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Members' Commitment To Agricultural Cooperatives and Its Determinants in the Gamo Zone, South Ethiopia Region

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Members' Commitment to Agricultural Cooperatives and its Determinants in the Gamo Zone, South Ethiopia Region

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Abstract

Collective actions like agricultural cooperatives are among the institutional arrangements to address market failures and related consequences in the agricultural and rural development domain. Recent works focus on considering dimensions of cooperatives beyond organizing collective groups to benefit smallholder farmers. Commitment of members to their cooperatives has received recent attention due to its paramount importance for the sustainability of cooperative organizations. This study investigated the level of member commitment and its associated determinants to highlight areas for future interventions by cooperative management, rural development policymakers and other development organizations. The study was based on quantitative data collected from cooperative members in the Gamo Zone, South Ethiopia, through household survey interviews. Descriptive statistics, factor analysis and ordered logit models were used to analyze collected data. The majority of respondents reported a low to moderate level of commitment. The econometric model result shows that distance to the cooperative office, contact with cooperative agents, dividend distribution, perception of the influence of other members' decisions, co-operative leadership experience, and perceived trust in their leaders significantly affect members' level of commitment to their co-operative. Recruiting cooperative extension workers, audit experts, and supervisors are important areas that government offices can address to make cooperatives more viable for their members. Cooperative organizations should also work for regular auditing followed by dividend distribution to help their members stay engaged with their organizations. To create greater trust, the paper argues that cooperative leaders should strengthen member participation in decision making, including holding regular general assembly meetings and producing of work plans and reporting systems.

Keywords: Member commitment, agricultural cooperatives, ordered logit, South Ethiopia

L'engagement des membres envers les coopératives agricoles et ses déterminants dans la zone de Gamo, région du sud de l'Éthiopie

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Résumé

Les actions collectives comme les coopératives agricoles figurent parmi les dispositifs institutionnels permettant de remédier aux défaillances du marché et à leurs conséquences dans le domaine du développement agricole et rural. Des travaux récents s'intéressent aux dimensions des coopératives au-delà de la simple organisation de groupes collectifs au profit des petits exploitants agricoles. L'engagement des membres envers leurs coopératives a récemment fait l'objet d'une attention particulière en raison de son importance capitale pour la pérennité des organisations coopératives. Cette étude a examiné le niveau d'engagement des membres et ses déterminants afin de mettre en évidence les pistes d'intervention futures pour la direction des coopératives, les décideurs politiques en matière de développement rural et d'autres organisations de développement. L'étude s'appuie sur des données quantitatives recueillies auprès de membres de coopératives de la zone de Gamo, dans le sud de l'Éthiopie, au moyen d'entretiens menés auprès des ménages. Des statistiques descriptives, une analyse factorielle et des modèles logit ordonnés ont été utilisés pour analyser les données recueillies. La majorité des répondants ont déclaré un niveau d'engagement faible à modéré. Les résultats du modèle économétrique montrent que la distance par rapport au bureau de la coopérative, les contacts avec les agents coopératifs, la distribution des dividendes, la perception de l'influence des décisions des autres membres, l'expérience de la direction coopérative et la confiance perçue envers les dirigeants influencent de manière significative le niveau d'engagement des membres envers leur coopérative. Le recrutement d'agents de vulgarisation agricole, d'experts en audit et de superviseurs est un domaine important sur lequel les services gouvernementaux peuvent agir pour rendre les coopératives plus viables pour leurs membres. Les organisations coopératives devraient également mettre en place des vérifications régulières, suivies d'une distribution de dividendes, afin de maintenir l'engagement de leurs membres. Pour instaurer une plus grande confiance, cet article préconise que les dirigeants coopératifs renforcent la participation des membres à la prise de décision, notamment en organisant des assemblées générales régulières et en élaborant des plans de travail et des systèmes de reporting.

Mots-clés : engagement des membres, coopératives agricoles, modèle logit ordonné, sud de l'Éthiopie

1.0 Introduction

Enhancing smallholders' access to domestic and international markets improves farm productivity, motivates farmers to quality production, and enables farmers to get better prices (Ma et al., 2024). Collective actions, like agricultural cooperatives, are among institutional arrangements that are widely recognized for improving the market access of smallholders in developing countries (Bernard et al., 2008; Ababayehu & Monirul 2024). In Ethiopia, agricultural cooperatives also play a significant role in smallholder agriculture by increasing production, productivity, and overall livelihood improvements (Kodama, 2007; Gebremichael, 2014; Meja & Geta, 2017; Mojo et al., 2017; Musa & Hiwot, 2017; Etenesh, 2018). Ethiopia has a long history of establishing and supporting cooperatives in rural areas to enhance agricultural output and the services offered to smallholder households. Haile Selassie's regime designated the importance of cooperative societies in Ethiopia and laid down a significant basis (Michael, 2020). The performance of agricultural cooperatives during this period was poor due to factors related to high government interference, a lack of trained manpower, poor training and education of members, land shortages, and insufficient capital provision for cooperative activities (Michael, 2020). The military government in 1978 issued Proclamation No. 138/1978 with the intention of using cooperative societies as an instrument to build a socialist economy. The cooperative societies' operation at that time was fully politically motivated with establishing many cooperatives and making all peasants members, which immediately declined and many of these disappeared after the downfall of the Derg regime (Dagne et al., 2018). The proclamations in this period were also not successful due to poor proclamation, poor implementation and heavy government interference (Michael, 2020).

After the Ethiopian People's Revolutionary Democratic Front took power (EPRDF), it tried to unify all cooperative societies under one roof and Proclamation No. 147/1998 was also declared in 1998 (Dagne et al., 2018). Later in 2004, Proclamation No. 402/2004 was also declared to encourage the development of cooperatives in the country. During this period, due to poor results of cooperatives during the Derg regime, with losses of assets and cash, the number of cooperatives declined from 10524 to 7366. Agricultural cooperatives in Ethiopia are responsible for multiple services, including agricultural input delivery, credit, output marketing, the provision of consumer goods, and other market-related services (Eshetie & Sisay, 2018). In the history of cooperatives in Ethiopia, transparency (corruption) and members' participation in cooperative activities are major issues that need further work.

Given that agrarian cooperatives deal with issues of commitment and competition, which are critical to their sustainability, recent literature has expressed serious concerns about members' involvement in cooperative activities and the use of services (Gelo et al., 2019). Due to a variety of factors, members engage in cooperative activities and utilize cooperative services at varying levels after joining (Wassie et al., 2019; Donkor & Hejkrlik, 2021; Awoke, 2021; Hiskeal et al., 2022). Others also emphasized how crucial member commitment is to cooperative performance and success (Fischer & Qaim, 2012; Ostrom, 2014; Meja & Geta, 2017; Bizualem & Saron, 2018; Dendup & Aditto, 2020; Sebhatu et al., 2021).

