EVALUATIVE PERCEPTION OF THE OPERATIONAL PERFORMANCES OF THEIR COOPERATIVES

19. In following scale, please assign any number from 1 - 5 (**Lowest-Highest**), regarding your **perceptions** of the functioning of your cooperative society

Parameters	Very Poor (1)	Poor (2)	Good (3)	Very Good (4)	Excellent (5)
19.1. Management					
19.1.1. Team Performance of committee/board members (COMPERF)					
19.1.2. Engagement of members in decisions making processes (ENGAGEM)					
19.1.3. Regularity of holding general assembly meetings(GAREGULR)					
19.1.4. Communication of Decisions to members (COMDSCN)					
19.1.5. Familiarization of rules and regulations to members (COMRLRGU)					
19.1.6. Communication of annual plan and performance reports to members (PLNREPOT)					
19.1.7. Provision of training and education (TRAINING)					
19.1.8. Team Performance of employees (EMPLOPRF)					
19.1.9. Regularity of year end Patronage dividend on time (RGUDEVD)					
19.1.10. Communicating Auditor’s report reports to members (CAUDIREP)					
19.1.11. Regularity of Elections at end of each term of services (RGUELECT)					
19.2. Input supply service					
19.2.1. Timeliness of input delivery (INPTIME)					
19.2.2. Appropriateness of input delivery place					

(INPUPLACE)					
19.2.3. Appropriateness of delivering required type of input(INPTYPE)					
19.2.4. Fairness of Input price (INPPRICE)					
19.2.5. Quality input delivery (INPQUAL)					
19.2.6. Adequateness of quantity of input (INPQUTY)					
19.2.7. Delivery of balanced mix of package of input technologies (fertilizer; seed and chemicals) (INPMIX)					
19.2.8. Adequacy input credit provision (INPCRDT)					
19.2.9. Fairness of input credit management (INPCRMGM)					
19.3. Produce market service					
19.3.1. Timeliness in starting wheat collection (STARTIME)					
19.3.2. Genuinely of measurement /weight(GENUWIGH)					
19.3.3. Payment of fair price (WHTPRICE)					
19.3.4. Timeliness of Payment (PAYTIME)					
19.3.5. Value addition (processing plant functioning to capacity) (VALUADD)					
19.3.6. Provision of transport service(TRANSRV)					
19.3.7. Provision of Storage service(STORSRV)					
19.3.8. Provision of market Price information (PRCINFO)					

Section E: LEVEL MEMBERS' SATISFACTION FROM PARTICIPATION IN THEIR COOPERATIVES

20. Are you satisfied with the /benefits expected for staying in your cooperative society? (SATISFAY)

1. Yes
2. No.

21. Do you think you still need to continue membership in cooperative society? (CONTMEMB)

1. No
2. Yes

22. If your answer to Q 22 is 'Yes', what are the important factors that keep you stay in the cooperative? (Rank the following alternatives as per your understanding) (RCONTMEB))

Reason	Most important(1)	Important(2)	Least Important(1)
22.1. Farm inputs supply service (INPUTSUP)			
22.2. Produce market service(PRDMARSR)			
22.3. Financial (credit) services(CRSERVS)			
22.4. Maintain social network (NETWORK)			
22.5. Other reason (specify).....			

23. Comparing your condition before and after joining your cooperative what is your opinion concerning your position in the marketing of your agricultural inputs? (AFCOPINP)

1. I am better of
2. I don't see any difference

24. Comparing your condition before and after joining your cooperative what is your opinion concerning your position in the marketing of your wheat produce? (AFCOPROD)

1. I am better of
2. I don't see any difference

Time the interview ended

THANK YOU FOR YOUR COOPERATION

Appendix 4: Key informants interview check list

key informant interview Checklist For PhD study thesis “Members’ participation and financial performance of wheat producers’ cooperative societies in Southern Ethiopia. Zenebe worku PhD student from Sokoine University of Agriculture, college of Agriculture, Department of Agricultural Extension and Community Development		
Date of interview(contact)		
Organization’s name		
Name of key informant (respondent)		
Cell phone		
Email		
Responsibility		
Educational level and specialization		
Duration since holding current position		
Work experience in cooperative sector		
Issues discussed		Key point raised by the respondent
Strategic Constraints/problem of the cooperative movement	Policy /law/rule/regulation related	
	Organization and management (structure, support system institutions)	
	Resource related (personnel, financial, infrastructural)	
	Socio cultural	
	Other problems	
Untapped opportunities for the betterment of cooperative movement	Policy /law/rule/regulation related	
	Organization and management (structure, support system institutions)	
	Resource related (personnel, financial, infrastructural)	
	Socio cultural	
	Other opportunities	