



Mekelle University
The school of Graduate Studies



Faculty of Dryland Agriculture and Natural Resources

**Members' Participation in the Awabel Multi-Purpose Farmers
Cooperatives Union and its Affiliates, Amhara Region,
Ethiopia**

By
Kirub Alemayehu Yihune

A Thesis

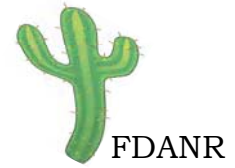
**Submitted in Partial Fulfillment of the Requirements
for the Master of Science Degree in Cooperative Marketing**

Major Adviser: Dr.G.Veerakumaran (Asso. Prof.)



June 2008

Mekelle



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Declaration

This is to certify that this thesis entitled “**Members’ Participation in the Awabel Multi-Purpose Farmers Cooperatives Union and its Affiliates, Amhara Region, Ethiopia**”, submitted in partial fulfillment of the requirements for the degree of M.Sc., in Cooperative Marketing to the School of Graduate Studies, Mekelle University, through the Department of Cooperatives, done by Mr. Kirub Alemayehu Yihune, Id. No. FDA/PR 0019/99 is an authentic work carried out by him under my guidance. The matter embodied in this project work has not been submitted earlier for award of any degree or diploma to the best of my knowledge and belief.

Name of the student **Kirub Alemayehu Yihune** signature and date_____

Name of the supervisor _____ signature and date_____

Abstract

This research tried to identify various characteristics of members that influence their participation level in cooperative governance and business. Participation measures included attendance at meetings, utilization of cooperative services and building cooperative capital through shareholding. Member socio-economics, organizational environments and beliefs concerned cooperative principles, collective action, individual member identities as associated with cooperative membership, satisfaction with cooperative operation and management are used to analyze the differences among groups of members. The study was conducted in East Gojam Administrative Zone, Awabel Multi-Purpose Farmers' Cooperatives Union area of operation. Ninety-five individual members and 35 potential members surveyed in November to January 2007/08. The major concern of this study is to assess and identify determinants of members to participate actively in cooperatives with the aim of proposing measures for development of self-reliant cooperatives that address member's participation factors. It is also assessed the problems of potential members to join to the existing multi-purpose cooperatives. Descriptive statistics such as mean, standard deviation and percentages were used to describe sample respondents in terms of some desirable variables. A binary logit model was employed to analyze determinants of members' active participation in cooperatives. Fifteen explanatory variables were included in the model of which Socio- economic four factors and institutional environment two a total of six were found significant at less than 10% probability levels. This study also attempted to examine the differences between members and potential members the result showed that the two groups varied in socio economic factors.

Acknowledgement

I like to express my heart-felt thanks and sincere appreciation to my Major Research Advisor Dr.G.Veerakumaran (Asso. Prof.) head of Cooperatives department for his all-round help, guidance, valuable comments and encouragement that enabled me to complete the research work.

I sincerely thank the Federal Cooperative Agency, for their support to cover part of the cost for this study and data collection.

I also owe my deepest gratitude to Self-Help Ethiopia, Head Office, in covering and supporting part of this research work fund.

I have profound appreciation for Ato Bidru Dedegba, Depute head of Federal cooperative Agency for encouragement and support to accomplish this task within the scheduled period.

I am indebted and have great appreciation for my friend Geremew Amare for providing computer facility and for his valuable support and encouragement of my family up to the completion of the whole work.

I would like to express my sincere appreciation and gratitude to my family for their encouragement, inspiration and help with out which I could not have completed the study on time.

I would like to extend special thanks for support and encouragement to the following persons Zebenaye Minilik, Belete Alem and Abreham Ijeta who provided valuable contributions to the completion of this document.

Last, but not least, my deepest appreciation to all participant farmers, sample primary cooperative's bookkeepers and government workers of East Gojam Administrative Zone.

Finally, I would like to acknowledge all individuals and organizations that directly or indirectly contributed to the successful completion of this study.

ACRONYMS AND ABBREVIATIONS

COOP	Cooperative
CSA	Central Statistics Authority
ETB	Ethiopian Birr
FAO	Food and Agricultural Organization
FCA	Federal Cooperative Agency
GA	General Assembly
HHs	House Holds
ICA	International Cooperative Alliance
ILO	International Labor Organization
MPFCU	Multi- Purpose Farmers Cooperatives Union
NGO	Non-Governmental Organization
PAs	Peasant Associations
PEI	Participatory Efficiency Index
Qt	Quintal (100-kilo gram)
SPSS	Statistical Program for Social Sciences
VIF	Variance Inflation Factor

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Biography

The author was born in 1968 from his mother Etenesh Tekelle and his father Alemayehu Yihune at Debre Markos town. He studied his Primary and Junior Secondary at Debre Markos town Tekelle Haimanot School. Then he joined and completed his high school at Debre Markos Comprehensive.

In September 1989, he joined Alemaya University of Agriculture and graduated with B.Sc. degree in agricultural economics in June 1992. There after he was employed in East Gojam Administrative Zone, Agricultural Development Department and served as expert and team leader for nine years. April 2002 to March 2003 had been serving as project preparation expert in National Disaster Prevention and Preparedness Fund Administration. Since, April 2003, until he joined to the School of Graduate Studies at Mekelle University in October 2006 he had served as Agricultural Cooperatives promotion team leader in Federal Cooperative Agency.

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Chapter One

1. INTRODUCTION

1.1 Background

A cooperative is a business in which the owners and the users are the same people; they are the members. A cooperative is distinguished from other businesses by its adherence to a set of operating rules, called cooperative principles.

In 1995, the International Co-operative Alliance (ICA), the apex organization that represents cooperatives worldwide, 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. (ICA, 1996).

Self-help cooperative community groups have been part of Ethiopian peasant life for centuries. During the rule of Haile Selassie I in the 1960s, the government began promoting Western-style cooperativess, but ran up against an unwieldy land tenure system and inadequate marketing and manpower resources. (Perry, 2002).¹

L. Perry (2002), extends that after the revolution of 1974, cooperatives took on a socialist cast. They became vehicles for farm collectivization and acted as extensions of the government, which set prices and established quotas.

Many smallholder farmers had to buy grain on the parallel market at high prices and sell to the.

Perry L., 2002, the road up: free-market reforms fuel growth of Ethiopia's co-ops, rural cooperatives, USA.

government at lower fixed prices mismanagement was standard features of the co-operatives

A new "Mixed Economic Policy" was announced in 1974 by the government, and within weeks, the cooperative structure came crashing down. Offices were looted and disbanded. Collectively owned land was redistributed among peasants.

Since, 1992, the country is moving toward a more decentralized and market-oriented economy.

The Federal Democratic Republic of Ethiopia (FDRE) recognizes the importance of privatizing business and rehabilitating agriculture. It is promoting business-oriented cooperatives based on farmers' needs and founded on principles of voluntary participation, private ownership and democratic decision-making. The government has created an enabling environment for the development of modern, farmer-owned and farmer-controlled cooperatives. A cooperative legislation No 147/1998 was launched in 1998 that fulfils the standards of the international cooperative act.

Important efforts being carried out since 1993, in reorganizing the previous service cooperatives in to multipurpose cooperatives and new cooperatives are organized.

As of June 2006, 19147 primary and 112 secondary cooperatives are organized, of which 5104 (27 %) primary and 91 (81 %) secondary cooperatives are multi-purpose farmer's cooperatives having 3.69 million individual members with 347.363 million capital. (FCA, 2006, Annual Report). This study focuses on members' democratic governance, members' economic participation and investigating factors influencing their participation.

Multi-Purpose Farmers Cooperative

The establishment of cooperative unions is a new era in cooperatives movement of the country.

Establishment of voluntary, market-oriented multi-purpose farmers cooperatives has shown progress in different regions, nearly 35% of the Peasant Associations (PAs) had at least one such type of organizations in year 2005, (Tanguy Bernard et al 2006).

The trends of growth in organizing cooperatives between the years 2004 - 2006, the number of MPFCs increased by 29 % while membership increased in the same years by 13 %. Average numbers of members per MPFC were 823 and 722 in year 2004 and 2006 respectively.

According to CSA about 74 % of the total farmers that is nearly 11 million farmers are engaged in mixed farming, of which 3.6 million (32%) of the total are members of MPFCs. These cooperatives plays a significant role in input marketing, input credit service, and in output marketing. Members are instrumental in starting or keeping the cooperative business going and attain their goals.

There are several reasons why cooperatives fail or succeed, in addition to economic and business factors. A cooperative may fail if it ignoring members' needs and satisfaction, members are a vital part of any cooperative organization and their active participation in and loyalty to a cooperative's business is integral for the success of the cooperative (*Goddard, 2002*, cited in Sanjib, 2007,).¹ Most cooperatives check the eligibility of an applicant for membership, but checking members' participation and identifying the inactive members and their reasons is forgotten. Therefore, this study tries to underline on understanding the members participation and the influencing factors of participation in multi-purpose cooperatives.

1. Sanjib, 2007, "The people factor in Cooperatives: An Analysis of members' attitude and Behavior" Canadian Journal of Agriculture, Rutgers University, New Jersey

1.2 Statement of the Problem

Members are the user, owner and controller of the cooperative, and run the business through cooperation. They are responsible for understanding their cooperative its purpose, objectives, benefits, limitations, operations, finances, and long-range plans. Members' participation in affairs of their association increases the feeling of ownership and responsibility for success. Nevertheless, encouraging this participation requires considerable effort. Participation is a distinctive trait of the members-cooperative relation, achieving active members participation is a challenge of many cooperatives. Practicing democratic governance, participating in economic activities and access ability of benefits to members are highly dependent on the power structure in the primary cooperatives.

Members' characteristics, institutional environments and beliefs determine members' capacity to exercise their democratic rights, perform responsibilities and have access to the benefits and other services generated by their societies.

The pilot survey in the study area reveals despite the fact that members are responsible for understanding, adopting, and amending by laws and other policies, the majority members use the cooperatives for services, which are not made available by others like input supply and input credit services.

The Awabel Farmers Cooperatives Union was established in 1999, having the aim to enhance the operation of the primary cooperatives organized in the areas of three districts, its activities focus on input supply, out put marketing and credit supply.

The Union data and reports indicated that, during the last eight years the number of affiliated

cooperatives increased from eight to twenty-seven and only five primary cooperatives in the area not yet joined the union. In spite of members able, to establish their secondary level organization the investment they made in the form of .share holding remains with small beginning balance, almost all individual members holds only the minimum requirements.

The volume of business transactions of the cooperatives with their members has shown insignificant increments, for example an individual member average supply of grain to the cooperative in the last three years were 13 kilo gram in year 2004, 24 kg in 2005, and 12kg in 2006, (adapted from the union data.) despite the area is potential and surplus producing. Supply of consumer commodities and mill service is highly reduced or closed in many primary MPFCSs. In the working areas of affiliated cooperatives there are significant numbers of farmers (34%) who have an access to join with the existing cooperatives are preferred to remain as selective services non- member users for the last fifteen years.

In general, members' role in controlling, utilization of services and sense of ownership is in questionable one.

Basically, members must perform an adequate volume of business transactions (supply and /or purchases) in the cooperative, to operate efficiently and successfully.

Staatz, 1984, cited in sanjib, 2007, indicated that the farmer-members want their interests to be addressed. Hakelius, 1996, cited in sanjib, 2007, and noted that members are a vital part of any cooperative organization and their active participation in and loyalty to a cooperative's business is integral for the success of the cooperative.

In a cooperatives where only few members are participating in economic patronage while the

majorities involvement in economic and in governance is limited. As the majorities are inactive, their participation is limited to selected economic patronage a cooperative is little more than any other business, since cooperative advantage is achievable through economies of scale.

recover the magnitude of the cooperative activities less progress, having less satisfaction of it's members, poor members governance and control leads to loss of sense of ownership which leads again to corruption and mismanagement.

Further, in a cooperative where the majorities' of members inactive and no efforts are made to improve their sense ownership there may be a chance that members may pass a decision that a cooperative to be liquidate.

Little research in the study area is conducted on participation assessments of members' governance, loyalty and commitment particularly in multi-purpose farmers' cooperatives. The selected union is even though one of the pioneers in its establishment it lacks behind in members participation.

Therefore, this study attempts to explore empirically the issues of members' democratic governance; economic participation and factors influencing their participation. Exploring on these aspects is paramount importance and timely with reference to the prospect for self-reliant sustainable development of MPFCs in the area.

1.3 Research Questions

1. What are the reasons for poor participation of members?
2. Do members have different socio-economical features than potential - members?
3. Do members have considerable level of cooperative involvement than potential members?
4. Why the farmers who have an access to be a member prefers as potential – member users?

5. To what extent the members' are satisfied with operation and management of their organization.

1.4 Objectives of the study

The general objective of this study is to assess members' participation in terms of members' democratic governance and members' economic participation in primary cooperatives affiliated to Awabel farmers' cooperatives union.

The specific objectives of the study

1. To assess the participation of members in relation to members' democratic governance and economic participation in multi-purpose primary cooperative societies in Awabel area.
2. To identify the important factors influencing members' participation in primary cooperatives.
3. To analyze the socio-economic differences between members and potential members.
4. To assess the problems of farmers to be a member in multi-purpose farmers cooperative societies.
5. To examine the levels of members' satisfaction with the operation and management of multi-purpose primary societies.

1.5 Hypotheses

A. There is no relationship between members' participation and members' Socio- economic features.

Features of members that are influencing their participation are-

- I. Members Socio-economic features (age, sex, education, family size, farm size, No. of oxen owned) and organizational environments (mode of membership, duration of membership,

access to cooperative training, attitude of members' towards their organization management)

II. Members belief on:-

Cooperative principles,

Collective action,

Individual member's identities association with cooperative membership,

Members' satisfaction with cooperative operation & representation,

Members influence on cooperative decision-making,

Equitability of the cooperative services among members.

B. There is no relationship between membership and participation, both members and potential members of the cooperative are equally participate in economic activities.

Members do not have different farm and personal characteristics as compared to potential members.

Members do not have different perceptions and attitude about cooperatives as compared to potential members.

Members' involvement in cooperatives is equivalent to potential members. (Input & output marketing, credit service utilization).

1.6 Scope of the study

This study principally contributes to the understanding of members' participation and the important factors that limits members' role in their cooperative governance and involvement.

Moreover, in the study area the farmers' problems of membership assessed. Examining the

levels of members' satisfaction with the operation and activities of the cooperative has been included. This study is confined to multipurpose farmers' cooperatives with particular reference to primary cooperatives that are affiliated to Awabel farmers' Cooperatives Union.

1.7 Limitation of the study

Due to constraints arising from shortage of financial and time resources data are collected from five sample primary cooperatives affiliated to the union that are randomly selected.

For the same reason, the sample size is limited to few respondents. Although the study is limited in both sample size and area coverage, however the results of the study are expected to be of value in designing appropriate cooperative members participation corrective measures or policies

1.8 Significance of the Study

According to B. Johnston and S. Richard, 2004,¹ a 'Mutual Incentives Theory' (MIT), assuming that participation can be motivated by: -

Shared values: people feel a sense of duty to participate as an expression of common values

Shared goals: people express mutual needs that translate into common goals.

Sense of community: people identify with and care about other people who either live in the same area or are like them in some respect. Members with respect to exercising democratic rights, performing member responsibilities and exerting member control in co-operative societies has great significance. The information that would be generated in this study is significantly important for cooperative management bodies to mobilize members in all issues of cooperatives, more over it is possible to use by other cooperatives which losses participation of members.

In general, this research would be useful to cooperatives societies, local governmental bodies, researchers and for policy makers engaged in the creation of self-reliant sustainable development of cooperatives.

1.9 Organization of the thesis

This study is divided into five main chapters; the first chapter is "Introduction" that includes background, objectives, statement of the problem, and significance of the study. Chapter two deals with an overview of literature that includes conceptual framework and definition and empirical studies on cooperatives members participation. Chapter three deals with research methodology. Chapter four results and discussion are in detailed in chapter five conclusions and recommendation based on the results of the study.

Sources of review for this study are collected mainly from journals, different websites, research reports, books and publications on agriculture and cooperatives are used.

Chapter Two

2. LITERATURE REVIEW

A comprehensive overview of the concepts of agricultural cooperative members and their participation with a special emphasis on measurements, characteristics and variables used in the assessments of governance and locality, identifying analytical tools used in similar studies and reviewing the results and conclusions stated is the main objective of this review.

The review is organized and discussed in the order of domestic and foreign studies, issues on participation, satisfaction, membership and statistical models used in the study of participation.

2.1 Theoretical Concepts and Definitions

2.1.1 Concepts of Cooperatives

The Central Council for Agricultural and Horticultural Cooperation, USA, as an “association of producers/ consumers who together can achieve some commercial objective more successfully than they can as individuals” (Barker, 1989).

International Labor Organization (ILO) also points out that members accept a fair share of the risks and benefits of their cooperative undertakings (ICA-UN, 1995).

ICA, 1995, defines cooperative, as “an autonomous association of persons, united voluntarily to meet their common economic and social needs through jointly-owned and democratically-controlled organization/enterprise”.

2.1.2 Principles of Cooperatives

One of the distinctive features of the co-operative business form is the promotion and adherence to a set of principles (Hind, 1994).