These authors argue that cooperative sustainability (continued service delivery) depends on members' commitment to the cooperative and cooperative satisfaction in providing their members with the services they need. Members become more committed to their organization when they are pleased with the services provided by agricultural cooperatives, and the benefits of joining a collective, including a reduction in the cost of accessing inputs for agriculture,

the cost of marketing output (grains), access to credit sources, and financial incentives like dividend distribution and credit are substantial. However, research on cooperatives in Ethiopia has not given much focus to member commitment. In Ethiopia, the government's effort to reach more households with cooperative organizations over the last two decades has yielded successful outcomes (Bolton, 2019). However, the success of cooperatives in Ethiopia is entangled by multidimensional problems owing to organizational, government support and members dimensions (Bernard & Taffesse, 2012; Gelo et al., 2019).

Therefore, it is imperative to research factors contributing to members' commitment to agricultural cooperatives from a members' perspective. Previous studies investigated members' commitment to their cooperatives at different levels. The first level commitment is when households become members of the cooperative while the second level commitment is on the depth of business done by members with their cooperatives and the third level commitment is about members' participation in group decision making (Wassie et al., 2020). Many studies have been conducted on first-level commitment, and there are few on second- and third-level commitment in the Ethiopian context (Awoke, 2021; Hiskeal et al., 2022; Wassie et al., 2020).

In the study area, agricultural cooperatives have been promoted for a long time since the Derg regime (military regime). The major issue in the empirical literature on the sustainability of agricultural cooperatives in Ethiopia is largely related to member commitment (Meja & Geta, 2017; Bizualem & Saron, 2018; Dendup & Aditto, 2020; Sebhatu et al., 2021). However, few studies have been conducted on member commitment in the South Ethiopia region (Hiskeal et al., 2022). Moreover, to the best of the authors' knowledge, there is no previous empirical study conducted on members' commitment in the Gamo Zone (study area). Hence, this study investigated the levels and determinants of members' commitment to agricultural cooperatives in the Gamo Zone, South Ethiopia region. It contributes to the existing literature on member commitment in three ways. First, it investigated drivers of commitment. Second, commitment is approached through measuring it by using Likert statements of commitment items, which are believed to reflect affective, continuance and normative commitments. Third, this study employed an ordered logit model analysis rather than using Tobit model to identify determinants of levels of commitment. The study results have potential to designate areas to improve members' commitment to agricultural cooperatives to enhance the performance and sustainability of agricultural cooperatives in the study area. Furthermore, the study results might have some policy implications and intervention areas for cooperatives in other similar contexts.

2.0 Scholarly Context

2.1 Definition of Basic Terms and Concepts

2.1.1. Cooperatives: The International Cooperative Alliance (ICA) in 1995 revised the definition of cooperatives as “a cooperatives is an autonomous association of persons united voluntarily to meet their economic, social and cultural needs and aspirations through jointly owned and democratically controlled enterprise” (International Co-operative Alliance, 2015, p. 2). The organization and formation of cooperatives are based on the mutual interests of people joining together to achieve common needs and goals by producing together and facilitating the provision of goods and services, with clearly set values and principles (Meja & Geta, 2017). According to ICA (2015), cooperatives have a defined governing organizational skeleton where members

are called general assembly as the top body, with the executive committee undertaking decision-making of cooperatives through employed workers under them. There is also a control committee reporting to the general assembly supervising every aspect of the cooperative activity with defined responsibilities by byelaw.

2.1.2. Agricultural cooperatives: Agricultural cooperatives are considered a classical form of coordination of different and independent farmers to protect them and deliver various services (Szabó, 2005). Agricultural cooperatives play a crucial role in the provision of agricultural inputs that can enhance production and productivity in rural areas. Agricultural inputs provided by cooperatives include improved seeds, fertilizer, agrochemicals and other technologies. For this and other social roles, cooperatives are considered economic and social organizations (Aref, 2011; Abate et al., 2014), which are in line with the ICA cooperative principles of 1995: member economic participation and concern for the community. Farmers'/agricultural cooperatives aspire to improve the livelihoods of their members and the whole community through the liaising role of market information, accessing financial services, input and output markets, and through providing storage and transport services (Michael, 2020). According to Cameron et al. (2020), agricultural cooperatives achieve their goals through collective marketing of output of members and boost economies of scale advantage. In this study, agricultural cooperatives are multipurpose primary cooperatives.

2.2.3 Commitment to the cooperative: Fulton (1999, p. 423) defined commitment to the cooperative as “the preference of co-op members to patronize a co-op even when the co-op’s price or service is not as good as that provided by an investor-oriented firm (IOF).” It is about members’ intensive participation in cooperative activities and loyalty to use cooperative services (Donkor & Hejkrlik, 2021). Members’ commitment to their cooperative refers to the level of members’ desire to remain in the cooperatives, their decision to continue with their organization, and their level of social obligation.

2.2 Theoretical Framework

Institutional economics theory of collective action and sociological and anthropological theories of collective action are the two main categories of theories concerning collective action. Institutional economists focus on how collectives find solutions for social dilemmas in which collective action generates more benefit for the collective than acting individually. It focuses on factors that influence actors’ capacity to cooperate, and this cooperation creates institutions called “rule in use.” This theory is founded on methodological individualism, where the centre of explanation of social phenomena is grounded in the interests and behaviour of individuals (Arrow, 1994).

Sociological and anthropological theory of collective action considers societal-level interactions, the heterogeneity of social members and factors exogenous to the community (Faysse & Mustapha, 2017). Collective action theory and collectivism are also explained by three dominant schools of thought. These schools of thought are: traditional collective action theory or Olson’s theory, resource mobilization or social movement, and social psychological theory (Etenesh, 2018; Faysse & Mustapha, 2017).

Traditional theory of collective action is known by two prominent theories: rational choice and zero contribution theories where Olson (1965) in his work *The logic of collective action: public goods and the theory of groups* coined that

in collective groups, when the group size is becoming large, the rational individual will want to maximize his/her benefit without contribution to collective action which results in problem of ‘free riders’ unless there is successful institutional norms of the group or else unless externally enforced coercion mechanisms to control opportunistic behaviour of individuals (Goldthorpe, 1967). Rational decision theory addresses the individual’s decision-making behaviour where in analysing all possible options to make optimal decision.

2.2.1 Social-Psychological Theory of Collective Action: This theory was developed due to criticism and limitations of Olson’s theory and resource mobilization theories to account for social and cultural aspects in collective actions (Polletta & Jasper, 2001). Group consciousness mediates the relationships between individual difference variables (personality psychology) and provides constraints for participation in collective action (Duncan, 2018). Group consciousness is considered an overarching variable in social psychology, in which the group understands and critically analyzes its social position, social identification, common fate and collective orientation to address power imbalances. Empirical evidence on cooperatives also shows that social psychology-related factors (trust, acceptance, perception about others’ commitment and reciprocity) are among the determinants of the success of cooperatives and commitment of members to the cooperatives.

