Sustainability Performance of the Small Holder Specialty Coffee Business: *The Perspectives of the Producers' Cooperatives' Performance and Members' Satisfaction,* Evidence from South Western Oromia, Ethiopia

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Abstract: Generally, this study aims to investigate the sustainability performance of the smallholder specialty coffee business from the perspectives of the producers' cooperatives and members' satisfaction, in southwestern Oromia, Ethiopia; where, prior studies didn't consider sustainability performance of the smallholder specialty coffee business from the perspectives of cooperatives performance and members' satisfaction. This study has significance as it contribute new insight to the existing literature in considering performance of the cooperatives in line with members' satisfaction, as well as it contributes practically to the improvement alternatives to the prevailing constraints of the practices in the smallholder specialty coffee producers' cooperatives. Concurrent-mixed, cross sectional survey research design was used. Systematic simple random and purposive sampling techniques were used to reach the sample respondents. A total sample of 381 respondents were participated. Both qualitative and quantitative data was collected from primary and secondary sources. Key informant interview, survey questionnaire, and personal observation, were used to collect data. Data analysis was through qualitative and quantitative methods. The result of the study revealed that the sample smallholder specialty coffee producers' cooperatives were better achieved the objective of finding and providing timely market price information, training, members' participation in coffee price setting, and keeping record of members' coffee production practices; while their performance was low in developing members' saving culture, investment in rural clean water development, rural access road, community health clinics and schools. The result also shown that, all the independent variables significantly & positively influence the sample cooperatives' members' satisfaction. Finally, having a forum of the district offices of cooperatives' development, the producers' cooperatives, the members themselves and other stakeholders could help to work in collaboration so as to improve the identified low and poor performance areas.

Key Words: Sustainability, Cooperatives, Specialty Coffee, Record keeping, Satisfaction

Chapter One Introduction

Background of the Study

From the Ethiopian forests where, as the legend goes, a goat herder first discovered it, (Steffany, et al. 2022), coffee has become a staple for many consumers (Deshmukh, 2021); and one of the world's most traded commodities and consumed beverages (FAO, 2022b). Furthermore, the available prior studies (ICO, 2019a; Samper et al. 2017), show that, Valued at over USD 200 billion annually, coffee is a growth market creating significant economic opportunities for growers and downstream actors. In Ethiopia, the study by Tefera, (2016), revealed that, coffee is one of the economically most important commodities produced and exported.

The international coffee organization, ICO, (2019b), explain sustainability as the ability of coffee farmers to meet long term economic, social and environmental goals. Also, it is widely acknowledged that, coffee offers a unique opportunity to promote sustainability as its production system integrates economic development, social inclusion, and environmental protection, (Hernández-Aguilera, et al. 2018; Achterbosch, et al. 2014; Mbowa, et al. 2014). From the consumers' side point of view, sustainability has become a hot topic where, consumers become more sensitive about the coffee products they choose for consumption, (ICO, 2019a). As a result, several initiatives have been created to address specific aspects of sustainability related to social, economic, and environmental issues; one of which is the specialty coffee. Specialty coffee is a coffee grown in special and ideal climates, with distinctive taste and flavor/aroma, and with little to no defects, (Specialty Coffee Association of America, SCAA, 2018). Besides, specialty coffees are coffees certified as organic, fair trade and shade grown, (Minten et al. 2015).

Cooperative enterprises as member-owned, value-based, people-centered and principle-driven organizations, are by nature a sustainable and participatory business form which have shown remarkable resilience in the face of economic and financial crises (Theo, 2018; International Cooperative Alliance, ICA, 2016). In reality, cooperatives are part and parcel of the people-centered, social economy; (European Commission, EC, 2017), and the only form of enterprise sharing internationally agreed principles; such as, democratic member control, member economic participation, (ICA, 2016; Puusa et al. 2013). In Ethiopia, while coffee is one of the economically most important commodities produced and exported (Tefera, 2016), its sustainability performance is yet unknown. Therefore, the envisaged study was aimed at filling this literature gap.

The specific objectives of the study were: 1. To identify the type of services offered to the specialty coffee producers by their cooperatives; 2. To describe performance of the specialty coffee producers' cooperatives in achieving their service delivery objectives; and 3. To assess the effect of cooperatives' performance on members' satisfaction.