As it outlined by the International Co-operative Alliances (ICA):-

1. Open and voluntary membership,
2. Democratic membership control,
3. Member economic participation,
4. Autonomy and independence,
5. Education, training and information,
6. Co-operation among co-operatives,
7. Concern for community,

2.1.3 Members

Cooperative members are persons-individuals, cooperative societies holding membership in a cooperative organized. These persons are instrumental in starting or keeping the cooperative business going and attain their goals only by working together.

The motives inducing individual farmers to join existing or to form new co-operatives can originate in the economic-rational sphere, and in the sociological-psychological Sphere (Helm, 1968)

2.1.4 Participation

FAO, (1991), People's participation implies the active involvement in development of the rural people, particularly disadvantaged groups that form the mass of the rural population. Participation should be viewed as an active process in which people take initiatives and action that stimulated by their own thinking and deliberation and which they can effectively influence.

Active participation of rural people can only be brought about through local community and membership-based self-help organizations whose primary aim is the pursuit of their members' social or economic objectives.

According to Mishra (1998), cited in Surendran¹, 2000, participation refers to the role of members of the public as distinguished from appointed officials, including civil servants in influencing the activities of the government or in providing directly for community needs.

According to Rehman 1998, cited in, Surendran, 2000, defined participation as a process of learning and sharing. Participation process is a goal directed, objective focused on activity of an organization.

2.1.4.1 Typology of Participation

According to Pimbert and Pretty (1997), cited in, Surender, 2000, suggested seven levels of participation. Passive, participation to provide information; participate when they are needed for consulting, participation for materials supply, function based participation, interactive and self-mobilizing the descriptions are indicated in (table 01).

2.1.5 Measurements of Participation

According to Thomas & Charles (1998), Participation measures include attendance at meetings, serving on committees, serving as an elected officer, and recruiting other farmers to become members. According to USA, Department of Cooperative Service, Cooperative Information Report 1, Section 7, 1998, Members participation or responsibilities includes, attending general meetings, utilization of services, building cooperative capital stock.

Table 01 Types of participation

N	Typology of participation	Description
1	Passive participation	People participate by being told what is going to happen or has already happened.
2	Participation in information giving	People participate by giving answers to questions posed by extractive research and project managers.
3	Participation by consultation	Participation being consulted and external agencies listen to their views.
4	Participation for material resources	Participate by providing resources e.g. Labor, cash...
5	Functional participation	Participate by forming groups to meet pre- determined objectives relating to the project
6	Interactive participation	Participate in joint analysis, which leads to joint action plans and formation of new groups or strengthening of old ones.
7	Self mobilization	People participate by taking initiatives independent of external institution to change system.

According to FAO, Members act as both users and owners in the development of cooperative organization through participation at three levels:- Participation in the provision of resources (capital, labor ...)

Participation in the decision making process as a member in the general assembly.

Participation in the produced benefits (out put participation), in the form of a patronage use of facilities and services.

According to Surendran, 2000, participatory efficiency index (PEI), used to measure the participation efficiency of members in the group. Participatory efficiency refers to the propensity

of the members to actively associate in planning, execution and monitoring and evaluation of activities related to farmers' group.

2.1.6 Satisfaction

According to, Sam Seob Lee,2006, the consumer satisfaction by product type as customer overall satisfaction level with different product types aggregating all attributes such as assortment, quality, money value, packaging, etc...

According to Anderson and Vincze (2000), Customer expectation about the types of services that should be offered and their criteria for performance of these services have a major impact on the level of satisfaction or dissatisfaction felt with the total purchase and sale experience.

2.2 Empirical studies

2.2.1 Domestic Studies

Tanguy Bernard, et al, (2006), they assessed the incidence of rural cooperatives among smallholders in the country indicated that such organizations have strongly developed over the past decade, because of their important promotion by the government. However, this rapid growth uncovers geographic disparities, across and within the regions. Overall, the poorer households tend to be excluded from the membership, either because there is no such organization in their community, or because they lack complementary assets.

Mollat Tafere (2005), a binary logit model for the study of farmer's willingness / to participate in water harvesting storage technology employed. The findings of this study indicate that any effort in promotion of water harvesting activity should recognize the socio-economic, household and technological characteristics.

2.2.2 Foreign Studies

David Amudavi, (2005). Participation was considered in two types of groups: Community groups formed endogenously within a community of their own accord based on their own identified needs, and (2) Supra groups formed exogenously by external agencies (e.g., government, NGOs, private businesses), examining the effects the results show that levels of group participation and associated access to services differ significantly.

The findings show that in community groups' participation matters materially to household welfare measures.

David Trechter, et al,(n.d), many factors help to determine member commitment, among these are key communication strategies (communication with the board members, manager, in general with cooperatives) the logistic regression results reveal that participation in community groups are less likely in male headed households than in female-headed households.

FAO / COPAC, (1992), as the cooperative fund built by member-funds, in cooperatives, lead to greater member-participation and enhanced cooperative performance.

Goreham and David, Report No. 41, (1998), members are overall pleased with the structural and contextual dimensions of their cooperatives in that they provide farmers with a degree of mutual control over processing and marketing of their commodities, the smaller the size of the cooperative, the greater the level of satisfaction with many of its dimensions.

Members of larger cooperatives who invested because they enjoyed working with others were typically in the "less satisfied" group.

Matiya, (2005), a logistic analysis of socio economic factors influencing people to become fisherman, the study identifies that socio-economic factors that influence people's decision to become a fisherman using the logistic regression model, the analysis shows that sex, access to credit, landholding size were the main factors that influence people to join the fishing industries.

Hannah, et al, (n.d), this study examined why individuals may accept greater leadership responsibilities within organizations. Samples of active members were taken to measure their sources of motivation, attitudes towards volunteering and their views on serving different committees.

Multiple regression statistical model was used to determine which factors influence individuals to accept greater leadership responsibilities and serve on their local cooperative the volunteer activity is evaluated as the greatest determinant in serving on board.

Henry, et al, (2005), attitude towards Satisfaction with Credit Unions in a Regression and Scale Analysis. Respondents who are active members of a credit union generally held positive attitudes towards their credit unions, and 89% rated their credit unions as performing well under a set of performance categories.

Demographic characteristics, age, gender and education did not have impact on respondents' intent to patronize credit unions. However, respondents' income is significant in explaining credit union patronization intentions. Member training, education, and the provision of a forum for the

discussion on their problems with management and lack of opportunity to influence the way things are done in their credit unions are identified as important variables.

Agrawal, et al, (2002), member-satisfaction was strongly dependent on member - usage, and to a lesser extent on member control. Member-control, in turn, had significant total effects on member-satisfaction. Finally, member-usage had a significant effect on member-satisfaction.

Rafel, et al, (2006), in his study of “cooperative governance in Spanish credit Cooperatives”, found that low level of members attendance in meetings and good level of representative ness of the management body though, deficiencies in technical skill limits their performance.

Sanjib, paper presented at the National Cooperative Review -194 annual meetings, (2000), stated that more and more cooperatives (i.e., managers, directors) are finding it difficult to meet member expectations and satisfy cooperative principles at the same time while remaining competitive. While managers questioned member loyalty, members showed dissatisfaction with the leadership and skills of the cooperative management including the board of director.

Sanjib, (2007), members’ attitude and perceptions play a significant role in their behavior towards their organization and performance, a good understanding of members’ attitudes and behaviors is necessary because a cooperative’s success may depend on it.

Thomas W. Gray, et al, (1990), in the study of dairy farmers' participation in cooperatives, as size of farm increased a greater percent participated; though the proportions dropped off within the largest size category. Dairy farmers were loyal to membership, using membership for total marketing and supply, purchases and, in particular, for high proportions of their dairy product marketing and feed purchases.

Thomas W. Gray, et al, (1998), this research identifies characteristics that influence member participation in cooperatives. Participation measures include attendance at meetings, serving on committees, serving as an elected officer, and recruiting other farmers to become members. Nineteen characteristics were found statistically related to participation, and include farm characteristics, member demographics, and beliefs in cooperative principles, collective action, member influence, cooperative impartiality, and satisfaction with farming and cooperative officers.

Frayne Olson, et al, (1998), how do members differ from nonmembers, Extension Report No. 40, USA, the statistical test indicate that members are more optimistic about cooperatives role in solving marketing problems and improving their benefits as compare to nonmembers.

Jose R. Molinas, (1998), a study of membership in farmers cooperatives, it analyzes both theoretical and empirical factors that are conducive to farmers to join a cooperative, by using logistic regression analysis gains from cooperatives, higher probability of the survival of the cooperative and costs of a farmer to cooperation are a significant factors a farmer to join a cooperative.

Veerakumaran and Pitchai, (2005), they concluded that concerning members governance, a minimum of 60% and a maximum of 78% participated in the general assembly meetings. There are also members who do business with cooperatives but neglect their right to participate in the management.

The past studies are conducted in different countries were on farmers practicing commercial farms. Since economical, educational, managerial, and social differences are there, area specific detail studies on participation and membership problems are a paramount important.

In this part, this study will indicate the reasons for inactive participation of members. In general, past studies did not provide and take the required information, analysis, etc. and can not benefit for policy makings.

Chapter Three

3. MATERIALS AND METHODS

This study is designed to analyze the problems of members on democratic governance, economic participation and membership problems of those farmers who have an access to the existing cooperatives.

In this chapter, description of the physical and socio economic features of the study area, methods of data collection and analysis, as well as definitions of variables are discussed in detail.

3.1 Description of the Study Area

The Amhara National Regional state (ANRS) is one of the constitute states of the Federal Democratic Republic of Ethiopia. It is located in the northwestern part of the country. The region is divided into 11 administrative zones.

East Gojam is one of the administrative zone found in western part of the region. In year 2005, it has an estimated total population of 2,521,299, of whom 89 % are rural dwellers. It is one of high potential agricultural area with sufficient rainfall and fertile soil however, population pressure and over grazing accelerates its land fragmentations and soil degradation. It has 13 administrative districts, of which Aneded, Awebel and Dejin are the operational areas of the union.

3.1.1 Climate, Soil and Topography

The altitude of the study area ranges from 500 to 4154 meter above sea level, which gave the zone to have different climatic zone namely Dega (highland)), Weyina Dega (midland) and low

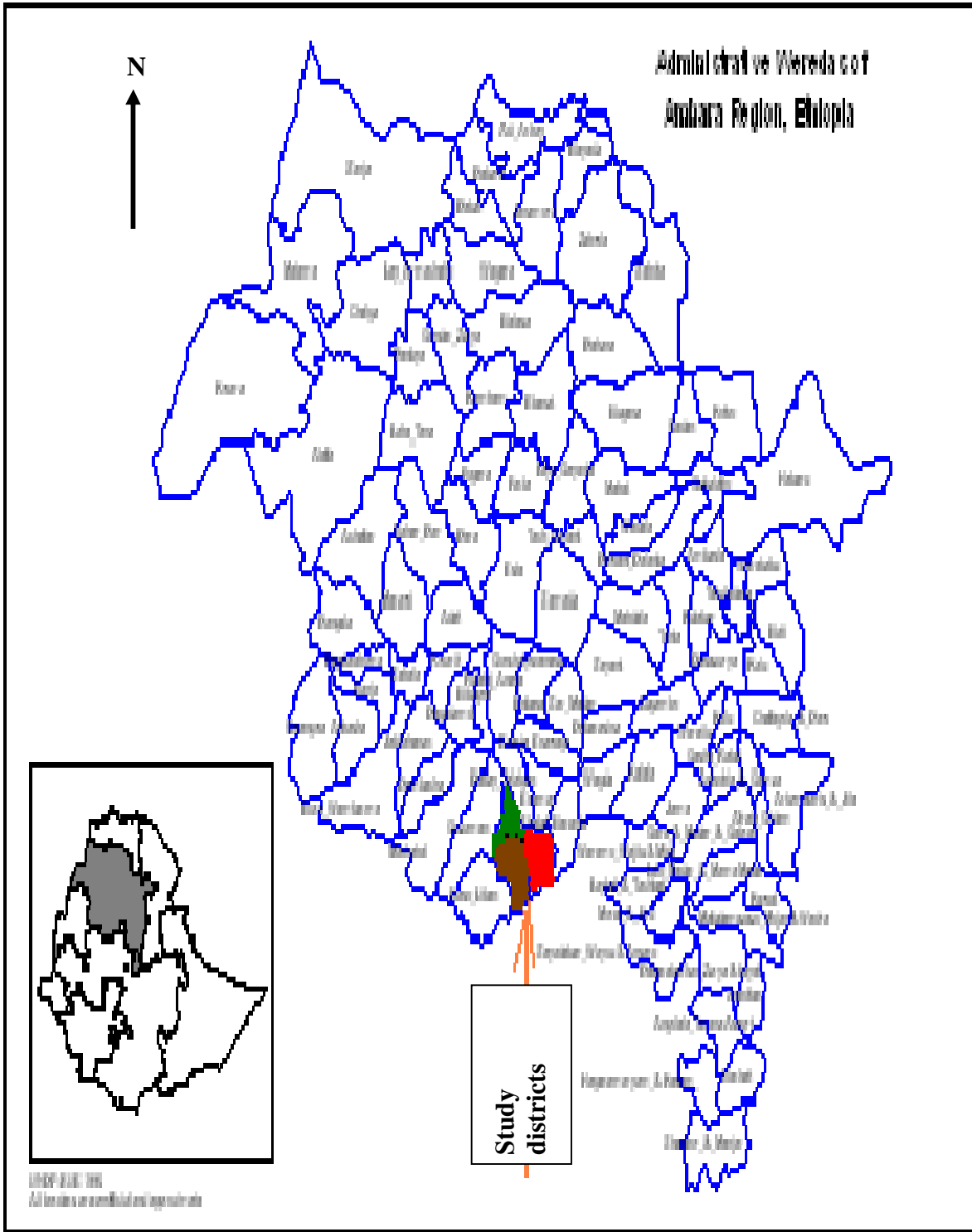
land (kolla). The average annual rainfall ranges from 900 mm to 1800 mm. The average temperature is 20.2 Degree Celsius, with minimum 7.5 and maximum 25 Degree Celsius.

3.1.2 Farming system and land use

Agriculture is the main economic activity and the only dominant livelihood of the people. The farming system in the area characterized by mixed farming. More than 97% of the total farm population depends mainly on mixed farming. Land is as other areas of the country one of the important factors of agricultural production, the average holding size is 0.75 hectare per household and about 54.4% is under intensive cultivation (source: CSA, 2005, and Office of Zone Administration).

Crops like teff, wheat, maize, barely and pulses like chickpea, lentils are dominant which are frequently grown in the districts. Production is undertaken mainly by waiting the rainy season that is once per year during the meher (June – September) season.

Livestock also play an important role in the farming systems of the zone. Their main contribution is in providing draft power, cash generation, food (meat and milk) and as a status symbol. According to zonal report (2005), the total livestock population is about 2691599. The major animal species reared in the area are heads of cattle 1191975 (44%), heads of goats and sheep 694,773 (25.8%), numbers of chickens 583, 885 (21.68%), draft animals accounts 8% and in addition to these there are 188,407 beehives. Agricultural inputs such as fertilizer, improved seed has a year-to-year increasing consumption, farmers purchased inputs on credit basis, and cooperatives play a major role in supplying input and credits services.



3.1.3 Infrastructure

The presence of infrastructure is an important vehicle for the transformation of a rural economy. Roads and communication net works, health and educational infrastructures, potable water supply, availability and access to input and out put markets are some of the infrastructure components that are necessary to improve the production and productivity of the rural poor.

There are three major and a number of village markets in which mainly, crop production and consumer industrial commodities are traded.

The three research districts are connected by asphalt-surfaced road. However, most internal parts of each district remain in accessible, preventing farmers from having access to relevant institutions or services. The limited transport network also is obstacles to taking agricultural products to the market area as well as input to the production sites moreover farmers are forced to sell locally.

3.1.4 Agricultural Cooperatives

AS of 2007, 366 primary cooperative societies having 277,374 individual members organized in the zone. Moreover, five agricultural and one saving and credit cooperative unions were established to facilitate and support primary cooperatives. The total capital of the cooperatives was birr 2,964,634.

The cooperatives provide farm input especially fertilizer in credit to the members. These cooperatives in this particular administrative zone they have a share of farm input distribution 96.8% and 72% for fertilizer and improved seed respectively (Office of Zone Administration).

Output marketing, farm input credit service, supply of consumer goods and mill

services are delivered to the farmers. In the research area, 65,670 (66 %) of the total farmers household head were organized in 32 primary multi-purpose agricultural cooperatives. The Awabel multi-purpose farmers' cooperative union currently has 27-affiliated primary cooperative with 38,941 individual members as of 2006 (Awabal MPFCU)

3.2 Methods of Data Collection and Analysis

Procedures and principles of data collection, sample size determination interviewing schedule procedures are discussed in this part. Selections of appropriate statistical tools for analysis are discussed in detail.

3.2.1 Sampling Frame

Awabel Farmers Cooperatives Union operates in three districts namely, Awabel, Dejin and Aneded. There are 10, 7 and 10 a total of 27 affiliated primary cooperatives respectively.

Table 02. Sampling frame

S.NO.