2.2.2 Theory of Reasoned Action and Planned Behaviour: The psychologists Fishbein and Ajzen (1975) developed the reasoned action theory, a cognitive theory, to better understand human behaviour in specific contexts. It was initially designed as an extension of the information integration theory. Beliefs, attitudes, and intentions comprise the three primary components of this theory. Two additional components were added to the concept of reasoned action in 1975 by Fishbein and Ajzen: attitude and other people’s expectations (Ajzen, 1991). With the addition of two elements, intention and perceived behavioural control, the reasoned action theory is essentially carried out through the theory of planned behaviour (Ajzen, 1991). After Fishbein and Ajzen’s (1975), other scientists grouped and explained the background factors that affect the behavioural, normative and control beliefs that lead to attitude, subjective norms, and perceived behavioural control, respectively. These external factors include personal factors (traits, locus of control, emotions, and health concerns), demographic factors (age, gender, race, ethnicity, education, income, and religion) and environmental factors (diagnosis, stress, and media exposure).

In their study on cooperatives in Zambia, Donkor and Hejkrlik (2021) found that member commitment is highly influenced by factors such as educational attainment, proximity to the cooperative, members’ perceptions of acceptance and trust, and investment value. In a study conducted in Ethiopia, Awoke (2021) reported that financial performance (price, dividends, services, and operational success) significantly affects the loyalty of members to the cooperatives. In addition, he reported that psychological factors (trust and ideology), satisfaction in cooperative services, and distance to the market centre also positively affect loyalty. According to the same report, identification with the cooperative is affected by trust and ideology, satisfaction, experience in governance of cooperatives, and the distance of the farm from the main market, whereas social factors were reported to be negatively and significantly related to identification. Participation in cooperatives is reported to be affected by trust and ideology, gender, social status and past experience of governing cooperatives.

Wassie et al. (2020) reported factors affecting the level of commitment to the cooperatives at the first level (participation decision), second level (quantity decision), and third level (decision-making). Education level, social network, road distance, distance to the market, regular market and farm size were reported to affect first-level commitment significantly. They also reported that road distance, distance to the district and market, regular market and specialization significantly affect the second level (quantity decision). While education level, age, and social network of the household head, distance to the district, and member perception significantly affect the third level (commitment to the cooperatives). The determinant factors that affect the level of membership participation in the Wolaita Zone of Southern Ethiopia are, according to Hiskeal et al. (2022), education level, family size, total annual income, shareholding amount, access to savings and credit, distance from the cooperative service centre, availability and use of agricultural inputs, services provided, perceived obstacles that deter membership, and perceived member satisfaction with cooperative.

This study is therefore based on the theory of reasoned action and planned behaviour, in which variables expected to affect members' level of commitment to their cooperatives were identified based on the theory's grouping of key external factors into personal, demographic, and environmental factors. Members' dedication to agricultural cooperatives is anticipated to be highly connected in this study with members' attitudes, subjective norms, and perceived behavioural control, all of which influence members' intentions and, ultimately, their behaviour (being committed to their cooperatives). They are more elaborated in the upcoming section.

2.3 Background of Agricultural Cooperatives in Ethiopia

The development of modern cooperatives in Ethiopia began during the Imperial Regime, just after Proclamation number 44/1960—*Farm Workers Cooperatives Decree*—which encouraged the emergence of agricultural/farmers' cooperatives. Real mutual aid and self-help cooperatives were to be encouraged by Cooperative Society Proclamation No. 241/1966. This period, with its own limitations, designated the importance of cooperative societies in Ethiopia and laid down a significant basis for cooperative development in Ethiopia.

After the military Derg regime took power, peasant groups were granted legal status by Proclamation No. 71/1975, which created conditions for the emergence of marketing and credit cooperatives by peasant associations. The military government in 1978 issued Proclamation No. 138/1978 with the intention of using cooperative societies as an instrument to build socialism. The cooperative societies at that time reached 10,524 with 4,529,259 members, which drastically declined after the collapse of the Derg regime in 1991 (Veerakumaran, 2007; Kodama, 2007; Muluken, 2016; Mojo et al., 2018).

The successor regime, the Ethiopian People's Revolutionary Democratic Front (EPRDF), sought to unify all cooperative societies with Proclamation No. 147/1998 in 1998 (Veerakumaran, 2007; Kodama, 2007; Muluken, 2016; Mojo et al., 2018). Later in 2004, Proclamation number 402/2004 was also declared to encourage the development of cooperatives in the country. During this period, due to poor results of agricultural producer cooperatives during the Derg regime, resulting in losses of assets and cash, the number of agricultural cooperatives declined from 10,524 to 7,366. In 1995, the government fully welcomed the new cooperative principles adopted by ICA. The adoption of these cooperative principles and cooperative legislation encouraged a new phase of cooperative development in Ethiopia. During EPRDF regime, besides agricultural

cooperatives, other forms of cooperatives, including savings and credit, housing, marketing, consumer, and others, were established throughout the country.

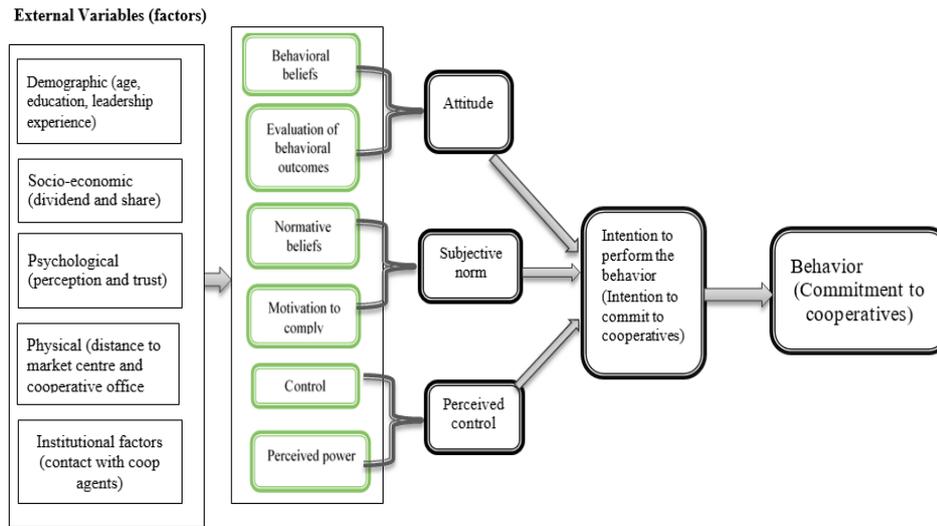
In Ethiopia, a country where a centralized system is common, cooperative organizations are externally induced, and it is negligible that farmers can self-select to cooperatives (Bernard et al., 2008; Francesconi & Heerink, 2010). In 2005, the coverage of cooperative organizations in Ethiopia was 35% of Kebeles, and only 10% of the households in the country were members. The same report revealed that member-initiated cooperatives were only 26%, while other cooperatives were externally induced (Bernard et al., 2008). There were 92,755 primary cooperatives with individual membership. Over 1,495,391 people in the country now have job opportunities thanks to the sector, which has 21,043,370 members (6,743,429 female and 14,299,941 male), 388 cooperative unions (secondary tier) with members of 15, 813 primary cooperatives, and three cooperative federations (tertiary tier) with 146 members and a total capital of 22.9 billion Ethiopian Birr (ICA-Africa, 2021).