Literature Review

2.1. Theoretical Literature

2.1.1. Concepts of the major terms

Sustainability: According to Justin et al. (2013), and Raatzsch, (2012), sustainability is the process of development (or business activity) that satisfies the needs of today's generation without limiting or impeding the needs of later generations; that is, organizations are expected to use scarce resources to satisfy their needs in ways that will enable future generations to satisfy these needs without greater difficulty than is imposed on the current generation. Similarly, Sachs et al. (2015), explains sustainability as the harmonization of economic development, social inclusion and environmental protection. In a broader concept, sustainability is the concern for *People, planet, and profit*, also known as the triple bottom line; the economic, social and environmental dimensions (ICO, 2019; Maria, 2019; Mensah and Enu-Kwesi, 2018; Ben-Eli, 2015; Taylor, 2016; Thomas, 2015; Giovannoni, 2014). Moreover, ICO, (2019), explains sustainability as, the ability of coffee farmers to meet long term environmental, social and economic goals, (be able to achieve prices that cover his/her production costs and allow him/her to earn an acceptable profit margin).

Cooperative: A cooperative is defined as an autonomous association of people united voluntarily to meet their common economic, social and cultural needs and aspirations through jointly-owned and democratically-controlled enterprises, (International cooperative alliance, ICA, 2016; International Labour Organization, ILO, 2014; Puusa et al. 2013). The smallholder specialty coffee producers' cooperative is also conceptualized as a Relationship Coffee Market (RCM), which is a long-term partnership between coffee buyers(cooperatives) and smallholder coffee producers based on product quality; where, smallholders receive training on best agricultural practices that foster sustainability, risk management, quality assurance, and business management (Hernandez Aguilera et al. 2019; Neilson and Hartatri, 2014). In the present study, therefore, at producers' level, cooperative is a specialty coffee market, where the specialty coffee producers sell their coffee at a fair price as well as premium price.

2.1.2. Sustainability and standards in the specialty coffee business

Sustainability in the coffee Business: According to the ICO, (2019), in coffee business, sustainability has three components: economic, social and environmental. While economic sustainability focuses on the ability of producers and farm workers to earn sufficiently from their respective roles in coffee production to live a life with dignity; social sustainability considers impacts on people including; the avoidance of harms, no child labor, no land grabbing, as well as positive steps, such as increasing food security and environmental sustainability encompasses two broad issues; the continued availability of resilient ecosystem services, and the maintenance of conserved nature or climate resilience, in a

broader term. Likewise, Hernández-Aguilera, et al. (2018), noted that, coffee offers a unique opportunity to promote sustainability as its production system integrates economic development, social inclusion, and environmental protection.

Sustainability standards in coffee: With regard to the international certification programs for coffee, the most commonly used sustainability certification standards are Fairtrade (Fair Trade Labelling Organization International, (2021), organic (Pyk, and Abu Hatab, 2018), shade grown *(Rainforest Alliance,* UTZ certified*, meaning* "Good Inside" coffee, Smithsonian Migratory Bird Center (SMBC) *Bird Friendly certification), and* 4C (Common Code for the Coffee Community) certification, (Pyk, and Abu Hatab, 2018; Bravo-Monroy, et al. 2016). Some private companies, such as Coffee and Farmer Equity (C.A.F.E) Practices by Starbucks and Nespresso AAA, provide their own coffee certifications. The AAA program's three "A's" are Quality, Productivity, and Sustainability (Pyk and Abu Hatab, 2018). In the current study, as sub components of the specialty coffee; o*rganic, fair-trade, and shade grown* sustainability schemes were considered. Hence, are briefly discussed below.

Organic certified coffee: Organic agriculture is a production system that sustains the health of soils, ecosystems and people, that, it combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved (Pyk and Abu Hatab, 2018). Similarly, Potts et al. (2014), defined organic coffee as a production management system that aims at promoting and enhancing natural soil activity and prohibits synthetically produced chemicals. In this regard, organic certified coffee must meet such criteria as: it must be grown on land without synthetic pesticides; it must have a sufficient buffer between the organic coffee and the closest traditional crop; it must have a sustainable crop rotation plan to prevent erosion and depletion of soil nutrients. Organic certification is based on *trust* between farmer and consumer, and offers a flexible premium to the farmer.

Fair-trade (FT): it is one of the production systems, which has emerged to promote sustainable agriculture in developing countries (Pyk and Abu Hatab, 2018). According to Fairtrade International, (2019), economic benefits from the fair-trade to certified small producers include minimum prices and premium price. It is set at a level which ensures that growers receive a price which covers the average costs of sustainable production for their product. Fairtrade premium is a sum of money, in addition to the price, paid into a communal fund for farmers to improve their social, economic and environmental conditions.

Shade-grown coffee: as per Pyk and Abu Hatab, (2018), Shade-grown is a sustainable coffee certification initiative, whose main aim is to conserve forest cover through the production of coffee under the shade of forest canopy; and represents a step towards environmentally sustainable coffee.