S.NO.	Name of district	No. of affiliated cooperatives	Sample Cooperatives (18.5%)	Total farmers in selected cooperatives operation area	No. of individual members in sample coops.	No. of potential members in sample coops. operation area	Individual respondents (sample size) (1.5%)		
							Members	Potential members	Total
1	Awabel	10	2	2809	1735	1074	26	16	42
2	Aneded	7	1	2980	2138	842	31	13	44
3	Dejin	10	2	3042	2618	424	38	6	44
	Total	27	5	8831	6491 (73%)	2340 (27%)	95	35	130

In the union areas of operation there are 65,670 individual farmers of which 43,552 (66%) organized in multi-purpose farmers cooperatives the rest are potential members. The union has

3.2.2 Sampling Techniques

3.2.2.1 Selection of primary cooperatives and Individual respondents

In the selection process of samples, two-stage random sampling techniques were used. In the first stage, five (18.5%) primary cooperatives out of twenty-seven were selected using simple random sampling method, based on the probability of proportionate to size of affiliated primary cooperatives in each district.

In the second stage, using random sampling 95 individual members were selected from sample primary cooperatives based on proportionate to size of the members in each selected cooperatives.

In the selected primary cooperatives 6491 (73%) of the total household head farmers were members, the remaining 2340 (27%) were potential-members.

Individual potential - member respondents were selected from the operational areas of selected primary cooperatives using the probability to size of potential members.

Considering the financial constraints and time shortage for this study in general 130, (1.5%) individual farmers who were, living and working in sample primary cooperatives selected as respondents for this research.

3.3 Data Collection Methods and Analysis

For this study, both primary and secondary sources of data were used. Primary data required for the assessment of member's participation was collected from selected cooperative members and potential-members. Primary data for this study was collected through the methods of administering interview schedule, checklists and rating scale.

Focus group discussion using a checklist tool with key informants (cooperatives management bodies and employees) and rate-scaling tool used for recording individual's perceptions and beliefs.

Pre-test was conducted and refined the contents of interview schedule, an unnecessary questions was removed (religions) and period specification is set (attendance in general assembly meeting) for some schedule, respondent's level of satisfaction on different services of cooperative added and collected in details.

Types of primary Data: The data types collected for this study were socio-economic, organizational environment and those data that are related to human beliefs.

Socio – economic variables: Sex, age, education status, family size, occupation with in agriculture, other income sources, land and oxen holdings, input used, credit services, sales volume, gross annual income etc.

Organizational: Mode of knowing society, Way of membership (reorganized, founder, lately joined), reasons for joining cooperative, duration of membership, share holding, etc. Utilization

of services includes input & output marketing, purchase of consumer items etc.

Participation in attendance of general assembly meetings, amendments of rules and regulations, election of committees' members, and approval of annual plan & performance report.

Beliefs: increase in income, promotion of standard of living, fulfillment of basic needs, development of democracy, generation of employment, support of financial needs, realization of better price, supply of agricultural input.

Satisfaction: Method of sale, weight & measures, supply of input, payments for sale proceeds, market information service, dividend & patronage refund, rate of interest & method of repayment, overall satisfaction with their organization, etc.

Secondary data about trends of business, membership and trends of capital building. Types and trends of potential members' services utilization in cooperatives. These data collected from diverse sources including primary cooperatives, union, district and regional cooperative promotion bureau.

3.3.1 Methods of Data Analysis

Both descriptive statistics and econometrics model were employed to study the relationship between the dependent and explanatory variables. Using descriptive statistics the mean, range minimum as well as maximum values of variables were indicated. The result obtained is used as an indicator of the relationship between dependent and independent variables.

Moreover, econometric model were used to study the relationship between variables empirically.

Hence, the binary logit model was used to analyze the participation of members in cooperatives.

The likert five-scale measures were used to analyze the member's beliefs on cooperative issues and their satisfaction level to the management and services of the cooperatives.

Selection of the Econometric Model

When any of the explanatory variables in a regression model are binary, one can represent them as dummy variables and proceed with the analysis using linear regression. However, the application of linear regression model when the dependent variable is binary is more complex (Pindyck and Rubinfeld, 1981). Binary choice models assume that individuals are faced with a choice between two alternatives and their choice depends on their characteristics. Thus, the purpose of a qualitative choice model is to determine the probability that an individual with a given set of alternatives will make one choice rather than the alternative.

A number of statistical models have been developed that allow to study qualitative variables; the two that have been most popular are the "logistic regression" and the probit models. These models can be easily applied to cases where the dependent variable is either nominal or ordinal, and has two or more levels, and the independent variables are any mix of qualitative and quantitative predictors. There is no difference between these two models one can choose based on familiarity and software availability.

Both are estimated by maximum likelihood, consequently, goodness of fit and inferential statistics are based on the log likelihood and chi-square test statistics. The use of chi-square test helps to decide whether two variables have significant relationships or not in a population. The test also determines if a conspicuous discrepancy exists between the observed and expected counts.

Binary Logistic Model

The data that are going to be collected from primary and secondary sources will be checked its completeness, accuracy and uniformity. The data according to their nature both qualitative and quantitative data classified, transcript, tabulated and all necessary pre –analysis activities done to make them amenable to analysis and interpretation.

Hosmer and Lemeshow (1989) pointed out that a logistic regression has got advantage over others in the analysis of dichotomous outcome variables. There are two primary reasons for choosing the logistic distribution. It is an extremely flexible and easily used function. It lends itself to a meaningful interpretation. The logit model is simpler in estimation than the probit mode. Therefore, a binary logistic regression model is used to study the participation decision behavior of sampled members.

The dependent variable in this case is a dummy variable (binary), which takes a value zero or one depending on whether or not a member participation level is active or inactive. However, the explanatory variables are either continuous or binary.

The general participation model used to examine the members participation level: - .

$$P_i = F(Z_i) \dots\dots\dots 1$$

$$Z_i = \beta_0 + \sum_j^n \beta_j X_{ji} = [\log(P/1-P)] = Z_i = \alpha + \beta_1 X_{i1} + \dots + \beta_n X_{in}, \dots\dots\dots 2$$

This is the logit model (Engleman, 1981 and Gujarati, 1988)

Where, P_i = the probability that an individual member will actively participate, the binary variable, $P_i = 1$ for active participant and $P_i = 0$ for inactive participant.

Z_i = Estimated variable for the i^{th} observation,

$F =$ the functional relationship between P_i and Z_i ,

$i = 1, 2, \dots, m$ are observations on variables for the participation model, m being the sample size 95.

X_{ji} = the j^{th} explanatory variable for the i^{th} observation, $j = 1, 2, \dots, n$,

β_j = a parameter, $j = 0, 1, \dots, n$

$j = 0, 1, \dots, n$ where n is the total number of explanatory variables.

The logit model assumes the underlying index; Z_i is a random variable that predicts the probability of the members to participate actively.

$$P_i = \frac{1}{1 + e^{-Z_i}} \quad \text{the probability that a member will actively participate} \dots\dots\dots 3$$

$$1 - P_i = \frac{1}{1 + e^{Z_i}} \quad \text{the probability that a member participate inactively} \dots\dots\dots 4$$

If the disturbance term U_i is taken into account, the logit model becomes

$$Z_i = \beta_0 + \sum_{j=1}^m \beta_j X_{ji} + u_i \quad \dots\dots\dots 5$$

In this study, the above econometric model used to analyze the data. The model was estimated using the iterative maximum likelihood estimation procedure. This estimation procedure yields

unbiased, efficient and consistent parameter estimates, particularly when the sample size is large. The Variance Inflation Factor (VIF) was used to test for the existence of multicollinearity between continuous explanatory variables. VIF shows how the variance of an estimator is inflated by the presence of multicollinearity (Gujarati, 1995). If R^2 is the adjusted square of the multiple correlation coefficients that results when the explanatory variable (X_i) is regressed against all the other explanatory variables, VIF is computed as follows:-

$$\text{VIF}(X_i) = (1 - R_i^2)^{-1}$$

As the adjusted R_i^2 approaches 1, the VIF approaches infinity. That is as the extent of collinearity increases, the variance of the estimator increases, and in the limit, it can become infinity. If there is no collinearity between regressors, the value VIF will be one.

As a Rule of Thumb, values of VIF greater than 10, is often taken as a signal for the existence of multi-collinearity problem in the model (Gujarati, 1995).

Contingency coefficients were also calculated to see the degree of association between the dummy variables. They were calculated for each pair of dummy variables using contingency

coefficient procedure available in SPSS. Contingency coefficient is chi-square based measure of association. A value of 0.75 or more indicates a stronger relationship (Healy, 1984). The contingency coefficients were computed as follows:-

$$C = \sqrt{\frac{\chi^2}{N + \chi^2}}$$

Where, C= coefficient of contingency, χ^2 = Chi-square test and N= total sample size. It is true that, the significant explanatory variables do not have the same level of impact on the dependent variable.

The relative importance of explanatory variables measured by examining variable elasticity, defined as the percentage change in probabilities that would result from a given percentage change in the value of these variables.

To compute the elasticity, one need to select a variable of interest, compute the associated probability (P_i), vary the X_m variable of interest by some small amount, and re-compute the P_i , and then measure the rate of change as (Aldrich and Nelson, 1984). dP_i / dX_{mi} , where dX_{mi} and dP_i stand for percentage change in explanatory variables (X_{mi}) and the associated probability levels (P_i), respectively. When dX_{mi} is very small, this rate of change is simply the derivative of P_i with respect to X_{mi} and it is expressed as follows:-

$$\left[\frac{dP_i}{dX_{mi}} \right] = \left[\frac{\exp(Z_i)}{1 + \exp(Z_i)} \right] \left[\frac{1}{1 + \exp(Z_i)} \right] \hat{\beta} = (P)(1 - P_i) \hat{\beta}$$

Participation efficiency of the members in general body meeting have been measured by computing the participatory efficiency index value (PEIV), (Anwar et al, 1997, ¹).

$$\text{Participation index} = P_{np}Y_0 + P_{op}Y_1 + P_{rp}Y_2$$

Where,

P_{np} = Percentage of respondents with no participation

P_{op} = Percentage of respondents with occupational participation

P_{rp} = Percentage of respondents with regular participation

Y_0 = Score assigned to no participation

Y_1 = Score assigned to occupational participation

Y_2 = Score assigned to regular participation

3.4 Definitions of variables and working Hypothesis

The analytical procedure and the requirements of the study are recognized, it is necessary to identify the potential explanatory variables, describe their measurements and represent them in symbols.

3.4.1 Dependent Variables

In this study, the dependent variable for the binary logistic analysis has dichotomous in nature representing the preferred status of the member to participate in cooperatives. The variable takes the value 1 if the member is actively participating in cooperatives and 0 otherwise

3.4.2 Independent variables

The independent variables in a study of a member participation in cooperatives that are anticipated (hypothesized), having association with the participation level of a member in cooperatives.

Researchers come across with different results what factors could influence the levels of members participation in cooperatives. Some concluded that members' attitude and perceptions play a significant role in their behavior towards their organization and performance (Sanjib Bhuyan, 2007) .Others associated members' participation with sex-based household headed (David Trechter, et al).

Thomas W. Gray & Charles A. Kraenzle, 1998, identifies characteristics that influence member participation in cooperatives member demographics, farm characteristics, and organizational environments as decisive factors.

Based on both theoretical and empirical studies, the history of cooperative movement of the country and the information collected during the informal survey for this particular study a number of demographic, socio-economic, organizational and personal beliefs in relation to cooperatives that affect individual member's participation are identified.

Table 03 : Definitions of explanatory variables to explain Participation in cooperatives

S.NO	Variables code	DEFINITIONS
1	SEX	Sex of member/ potential member i.e. Male or Female
2	AGE	Age of members/potential members since birth in years , 0= young, 1= middle, 2= old
3	DISCOFF	Time required in minutes to reach (by walking) to the cooperative office (1 hour walk equal to 6 kilo meter)
4	DISTMARK	Walking distance to reach nearest market center in minutes, (1 hour walk equal to 6 kilo meter)
5	EDU	Educational level of the member /potential member , 0= illiterate, 1= read and write, and first cycle (grade 1 to 4) 2= above grade four
6	FAMSIZE	Number of family members in number under head of the household /cooperative member or potential member
7	AGTYP	The type of agriculture (crop, animal husbandry, mixed farming) run by the member /potential member 1=crop or animal, 0 = mixed farming
8	OFFINC	Sources of income to the member or potential member other than agriculture 1= yes, 0= No
9	CULT AREA	Average annual cultivated land size in hectares cropping by a member or potential member , 0 = ≤1, 1 =1 to 2, 2 = ≥2
10	OXHOL	Number of oxen owned by the member or potential member , 0= non & one, 1 = two, 2 = above two
11	CROTYP	Categories of crops (cereals, Pulses, oil seeds), that are cultivated by the member or potential member, 0=

		cereals, 1 = cereals & pulses, 2 = cereals , pulses & oil seeds,
12	SELVOL	Average grain amount in kilo grams offer to the market by the member or potential member, 0= \leq 5, 1= 6 to 10, 2= \geq 10
13	GRINC	Annual average gross income of the member or potential member in birr, 0= \leq 4500, 1 = 4501 to 6000 2 = above 6000
14	GRABUY	Major grain buyer of the member /potential member , 0= village assembler, 1 = private trader, 2 = cooperatives
15	INQUIT	The annual average amount of input (fertilize) utilization of the member/potential member in one cropping season, 0= less and equal to 100 kilo gram (kg) , 1 =150 to 200 kg, 2 = above 200 kg
16	CRVOL	The annual average amount of input credit utilization by the member/ PM in one cropping season, 0= less and equal to 500 birr, 1 =501 to 1000 birr, 2 = above 1 000 birr
17	SHOLD	The amount of share holding by an individual member, 0= fulfills the minimum requirement only, 1 = minimum plus one, 2= minimum plus two and above.
18	MEMWAY	The way in which an individual became a cooperative membership (a founder or a lately joined member), 1= founder and reorganized, 0 = lately joined member.
19	INITMEM	The initiator of an individual farmer to be a member of a cooperative, 1= self initiatives, 0 = promoters and others externals
20	DURMEM	The number of years that a farmer being as a member of cooperative, 0= less than five years, 1= 6 to ten years, 2 = above ten years
21	COOPTRAIN	The chance that an individual member/PM has got cooperative training/education, 1 = Yes, 0 = No
22	MEMSAT	The members satisfaction level on the organizational management 1 = Satisfied, 0 = Not Satisfied

3.4.2.1 Hypothesis

3.4.2.1.1 Members Characteristics

Age of member (Age) The age of an individual influences his/her decision-making in socio-economic issues and involvement. Normally older people refused new ideas; they want to keep what they knew already. On the contrary, young and middle aged groups due to long-term plan and ambition they are expected to undertake risks. Therefore, adopters are relatively younger and middle aged farmers (Dasgupta, 1989). In relation to cooperative membership and involvement in organizational matters, longer experience has a positive effect, as farmers experiencing the challenges in farming and marketing they tend to be a member of a group to gain power this could be true mostly in the middle age stage.

Education level of a member (EDU):

It is assumed that education increases members' ability to search out, process and use information. Education has been shown to be positively correlated with members' participation in cooperatives. As the farmer / a member acquired better education he could easily understand the advantages of cooperatives, differentiate cooperative and investor owned business. More over he could identifies the current and future benefits of doing business with cooperative. Therefore, it is hypothesized to have a positive role in the decision to participate in cooperatives more actively.

Cultivated farm size/ area (CULTAREA): It represents the average land cultivated by a household. It is an indication for wealth status as well as indicates the magnitude of input utilization and the volume of production.

There might be a positive and significant relationship between cultivable land size and participation in cooperatives. One of the main reasons for farmers to establish agricultural cooperatives is to solve the problem they faced in input supplies and output marketing. Therefore, cultivable farmland and member's participation is expected to be associated positively.

Total number of farm oxen holding (OXHOL): This is important for farm operations, as a household of a member owned a number of oxen, the capacity of cultivating, others farmland through short-term rent agreement in turn to have more marketable surplus produces which improves member's participation in cooperatives. Therefore, oxen ownership is expected to affect positively the participation level of a member.

The gross income of a member (GROINC): Members in cooperatives are owners; ownership can be explained by the amount of investment made by the members in their organization. As the member has better income, he is likely to purchase more shares in cooperatives. Ingalsbe; Rhodes and Schrader (n.d) noted that a primary motivation for farmers to form and participate in agricultural cooperatives is to increase their income. Therefore, gross income is anticipated to have positive relationship with member's participation in cooperatives.

3.4.2.1.2 Institutional Factors

Distance to cooperative service center (DISCOFF): This factor refers to the time a member may needs to walk to reach where cooperative services are available to him. The faraway of the cooperative service center is located from member's residence the less likely that a member will have access to cooperative services he may seek services from other options. As a farmer /

member nearby the cooperative office, there may be a chance to be a member and involve more. Therefore, this variable has inverse relationship with members' participation in cooperatives.

Distance to the nearest local market (DISMARK): The walking time required to reach the nearest market center in minutes. The variable is crucial in making decision to make transaction with cooperative. The less amount of walking time required, as compared to the cooperative service center, other factors remaining constant (price, quality...) the less probability of being utilizing cooperative services. This factor is considered the fact that during the informal survey identified that all sample primary cooperatives provided services from one center. Therefore, this variable is hypothesized to affect the levels of members' participation in cooperatives.

Total amount of farm input credit utilization (Crvol): The annual average amount of input credit utilization by the member/ PM in one cropping season, Access to farm input credit in cooperatives most probably a farmer /member needs to withdraw primarily from cooperative. Those farmers who have credit facilities from cooperatives they tend to supply out put to the cooperatives.

Therefore, as the consumption of farm input credit of the member increases their involvement in cooperatives increased hence they have positively associated.

Total amount of farm input utilization (INQUIT): Fertilizer use has often been perceived as improving yield per unit area. Therefore, it was hypothesized that a member using fertilizer are expected to have better relation with cooperative than the non-users.