In Ethiopia, since the military (Derg) regime, agricultural cooperatives have been an integral part of national agricultural development strategies for their indispensable contribution for agricultural growth (Abate et al., 2014). Following the political transition in 1991, an effort to promote and organize agricultural cooperatives in at least one in every Kebele resulted in a 10% to 35% increase in 2005 at the national level, though there was disparity across regions (Bernard et al., 2008). In both Ethiopia's Growth and Transformation plans, agricultural cooperatives take central role in enabling farmers to access input and output markets. Due to a strong need from the government side, the agricultural cooperative sector development strategy for 2012–2016 was designed and implemented (Abate et al., 2014). Agricultural cooperatives in Ethiopia, mainly multipurpose primary cooperatives (which are the focus of this study) are responsible for multiple services, including agricultural input delivery, credit, output marketing, provision of consumer goods and other market-related services. The focus of this study was agricultural cooperatives specifically called multipurpose primary cooperatives, which are engaged in the supply of agricultural inputs and marketing of outputs.

3.0 Conceptual Framework of the Study

The conceptual framework for this study was based on the Theory of Reasoned Action and Planned Behaviour by adapting it to the study area context and study objectives. This conceptual framework borrowed a theoretical framework from Fishbein and Ajzen (1975) and is based on empirical findings mainly from Ethiopia, including Awoke (2021); Wassie et al. (2020); and Hiskeal et al. (2022). According to Fishbein and Ajzen (1975), members' commitment to agricultural cooperatives is affected by personal factors (traits, locus of control, emotions and health concerns), demographic factors (age, gender, race, ethnicity, education, income and religion) and environmental factors (diagnosis, stress, and media exposure). We modified the theoretical framework for our study area context based on empirical findings. An intention of members to perform the behaviour is a function of attitude, subjective norm, and perceived control. All these are influenced by external variables, including demographic factors (age, education and leadership experience), socio-economic factors (dividend and share amount), psychological factors (perception and trust), physical factors (distance to market center and cooperative offices) and institutional factors (contact with cooperative extension agents). Based on this theoretical framework and the empirical studies we reviewed, the conceptual framework of the study is sketched as shown in Figure 1.

Figure 1: Conceptual framework of the study.



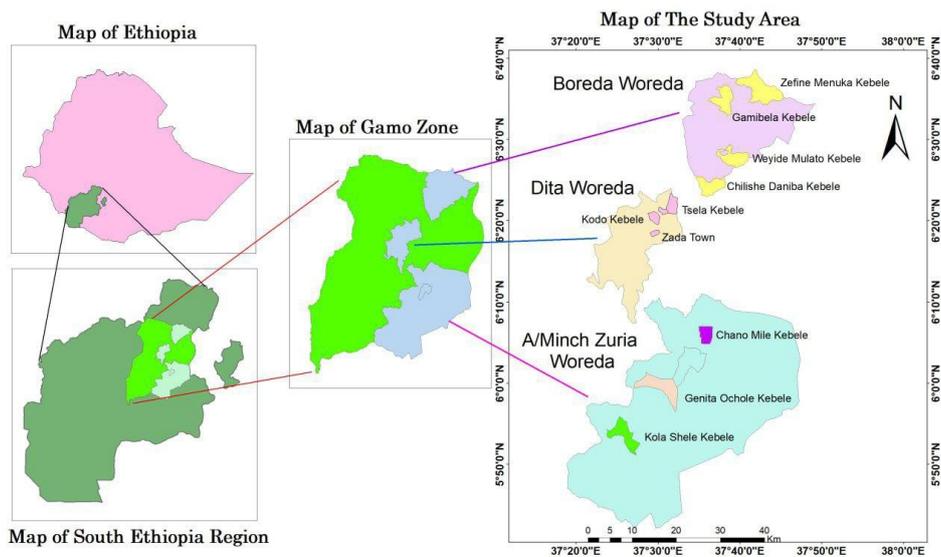
Source: Adapted from Fishbein and Ajzen (1975).

4.0 Research Methodology

4.1 Description of Study Area

Gamo Zone is a zone in the South Ethiopia Region (see Figure 2) with an astronomical coordinate of roughly 50.57 - 60.71"N latitude and 360.37-370.98" E longitude (Gamo Zone Department of Planning Department, 2023). According to the 2007 National Population and Housing Census, the Zone's total population in 2022 was 1,775,403 (883,207 males and 892,197 females), with a 2.9 annual growth rate. More than 85% of the zone's population depends on agriculture for a living (Central Statistical Agency, 2024).

Figure 1: Location map of Gamo Zone.



Source: Authors.

According to an unpublished report from the Gamo Zone Cooperative Development Office (2022), there were 358 primary cooperatives in 2020. The report states that the zone has 106 primary multipurpose cooperatives with 12,991 members, comprising 2377 women and 10,618 men. The zone's cooperatives have 239,755,395 ETB in capital and 126,825 members. There are 241 members in six unions (secondary cooperatives), and they have 97,265,202 ETB in capital. The cooperatives are believed to be controlled and owned by their members, but the report of the Cooperative Office indicated they suffer from challenges, including financial shortages for the operation of different activities and expansion, a shortage of trained manpower and storage facilities, infrastructure, corruption, and poor and participation of their members.

4.2 Research Design

Convergent design was used in this study, where quantitative and qualitative data were gathered and examined independently. Since many exogenous and endogenous factors are included in the study, qualitative data play an enriching role.

4.2.1 Data sources, types and collection tools. The study team comprises researchers and academicians from two Ethiopian Research Universities. The composition was intended to achieve high-level research findings that can show the level of cooperative members' commitment and its drivers in South Ethiopia. A multistage sampling technique was used: First, three *Woredas* [districts] in the Gamo Zone were randomly selected from each *stratum* (agroecology). Second, by rule of thumb, 10% of *Kebeles* (the lowest administrative unit in Ethiopia) in each *Woreda* were randomly selected by using simple random sampling. Accordingly, two *Kebeles* out of 20 *Kebeles* from Arba Minch Zuria, four *Kebeles* out of 33 *Kebeles* from Boreda and three *Kebeles* out of 28 *Kebeles* from Dita *Woreda* were randomly selected. Third, after obtaining the list (sampling frame) of members of cooperatives in the *Kebeles*, sample respondents were selected following systematic random sampling technique. The sample size was determined according to Cochran (1963) as the population is large and finite, and the sample size of the study was 200. The total sample size of the study was proportionately distributed to sample *Woredas* and *Kebeles* based on Kothari (2004) sampling with probability proportional to size.

$$n_i = n \left(\frac{N_i}{N} \right)$$

Where, n_i is the sample size for each *Woreda*; n is the total sample size for the study, which is the sum of the three *Woredas*, N_i is the total households in the respective *Woredas*, and N is the total population in the three *Woredas*. The total sample size is distributed to each sample *Woreda* by following the probability proportional to size method.