2.1.3. Theoretical basis for the current study

This study was mainly based on sustainability theory and the cooperatives society proclamation, number 985/2016, of Ethiopia. These are briefly discussed in the ensuing sub-section.

Sustainability theory

Contemporary theories of sustainability seek to prioritize and integrate *social, environmental and economic models* in addressing human challenges in a manner that will continually be beneficial to human (USAID, 2017). Likewise, Jeffery, et al. (2019), disclosed that, sustainability has become a critical perspective in managing firms via a holistic approach by considering economic, environmental and social dimensions of firms. With the rising significance of sustainable development, the theories of sustainability in firms have evolved, that, as a result, four major theories of sustainability identified were: *Corporate Social Responsibility (CSR), Stakeholder Theory, Corporate Sustainability (CS) and Green Economics emerged* and form the main theory landscape of sustainability and firms. From these theories, *Corporate Sustainability (CS) was used for this study objective.*

Corporate sustainability: Though, there is no universal definition of corporate sustainability (CS), the definitions of CS all emphasize the importance of meeting stakeholders' need; and balancing the economic, environmental, and social dimensions of corporate performance. CS is usually operationalized through the Triple Bottom Line (TBL) theory, a concept having triple/three dimensions, i.e.: social, environmental and economic, (Svensson & Wagner, 2015; Loorbach and Wijsman 2013). Triple-bottom-line (TBL) theory posits that, instead of one bottom line, there should be three: profit, people, and the planet; that companies should focus as much attention on social and environmental issues as they do on financial issues (Svensson and Wagner, 2015). Likewise, James et al. (2015), argued that, the TBL of People, Planet and Profit became an influential approach to organizations' performance and reputation.

Economic dimension: The economic dimension of TBL *Profit* focuses on the value created by the organization and goes beyond its financial performance and financial concepts as sales growth, cash-flow, shareholder value, etc. to include the economic and operational business impact on the society (Sandhu et al. 2014).

Social dimension: The social dimension, *People* encompass the impact of an organization on the people's welfare, including both employees and community, and addressing issues like education assistance, community interaction, charitable causes, and fair fare practices (Maria, 2019; Sandhu et al. 2014).

Environmental dimension: The environmental dimension, *Planet* relates to the organization's attempts to minimize environmental impact as well as their use of energy and waste production, in order to reduce their ecological footprint. The environmental dimension has received most focus by scholars' research than the social and economic ones

(Maria, 2019; James et al. 2015). In addition to the above discussed theories, the national cooperatives societies' proclamation (985/2016), of Ethiopia was used as a base for assessment of cooperatives' service delivery performance.

2.2. Empirical Literature Review

2.2.1. Sustainability Status of the coffee business

As per Jeffrey et al. (2019), coffee is the world's favorite beverage, with an estimated 400 billion cups consumed per year and it provides livelihoods for at least 60 million people, across dozens of countries. Yet, coffee is experiencing a sustainability crisis, stemming from unsustainable economic, social, and environmental aspects of coffee production. Similarly, the ICO, (2019a), revealed that, over the past two decades, the global coffee sector has expanded significantly as demand for coffee increased by 65%. Despite the overall growth in the sector, coffee prices have experienced a continued downward trend since 2016, dropping 30% below the average of the last ten years. Hence, coffee growers worldwide are struggling to cover their operating costs as input, compliance and transaction costs, consequently, farm incomes decline and the livelihoods of coffee producing households, the majority of which are led by smallholders in low and middle income countries, are increasingly at risk (ICO, 2019).

In line with the status of specialty coffee, reports indicate that, the specialty coffee market is growing rapidly; that, in the United States, for example, specialty coffee has increased its market share from 1% to 25% over the last 20 years, and the percentage of adults drinking specialty coffee daily has increased from 9% in 1999 to 34% in 2014 (Specialty coffee association, SCA, 2018); and its sales increased from US $7.8 billion in 2000 to $25.3 billion in 2014 in the U.S. alone. Also, the consumption of higher-quality coffees consisting of higher-valued specialty Arabica beans is growing at a fast pace in Europe (Confederation of British Industry, CBI 2020). Also, the study by Voora et al. (2019), indicate that, due to the increasing demand for certified coffee by buyers in consuming countries; the demand for sourcing healthier and sustainably grown coffee has grown recently. According to the International Trade Centre, ITC, (2020), although specialty coffees comprise just a small percentage of total market volume, it has the most growth potential because of changing consumer habits including demand for more beverage variety, and more ethically sourced products. Likewise, Roland et al. (2019), noted that, internationally, consumers are becoming more discriminating about their coffee, picking their beverage based on quality, the source of coffee beans, sustainability and the roasting process.