Total amount of grain sells by member (SELLVOL): In order to get better market price for produces, members deliver their produce to the co-operative, the co-operative sells the produce "on the market" at the best possible price. Therefore, as the grain offered to the market increased,

a member might make better participation in cooperatives; hence the variable has a positive relationship with participation.

Access to cooperative training (COOPTRAIN):

Member education and training is the continuous process in cooperatives by which members see the connection between their individual interest and group interest, which enable farmers to increase their knowledge and improve their skills about collective action. Therefore, cooperative training is expected to be correlated positively and significantly with the levels of participation in cooperatives.

Duration of membership with cooperatives (DURMEM):

It refers to the number of years that a farmer being as a member of cooperative. Several studies revealed (ojha 1990, shah 1990, Bhople 1990, pathania 1998) the duration of membership has consistent association with number of other indicators of which participation with cooperative management, extent of utilization of services of cooperatives. Therefore, it can be assumed that the extent of participation influenced positively by duration of membership with cooperatives.

The attitudes of members towards their organization and management (MEMSAT):

The participation of members directly related to their satisfaction how cooperative is run. Members dissatisfied with the cooperative organization and management the likelihood of members behaving in ways that may harm their organization such as nonparticipation (Sanjib, 2007). The attitude of members towards their organization management bodies' competitiveness and trustworthiness is important factor that influence their participation level. Hence, in this study attitude is hypothesized to have effect on the members' levels of participation.

Chapter Four

4. RESULT AND DISCUSSION

This part is mainly concerned with the description and interpretation of the findings. Interview schedule was administered to 95 cooperative individual members and 35 potential members as sample households in Awabel multipurpose farmers' cooperatives union. The main aim of this study was to assess members' participation in terms of members' democratic governance and members' economic participation in primary cooperatives affiliated to the union. The interview schedule was designed in such a way that it enables to collect data on socio-economic and membership characteristics of the individual member as well as the potential members.

Participation of members in cooperatives

Methods of analysis

The methodological approaches used to assess members characteristics, beliefs in collective actions, beliefs in cooperative principles and identities, members' beliefs on the amount of influence/governance on their organization. Descriptive statistics were used to describe respondents' socio-economic characteristics; a likert scale analysis is used to analyze respondents' perception of their cooperative performance, satisfaction; while econometric software called "SPSS" version 15 employed to estimate the binary logistic model to identify factors influencing the participation of members in cooperatives. Chi-square analysis is used to identify the existence of significant relationship between socio-economic variables and participation among members.

Result of descriptive statistics

The meaning of active or inactive participation of a member in this study carries some commitment. Hence, questionnaires were developed based on the measures of participation. The first type of question was the number of a member participation in general assembly meeting in the last three recent years. He has to attend at least two of the three general assembly meetings. The idea is supported by the ¹ Councils of Ministers Regulations No 106 / 2004 a cooperative member shall be dismissed from the society, if he failed not participated in two consecutive regular meetings of the society without sufficient reason.

The second type of question demands the respondents to participate in both farm input and output marketing with his organization. The third question inquires the member involvement in building the cooperative capital in terms of extra share purchasing. The content of the question leads to the respondent's participation in investing in his organization voluntarily. Therefore, in the context of this study, a respondent is said to be active participant member if he/she falls in categories of two or three. They are considered as real committed member of a cooperative. The number of respondent who fall under groups two and three yields the total number of active participants. Hence, 39 members or 41 percent of the total respondents were considered the active participant members. On the other hand, 56 members or 59 % of the respondent were considered inactive participant members.

4.1. Member Characteristics

Various measures were made to understand member socio-economics characteristics as age, educational attainment, family size (table 04 -11).

Age: The largest grouping of members fell in the middle-aged category (table 04) that is nearly 60 percent of the respondents were aged 30-55. Twenty three percent are above 55 age; nearly 17

percent were 14-29 age category, where as the proportion of both active and inactive members below aged 55 and above 55 were equal, person chi-square is >0.05 (0.333) indicated that there is no a significant relationship between participation and age of members.

Table 04: Age of Members by participation level

Age	Participation level					
	Active		Inactive		Total	
	number	percent	number	percent	number	percent
14 – 29	4	10.26	12	21.43	16	16.84
30 – 55	26	66.67	31	55.36	57	60
Above 55	9	23.07	13	23.21	22	23.16
Total	39	100	56	100	95	100

Pearson chi-square 0.333

Source: results of descriptive statistics.

Education: The survey result in general indicates that in table 05, 55 respondents, nearly 58% of member respondents are literate. Moreover, the survey reveals that the greater portion of active members that is about 61.5 % are literate and 30.77 % attained grade four and above where as majority of inactive members (66%), are illiterates this indicated that education has also impact on a members degree of participation in their organization.

A significant number of (30.77%) of active members as compared to 5.6 % of inactive members have attained first cycle and above grades, education helps a member to clearly understand the current and future advantages of investing, transact and dealing with governance issues in cooperatives.

The Pearson chi-square value (0.000) indicated that there is a relationship between participation and educational attainment (table 05).

Table 05: Educational Attainment of members

Attributes	Participation level					
	Active		Inactive		Total	
	number	%	number	%	number	%
Illiterate	3	7.69	37	66.07	40	42.1
Read & write	24	61.54	16	28.57	40	42.1
1st cycle & above	12	30.77	3	5.36	15	15.80
Total	39	100	56	100	95	100

Pearson chi-square 0.000

Source: results of descriptive statistics

4.2 Economic Situations

4.2.1 Land holding and cultivation by members

About 61 % of sample members land size holding is above one hectare (table 06) i.e. 41% holds above one up to two, 20 % of them holds above two hectares. 64 percent active and 59 percent in active members holds above one hectare of land respectively (table 07).

In the study area farmers' practices cultivating of others land through short term rent or share cropping arrangements.

The survey result indicated that there is a difference between land holding and cultivation among active and inactive members due to such practices (table 07). Those active and inactive members who cultivate above two hectare are 46 % and 9% respectively. The majority of active members cultivate more land in one cropping season, it might contribute to offer more produce to the cooperatives.

The Pearson chi-square value (0.000) indicated that there is a relationship between participation and size of land cultivation (table 07).

Table 06: Land holding and cultivation by respondents

Attributes	Members			
	land holding		land cultivation	
	Number	%	Number	%
Less than 0.5 ha	16	16.84		
0.5 – 1ha	21	22.11	20	21.05
Above 1 up to 2 ha	39	41.05	52	54.74
Above 2 ha	19	20	23	24.21
Total	95	100	95	100

Pearson chi-square 0.000

Source: results of descriptive statistics

Table 07: Land holding and cultivation by level of participation

Attributes	Active		Inactive	
	land holding	land cultivation	land holding	land cultivation
	%	%	%	%
Less than 0.5 ha	17.95		16.07	
0.5 – 1ha	17.95	7.70	25	30.36
Above 1 up to 2 ha	43.59	46.15	39.29	60.71
Above 2 ha	20.51	46.15	19.64	8.93
Total	100	100	100	100

Pearson chi-square 0.000

Source: results of descriptive statistics

4.2.2 Oxen owned by sample members

The sample survey indicated that about 52.6% (table 08) of member respondents had two farm oxen and 19% had above two, which clears that about 71.58% respondents did not face shortage of oxen for their farming practices. This study further indicated that the majority of active members (90.5%) and 55.7% of inactive members hold two and above farm oxen. As a member owns more farm oxen units, he requires large amount of cultivable land to utilize his oxen efficiently. On the other hand, more oxen unit means more asset and more asset possession leads to investment decision. Therefore, it enables active farmers to participate more in input and output market

Table 08: Oxen owned by respondents

Attributes	Members					
	Total		Active		Inactive	
	number	%	number	%	number	%
None /one	27	28.42	3	7.69	24	42.86
Two	50	52.63	21	53.85	29	51.79
Above two	18	18.95	15	38.46	3	5.35
Total	95	100	39	100	56	100

Pearson chi-square 0.000

Source: results of descriptive statistics

4.2.3 Grain offered to the market by respondents

All sample farmers offer grains to the market in order to satisfy their financial requirements but they are different in the amount they offered to the market within a specified time element and to whom they sales their produces. The majority of members (47 %) annual sales reached up to 500 kg, only 24 percent their annual sales were above 1000 kg. Almost 42 % of the active sample members their annual volume of sales was above 1000 kg, while the majority (65%) of inactive members was sold up to 500 kg within the same period (table 09).

Table 09: Amount of grain offered to the market by respondents

Attributes	Members					
	Total		Active		Inactive	
	Number	%	Number	%	Number	%
Up to 500 kg	46	47.37	12	25.58	34	65.38
600 – 1000 kg	26	28.42	10	32.56	16	25
Above 1000 kg	23	24.21	17	41.86	6	9.62
Total	95	100	39	100	56	100

Pearson chi-square 0.0007

Source: results of descriptive statistics

4.2.4 Farm input credit utilization by respondents

The majority (46%) of respondents' annual average farm input credit utilization failed less or equal to 500 birr where as 64% and 26% of active and inactive members average farm input credit utilization per annum was above 500 ETB respectively (table 10). The Pearson chi-square value (*0. 0104*) at 10% level of significant indicated that there is a relationship between participation and farm input credit utilization. Active members' capacity of making sound production investment decision enables to participate more in input marketing.

Table10: Volume of farm input credit utilization by respondents (birr)

Attributes	Members					
	Total		Active		Inactive	
	Number	%	Number	%	Number	%
Up to 500	44	46.32	14	35.90	30	53.57
501 – 1000	40	42.10	16	41.03	24	42.86
Above 1000	11	11.58	9	23.08	2	3.57
Total	95	100	39	100	56	100

Pearson chi-square 0. 0104

Source: results of descriptive statistics

4.2.5 Farm input utilization by respondents

Half of the total respondents' average annual farm input utilization was above 200 kg. The utilization rate of 74% of active and 34% inactive participants was above 200 kg; this variable was seen as having very large difference between the active and inactive sample members. This indicates that those active members considered the easy accessibility of technologies in their organization to produce more, which again increases their involvement in cooperatives.

The Pearson chi-square value (*0. 0005*) indicated that there is a relationship between participation and farm input utilization (table 11).

Table 11: Volume of farm input (fertilizer) utilization by respondents

Attributes	Members					
	Total		Active		Inactive	
	Number	%	Number	%	Number	%
Up to 100 kg	18	18.95	3	7.69	15	26.79
150 – 200 kg	29	30.53	7	17.95	22	39.29
Above 200 kg	48	50.52	29	74.36	19	33.92
Total	95	100	39	100	56	100

Pearson chi-square 0.0005

Source: results of descriptive statistics

A profile of an average member in this study that is one where half or more than half of the members had similar characteristics, would be a member annual land cultivating between one and two hectares per annum. He/she holds two oxen to cultivate his holding and rented land. Annual (fertilizer) consumption above 200 kg, and the one generates grain sales of up to 500 kg, with gross income of 4501 – 6000 ETB.

4.3 Members Organizational Environment

Members' organizational environment has important bearing on the degrees of members with respect to participate actively or inactively in their organization. The important organizational concerns, considered in this study are access to cooperative training, duration of membership in cooperatives and attitudes of members towards their organizational management and operation.

4.3.1 Attainment of Cooperative training by respondents

It is an important factor to create awareness about the superfluous benefits of doing business with cooperatives to members. As indicated in table 12 about 18 % of members have participated in cooperative training. The figure is 36% and 5% for active and inactive members respectively.

The Pearson chi-square value (0.0001) indicated that there is a relationship between participation and cooperative training.

Table 12: Cooperative training involvement of sample members

Attributes	Total		Active		Inactive	
	number	percent	number	percent	number	percent
Access to cooperative training	17	17.89	14	35.90	3	5.36
No access to cooperative training	78	82.11	25	64.10	53	94.64
Total	95	100	39	100	56	100

Pearson chi-square 0.0001

Source: results of descriptive statistics

4.3.1 Duration of membership by respondents

The results of descriptive statistics revealed that a good number (62%) of member respondents have above ten years of membership. Among active and inactive participant those have above ten years membership 71.8% and 55.3% respectively.

Table 13: Duration of Cooperative Membership by respondents

Attributes	Total		Active		Inactive	
	number	percent	number	percent	number	percent
Less/equal to 5 years	24	25.26	8	20.51	16	28.57
6 up to 10 years	12	12.63	3	7.69	9	16.07
Above 10 years	59	62.11	28	71.80	31	55.36
Total	95	100	39	100	56	100

Pearson chi-square value 0.238

Source: results of descriptive statistics

It indicates that as member's years of membership-increased members acquired better knowledge about cooperative objectives and functions that, in turn leads to members to participate actively (table 13) However, the Pearson chi-square value (0.238) indicated that there is no a relationship between participation and duration of membership.

4.3.1 Attitude of respondents towards the operation and management bodies of their organization

The attitude of members towards their organization management bodies' competitiveness and trustworthiness is another important factor that the respondents explained strongly which limits to participate in the cooperative economic and governance matters. Accordingly, 63% of respondents were responded that they are dissatisfied as indicated in table 14, 32.5% and 88% of active and inactive individual members responded that they were dissatisfied respectively (table14).

Table 14: Attitude of respondents towards the operation and management of their organization.

Attributes	Members		Active		Inactive	
	number	percent	number	percent	number	percent
Satisfied	35	36.84	26	66.67	9	16.07
Not satisfied	60	63.16	13	33.33	47	83.93
Total	95	100	39	100	56	100

Pearson chi-square 0.0001

Source: results of descriptive statistics

Tests of the mean and frequency differences of variables

The mean values of the continuous variables in both active and inactive groups were compared using t-test. The test is used to indicate the mean difference between groups. That is why the test was used to identify the mean difference between active and inactive respondents. The t-values

of 3 continuous variables were computed and all these variables of the two groups were found no significant difference.

Table 15: T-test for mean difference of continuous variables

Continuous variable	Active	Inactive	Total		t-value
	mean	mean	mean	St.dv	
Distance to coop. center	38.59	40.98	-2.392	6.501	0.368
Distance to local market	66.41	61.79	-4.625	12.281	-0.377
Family size	4.95	4.21	0.734	0.449	-1.635

Source: result of t-test

Significant at 5% probability level.

For qualitative variables, a chi-square test was used to examine the existence of statistically significant differences between the two groups. Accordingly, 10 discrete variables were considered and the two groups were found to be different in terms of 7 of the 10 variables (Table 16). More specifically, the chi-square test reveals that 8 discrete variables showed statistically significant differences between the two groups at 5% probability level.

Table 16: Chi-square test for frequency difference

Dichotomous variables	score	Active		Inactive		Total		Chi-square
		No.	%	No.	%	No.	%	
Education	0	3	7.69	37	66.07	40	42.1	33.945**
	1	24	61.54	16	28.57	40	42.1	
	2	12	30.77	3	5.36	15	15.80	
Age	0	4	10.26	12	31.43	16	16.84	2.194
	1	26	66.67	31	56.36	57	60	
	2	9	23.07	13	23.21	22	23.16	
Cultivated area	0	3	7.70	17	36.31	20	21.05	19.658**
	1	18	46.15	34	60.71	52	54.16	
	2	18	46.15	5	8.93	23	24.21	
Oxen holding	0	3	7.69	24	42.85	27	28.42	23.318**
	1	21	53.85	29	51.79	50	52.63	
	2	15	38.46	3	5.36	18	18.95	
Crop type	0	16	41.03	37	66.07	53	55.79	15.922**
	1	2	5.13	10	17.86	12	12.63	
	2	21	53.84	9	16.07	30	31.59	
Sales volume	0	12	30.77	34	60.71	46	48.52	14.592**
	1	10	25.64	16	28.57	26	27.37	
	2	17	43.59	6	10.72	23	24.21	
Credit volume	0	14	35.91	30	53.57	44	46.32	9.123
	1	16	41.02	24	42.86	40	42.11	
	2	9	23.07	2	3.57	11	11.57	
Input quantity	0	3	7.69	15	26.79	18	18.95	15.289**
	1	7	17.95	22	39.29	29	30.53	
	2	29	74.36	19	33.92	48	50.52	
Duration of membership	0	8	29.51	16	28.57	24	25.26	2.869
	1	3	7.69	9	16.07	12	12.63	
	2	28	71.80	31	55.36	59	62.11	
Cooperative training	0	25	64.10	53	94.64	78	82.11	14.594**
	1	14	35.90	3	5.36	17	17.89	

Source: result of chi-square** Significant at 5% probability level

4.4 Assessment of Members' Participation

Three measures were made for members' participation in cooperatives. These were assessment of participation in members democratic governance, economic patronize and participation in building cooperative capital through share purchasing and holding. Further, this study focuses to understand what demographic characteristics, economic features, and organizational environments are associated with these forms of participation.

4.4.1 Results of members democratic governance assessment

One of the objectives of this study is the assessment of members' participation in relation to members' democratic governance. Cooperative governance is the set of relationships between the cooperative members and the board as representatives of members. It provides the structure that the objectives of the cooperatives are set and the means of attaining objectives and the monitoring of performance (cooperative federation of Victoria, 2005).

Primary cooperative societies are grass root organizations of individual and groups with similar social and economic interests who voluntarily bring together resources with aim of solving common problems using collective effort. Democratic practice in primary cooperative societies manifested largely in the form of using one's vote for key decision making in cooperatives such as in electing committee members, offering oneself for election to committee office, approvals of performance result reported, etc..