Both quantitative and qualitative data were collected from primary and secondary sources. Quantitative data were collected from sample agricultural cooperative member households, while qualitative data were collected from focus group discussion participants. Quantitative data were collected from sampled respondents on household head and household characteristics, household resource endowment, institutional factors, physical factors, socio-economic factors, and value factors (psychological factors). Ten focus group discussions (on average nine participants in every FGD) were conducted, including elders, women, youth, better-off, medium and resource-poor household heads.

4.2.2 Methods of data analysis. Data were analyzed by employing both qualitative and quantitative data analysis techniques. Descriptive statistics, including mean, percentage, standard deviation, minimum, maximum and frequency distributions were used to describe the data. Inferential statistics tools such as chi-square and ANOVA were used to analyze the association between explanatory and response variables and to compare the mean differences across different groups of commitment levels. The chi-square test was applied to analyze the association between discrete independent variables and levels of commitment to agricultural cooperatives. ANOVA was used to analyze the mean difference of continuous independent variables and different commitment levels (low, moderate and high level of commitment) in agricultural cooperatives.

4.2.3 Econometric model specification. To measure and analyze the determinants of members' level of commitment in this study, commitment items with commitment statements were identified based on the theoretical and empirical literature. Members evaluated their level of commitment using commitment statements on 5-point Likert-type scales. After the response, commitment statements were checked for the presence of weak statements by using a correlation matrix; those statements with a correlation value below the average of the five categories were dropped. After maintaining statements with strong correlation, reliability and internal consistency were checked by using Cronbach's alpha.

Mathematically, the ordered Logit model with the ordinal outcome variable (Y_i) is given by:

$$\Pr(Y_i = j|X_i) = \begin{cases} F(\alpha_1 - X_i'\beta) & j = 1 \\ F(\alpha_j - X_i'\beta) - F(\alpha_{j-1} - X_i'\beta) & 1 < j < J - 1 \\ 1 - F(\alpha_{J-1} - X_i'\beta) & j = J \end{cases} \quad (1)$$

where $P(\cdot)$ is the probability of being in a particular category, $F(\cdot)$ is the logistic cumulative density function, α_j is the cut point, X_i is a vector of the independent variable, β is a vector of parameters to be estimated, and j is the number of categories, $j = 1, 2, \dots, J$. Following equation (1), the likelihood of being at a higher level of commitment is given by:

$$\ln \left[\frac{P_r(Y_i \geq j|X_i)}{1 - P_r(Y_i \geq j|X_i)} \right] = \alpha_j + X_i'\beta \quad (1 \leq j < J) \quad (2)$$

$$P_r(Y_i \geq j|X_i) = \frac{1}{1 + \exp(-\alpha_j - X_i'\beta)} \quad (3)$$

where \ln is the natural logarithm, $P_r(\cdot)$ is the probability of being at a higher level of commitment, X_i is a vector of covariates, α_j is the respective cut-off, and β is a vector of parameters to be estimated.

4.2.4 Dependent variable. The dependent variable is members' level of commitment to agricultural cooperatives. The members' level of commitment is a subjective variable measured through nine statements identified as important to indicate the level of commitment (what we call commitment statements). Members rated their agreement with commitment statements using a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = undecided/neutral, 4 = agree, and 5 = strongly agree). Finally, we converted these responses into low, moderate, and high levels of commitment after computing the minimum, maximum, mean and standard deviation of the composite score for commitment

statements. Members with a composite score of minimum to mean minus standard deviation were categorized as low; those in the range of mean plus standard deviation to maximum score were categorized as highly committed; and the rest were categorized as the moderately committed.

4.2.5 Independent variables. Independent variables to analyze factors affecting members’ level of commitment to agricultural cooperatives were identified following previous works, including (Hiskeal et al., 2022; Wassie et al., 2020; Wassie et al., 2018). Independent variables of the study include age, education level, leadership experience, distance from the cooperative office, duration as a member, receipt of dividends, number of shares in the cooperative, frequency of contact with cooperative agents, perception of the influence of members’ decisions, and trust in cooperative leaders.

5.0 Results and Discussion

5.1 Members’ Level of Commitment

Members’ level of commitment was measured by using nine commitment statements selected based on literature and experts’ recommendations. According to Cronbach’s alpha test of reliability shown in Table 1, all nine items of commitment were above the minimum threshold suggested by Gujarati (2004) as alpha levels above 0.6 are acceptable. Here, the mean of the alpha value is 0.876, where the minimum value is 0.872, and the maximum value is 0.887. After identifying items that can be included to measure commitment, a composite score was calculated for each member respondent. After calculating the composite score, members were categorized as low committed, moderately committed, and highly committed after calculating the mean standard deviation of commitment scores.

Table 1. *Cronbach’s Alph Reliability Test*

Items	alpha
I will serve as a board and committee member	0.887
I will contribute capital for growth	0.879
I will persuade others to join the cooperative	0.874
I will never leave the cooperative, even with a better price	0.881
I will attend the general assembly meetings	0.872
I will sell grains through cooperatives	0.873
I will purchase agricultural inputs	0.875
I will buy shares	0.873
I will save through the cooperative	0.873
Average inter-item covariance = 0.4202	
Number of items in the scale = 9	
Scale reliability coefficient = 0.8885	
Test scale = 0.889 mean (unstandardized items)	

Source: Computed from survey data (2024).

Members with commitment scores ranging from minimum to mean minus standard deviation were categorized as low committed, members ranging from mean plus standard deviation to maximum score were categorized as highly committed while the rest were categorized as moderately committed to their cooperatives. As indicated in Table 2, the minimum and maximum composite scores of commitment statements were 18 and 45, respectively, while the mean composite score was 34.62, and standard deviation was 6.19. Accordingly, respondents with a commitment composite score ranging from 18 to 28.43 were categorized as low committed. In contrast, with a composite score ranging from the mean plus standard deviation up to the maximum score were labelled as highly committed (40.81 to 45), whereas the rest in the range of 28.44 to 40.80 were categorized as moderately committed members.

Table 2. *Descriptive Statistics of Commitment Statements*

Commitment Items	Mean Score
I will serve as a board and committee member	3.35
I will contribute capital for growth	4.12
I will persuade others to join the cooperative	4.03
I will never leave the cooperative, even with a better price	3.94
I will attend the general assembly meetings	3.81
I will sell grains through cooperatives	3.67
I will purchase agricultural inputs	3.99
I will buy shares	3.82
I will save through the cooperative	3.91
Minimum score = 18	
Maximum score = 45	
Mean score = 34.62	
Standard deviation = 6.189	

Source: Computed from survey data (2024).