In Ethiopia, the several varieties of coffee, all with distinctive tastes, sizes, shapes and colours are cultivated in different coffee growing areas of Ethiopia having specific environmental conditions such as altitude, temperature, amount of rainfall and soil type. Among these, the major types of specialty coffees are: Yirgacheffe, Harar, Sidamo, Limu,

Jimma, Tepi, Bebeka, Nakamte, Illubabor, Gimbi, Keffa Forest, Gemadro, Godere, Bench, Bale, Anderacha, Amaro, Aris and Kochere (UNIDO, 2015); having such unique flavors as, spicy of Sidamo coffee, winy of Limu coffee, fruity of Nakamte coffee, floral of Yirgacheffe coffee, mocha of Harar coffee.

Research gap

Cooperatives play a non-negligible role in farm economic sustainability and in the adoption of environmentally friendly practices (Candemir et al. 2021). Likewise, through their close relationships with farmers, agricultural cooperatives play a key role in helping farmers change their agricultural practices, favouring the adoption of more sustainable practices and improvement of farm sustainability (ICA, 2020). Yet, little is known about their sustainability (economic, social and environmental) performance, worldwide (Mura, et al. 2018; Truant, et al. 2017; Bititci, et al. 2012).

In Ethiopia, the few available studies (Tinsae, et al. 2019; Jena, et al. 2012) show poor performance of the smallholder specialty coffee producers' cooperatives. For instance, Jena, et al. (2012), studied Fair Trade certification & rural investment and found that, even though the objective of premium price from Fair Trade certification is investment in building rural infrastructure, the coffee cooperatives' member producers have a very low level of public services and infrastructure, including transport facilities, schools, health clinics and reliable sources of drinking water. Similarly, the study by Tinsae, et al. (2019), shown that, members of certified cooperatives receive better prices on average; yet, no evidence was found that indicates the higher price is translated into better household income. While these few studies provide good insights considering the economic sustainability and social sustainability outcomes; both the studies did not consider environmental sustainability outcomes and the extent of members' satisfaction with their cooperatives' performance. In addition to the none-universality sustainability consideration, globally, while the demand for specialty coffee is increasing, literature on its sustainability performance from the perspective of the smallholder producers' cooperative is scarce. Moreover, in Ethiopia, while coffee is one of the economically most important commodities produced and exported (Tefera, 2016), its sustainability performance is yet unknown. In general, the available literature show that the prior studies didn't consider the extent of smallholder specialty coffee producers' cooperatives' performance from the perspectives of execution of the objectives for which they were established and the effect of service delivery objectives achievement and the triple bottom line sustainability performance of cooperatives on members' satisfaction. Therefore, the envisaged study was generally set to fill this literature gap by investigating the sustainability performance of the smallholder specialty coffee business from the perspectives of producers' cooperatives considering the type of services and extent of cooperatives' service delivery performance and the effect of service delivery

objectives achievement and the triple bottom line sustainability performance on members' satisfaction.

2.2.2. Cooperatives' performance, members' satisfaction and hypothesis

According to ICA (2016), cooperatives generally meet sustainability as a community of people voluntarily united, having an organizational design based on democracy and collaboration to develop economically in an equitable way and guarantee the social well-being of the cooperative members and the community; as well as, sources of sustainable development, and this importance can be widely noticed in countries with less developed economies.

As mentioned earlier, performance of the smallholders' specialty coffee producers' cooperatives in achieving their objectives was assessed based on the cooperative societies' proclamation (985/2016), of Ethiopia. According to this proclamation, the major objectives of the establishment of cooperatives are to deliver such major services to their members as; *providing production inputs at lower cost; finding better market prices to members' products and providing market information; credit service or loan to members to promote household investment; developing members' skill and knowledge through education and training; developing saving culture of members; cooperative investment in rural economic* infrastructure, like, access road, *social infrastructure* (health clinics, schools, clean water source) and *in environmental development from the premium price.* Thus, the extent of cooperatives' service delivery objectives achievement was investigated based on the delivery of these services.

With respect to members' satisfaction with performance of their cooperatives, extent of members' satisfaction with the service delivery performance and the extent of members' satisfaction with the triple bottom line sustainability performance include the economic sustainability performance (fair price, premium price, net income, diversified sources of income and improved assets ownership); social sustainability performance outcomes (Skill & knowledge, confidence in transparency, trust in market information service, reliability in immediate payment, and commitment/guarantee of fair price) and the environmental sustainability outcomes (forest conservation, soil conservation, clean & healthy environment), were investigated. The variables' relationship and the hypothesis are briefly discussed below.