In this study the members' participation in attending general body meeting, discussion in general assembly meeting, participation in election process and involvement in cooperative training used to assess and measure efficiency of members' democratic governance. The success of any program and organization depends upon the participation of its users (x. Lourdes Xavier, 2005). Participation in the general body meeting, discussion in the meeting, election, casting the vote indicates the interest of a member in the affairs of the organization.

Table 17. Extent of Participation in GA meeting

item	Sample coops					Total	%
	1	2	3	4	5		
<ul style="list-style-type: none"> ▪ GA meeting conducted by five sample primary cooperatives (2003 – 2007) ▪ Percent (using minimum requirements i.e. ones/year) 	1	2	4	2	2	11	
	20	40	80	20	20	44	
<ul style="list-style-type: none"> ▪ Respondents attendance in GA meetings: <ul style="list-style-type: none"> • Regularly attended • Occasionally attended • Not attended 	6	-	5	8	4	23	24.21
	3	3	13	6	6	31	32.63
	5	3	13	10	10	41	43.16
Total sample individual members	14	6	31	24	20	95	
<ul style="list-style-type: none"> ▪ Reasons for not attending in GA meeting: <ul style="list-style-type: none"> • Personal problem • Not interested • Lack of information 	1	1	4	2	3	10	24.39
	4	1	6	4	6	21	51.22
	-	1	4	4	1	10	24.39
<ul style="list-style-type: none"> ▪ Sample members intervned in GA discussion : <ul style="list-style-type: none"> • Participated well • Participated occasionally • No chance to give opinion • Not willing to give opinion 	4	-	6	3	3	16	16.84
	4	3	12	9	7	35	36.84
	1	-	1	2	-	4	4.21
	5	3	13	10	9	40	42.11
<ul style="list-style-type: none"> ▪ Sample members participated in election process: <ul style="list-style-type: none"> • Participated in point out management bodies candidates & cast vote • Cast vote only • Not cast vote 	4	3	7	4	5	23	24.21
	9	3	18	13	9	31	32.64
	5	3	13	10	10	41	43.15

Sample cooperatives: 1= Biyan, 2= Yesenbet, 3= Gudalema, 4= Emega, 5= Lumamme

Source: survey data of this research

According to cooperative proclamation 147/1998 article 22, the general assembly shall meet at least once in a year; during the last five years on average, one sample primary cooperative had conducted only two general assembly meetings (table 17). The respondents who participated in the general assembly meeting regularly were 24 % where as almost 33% participated occasionally, 43% not attended any of the general body meetings. Among the total respondents

37% participated occasionally, 42% they were not interested in the discussions, 4% revealed that the chance were not given to them, but 17% participated well in the discussion of general assembly meetings. The studied respondents (57%) were mostly cast their vote during the election to the committee from among the general body, few incentives to participate even at the time of choosing their representatives. (table 17).

A low level of members' participation reflected by absenteeism of the general meeting and lack of willingness to provide opinions, adding together unable to conduct regular general assembly meetings with poor chance to share views even at the time of meetings the majority of members loss their role of ownership.

4.4.1.1 Measuring participation efficiency of members in sample primary cooperatives

Participation efficiency refers to the propensity of the members to actively associate in planning, election, evaluation and approval of performance and audit report of the cooperative. Participation Efficiency Index (PEI) is the yardstick or standard to measure the levels of participation of members in the various activities of the organization.

According to Anwar et al, 1997, Participation efficiency of the members in general body meeting has been measured by computing the participatory efficiency index value (PEIV).

$$\text{Participation index (PI)} = P_{np}Y_0 + P_{op}Y_1 + P_{rp}Y_2$$

Where,

P_{np} = Percentage of respondents with no participation

P_{op} = Percentage of respondents with occasional participation

P_{rp} = Percentage of respondents with regular participation

Y_0 = Score assigned to no participation (1)

Y_1 = Score assigned to occupational participation (2)

Y_2 = Score assigned to regular participation (3)

$$PI = P_{np}Y_0 + P_{op}Y_1 + P_{rp}Y_2$$

The extent of individual members participation in sample cooperatives were calculated and compared. The indices were arrived by considering the percentage of participation in the GA meetings. The indices indicated among sample cooperatives 2.11, 1.3, 1.26, 2.81, and 1.7 in Biyan, Yesenbet, Gudalema, Emega and Lumame cooperatives respectively. Accordingly, members in Emega followed by Biyan have participated more in attendance of general assembly meeting than in others.

4.4.2 Results of Members Economic Participation Assessment

The principle of member's economic participation is advocated by International Cooperative Alliance (ICA), 1995, which depends up on the contribution of members in the economic affairs of the organization. In this study in order to assess, the members patronize i.e. sales and purchase a product or service from a cooperative and what makes the member different from others a number of questions were designed.

Accordingly, the analysis revealed that the members utilized the cooperative organization is different for different products, all respondents used cooperatives as a sole source of farm input particularly for fertilizer, for marketing of their agricultural produce 46 %, purchase of additional grain for household consumption 7.7 %.

Respondents pointed out that they would patronize with cooperative if they knew it offered better price (54.74%), better market service (23%), and nearness (18%) (table23), as compared to other actors without considering the late payments of patronage fund and long-term advantages.

Members are the main sources of cooperative capital through purchasing shares however, the study revealed that the majority of members hold the minimum requirements only. Poor

incentives and primary cooperatives lacks in issuing and declaring additional shares to members.

limits their participation.

Further, about 63% of the respondents were dissatisfied with their organization and management that might limit their participation (table 19).

Table 18: Members Economic Participation

S. No	Item	Total	%	Remark
1	Service utilization of members			
1.1	Purchase of farm input (fertilizer)	95	100	
1.2	Supply of produce to:			
	Cooperatives	44	46.32	
	Active members	39	90.7	
	Inactive members	5	9.6	
	Village market (open market)	29	30.52	
	Private trader	22	23.16	
1.2.1	Reasons for selecting market actor (produce)			
	Better market price	52	54.74	
	Nearness	17	17.89	
	Better market service	22	23.16	
	Other reasons	4	4.21	Sense of ownership
1.3	Purchase of additional food grain			
	yes	26	27.37	
	No	69	72.63	
1.3.1	Sources of additional grain			
	Village market	17	65.38	
	Private trader	7	26.92	
	Cooperative	2	7.70	
1.3.2	Reasons for selecting market actor			
	Price advantages	14	54	
	Nearness	6	23	
	Better market service	6	23	
2	Share purchase of members			
	Minimum requirement only	90	94.73	
	Minimum plus one share	5	5.27	
	Minimum plus two share	-		

Source: extracted from survey data

Participation of affiliated Sample Cooperatives in the union

Using the same measurements of participation of affiliated sample cooperatives, in contrary to individual members almost all sample member cooperatives of the union were actively participated and attended all general assembly meetings. With out considering the magnitude all sample cooperatives were have good attachment in using the union as their agent of farm input supplier. However, the result indicated that among sample cooperatives 55% and 56% were participated in share purchasing and in output supply respectively (table 18).

Table 19. Participation of affiliated Sample Cooperatives in the union

Item	Y e a r					Ave rage valu
	2003	2004	2005	2006	2007	
Share purchasing:						
<ul style="list-style-type: none"> • No. of co-ops fulfilled the minimum requirement 	1 (20%)					
<ul style="list-style-type: none"> • No. of co-ops holds one extra share 	1 (20%)					
<ul style="list-style-type: none"> • No. of co-ops holds two & above extra share 	3 (60%)					
<ul style="list-style-type: none"> • No. of co-ops Participated in share purchasing (2004-2007) 		2 (40%)	1 (20%)	4 (80%)	4 (80%)	55%
Participation in output supplies	1 (20%)	3 (60%)	4 (80%)	3 (60%)	3 (60%)	56 %
Participation in input purchasing	4 (80%)	5 (100%)	5 (100%)	5 (100%)	5 (100%)	96%
Participating in GA meeting	5 (100%)	5 (100%)	5 (100%)	5 (100%)	5(100%)	100%

Source: survey data of this research

4.5 Identification of the Important Factors Influencing Members' Participation

4.5.1 Statistical results for the binary logistic regression model

In the next parts of this report the descriptive analysis of the important explanatory variables that were expected to have impact on the decision of a member to participate actively in cooperative were presented.

In this section, the hypothesized explanatory variables were used to estimate the binary logistic regression model to analyze the important factors that determine the members to involve actively in his organization. A binary logistic regression model was fitted to estimate the effects of hypothesized explanatory variables on the probability of being active or not. SPSS for windows was used for the analysis.

Prior to the estimation of the model parameters, it is crucial to check the problems of multi-collinearity or association among the potential; candidates variables. The data we use in the analysis might display little variation and /or high inter correlation, which leads to high standard error or very low t-ratios the situations where the explanatory variables are highly inter correlated is referred to as multi-collinearity (Maddala,1992).

To this end, the contingency coefficients (CC), which measures the association between various discrete variables based on the chi-square, were computed in order to check the degree of association among thee discrete variable. The value of CC ranges between 0 and 1, with zero indicating no associations between the variables the value close to one indicating a high degree of association.

The variance inflation factor (VIF) is a measured used for associations among continuous explanatory variables.

According to Maddala (1992), VIF can be defined as:

$$\text{VIF}(x_i) = \frac{1}{1 - R_i^2}$$

Where, R_i^2 is the squared multiplied correlation coefficient between X_i and the other explanatory variables. A statistical package known as SPSS version 15 was employed to compute the VIF values. Once VIF values computed the R^2 values can be calculated using the formula.

The VIF values displayed in appendix table 2, has shown that all the continuous explanatory variables have no serious multi-collinearity problem. As a result, all the three continuous variables were retained and entered into the binary logistic analysis.

Similarly, contingency coefficient for discrete variables computed the result shows that out of 22 variables 12 were have no serious multi-collinearity problem among discrete explanatory variables (appendix table 1).

Eventually, a set of 15 explanatory variables (3 continuous and 12 discrete) were included in the model and used in the logistic analysis.

These variables included in the model were selected based on theoretical explanations that how the demographic, economical and organizational characteristics of members are related to the three main participation measures i.e. attending in general meetings, utilization of services and participating in building cooperative capital through share holding. To determine the important set of explanatory factors that are good predictors of the dependent variable.

A variable(s) entered on step 1: edu, age, cultarea, oxhol, crotyp, selvol, crvol, inquit, durmem, cooptrain, shold, memsat, famsize, discoff, dismark.

Estimates of the parameters of the variables expected to determine the participation and levels of participation are displayed on table 20. The value of Pearson chi-square test shows the over all goodness of fit of the model at less than 1% probability level

Table 20: Parameter Estimates for binary logit (variables in the equation)

Variables	B	S.E.	Wald	Sig.	Exp(B)
EDU	2.958	.989	8.936	.003*	19.254
AGE	.088	.589	.022	.881	1.092
CULTAREA	1.375	.577	5.676	.017**	3.956
OXHOL	.572	.615	.863	.353	1.771
CROTYP	.788	.559	1.987	.159	2.199
SELVOL	.204	.650	.098	.754	1.226
CRVOL	.793	.822	.931	.335	2.211
INQUIT	1.655	.665	6.191	.013**	5.232
DURMEM	1.390	.813	2.923	.087***	4.013
COOPTRAIN	-.517	1.602	.104	.747	.596
SHOLD	2.286	4.974	.211	.646	9.834
MEMSAT	5.253	1.520	11.937	.001*	191.159
FAMSIZE	-.091	.203	.200	.654	.913
DISCOFF	.013	.016	.617	.432	1.013
DISMARK	.016	.009	2.889	.089***	1.016
Constant	-15.596	6.439	5.866	.015	.000

-2 Log likelihood ratio 40.939
 Pearson chi-square (x²) 87.701
 Correctly predicted R² 81.30

, **and * shows significance at 1%, 5% and 10% probability levels respectively based on a 50-50 probability classification scheme.*

Exp (B) is the predicted change in odds for a unit increase in the predictor

Source: results of binary logit analysis

The various good nesses of fit measures validate that the model fits the data well. The model results show that the logistic regression model correctly predicted 81%of the total sample members. Fifteen explanatory variables (including 12 dummy and 3 continuous) were considered in the binary logistic model. Out of which two variables were found to have a significant

influence on the participation of a given member with less than 1% probability level. These variables include education level of a member (edu) and member's satisfaction on cooperative management bodies' trustworthiness and effectiveness. Two variables were considered significant at less than 5% probability level. These variables were size of cultivated farmland managed by a member and

the quantity of farm input (inqt) applied by a member. Duration of membership in a cooperative and distance to local market (Dismark) affects the participation of a member at less than 10% probability levels. The other nine variables were not significant at less than 10 percentage probability level.

Education level of a member (edu): The variable is significant 0.003, at ($P < 0.01$) and has positive association with the Participation and its level of participation. As the educational level of members gets higher, they can easily understand the process and use cooperative identities, operation and benefits which is relevant to participate actively in cooperatives. The positive effect of this variable indicates the importance of education in influencing members to involve in decision-making and utilization of cooperative services. This result is consistent with ideas stated in Dubey, Singh and Khera (1982) found that participation in decision-making remained mostly same irrespective of their educational level.

The odds ratio of 19.254 for education indicates that with the assumption of *ceteris paribus*, the probability of being participating increases by a factor of 19.254 as education level increased by one unit.

Distance from the nearest local market (Dismak): Most of the respondents walk relatively short distance from home to the nearest market center to sell and buy agricultural products and services. The variable affects the choice decision for market actor. It is significant 0.089, at ($P <$

10%) the result agreed with the idea that as the distance of local market increases members preferred to do business with cooperatives which leads members to participate more in supply and purchase of services with their organization than others. This result is consistent with the findings of /X.courdes Xavier wicson, 2005/ stated that distance from cooperative to the residence had negative relationship which means, the nearby members had more satisfaction than that of off members.

The odds ratio 1.016 indicate that with the assumption of ceteris paribus, the probability of a member participating increases by a factor of 1.016 as distance of local market from residence of a member increases by one unit time element.

Agricultural land cultivated by a member (Cultarea): This variable is significant 0.017, at ($P < 0.05$) and has positive relationship with the participation in cooperative. As the size of farmland cultivated by the member increases, the members have a chance to produce different types of crops for household consumption and cash crops for marketing. In addition to this, the amount of output produces increased. Finally, this leads to a member to participate more in cooperatives in terms of purchase of farm input and supplied marketable surplus to the cooperative. The odds ratio 3.956 for land cultivated implies that the effects of other factors kept a side. The odds ratio in favor of being participating increases by a factor of 3.956 as the members of the cooperative gets one additional unit of cultivable land.

Total farm input (fertilizer) consumed (inquit): It is found significant 0.013, at ($P < 0.05$) and positively associated with the participation of member in his/her organization.

The implication is that, consumption of farm technologies (i.e. fertilizer) gives better yield and improves production. A member become in a position of producing more than household

consumption requirement, extra production used for sale that leads to do business more with cooperative.

With the assumption of constant influence of other factors, the odds ratio 5.232 for farm input utilization increases by a factor of 5.232 as the member utilizes one additional unit of farm input.

Duration of membership in cooperatives (Durmem): It refers to the farmer's period of being as a member of a cooperative since registered in the cooperative. This variable is significant 0.08, at ($P < 0.10$). As duration of membership increases, members could have right perception with positive attitude towards cooperatives. Several studies (Ojha 1990, Shah 1990, Bhople 1993, Pathania 1998) stated that duration of membership with cooperative has a consistent association with other indicators such as participation with cooperative management, nature and extent of utilization of services of cooperatives. Hence, duration of membership is positively associated with members' involvement in cooperatives.

The odds ratio of 4.013 for duration of membership implies that, other things constant, the odds ratio in favor of being participating by a factor of 4.013 as duration of membership increases by unit.

Members' satisfaction on the operation of their organization and management of the Cooperative (Memsat):

It refers that the ability of a cooperative in maintaining member commitment and satisfaction through effective operation and management on addressing members expectations. The variable is significant 0.001 at ($P < 0.01$). Members' satisfaction towards their cooperative and management have a significant impact on their participation. Sanjib, (2007), had made a

consistent statement that the likelihood of members being dissatisfied with cooperative institution and management they may harm their cooperative, such as nonparticipating.

The odds ratio 191.159 indicate that keeping the effect of other factors constant, the participation of a member increases by a factor of 191.159 as he/she satisfies with the organization and management of the cooperative.

4.6 Analysis of the Socio - Economic differences between Members and Potential Members

The socio-economic differences among members and potential members' in relation to cooperation analyzed using important variables.

The mean values of the continuous variables in both members and potential members groups were compared using t-test (table 21). The test is used to indicate the mean difference between groups. That is why the test was used to identify the mean difference between members and potential members' respondents. The t-values of 3 continuous variables were computed and 2 of these variables of the two groups were found significant difference (Distance to local market & Family size).

Table 21: T-test for mean difference of continuous variables

Continuous variable	Members	Potential members	Total		t-value
	mean	mean	mean	St.dev.	
Distance to coop. center	40	32.14	7.857	5.592	1.405
Distance to local market	63.18	30.57	33.508	6.55	5.039*
Family size	4.49	1.97	2.523	0.356	7.089*

Source: result of t-test

Significant at 1% probability level.

For qualitative variables, a chi-square test was used to examine the existence of statistically significant differences between the two groups. Accordingly, 9 discrete variables were considered and the two groups were found to be different in terms of 7 variables (Table 22). More specifically, the chi-square test reveals that 7 discrete variables showed statistically significant differences between the two groups at 1% and 5% probability level.