5.2 *Members' Level of Commitment and Continuous Variables*

Cooperative members' level of commitment was expected to vary with the age of household heads. As shown in Table 3, the mean age of the respondents was 48.29 years, and the results revealed that as age increases, commitment falls. The ANOVA test also indicates a significant difference in means across different commitment categories. Post-hoc analysis also showed a significant mean difference in mean age between low and highly committed categories and the moderate and highly committed categories. The result was, however, against the prior expectation of the study. The reason for the negative influence of age might stem from the fact that as age increases, members become less interested in active involvement in collective actions due to other social and household level responsibilities. Another possible reason, according to the FGD, is the poor performance of cooperatives in many areas, which would result in a low level of

commitment for aged members. In Dita Woreda, a 61-year-old male participant said that:

During Derg regime, members had been accessing and using different services from their cooperatives like consumer goods, agricultural inputs and marketing services”. However, currently their cooperative is poorly supplying these services and this participant said “not attracting members and others.

Another 58-year-old male FGD participant in the same Kebele said that:

Members’ commitment to their cooperative is low due to no progress in the cooperative, disintegration into four cooperatives, no support from government bodies, no goods and services, no transaction, not buying goods from members, not supplying goods and services, no supply of agricultural cooperatives.

The mean of the highest level of grade completed by members of the cooperatives is nearly grade 5. The result highlights the low literacy level of members of the cooperatives in the area. The ANOVA test result, however, does not show the presence of a significant mean difference in the grade completed by low, moderately and highly committed members. Government cooperative offices and cooperative organizations need to increase the literacy level of members through training and education. Government and other non-government organizations can finance the cooperative values, objectives and principles literacy interventions.

The distance to the cooperative office is an important factor in members’ commitment, as the majority travel on foot. The mean distance of members to cooperative offices is 2.87km, with a maximum distance of 28km. The results in the Table 3 show that as the distance to cooperative offices increases, the level of commitment falls. The mean comparison test (ANOVA) also showed a significant mean difference among the groups. According to the post hoc analysis, there was a significant mean difference between the low and highly committed members and between the low and moderately committed categories.

Years of stay in a cooperative as a member, which was measured in years, was expected to affect members’ commitment positively. The results in Table 3 also shows that it is positively associated with the level of members’ commitment. The mean difference test of ANOVA also showed a significant mean difference in membership duration across different categories of level of commitment. The post hoc analysis revealed a significant mean difference between the low and moderately committed groups and the low and highly committed groups. The frequency of contact with cooperative agents was expected to affect member commitment positively. The result also supports prior expectations as the commitment level increases with the frequency of contact. This is because when members have better contact with cooperative agents, their level of understanding about the activities and decisions of their organization improves, which in turn also improves their attachment to the cooperative.

Table 3. *Descriptive and Inferential Statistics of Continuous Variables*

Variable	Level of commitment	Mean	Std. deviation	Min.	Max.	ANOVA test
Age of HHH	Low	50.42	12.81	30	85	3.10**
	Moderate	49.07	12.65	28	85	
	High	44.22	8.98	28	70	
	Total	48.29	12.15	28	85	
Edu. level completed by HH	Low	5.94	4.69	0	14	2.16
	Moderate	4.27	4.35	0	15	
	High	5.37	4.88	0	16	
	Total	4.76	4.54	0	16	
Distance to coop office	Low	7.10	7.09	0.25	25.00	20.74***
	Moderate	2.30	3.62	0.00	28.00	
	High	1.47	1.11	0.30	5.00	
	Total	2.87	4.42	0.00	28.00	
Membership duration in coop (stay as member)	Low	4.77	2.20	1	11	9.42***
	Moderate	7.09	3.07	1	30	
	High	7.27	2.19	1	11	
	Total	6.77	2.90	1	30	
Number of shares	Low	1.42	0.50	1	2	3.82**
	Moderate	1.62	0.88	0	7	
	High	2.07	1.77	1	11	
	Total	1.68	1.10	0	11	
Frequency of contact with coop agents	Low	4.97	5.18	0	18	3.62**
	Moderate	8.60	9.19	0	60	
	High	10.10	6.58	0	30	
	Total	8.35	8.31	0	60	

Source: Computed from Survey data (2024).

5.3 Members' Level of Commitment and Discrete Variables

Gender of household was considered as a factor that affect members' level of commitment. As shown in Table 4, of the 200 sampled members, 137 (68.5%) were male, and 63 (31.5%) were female. It was expected that, due to the multiple roles of women, they would be less committed to cooperatives than their male counterparts. However, the results showed that female members were more committed to cooperatives than male counterparts. It was observed during field visits and focus group discussions that women members are active in cooperative governance, use of services, decision-making and other activities of the cooperatives. The chi-square test also showed the presence of a significant association between the gender of members and the level of commitment. The result highlights the potential of women members in cooperatives development in the study area.

Table 4. *Descriptive Statistics and Association of Discrete Variables with Level of Commitment*

Variable		Members' commitment level								Pearson's Chi-Square (P-value)
		Low		Moderate		High		Total		
		N	%	N	%	N	%	N	%	
Gender	F	9	14.29	34	53.97	20	31.75	63	31.5	7.21** (0.027)
	M	22	16.06	94	68.61	21	15.33	137	68.5	
Trust on coop leaders	No	9	41	12	55	1	5	22	11	54.07*** (0.000)
	Yes	24	13	116	65	38	21	178	89	
	Yes	24	13	117	65	39	22	180	90	
Received dividend	No	27	23	83	71	7	6	117	58.5	37.53*** (0.000)
	Yes	6	7	45	54	32	39	83	41.5	
Members' decision can influence	No	11	37	17	57	2	7	30	15	13.79*** (0.001)
	Yes	22	13	111	65	37	22	170	85	
Level of satisfaction	Low	18	55	15	45	0	0	33	16.5	124.29*** (0.000)
	Moderate	13	10	105	81	11	9	129	64.5	
	High	2	5	8	21	28	74	38	19	

Source: Computed from Survey data (2024).

Trust is an important psychological factor for collective action, as it improves commitment to collective action and reduces transaction costs by lowering the risk of free-rider problem (Ostrom, 2010). Trust on leaders of cooperatives and actions of other members of the cooperatives are important factors that affect level of commitment of members. Measuring trust is difficult and requires some techniques to quantify it. In this study, relevant items for measuring trust were identified by consulting cooperative experts, leaders and reviewing theoretical and empirical literature. Five variables for each of trust in cooperative leaders and trust on action of other members were used to measure trust. Respondents evaluated their level of trust in identified items on a 5-point Likert-type scale. All five items of trust were retained as there is significant correlation among items and there is also acceptable reliability as the Cronbach's alpha test shows trust in leaders were 0.83.

The trust composite score was computed for each respondent, and members were categorized into two trust groups (low and high) based on their composite scores. Respondents within a score range of minimum to mean have low trust, and those within a range of mean to maximum have high trust in their cooperative leaders and actions of other members. This result also matches the qualitative results collected during focus group discussions, in which many participants reported that they trust each other. When members trust leaders, they are expected to be more committed to their cooperatives. Of the 200 sampled members, 178 (89%)

trusted cooperative leaders. The chi-square test also showed the presence of a significant association between trust and members' level of commitment to their cooperatives. The results showed the trust level of members in the study area is promising, and cooperative leaders and offices should strive to maintain trust by implementing various strategies.

Cooperatives are not merely profit-oriented organizations but are also responsible for other social and community roles. However, dividend distribution based on members' level of participation in cooperative affairs was expected to trigger members' commitment. The majority of members (58.5%) reported not receiving a dividend last year. The chi-square test also showed a significant association between receiving dividends and members' level of commitment. The results showed that receiving dividends is highly correlated to member commitment, and cooperatives should regularly distribute dividends, which requires regular audits of the cooperatives' financial achievements.

The members' perception of the influence of members' decisions on cooperatives is an important factor that can make members participate in the affairs of cooperatives. The majority of sampled members (85%) perceive that members' decisions matter in their cooperatives. Pearson's chi-square test also showed the presence of a significant association between members' perceptions of the influence of their decision and their level of commitment. The members' positive perception of the influence of their decision on the fate of the cooperatives is crucial to building trust and results in commitment.

5.4 Determinants of Levels of Commitment (Ordered Logit Model)

An ordered logit econometric model was run to identify factors affecting members' level of commitment to their agricultural cooperatives. Ten predictor variables were found to fit to the model, which was tested by using the `linktest` command. Of the ten variables fitting the ologit model, six were found to be significantly affecting members' level of commitment. These variables include distance from the cooperative office, serving as a leader of the cooperative, receiving dividends, frequency of contact with cooperative agents, members' perception of the decisions of other members of the cooperatives, and members' trust in the leaders of the cooperative. Marginal effect is also computed to analyze the effect of a unit change on the probability of being in the commitment-level categories.

Distance from the cooperative office negatively and significantly affects members' level of commitment to their cooperatives by less than 1%. Members of agricultural cooperatives during the focus group discussion reported that they use different forms of travel options. Some members in close proximity to cooperative offices walk, while others in distant areas use motorbikes and public transport. Therefore, distance has implications for members' level of commitment as it has a cost. When the distance from cooperative offices increases by a kilometre, members' level of commitment to the cooperatives also decreases by 0.19 ordered logit logs (odds) when all other variables are held constant. This is because the distance from the cooperative office inhibits members' commitment, as it requires more time to travel and reduces the time they can devote to their collective group. The marginal effect results also showed that when the distance from the cooperative office increases by a kilometre, members' probability of being in the low—and moderately committed categories increases by 1.3% and 0.66%, respectively, when all other variables are held constant. However, when all other factors are held constant, the likelihood of falling into the highly committed category drops by 2%. This outcome is consistent with research by Awoke (2021), who used regression analysis to show that members' loyalty to their cooperatives was negatively impacted by the distance from their homes.

Dividend distribution based on participation in cooperative activities is one of basic principles of cooperatives. Dividend distribution to members was expected to positively affect members' commitment, as it motivates them to take part in cooperative activities and use services. In this study, receiving dividends also positively and significantly affected members' level of commitment to their organization at less than 1% level. Holding other variables constant, when a cooperative member received dividends, the ordered logit logs-odds of being committed to cooperatives was 1.78 times higher than those members who did not receive dividends. The marginal effect results also revealed that the probability of members who received dividends being low committed or moderately committed was higher by 12.29% and 6.22%, respectively, than for members who did not receive dividends. At the same time, the probability of members who received dividends being in the highly committed category was higher by 18.5% than of those who did not receive dividends. This result was similar to the work by Jussila, Goel, and Tuominen (2012) who reported a positive relationship between income from cooperatives and members' commitment to their cooperatives.

Cooperative agents work on promoting membership, delivering market information and commercializing smallholder agriculture by providing options for agricultural credits. Members' contact with cooperative agents encourages them to stay committed to their cooperatives by showing the importance of agricultural cooperatives for smallholder farmers' agricultural production. In this study, it is also found that it positively and significantly affected members' level of commitment to their organization at less than 1% level. The ordered logit logs-odds of the level of commitment increased by 0.062 when the frequency of contact increase by one. The marginal effect results also showed that when the frequency of contact with cooperative agents increased by one, the members' probability of being in the low and moderately committed category decreased by 0.43% and 0.22%, respectively, while the probability of being in highly committed category increased by 0.64% when all other variables were held constant. This is because when there is frequent contact with cooperative agents, members get informed about the importance of cooperatives, members' participation in cooperative activities and use of services of their organization. This result was also consistent with the works of Awoke (2021) who reported that organizational factors, including education and training for members positively affect member commitment in Northern Ethiopia. Members with frequent with cooperative agents are more likely to get education and training of cooperatives that could encourage members to stick to their cooperatives.

As described in the social-psychological theory of collective action, psychological determinants, including perception and trust, are important variables that are strongly associated with members' commitment to their cooperatives. In this study, these were also hypothesized to affect member commitment positively. In this study, psychological factors, including perceptions of the importance and influence of other members' decisions in cooperatives, and members' trust in cooperative leaders, were included based on theoretical and empirical literature. The result of the ordinal logit regression in Table 5 reveals that it significantly and positively affected member commitment at the less than 10% significance level. The ordered logit logs-odds of commitment level for those members with trust in their cooperative leaders was 1.01 higher than those members without trust in their cooperative leaders. This is because, members' trust in their leaders encouraged them to participate in cooperative activities by devoting their money, time and resources. Members without trust in their leaders would not invest their limited resources in cooperatives due to the fear of loss from poor performance, fraud, and corruption. The marginal effect results also showed that, for members with trust,

the probability of being in the low and moderately committed categories decreased by 7% and 3.6%, respectively, than those members without trust in the cooperative leaders when all other variables were held constant. On the other hand, holding all other variables constant, the probability of being in the highly committed category was 10.58% higher for members who trusted their leaders than for those who did not trust their cooperative leaders. This result is consistent with previous works by Hao et al. (2024) who reported that trust positively affects all three forms of organizational commitment (affective, normative and continuance commitments) in China. Barraud-Didier and colleagues (2012) also reported a positive effect of cognitive trust on affective commitment and participation in cooperative activities of agricultural cooperatives in France. As shown in Table 5, trust was also found to significantly and directly affect member participation and commitment to saving cooperatives (Sowawattanakul & Sukphisal, 2024). Other studies by Apparao et al. (2019), Entsminger (2017), and Sloot (2016) also reported the positive effect of trust on member commitment. Donkor and Hejkrlik (2021) reported that perceived trust among rice cooperative members negatively influences member commitment in Zambia. In Ethiopia, trust was reported to affect member commitment significantly and positively by authors, including Awoke (2021). who reported that psychological determinants, including trust and cooperative ideology, significantly affect member commitment in Northern Ethiopia.