Table 22: Chi-square test for frequency difference between Members & Potential Members

Dichotomous variables	Score	Members		Potential Members		Chi-square
		No.	%	No.	%	
Education	0	40	42.1	13	37.14	0.984
	1	40	42.1	12	34.29	
	2	15	15.80	10	28.57	
Age	0	16	16.84	18	51.43	17.271*
	1	57	60	15	42.86	
	2	22	23.16	2	5.71	
Cultivated area	0	20	21.05	20	57.14	20.001*
	1	52	54.16	15	42.86	
	2	23	24.21	0		
Oxen holding	0	27	28.42	22	62.86	12.059*
	1	50	52.63	10	28.57	
	2	18	18.95	3	8.57	
Crop type	0	53	55.79	20	57.14	11.838*
	1	12	12.63	12	34.29	
	2	30	31.59	3	8.57	
Sales volume	0	46	48.52	23	65.72	8.042**
	1	26	27.37	11	31.43	
	2	23	24.21	1	2.85	
Credit volume	0	44	46.32	2	5.71	4.471
	1	40	42.11	8	22.85	
	2	11	11.57	0		
Input quantity	0	18	18.95	0		9.394*
	1	29	30.53	18	51.43	
	2	48	50.52	7	20	
Credit use	0	0	0	26	74.28	86.648*
	1	95	100	9	25.72	

Source: result of chi-square

* Significant at 1% probability level, ** Significant at 5% probability level.

The average distance i.e. time required in minutes to reach by walking to the nearest local market is 63 and 31 for members and potential members respectively; the difference is statistically significant with the t-test value of 5.039, at 1% level. It indicates that local markets are more accessible than cooperatives to the potential members. This implies that the nearer the local market farmers are less likely to join to multi-purpose farmers cooperatives.

The average family size among members and potential members as indicted in table 17, there is a significant difference t-value 7.089, at 1% level. The finding indicates that as the household family size increases the demand for cooperative services increased. Farmers with less family size might satisfied their needs easily from local market which in turn farmers preferred to stay as potential member.

Table 23: Market service accessibility

Characteristics	Members	Potential-members
Average distance to coop. office (minutes)*	40	32
Average distance to local market (minutes)** t-value 5.039	63	31
Average family size** t-value 7.089	4.49	1.97

* Statistically, there is no significant difference between the two groups.

** Statistically, there is a significant difference between the two groups at 1% level

Respondents' Age

Table 24, revealed that the majority of the members (60%) fall within 30 – 55 years of age while majority of the potential members (51%) are 14-29 year category. A greater number of cooperative farmers (83%) are found above 29 years.

The finding indicates that farmers may not easily want to participate in cooperative societies at young age. This implies that the older the farmer, likely he/she is ready to subscribe to the membership of cooperative society. The chi-square analysis concerning the relationship between age and cooperative membership showed that there is significant relationship between age categories and membership. Among the age categories, 30-55 a farmer become a member of a

multi-purpose farmer's cooperative. It has a consistence with Klein et al 1996; conclude that older farmers are more likely to be members of cooperative often have a closer relationship to the cooperative, and appreciate the social and political role the cooperative offers.

Table 24: Age of respondent's

Age category	Members		Potential members		Total respondents	
	Number	%	Number	%	Number	%
14 - 29	16	16.84	18	51.43	34	26.15
30 - 55	57	60	15	42.86	72	55.38
Above 55	22	23.16	2	5.71	24	18.46
Total	95	100	35	100	130	100
Chi-square 17.271						

Source: computed from data collected

Level of education

Table 25, indicated that the majority of respondents in both groups were literate. Forty two percent of cooperative members who were under the category of read and write and those accounts above grade four were accounts 15.8%. While the majority of the potential members (37.14%) had read and 28.57% were above grade four educations attainment. The implication of this is that the educational attainment level of the potential members is a variable that has influenced their subscription to look other than cooperatives for their economic and social services. However, the chi-square analysis at 5% level of significant did not indicate that any relationship exists between education level and cooperative membership.

Table 25: Educational Attainment of respondents

Attributes	Members		Potential members		Total respondents	
	Number	%	Number	%	Number	%
Illiterate	40	42.1	12	34.29	52	40.0
Read & write	40	42.1	13	37.14	53	40.7
Above 1 st cycle/grade 4	15	15.8	10	28.57	25	26.3
Total	95	100	35	100	130	100
Chi-square 0.984						

Source: computed from data collected

Size of land cultivation

With regard to size of land cultivation, the study has revealed that as much as 54.7% of member respondents cultivate 1 up to 2 hectares of land per year while 57 % of potential members work on less or equal to one hectare of land. A positive relationship was found between farm size cultivated and cooperative membership. It indicates that membership subscribes access to different cooperative services which initiated him to cultivate his owned land intensively and cultivate more land through short-term rent or share cropping arrangements,

Table 26: Cultivable land size by respondents

Attributes	Members		Potential members		Total respondents	
	Number	%	Number	%	Number	%
0.5 - 1 ha	20	21.05	20	57.14	40	30.77
Above 1 up to 2 ha	52	54.74	15	42.86	67	51.54
Above 2 ha	23	24.21			23	17.69
Total	95	100	35	100	130	100
Chi-square 20.001						

Source: computed from data collected

Oxen holding

Oxen's holding is one of the important factor of production that determines the size and the intensity of land farming capacity within a specific time in a cropping season. Similar to cultivable land the majority of members 52.63% hold two farm oxen. While almost 63% of potential members hold one or none. Easy access to different farm related services might put the members in better farm oxen holding status. The chi-square analysis showed that statistically there is a significant relationship between oxen holding and cooperative membership (table27).

Table 27: Oxen holding by respondents

Attributes	Members		Potential members		Total respondents	
	Number	%	Number	%	Number	%
None/one	27	28.42	22	62.86	49	37.69
Two	50	52.63	10	28.57	60	46.15
Above two	18	18.95	3	8.57	21	16.15
Total	95	100	35	100	130	100
Chi-square	12.959					

Source: computed from data collected

Categories of crops grown by respondents

In subsistence farming, small farmers primarily produce to satisfy their food requirement by themselves hence priority given to the main staple food. The study has revealed that the majority of respondents (56%) produce both cereals and pulses. More than 31 percent of members include oilseeds in their produce while potential members account only 8.5%. The finding indicated that membership in cooperatives subscribed that a farmer tending to commercialize his farming (table28).

Table 28: Categories of crops grown by respondents

Attributes	Members		Potential members		Total respondents	
	Number	%	Number	%	Number	%
C ₁	12	12.63	12	34.29	24	18.46
C ₁ & C ₂	53	55.79	20	57.14	73	56.15
C ₁ ,C ₂ & C ₃	30	31.58	3	8.57	33	25.39
Total	95	100	35	100	130	100
Chi-square	11.838					

C₁ = cereals, C₂ = cereals & pulses, C₃ = cereals, pulses & oilseeds

Source: computed from data collected

Farm input credit utilization

Credit for the purpose of consumption or purchase of agricultural inputs like improved seed and fertilizer is largely used in the study area.

All sample cooperatives provide this service; the study has revealed that among 95 members and 35 potential member respondents' 99% and 28.5% consume farm input credit respectively. In addition, there is a significant difference on amount of utilization between the two groups. The majority of members (53.6%) their annual consumption reached above ETB 500, while 80% of potential members' average amount of consumption reached up to ETB 500 per annum. Cooperatives provide farm input credit mainly for their members. Among potential members that used farm input credit, about 30% only have an access of credit from cooperatives. The implication is that easy access of farm input credit from cooperatives enables members to utilize better volume of credit (table 29).

Table 29; Farm input credit utilization by respondents

Attributes	Members		Potential members		Total respondents		Chi-square
	Number	%	Number	%	Number	%	
Users	94	99	10	28.57	104	80	88.214
Not users	1	1	25	71.43	26	20	
Up to 500	43	45.26	8	80	51	39.23	Up to 500
501 -1000	40	42.11	2	20	42	32.31	501 -1000
Above 1000	11	11.58	-	-	11	8.46	Above 1000
Total	94	100	10	100	130	100	Total
Chi-square		81.148					

Source: computed from data collected

Farm input utilization (fertilizer)

In the study area, fertilizer is largely utilized mainly for cereal crops production. Hence, almost all respondents use fertilizer as a means to increase their output.

As indicated in table 30 the distribution of sample respondents by status of use of services, it was observed that all member respondents and 57% of potential members use cooperatives as main source of farm input. Potential members through direct purchase / credit terms or via their relatives, they fulfilled their input requirements.

During the study time 43% of potential members respondents reported that input supply particularly on credit terms is a challenge of all other services rendered by cooperatives.

To compare the two sample groups, half of members and potential members' annual average fertilizer consumption was above 200 kg and 150 - 200 kg respectively. The chi-square analysis at 10% level of significant showed that statistically there is a significant relationship between amount of fertilizer consumption and cooperative membership. This implied that, cooperative membership facilitate the probability of better amount of input utilization for cooperative members.

Table 30: Amount of farm input utilization (Fertilizer) by respondents

Attributes	Members		Potential members		Total respondents	
	Number	%	Number	%	Number	%
Sources:						
Used coops. as source	95	100	20	57	115	88.46
Used other sources	-	-	14	43	14	11.54
Amount of utilization:						
None	-	-	1	3	1	0.77
Up to 100kg	18	18.95	9	25.71	27	20.78
150 -200kg	29	30.53	18	51.43	47	36.15
Above 200kg	48	50.53	7	20	55	42.30
Total	95	100	34	97	130	100
Chi-square	12.003					

Source: computed from data collected

Volume of grain sales

The study has also revealed that as cooperative had facilitate access to credit and farm input supplies the volume of output offered to the market by respondents increased. Table 31 revealed these facts, the majority (52%) of respondents on average offered up to 500 kg of grain to the market per annum. However, there is a difference between groups more than 52% and 34% of member and potential members sold above 600 kg of grain per annum respectively.

On the other hand, 27% of members and 31% of potential members purchase additional food grains for household consumption.

Price used as a major buyer selection criteria for more than 59% of respondents, followed by better market services 20% (purchasing different types of grains, accessibility of service throughout the year, availability of both buying and selling service...) and nearness 18%. Both groups based on these criteria's 38% to cooperatives, nearly 36 % to local markets and the remaining 23% mainly sold to the private traders.

Table31: Grain Sales volume by respondents

Attributes	Members		Potential members		Total respondents	
	Number	%	Number	%	Number	%
Up to 500kg	45	47.37	23	65.41	68	52.31
600 – 1000kg	27	28.42	11	31.43	38	29.23
Above 1000kg	23	24.21	1	2.86	24	18.46
Total	95	100	35	100	130	100
Chi-square 8.042						

Source: computed from data collected

Gross income of respondents (ETB)

The study revealed that majority (41.5%) of the respondents has their family annual income reached up to ETB 4500. However, there is a variation between groups 41% and 23% of the member's household annual average income ranging ETB 4501 – 6000 and above 6000 respectively. While 34% and 8.57 % of potential member's annual, income failed within the same range respectively. The chi-square test (5.936) at 5% level showed that there is a significant and positive relationship between income and cooperative membership (table32).

Table 32: Annual Gross income (ETB)

Attributes	Members		Potential members		Total respondents	
	Number	%	Number	%	Number	%
Up to 4500	34	35.79	20	57.14	54	41.54
4501 – 6000	39	41.05	12	34.29	51	39.23
Above 6000	22	23.16	3	8.57	25	19.23
Total	95	100	35	100	130	100
Chi- square	5.936					

Source: computed from data collected

Members of multi-purpose farmers' cooperatives differed from potential members in several ways. On average members were relatively older than potential members. Members tended to use larger size of cultivable land by entering short term agreements to cultivate others owned land using membership accessibilities for farm input and farm input credit service advantages, have better number of farm oxen, used relatively better farm input credit and input, produce and offered more marketable surplus to the market and generate better household income. This result is on the contrary of IFPRI discussion paper 00722, 2007 stated that cooperatives do not have a significant effect on the share of members' production effectively sold.

To sum up, all these findings offer evidence of important differences in the socio-economic profile of members and potential members' respondents.

4.7 Assessment of the problems of farmers to be a member of Multi-Purpose Farmers' Cooperatives

Cooperatives (MPFCs) in Ethiopia are providing farmers with a source of supply for the inputs they need to carryout farm production and an attractive market channel for the sale of their products. They have a regulatory effect on both the input and product markets, setting ceiling and floor prices for inputs that they are selling and products, which they are buying, and during the time, they are in the markets (Mitchell, USAID, 2005). Though the cooperatives contribute to raising farm income of farmers in the operation area of Awebel multi-purpose farmers

cooperative union there are significant number of farmers (35%) not yet the members of cooperatives and they are served as potential member by cooperatives.

The socio-economic characteristics of these farmers are discussed in the preceding part of this study and in the succession of this analysis how these farmers get these services, reasons pointed out not yet a member of such cooperatives and their feelings to be a member were discussed.

Theoretically, a farmer to join the cooperatives where the higher the gains of cooperatives, the higher the probability of survival of organization and the lower the farmers' subjective costs of cooperation are crucial among others (M.jose 1998).

During the survey, Potential members were asked the reason for not yet joined to multi-purpose farmers' cooperatives. On the average, more than 45.7% of farmers interviewed ranked lack of awareness about the importance of cooperative, followed by (34%) respondents they pointed out that membership advantages currently is insignificant to them and the existing cooperative service center is not accessible to them (20%). This study cleared that membership costs is not a problem for membership but the amount of share obliged to hold and the payment system were not cleared to the potential members. .This finding has partially consistence with /Tanguy et al 2006/. More over the descriptive analysis supported this finding. According to the survey result 62% and 17% of respondents believed that, they have faced for input supply and output market respectively. Concerning their participation in cooperatives about 57% of sample farmers used cooperatives as a main source of farm inputs through direct cash purchase, on credit terms or used member farmers as a means of getting input from cooperatives. Only 17% Of potential members mainly supply their marketable surplus to the cooperatives. The selection criterion for market actor is similar to members. Price advantage is the main criterion (71%) ranked first, followed by nearness (17%) and better marketing service (11%) which is explained by the

availability of grain purchasing and selling services throughout the year (table 33). In sample cooperatives such services has no continuity and grain-purchasing service is limited in types.

Table 33: Accessibilities of Service to potential members

Attributes	%
Easy access to farm input:	
Yes	38
No	62
Easy access to out put market:	
Yes	83
No	17
Sources of farm input:	
Cooperatives	57
Others	43
Grain supplies to:	
Village trader	60
Cooperatives	17
Private trader	23
Reasons for not joined to MPFCs:	
In accessibility	20.3
Less membership advantages	34
Lack of information/awareness	45.7
High membership cost	--

Source: computed from survey data

4.8 Examining respondents' beliefs and levels of Satisfaction with their Cooperatives

In this part members' beliefs concerning cooperative principles, collective actions, beliefs on equitability of services among members, and satisfaction with their cooperatives were examined.

A likert five-point scale was used to measure respondents' beliefs in cooperative objectives, cooperative patronization, membership status and satisfaction with their cooperatives.

Members' beliefs in cooperative principles

Members' beliefs in cooperative principles were assessed by using six statements listed in table 34. The beliefs listed suggested that respondents strongly supported all cooperative principles. At

least 84 percent of the members agreed or strongly agreed with each of the items. Average members in this study agreed with most cooperative principles.

Table 34: Members’ beliefs in cooperative principles

Belief	Strongly disagree	Disagree	Unsure	Agree	Strongly agree	Total	weighted score
Multi-purpose farmers’ cooperatives (MPFCs) should accept any farmer who wants to join.	1 (1.01)	6 (6.3)	2 (2.02)	47 (49.47)	39 (41.05)	95 (100)	4.23
MPFCs should practice one member one vote.	5 (5.26)	5 (5.26)	3 (3.15)	32 (33.68)	50 (52.63)	95 (100)	4.23
Members should receive patronage dividend in proportion to patronage.	2 (2.02)	2 (2.02)	- (0)	70 (73.68)	21 (41.05)	95 (100)	4.11
MPFCs should support education of members and the public.	- (0)	2 (2.02)	1 (2.02)	70 (73.68)	22 (23.15)	95 (100)	4.70
Every farmer need to have a choice of place to sell & purchase other than cooperatives.	6 (6.3)	7 (7.36)	2 (2.02)	54 (56.8)	26 (27.36)	95 (100)	3.91
Cooperatives should work with other cooperatives to strengthening their services.	- (0)	2 (0)	6 (6.3)	64 (67.36)	23 (24.21)	95 (100)	2.45

Source: computed from survey data

weighted score = $N_{r1}Y_1 + N_{r2}Y_2 + N_{r3}Y_3 + N_{r4}Y_4 + N_{r5}Y_5$ / No. of total respondents, where as, N_{ri} = number of respondents at each scale, Y_i = score assigned at each scale i.e. 1 up to 5

Collective Action

Collective action refers to initiatives taken by an identifiable group to realize their common interests. Four items were used to assess member beliefs about collective action, results in table 35 suggested that many of the individual members in this study favor collective action. About 50 percent preferred a collective or cooperative approach over an individualist one. Seventy-one percent agreed or strongly agreed that the “members receive benefits from doing business the cooperative way.” About 51 percent of respondents agreed or strongly agreed on two individualistic beliefs, “An individual farmer can usually make better marketing decisions than a

group of farmers or some agency” and the same percent of them beliefs that the basic problem in agriculture today is that too many farmers needs to go individual ways than working together.