Table 5. *Regression Result of the Ordered Logit Model*

Commitment level	Coef. (std. err.)	Z	Marginal Effects (margins predict)		
			Low	Moderate	High
Age	-0.0232 (0.0151)	-1.53	0.0016	0.0008	-0.0024
Education level	0.0633 (0.0403)	-1.57	0.0044	0.0022	-0.0066
Distance to coop office	0.1901 (0.0439)	- 4.33** *	0.0131	0.0066	-0.0197
Duration as a member	0.0251 (0.0589)	0.43	-	-0.0009	0.0026
Leadership*	0.6969 (0.4182)	1.67*	-	-0.0243	0.0724
Number of shares	0.1979 (0.1613)	1.23	-	-0.0069	0.0205
Received dividend*	1.7819 (0.4609)	3.87** *	-	-0.0622	0.1850
Contact with coop agents	0.0617 (0.0201)	3.07** *	-	-0.0022	0.0064
Perception on influence of members' decision*	1.4065 (0.4994)	2.82** *	-	-0.0491	0.1460
Trust on leaders*	1.0186 (0.5628)	1.81*	-	-0.0355	0.1058
/cut1	-0.0232 (0.0151)				
/cut2	0.0633 (0.0403)				

Source: Own Computation from 2024 survey data.

Besides the quantitative result, during the focus group discussion, members of the cooperatives raised that their motivation and commitment to invest, participate in using agricultural input services, and decision-making is affected by interference from government bodies, even though leaders are elected by government officials, which is against the basic values and principles of cooperatives.

6.0 Conclusion and Implications

This study aimed to assess the commitment levels of agricultural cooperative members through factor analysis of various commitment statements and subsequently classifying members into distinct commitment categories based on their composite scores. The study employed collective action theories, including the traditional theory of collective action, the theory of social capital and theory of reasoned action, and planned behaviour. Using ordered logit regression, factors affecting members' levels of commitment were identified. Members' distance to agricultural cooperatives, frequency of contact with cooperative workers, perception of the influence on members' decisions regarding cooperative affairs, serving as a leader in the cooperative they are members of, dividend distribution, and members' trust in cooperative leaders are important variables found to affect members' level of commitment to agricultural cooperatives.

The level of members' commitment is unsatisfactory, as the majority of members in the sampled Woerdas have low to moderate levels of commitment. Members' levels of commitment also differ among the sampled Woerdas, necessitating specific interventions tailored to each Woerdas' characteristics. Receiving dividend distribution, trust in leaders of the cooperatives, perceptions of the influence of member decisions, and regular interaction with cooperative agents are among the factors affecting commitment. These factors influence attitude, subjective norm, and perceived control, which are key determinants of intention to commit to agricultural cooperatives.

The traditional theory of collective action (zero contribution and rational choice theories) argues that individual members are rational in their decisions and that others' actions and reciprocity are important for members' participation. This can be achieved when all members of the cooperative organizations participate in activities and decisions. The focus group discussion results also indicate that members' commitment in cooperatives in the area is not sufficient due to unsatisfactory service delivered by agricultural cooperatives. The results of this study reveal that members level of commitment were affected by beliefs, intentions and attitudes as mentioned by theory of planned behaviour. The results were also in agreement with the theory of social psychology, which states that social interaction determines group interaction and social identification.

6.1 Management Implications

Members' level of commitment to attend general meetings, sell through agricultural cooperatives, and buy (invest in) additional shares was relatively low. Therefore, cooperative organizations should work to improve members' participation in general meetings, sell their crop output through cooperatives, and buy additional shares, as these are important for building confidence, transparency, and interest, and also for increasing the financial capital base of the organization. The dividend distribution among cooperatives in the area was also poor, as 58.5% of respondents did not receive dividends in 2023. As mentioned during the field visits and focus group discussions, this was due to a lack of supervision, support and audit by government offices. The frequency of contact

with cooperative agents was found to be an important factor in members' commitment. Therefore, it is better to recruit and enhance the technical capacity of cooperative agents. To gain members' trust and commitment, it is crucial to improve the system's transparency and distribute dividends on a regular basis, based on audits and supervision. As mentioned in social-psychological theory, cooperative organizations' management should work better to improve the social psychology of members to build trust, affection, and reciprocity. The quantitative and qualitative data analysis revealed that members of agricultural cooperatives in the sampled Woredas perceived the presence of an agency problem as they had a low level of trust in the leaders of their cooperatives. Members trusted the actions of other members more, and there was a less perceived free rider problem. As mentioned in the social psychology theory of collective action, enhancing perceptions of cooperatives, building members' trust in leaders, and encouraging member's actions are important points to focus on.

Member characteristics significantly affected intention to perform and behaviour of agricultural cooperative members, as mentioned in the theory of reasoned action and planned behaviour. Therefore, cooperative leaders should work hard to make members join meetings and key decisions as this is important to build trust and dedication to agricultural cooperatives. Cooperative offices need to work to improve members' participation in key decisions and build members' confidence for the sustainability of their organization. Cooperative organizations should endeavour to encourage members to actively participate in activities and use services of their cooperatives. It is crucial to work on improving members' trust, perception and contact with cooperative extension agents to improve attitude, perceived control and subjective norm of members as mentioned in the theory of reasoned action and planned behaviour.

Many cooperatives in the study area are non-functional and have even failed to deliver basic services. Therefore, policymakers may devise ways to make cooperatives more active through restructuring, amalgamation, and mergers with others. The autonomy and access to financial capital of many cooperatives are greatly challenged by government interference and long bureaucratic processes. Therefore, policymakers should consider some ways to restrict interference by government offices at lower administrative levels. There should also be a financial policy that supports cooperatives to access credit, as many cooperative organizations fail to deliver basic services due to financial constraints, which lowers members' commitment. It is important for those working for the success of cooperative organizations like agricultural cooperatives to put strong institutional mechanisms in place to influence the behaviour of members, and enforcement mechanisms should also be in place to ensure commitment and solve free rider problems.

6.2 Limitations and Implications for Future Study

As this research is limited to agricultural cooperatives based on cross-sectional data, the prospects of other cooperatives from a commitment perspective can be researched in the future. In addition to this limitation, in this study, commitment was measured through commitment statements and other commitment measurements, including affective, normative, and continuance commitments of members that can be researched in the area. Future works may also research the practice of basic cooperative principles in the context of agricultural cooperatives in the study area. This study also focused on the commitment levels of agricultural cooperatives, and a future study can consider other types of cooperatives in the study area.

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