Table 35: Members’ beliefs in collective action.

Belief	Respondents view					
	Strongly disagree	Disagree	Unsure	Agree	Strongly agree	Total
The basic problem in agriculture today is that too many farmers needs to go individual ways than working together.	16 (16.84)	23 (24.21)	7 (7.37)	14 (14.74)	35 (36.84)	95 (100)
An individual farmer can make usually better marketing decisions than organized farmers.	16 (16.84)	28 (29.47)	2 (2.02)	31 (32.63)	18 (18.94)	95 (100)
Members receive benefits from doing business with cooperatives than non-members.	5 (5.26)	15 (15.79)	7 (7.37)	27 (28.42)	41 (43.16)	95 (100)
Farmers can served in better ways in farm input supply and credit service by others than cooperatives	15 (15.79)	25 (26.32)	13 (13.68)	25 (26.32)	17 (17.89)	95 (100)

Source: computed from survey data

Average members tended to agree more with collective action beliefs than individualist ones did.

However, these members are not so collective- action minded as to see individual efforts or decisions has also important.

Identification with the Cooperative

Identification refers to the degree of attachment of a member towards the organization. Six different measures were made as stated in table 36. Forty-eight percent of sample members disagreed and strongly disagreed that they do not felt like “part owners” of the cooperative. Almost comparable percent (47% and 48 %) of respondents disagreed/ strongly disagreed and

agreed or strongly agreed that they understood the cooperative was their agent in the marketplace respectively. More than half (64 percent) strongly agreed or agreed, “the cooperative is just another place to do business.”

Table 36: Members’ identification with cooperatives.

Belief	Respondents view					Total
	Strongly disagree	Disagree	Unsure	Agree	Strongly agree	
I feel I am owner, user & controller of my organization.	10 (10.52)	36 (37.89)	5 (5.26)	18 (18.94)	26 (27.36)	95 (100)
A farmer life & success is directly related to the degree of strength of the cooperative.	2 (2.02)	2 (2.02)	1 (1.01)	23 (24.21)	57 (60)	95 (100)
The cooperative to the farmer is just like other business.	17 (17.89)	16 (16.84)	1 (1.01)	27 (28.42)	34 (35.79)	95 (100)
The cooperative is my agent in the market place.	12 (12.63)	33 (34.74)	4 (4.21)	26 (27.36)	20 (21.05)	95 (100)
Cooperatives increase farmer productivity and income.	6 (6.3)	-	5 (5.26)	24 (25.26)	60 (63.15)	95 (100)
Cooperatives increases market access.	-	7 (7.37)	6 (6.3)	27 (28.42)	55 (57.89)	95 (100)

Source: computed from survey data

More than 86 percent agreed or strongly agreed that their organization increases productivity and market access. On average, half of the respondents they did not feel as owner and at the same time not yet identified those cooperatives as their agent in the market place.

Members' satisfaction with cooperative services:

Farm input credit service

Six measures were used to assess cooperative members' satisfaction with the farm input credit service.

Table 37: Members' satisfaction with their cooperative services

Items	Respondents view					Total
	Strongly dissatisfied	Dissatisfied	Unsure	Satisfied	Strongly satisfied	
1. Farm input credit service	(4.03%)	(22.80%)	(7.19%)	(40.17%)	(25.79%)	100 %
• Rate of down payment	8	23	3	34	27	95
• Amount of credit	5	36	4	37	13	95
• Types of farm input credit	5	52	3	15	20	95
• Duration of credit	3	5	8	49	30	95
• Cost of credit	-	9	16	46	24	95
• Repayment period and Conditions	2	5	7	48	33	95
2. Farm input supply	(8.63%)	(17.01%)	(3.57%)	(36.21%)	(31.15%)	100%
• Timeliness	9	19	4	33	30	95
• Supply in types	6	11	2	39	37	95
• Supply at the right place	4	7	-	47	37	95
• Price reasonability	5	15	7	38	30	95
• well-organized	17	45	4	15	14	95
3. Output marketing	(14.91%)	(32.63%)	(7.54%)	(29.82%)	(15.08%)	100%
• Correctness of weight measures	7	7	16	32	33	95
• Better price	19	47	6	17	6	95
• Efficient market service	9	9	9	51	17	95
• Place of purchasing	2	15	8	50	20	95
• Type of grains purchased by the cooperatives.	11	62	1	15	6	95
• Market information service	37	46	3	5	4	95
4. Other services	(6.66%)	(26.66%)	(5.96%)	(40.0%)	(20.70%)	100%
• Service charge	5	18	8	44	20	95
• Service quality	7	44	6	26	12	95
• Conduciveness of service place	7	14	3	44	27	95
5. General cooperative operation and management.	(18.94%)	(37.89%)	(14.73%)	(18.94%)	(9.47%)	100%
	18	36	14	18	9	95

Source: computed from survey data

Respondents were asked to specify to what extent they were satisfied or dissatisfied with amount of credit, rate of down payment, type of credit, duration of credit and costs associated with

service. About 62 percent (table 37) of the respondents said that they were satisfied or strongly satisfied with the service in general. However, 60% and 43% of the respondent, were dissatisfied or strongly dissatisfied with type and amount of farm input credit they provided by their cooperatives respectively. They have complains that the credit is concentrated to crop farm input particularly to soil fertilizer.

Farm input supply service

Timeliness of supply, type of input delivered, place of distribution, price as compared to other suppliers and effectiveness of delivery system were used to measure respondents' level of satisfaction about farm input supply service of the cooperatives. About 67% were responded that they were satisfied or strongly satisfied with the input supply service; however, 65.26 % were dissatisfied or strongly dissatisfied particularly on distribution of input effectively (table 37).

Output market:

The individual members were asked about their satisfaction level with cooperative grain purchase service using accuracy of weight measures, conduciveness of the place where the cooperative collected the grain from members, type of grains purchased by the cooperative, market information service, and payment conditions as a measurement. Nearly, 48% of the members responded that they were dissatisfied or strongly dissatisfied and 7% were ambivalent with the cooperative practice of grain marketing. However, 68% and almost 76% were satisfied or strongly satisfied with accuracy of measurements and effectiveness of payments respectively (table 37).

Equity issues:

In cooperatives the concept of equity or understanding of the impartiality in determining its use, function and the benefits received are fundamental to the organization. Seven items were used in addressing members' beliefs about equity.

Results showed that nearly equal percentage of members agreed and disagreed on issues that the organization benefits primarily better income farmers, it indicated that respondents were self-doubting better income farmers were benefited or not. Nearly 54.7% disagreed or strongly disagreed that the cooperative primarily benefits small farmers.

About 57.9 % of members disagreed or strongly disagreed that who were living and working near to cooperatives office has received better service. In terms of possible advantages attributable to type of crop, most respondents (51.5 %) agreed or strongly agreed that those producing teff as a marketable surplus product benefited than others. This statement have consistence to respondents' view of dissatisfaction with types of crops purchased by cooperatives. Concerning the management bodies of the cooperatives, respondents asked about executive committee representative ness and were they elected freely by the general assembly. Most respondents felt it management bodies represent all operation areas of the cooperative fairly.

About 59% they agreed that election process was free and no direct or indirect influences. However, almost 77% of respondents disagreed or strongly disagreed about representatives' honesty and sense of their responsibilities (table 38). The average response 54.74% for these equity issues were not a problematic issue in this study area.

Table 38: Members' beliefs on equity issues.

Belief	Respondents view					Total
	Strongly disagree	Disagree	Unsure	Agree	Strongly agree	
The cooperative primarily benefits those who have better income farmers.	23	20	7	23	22	95
The cooperatives primarily benefit those who have small income farmers.	29	23	8	15	19	95
The cooperative primarily benefits those who are living near to the cooperative office.	27	28	8	4	28	95
The cooperative mainly benefits those who grow the main crop (teff) of the area.	20	18	8	31	18	95
The management body represents fairly the operation area of the cooperative.	-	1	3	29	62	95
The management body: Elected on general meetings	25	7	7	14	42	95
Have better capacity among others.	15	-	7	20	53	95
Sense of responsibilities and honesty.	25	25	10	10	25	95
	(21.58%)	(16.05%)	(7.76%)	(19.21%)	(35.39%)	100%

Source: computed from survey data

Members influence

Cooperatives are organizations in which members are owners, users and controller. Members' beliefs about their own influence were assessed with three items. Almost 53.68 % and 57.89% of individual members disagreed or strongly disagreed that cooperative members have a great amount of influence on how the cooperative is run and have much to say about how the cooperative is run respectively. When queried about individual member influence, 61% disagreed or strongly disagreed they were satisfied with the amount of their influence on how the cooperative is run.

Nearly, 60.7% of respondents in general disagreed or strongly disagreed with the amount of their influence on how the cooperative is run (table 39). The result of this study on this issue clearly indicated that members in general and as individual do not have considerable influence on how the cooperative is run.

Table 39: Members influence

Belief	Respondents view					Total
	Strongly disagree	Disagree	Unsure	Agree	Strongly agree	
Members have a great amount of influence on how the coop. is run.	13 (13.68)	37 (40.0)	6 (6.83)	12 (12.63)	27 (28.42)	95 (100)
Have to much say about how the coop. is run.	27 (28.42)	38 (29.47)	6 (6.83)	6 (6.83)	18 (18.94)	95 (100)
Satisfied with the amount of Influence I have on how the coop. is run.	11 (11.57)	47 (49.47)	5 (5.26)	13 (13.68)	19 (20.02)	95 (100)

Source: computed from survey data

To sum up, a profile of the average member would find who was believed in cooperative principles; many of the individual members were favored in collective action. They did not felt as owner and at the same time not yet identified those cooperatives as their agent in the market place, they have ambivalent beliefs with the services rendered by the cooperatives, equity were not a problematic issue and do not have considerable influence on how the cooperative is run.

Chapter Five

5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

The principle of control by member-users, often referred as democratic control, requires not only that members actively patronize. “Democratic control is one of the basic characteristics of a true cooperative society. The control as well as the ownership of the cooperative should be in the hands of the member-patrons.

The governance practice of co-operatives must be based on co-operative values and Principles this means the governance practice must reflect and reinforce; member control and active membership.

A co-operative must begin and continue with an economically and politically active membership. Active members still patronize the co-operative, where as inactive members no longer do business with the organization but are still registered as members and they lack commitment to co-operative values and principles.

A co-operative cannot force its members to be involved, what it can do, however, is to create the conditions for member involvement through involving structures, processes and practices. Strengthening member services through successful cooperative entrepreneurship is therefore a precondition for cooperative survival in an increasingly competitive market. Members’ active participation develops strong sense of ownership, increased commitment to the outcome of cooperative activities; create long-term social sustainability and empowerment of weakness member.

Members will become and remain involved if they have a sense of accomplishment, a sense of belonging, a feeling of control and the ability to satisfy personal ideas.

This research tried to identify various characteristics of members that influence their participation level in cooperative governance and business. Participation measures included attendance at meetings, utilization of cooperative services and building cooperative capital through shareholding. Member characteristics included beliefs concerning cooperative principles, collective action, individual member identities as associated with cooperative membership, satisfaction with cooperative operation and management.

The study tried to look into the socio-economic and organizational environments that have influences on participation and reasons or problems of potential-members who find themselves unable to join cooperatives were included. In support of this, data were collected from 95 members and 35 potential members drawn randomly from the Awabel MPFCU operation area. The primary data were collected using interview schedule. Secondary data were collected to supplement the data obtained from the survey.

The exercise of members the guiding principles of democratic practice and economic involvement is often influenced by several factors. These factors include both socio-economic characteristics and institutional environments of the societies in relation to its members.

These factors influence different member's abilities to exercise their rights and responsibilities with in their primary societies. Nonetheless, this study found the levels of democratic practice is very low, almost 47 % of the members reported that they participated in general assembly

meetings of which only 24.21% attended regularly. Similarly, 53.68 % said that they participated in the discussion of meetings, of which 16.84 % were participated well.

The respondents (57%) were mostly cast their vote during the election to the committee from among the general body.

With regard to patronage, about 44 members or 46.31 % were made significantly more deliveries of their produce to the societies and all member respondents used cooperatives as sole source for input (fertilizer). Concerning members' participation in built up cooperative capital in the form of share purchasing members involvement is at low stage about 5.21% of members participated in purchasing share above the minimum requirements decided by each cooperative's by-law.

Binary logistic regression and Likert scale analysis were applied, fifteen variables hypothesized to explain the levels of member's participation in multipurpose farmers' cooperatives.

The result of the binary logit analysis indicated that two variables at ($P < 0.01$) level, two variables at ($P < 0.05$) and two variables at ($P < 0.10$) were found to be significant to affect the participation level of members in cooperative governance and business activities.

Education was found to have a positive and significant impact on the participation level of members in cooperative governance and business at ($P < 0.01$) level of significance implying that better educated members are more versatile in understanding the advantages of cooperatives and could easily decided to take part actively in governance and doing business in cooperatives.

Members' satisfaction towards the operation and management of cooperatives is another highly significant and positively related variable to affect the active participation of sample members to participate in cooperative business and governance issues. This means that positive attitude

towards how the cooperative management bodies run the operation and their loyalty is an important contribution to involve for participation.

Distance from local market is significant and negatively correlated to the participation of members in cooperatives. The result revealed the fact that as a member's residence is far from the local market relative to the cooperative service center his involvement in cooperatives is increased.

Availability of cultivated land and farm input (fertilizer) utilization in better quantity are the key variables affecting the participation of members actively in cooperatives governance and business activities. The variables are significant at 0.05 percent significance level and positively related with the active involvement in cooperatives, which indicated that availability of cultivable land and input are an essential element to a farmer/ a member wishes to establish and use the services of cooperatives.

Duration of membership in cooperatives is another factor that determines the levels of members' participation. It is significant at 0.1 percent significance level and positively related to levels of participation. As the period of membership of individual members increased it enables to understand the cooperative identities and benefits that again improved member involvement in cooperative governance and participation in utilizing cooperative services.

Evidences from the descriptive analysis indicate that active members have got better education and have exposures to cooperative training, own more oxen, access to more cultivable units of land, relatively produce different categories of crops for the purpose of household consumption and market. Moreover, active members used better amount of farm input and they offered relatively better volume of grain to the market.

Descriptive statistic analysis revealed that the two groups (members and potential members) have significant differences in seven variables. The two significant continuous variables i.e. household size and distance from local market are found to influence farmers to be a member of cooperatives. The more children one has, the higher the probability that a farmer to be a member of MPFCs. This is because of availability of farm labor in addition with other factors enables to utilize cooperative input and out put markets. Moreover, distance to local market, members located far from local market center compared to potential members, which influences to join to cooperatives.

Most member group are elder (middle-aged) than potential members, members owned better oxen and cultivating more farm size, have got access to cooperative training, and utilized better quantity of farm input than potential members.

Problems of potential members to join to multi-purpose farmers' cooperatives are linked with socio-economic characteristics and institutional environment differences. These variations have two dimensions the demand to cooperative services by these farmers particularly for those at young stage not well developed; the need to better life through better farming may initiate them to join to cooperatives. The other dimension is the existing cooperatives or their services were not seen as important for this group of farmers, this might be due to lack of awareness and education.

5.2 Recommendation

Membership finds few incentives to exercise governance rights, on the economic dimension; members use the co-operative services only if they knew it offered good prices and quality products.

- Empowering members to play their governance role through well-programmed cooperative education.
- Making all cooperative services competent through using professionals to run the cooperative business at the primary level and strengthening cooperative structure to achieve economics of scale.
- The usual way and limited types of services of the past two decade remains members participation constant which has to be replaced by member-driven: increasing service centers, increasing purchase and sell of grains in terms of type and duration of services,,, conducting members'-led general assembly meetings.
- More efforts have to be exerted to intensify members/farmers farming through making more accessible farm input technologies and services.
- Members who patronize with cooperatives have to be motivated timely by payment of both patronage fund and dividends.

Members are hardly satisfied with the operation and management of cooperatives that significantly eroded sense of ownership and contributed for poor bondage between members and their organization.

- Members' participation is directly related to their satisfaction therefore, upgrading services in terms of type, quality, amount, price it should be a continuous process.

Cooperatives have to convert inactive to active and potential members to actively participated membership, thus qualified and competent leadership and management must be developed through strengthening all round technical assistance.

6. REFERENCE

- Aldrich, J. and D. Nelson, 1984. Linear Probability, Logit and Probit Model: Quantitative Applications in the Social Science. Sera Miller McCun, Sage Pub.Inc. University of Minisota and Iowa, London. 47p.
- Anwar, 1997, Participation of youth in selected Agriculture and Income earning activities.
- Christina B. & E. Ljusk Ola, 2007, "Journal of cooperatives", Vol. 20, Page 50–63, Councils of Ministry, 2004, "Cooperative Regulation NO.106", Addis Ababa.
- Donald, Frederick, 1989 "Keeping Cooperative Membership Rolls Current", Cooperative Services Division Agricultural Cooperative Service U.S.A.
- FAO, 1991, "Plan of Action for People's Participation in Rural Development", Ed to fao, 26th conference, Rome.
- Frayne, F.theron, et al, (1998), "How do members differ from non members" Extension report No. 40, Department of Agricultural Economics, North Dakota.
- Frayne Olson, et al, 1998, "How do members differ from nonmembers", extension report No. 40, USA
- George matiya, 2005, "A logistic analysis of socio economic factors influencing people to become fisherman", Journal of Applied Science Research 1 (1) 18-23.
- Goreham, g. David W, Frayne, theron, 1998, "Members and their Concern in New Generation Cooperatives", Extension report No. 41.

Geir Gripsrud, Gaute Homb Lenvik, O.V Nina et al., 2000 “Influence Activities in Agricultural Cooperatives” The Impact of Heterogeneity, Center for Research on Cooperatives, Norwegian School of Management.

Hannah S. Carter, D. Rick, 2005, “Factors Which Influence Leadership Participation in Agricultural Organizations” University of Florida.

Helm, F. C. (1968) “the Economics of Co-operative Enterprise. Chapter 3 Agricultural Co-operation”, University of London Press Ltd.

Henry, A & Ellen Goddard, 2005 “Attitudes Towards and Satisfaction with Credit Unions in Alberta. A Regression and Scale Analysis”, Canadian Agricultural Economics Association.

ICA (International Co-operative Alliance) (1996) “Statement on the co-operative identity.” Available from the University of Wisconsin Center for Co-operatives.

Lourdes, (2005), “Role of Cooperatives in Tribal Development”, A Study in Andaman and Nicobar Islands “Dissertation P.G. Development of Cooperation, collage of Arts & Science.

Mario M. 2005”The root of cooperative advantages’, University Berscia.

Perry L., 2002, the road up: free-market reforms fuel growth of Ethiopian’s cooperatives, rural cooperatives, USA.

Proclamation No. 147/1998, “a proclamation to provide for the establishment of cooperative Societies.”

Rajago Palan R., 1996, “Rediscovering Cooperation, Vol, III, Institute of Rural management”, Anand.

Rajesh Agrawal K V Raju, 2002 “Member-funds and cooperative performance” IIMA.

Sanjib, 2007, ”The people factor in Cooperatives: An Analysis of members’ attitude an Behavior”
Canadian Journal of Agriculture, Rutgers University, New Jersey.

Sargent, M. (1982) “Agricultural Co-operation. Gower” Publishing Company Ltd. Hampshire,
England.

S.k.Branka, 2002, “The Concept and Classifications of Agricultural Co-operatives”, ACCORD
Paper No. 8, Charles Sturt University, Bathurst.

Subburaj, “Empowerment through Cooperatives” (a research monograph), Gandhigran, Rural
Institute, Deemed University, Tamil Nadu, India

Surender G.,2000, “Participatory Group Approach for Sustainable Development of Agriculture”
in Kerala, thesis , PhD in Agriculture, College of Agriculture, Vellayani, India.

Tanguy Bernard, Abera Birhanu and Eleni Gabre-Madhin, 2006, ”LinkingEthiopian
Smallholders to Markets” EDRI & IFPRI.

Thomas W. Gray & Charles A. Kraenzle, 1998, “Member Participation in Agricultural
Cooperatives: A Regression& Scale analysis”, Research Report 165, rural development, USA.

Veerankumaran G, (2005), “Role of cooperation in promoting democratic culture in the Tigray
Region”, Mekelle University.

7. APPEDICES

7.1 Contingency Coefficient of discrete variables in binary logit

	edu	age	cultarea	oxhol	crotyp	selvol	crvol	inquit	durmem	cooptrain	shold	memsat
edu	1											
age	0.198	1										
cultarea	0.184	0.203	1									
oxhol	0.234	0.111	0.203	1								
crotyp	0.218	0.140	0.393	0.368	1							
selvol	0.290	0.204	0.525	0.507	0.424	1						
crvol	0.335	0.122	0.434	0.389	0.307	0.434	1					
inquit	0.250	0.269	0.441	0.498	0.352	0.505	0.466	1				
durmem	0.057	0.405	0.239	0.170	0.267	0.227	0.290	0.352	1			
cooptrain	0.280	0.136	0.113	0.328	0.242	0.227	0.161	0.197	0.191	1		
shold	0.163	0.024	0.135	0.152	0.122	0.227	0.123	0.144	0.102	0.135	1	
memsat	0.207	0.184	0.405	0.202	0.229	0.216	0.105	0.146	0.094	0.445	0.112	1

Source: computed from survey data

7.2 The variance Inflation Factor for continuous explanatory variables

Continuous variables	R ²	VIF
Famsiz	0.015	1.015
Discof	0.038	1.039
Dismak	0.045	1.047

Source: computed from survey data

7.3 Survey Interview Schedule



Mekelle University
School of Graduate Studies
Faculty of Dryland Agriculture and Natural Resource
Department of Cooperatives

“Members’ Participation in the Awabel Multi-Purpose Farmers Cooperatives Union and its Affiliates, Amhara Region, Ethiopia”

The objectives of this study is to assess members democratic governance and economic participation in primary cooperatives affiliated to Awabel Farmers’ Cooperatives union.

Date.....
001 (Members)

1. General Information

- 1.1 Address: Name of respondent kebele.....
Name of Multi-Purpose Coop. in the area.....
Distance of respondent’s residence to coop. Office.....walking hours /km
Distance of respondent’s residence to local market.....walking hours /km
Distance of respondent’s residence to district town.....walking hours /km
- 1.2 Sex: A. Male B. Female
- 1.3 Age: A. young (14.-29) b. middle (30-55) C. old (above 55)
- 1.4 Education: A. Illiterate B. read & write C. primary cycle (up to grade 4) D. Above primary cycle
- 1.5 Family size in No. Male..... Female Total Dependent.....
- 1.6. Religion

2. Economic Features (farm characteristics):

- 2.1 Occupation (main income sources):A. Crop B. Livestock C. Mixed farming
- 2.2 Off farm income: A. Hand craft B. Small business C. other specify.....
- 2.3 Farm operational holdings:
- 2.3.1 land holdings (hectares): A. up to 0.5 B. 0.6 to 1 C. above one up to two
D. above two
- 2.3.2 Average land cultivation per annum (hectares): A. up to one B. above one up two
C. above two

2.3.3 Farm oxen holding: A. none B. one C 2 D. above two specify

Main crops grown:

2.4.1 Crop specialization A. Cereals B. Cereals & pulses C. Cereals, Pulses & oil seeds

2.4.2 Sales volume A. Up to 5 Qts. B. 6 to 10 Qts C. above 10 Qts. Specify.....

2.4.3 To whom you are mainly selling the produce: A. Private trader B. Village assembler C. Cooperative

2.4.4 Reasons for selling to market actor that you indicated under, 2.4.3
A. better market price B. Nearness C. better market service D. other specify

2.4.5 Would you purchase grain for consumption? A. Yes B. No

2.4.6 If the answer is yes for question 2.4.5, where do you buy additional grain?
A. Cooperative B. Private trader C. Village assembler

2.4.7 What are the main reasons for buying to market actor that you indicated under 2.4.6? A. better market price B. Nearness C. better market service D. other specify

2.5 Average gross annual income of the household from main occupation ETB: A. low (less than 4500) B. 4501 up to 6000 C. above 6000

2. Farm input and Credit services

3.1 Do you use farm input (fertilizer & seed)? A. Yes B. No

3.2 Do you use farm input credit service? A. Yes B. No

3.3 Sources of borrowing: A. Cooperative B. Private trader C. relatives/ friends

3.4 Sources of farm input: A. Cooperative B. Private company C. others specify.....

3.5 Reasons for selecting the above sources of input; A. better market price B. Nearness C. better market service D. other specify

3.6 Amount of borrowing for farm input (fertilizer & input) utilization: A. up to ETB 500 B. 501 up to 1000 C. 1001 up to 1500 D. above 1501

3.7 Amount of farm input (fertilizer) utilization (kilogram): A. up to 50 B. above 50 up to 100 C. above 100 up to 150 D. above 150

4. Organizational Environment

- 4.1 Are you a member of MPFCS? A. Yes B. No (if your answer is yes answer the questions 4.1.1 to 4.1.4, if not skip to 4.2 and 4.3)
- 4.1.1 Mode of membership: A. through reorganization of past service cooperatives.
B. Founder of newly established cooperative C. Lately joined member
- 4.1.2 Mode of knowing society: A. development agents B. Friends/relatives C. Self initiatives
- 4.1.3 Duration of membership: A. up to 5 years B. 6 to 10 years C. above 10 years
- 4.1.4 Reasons for membership: A. Easy access & fair price of inputs B. East access & better out put price C. East access & fair price of consumer goods D Beliefs in cooperative principles
- 4.2 Have you obtained cooperative education and training? A. Yes B. No (If yes indicate titles and duration ...)

5. Participation related

- 5.1 Have you participated in general assembly meetings (2005 – 2007)? A. Yes B. No
- 5.2 Have utilized (2005 – 2007) input and out put service of cooperatives? A. Yes B. No
- 5.3 Have you purchased additional share above the minimum requirements set by the cooperative? A. Yes B. No
- 5.4 Participation rate in general assembly meetings. A. Regularly B. Occasionally C. Not participating.
- 5.5 Your involvement rate in discussion of general assembly meetings. A. Actively participated B. Occasionally forward ideas C. Chances are less to forward ideas D. Not voluntary
- 5.6 Reasons for not participating in general assembly meetings: A. Time of general assembly meeting not announced well. B. Personal problem C. Not interested D. No reason
- 5.7 Participation in election and casting voting:
- 5.7.1 Have you elected for management body position? A. Yes B. No

- 5.7.2 Extent of participation in election process: A. contested in election B. Caste voting C. Not participating
- 5.8 Participating in building capital of cooperative through share purchasing:
 A. Fulfilled only minimum requirements set by the society.
 B. Purchase..... amount of additional share.
- 5.9 Have you received participation patronage? A. Yes B. No
- 5.9.1 Utilizations of patronage fund; A. Reinvest in cooperative as deposit
 B. Reinvest in cooperative as extra share holding. C. used for personal purpose

6. Members Beliefs

6.2 Members' beliefs in cooperative principles

Belief	Respondents view					Total	weighted score
	Strongly Disagree	Disagree	Unsure	Agree	Strongly agree		
Multi-purpose farmers' cooperatives (MPFCs) should accept any farmer who wants to join.							
MPFCs should practice one member one vote.							
Members should receive patronage dividend in proportion to patronage.							
MPFCs should support education of members and the public.							
Every farmer need to have a choice of place to sell & purchase other than cooperatives.							
Cooperatives should work with other cooperatives to strengthening their services.							

6.2 Members' beliefs in collective action.

Belief	Respondents view						Total score weighted
	Strongly disagree	Disagree	Unsure	Agree agree	Strongly agree	Total	
The basic problem in agriculture today is that too many farmers needs to go individual ways than working together.							
An individual farmer can make usually better marketing decisions than organized farmers.							
Members receive benefits from doing business with cooperatives than non-members.							
Farmers can served in better ways in farm input supply and credit service by others than cooperatives							

6.3 Members' identification with cooperatives.

Belief	Respondents view						Total
	Strongly disagree	Disagree	Unsure	Agree	Strongly agree	Total	
I feel I am owner, user & controller of my organization.							
A farmer life & success is directly related to the degree of strength of the cooperative.							
The cooperative to the farmer is just like other business.							
The cooperative is my agent in the market place.							
Cooperatives increase farmer Productivity and income. Cooperatives increases market access.							

6.4 Members' satisfaction with their cooperative services

Items	Respondents view					Total
	Strongly dissatisfied	Dissatisfied	Unsure	Satisfied	Strongly satisfied	
1. Farm input credit service						
• Rate of down payment						
• Amount of credit						
• Types of farm input credit						
• Duration of credit						
• Cost of credit						
• Repayment period and Conditions						
2. Farm input supply						
• Timeliness						
• Supply in types						
• Supply at the right place						
• Price reasonability						
• well-organized						
3. Output marketing						
• Correctness of weight measures						
• Better price						
• Efficient market service						
• Place of purchasing						
• Type of grains purchased by the cooperatives.						
• Market information service						
4. Other services						
• Service charge						
• Service quality						
• Conduciveness of service place						
5. General cooperative operation and management.						

6.5 Members' beliefs on equity issues.

Belief	Respondents view						Total	weighted score
	Strongly disagree	Disagree	Unsure	Agree	Strongly agree			
The cooperative primarily benefits those who have better income farmers.								
The cooperatives primarily benefit those who have small income farmers.								
The cooperative primarily benefits those who are living near to the cooperative office.								
The cooperative mainly benefits those who grow the main crop (teff) of the area.								
The management body represents fairly the operation area of the cooperative.								
The management body: Elected on general meetings Have better capacity among others. Sense responsibilities and honesty.								

6.6 Members influence

Belief	Respondents view						Total
	Strongly disagree	Disagree	Unsure	Agree	Strongly agree		
Members have a great amount of influence on how the coop. is run.							
Have too much say about how the coop. is run.							
Satisfied with the amount of influence I have on how the coop. is run.							

Survey Interview Schedule

(Potential Members)

Date.....
002

1. General Information

1.2 Address: Name of respondent kebele.....
Name of Multi-Purpose Coop. in the area.....
Distance of respondent's residence to coop. Office.....walking hours /km
Distance of respondent's residence to local market.....walking hours /km
Distance of respondent's residence to district town.....walking hours /km

1.2 Sex: A. Male B. Female

1.3 Age: A. young (14.-29) b. middle (30-55) C. old (above 55)

1.4 Education: A. Illiterate B. read & write C. primary cycle (up to grade 4) D. Above primary cycle

1.5 Family size in No. Male..... Female Total Dependent.....

1.6 Religion

2. Economic Features (farm characteristics):

2.1 Occupation (main income sources):A. Crop B. Livestock C. Mixed farming

2.2 Off farm income: A. Hand craft B. Small business C. other specify.....

2.3 Farm operational holdings:

2.3.1 land holdings (hectares): A. up to 0.5 B. 0.6 to 1 C. above one up to two
D. above two

2.3.2 Average land cultivation per annum (hectares): A. up to one B. above one up two
C. above two

2.3.3 Farm oxen holding: A. none B. one C 2 D. above two specify

2.4 Main crops grown:

2.4.1 Crop specialization A. Cereals B. Cereals & pulses C. Cereals, Pulses & oil seeds

2.4.2 Sales volume A. Up to 5 Qts. B. 6 to 10 Qts C. above 10 Qts. Specify.....

2.4.3 To whom you are mainly selling the produce: A. Private trader B. Village assembler C. Cooperative

2.4.4 Reasons for selling to market actor that you indicated under, 2.4.3

A. better market price B. Nearness C. better market service D. other specify
.....

2.4.5 Would you purchase grain for consumption? A. Yes B. No

2.4.6 If the answer is yes for question 2.4.5, where do you buy additional grain?
A. Cooperative B. Private trader C. Village assembler

2.4.7 What are the main reasons for buying to market actor that you indicated under
2.4.6? A. better market price B. Nearness C. better market service D. other
specify

2.5 Average gross annual income of the household from main occupation ETB: A. low
(less than 4500) B. 4501 up to 6000 C. above 6000

3. Farm input and Credit services

3.1 Do you use farm input (fertilizer & seed)? A. Yes B. No

3.2 Do you use farm input credit service? A. Yes B. No

3.3 Sources of borrowing: A. Cooperative B. Private trader C. relatives/ friends

3.4 Sources of farm input: A. Cooperative B. Private company C. others specify.....

3.5 Reasons for selecting the above sources of input; A. better market price B. Nearness
C. better market service D. other specify

3.6 Amount of borrowing for farm input (fertilizer & input) utilization: A. up to ETB 500
B. 501 up to 1000 C. 1001 up to 1500 D. above 1501

3.7 Amount of farm input (fertilizer) utilization (kilogram): A. up to 50 B. above 50 up
100 C. above 100 up to 150 D. above 150

3.8 Could you have got easily and at reasonable price farm input in your
area without being a member of cooperatives? A. Yes B. No

3.9 Could you have sold easily and at better price your produce in your
area without being a member of cooperatives? A. Yes B. No

4.0 Could you have got easily and at reasonable price consumer goods in your
area without being a member of cooperatives? A. Yes B. No

5. Could you tell us the reasons not yet a member of multi-purpose farmers cooperative?

- A. The existing cooperative is not accessible.
- B. No difference being a member or not.

- C. Unable to afford membership costs.
- D. Other reasons specify.....

6. Have you obtained cooperative education and training? A. Yes B. No (If yes indicate titles and duration ...)

7. What conditions have to be fulfilled you to be a member of the existing cooperatives?

- A. Increase accessibility and improve benefits of MPFC.
- B. More cooperative extension service is needed.
- C. Reduce membership costs.
- D. Other specify.....

7.3 Focus Group Discussion Checklist

I. General Assembly Meeting:

- How agendas for general assembly meeting formulated
- What are the means used by the organization to announce date of meeting prior to conducting.
- Is there any pre-condition that has to be fulfilled to conduct the meeting
- How the general assembly passes decisions?
- Is there any motivation used members to participate actively in the meeting.
- Does the organization evaluate the performance of committee members?

II. Service rendering System

- Is the cooperative produce the annual business plan with members' participation on time?
- How do you check the plan address members needs and problems?
- How is the duration of a single service determined?
- Have you thought about opening additional service centers?
- Is there any organizational objective in providing services to potential members?

III. Practice of building cooperative capital

- Have you practice issuing and declaring new share
- What are the motives used members to participate in share purchasing.

IV. Issues related to potential members

- Is there effort to attract potential members to membership?
- What are the problems that you thought farmers in your area not yet joined these cooperatives?
- Do you have faced problems /advantages in providing services to potential members?