1. Cooperatives' service delivery performance and members' satisfaction

As per Olabisi, et al. (2015), cooperative societies are organizations that have primary aim of providing needs of their members and enhance the quality of their members' livelihood; thus, members' *commitment and satisfaction* were considered important for the achievement of cooperatives' objectives. Likewise, the success of a cooperative is often a reflection of member satisfaction; thus, members' satisfaction is primarily a result of

expected and realized benefits from cooperatives (Marete, 2010). As the satisfaction of members creates positive attitudes towards the cooperative, the key to being a successful cooperative is to perform functions and provide services needed and desired by its members to their satisfaction (USAID, 2017). The study by Armstrong, and Kotler, (2019), shown that, customer satisfaction is an important variable used to assess the success of a company when the consumers are enjoying the products and services of the company. Pertaining provision of financial/credit service by the producers' cooperative to their members the available empirical studies (Mojo et al. 2017; International labour organization, ILO, 2014; Huybrechts and Mertens, 2014; Smith and Rothbaum, 2013), substantiate that, cooperatives provide a range of affordable financial services/credit to members, thus, contribute to sustainable development. Consequently, the key to being a successful cooperative is *performing functions and providing services* to members' satisfaction (Liebrand and Ling, 2014).

The desire of members from their cooperatives are critically related to why they joined the cooperative; their goals. Hence, these goals affect members' *satisfaction* with the cooperatives, and their commitment to it (Yu and Nilsson, 2021; Liebrand and Ling, 2014). In addition, a study by Olabisi et al. (2015), indicated that, *trust and reputation* are key determinants of cooperatives' performance. Furthermore, Wollni and Fischer (2015), argued that, since members' satisfaction is the base on which cooperatives build their success, a full understanding of the extent of members' satisfaction with the service delivery objectives achievement is crucial to ensure long term success for the societies. Based on the available literature, the ensuing hypothesis was developed.

Hypothesis 1: Cooperative's service delivery objective achievement/performance (input supply, communication, transparency/participation, timely payment, training, saving culture, community investment) is positively influence members' satisfaction.

2. The cooperatives' economic sustainability performance and members' satisfaction

The prior empirical studies (Mojo et al., 2017; Ma and Abdulai, 2016), revealed that cooperatives influence the economic performance of their members, through providing higher prices to their members. Besides, Agricultural cooperatives can also help farmers to improve their profits (Van Dijk et al., 2016), and reduce their cost of production (Ma et al. 2018). Thus, positively influence member farmers' incomes (Ma et al. 2018; Mojo et al. 2017). Consequently, cooperatives increase members' farm income through better access to inputs and technical expertise (Grashuis and Crook, 2019). Besides, Marcis, et al. (2019), revealed that, cooperatives contribute to public infrastructure such as roads. Also, Cooperatives' member Farmers involve themselves in collective action for economic gains (Yu and Nilsson, 2019; Shumeta and D'Haese, 2016); and farmer cooperatives have the ability to reduce member transaction costs, thus, cooperative members can reach large and lucrative markets, and they are able to build a brand name, which results in higher sales prices (Mojo

et al. 2017; Grashuis and Su, 2019). In addition, a cooperative can coordinate member production, resulting in higher and more even product quality (Yu and Nilsson, 2019). Cooperatives also support member efforts to acquire capital for investments in their agricultural operations (Cechin, et al. 2013); which would lead to satisfaction. Therefore, following the available literature, Hypothesis two was developed.

Hypothesis 2: Achievement of the economic sustainability outcomes objectives by the cooperatives (fair price, premium price, diversified sources of income, net income, and asset formation) positively influence its members' satisfaction.

3. The cooperatives' social sustainability performance and members' satisfaction

Prior studies (Yu and Nilsson, 2021; Morfi et al., 2021), show cooperatives have such social role as determinants of members' *commitment and trust*. Hernández-Espallardo et al. (2013), show that farmers may *prefer to accept lower prices* if the cooperative can cope with *transaction cost problems* such as *securing market access, providing information about the cooperative management and helping farmers to meet market requirements* and society expectations. Besides, employment, trust and reputation are key determinants of cooperatives' social performance; hence, positively related to members' satisfaction (Morfi et al. 2021). On one hand, a cooperative contributes to creating cohesion, safety, and stability within the membership (Yu and Nilsson, 2021). On the other hand, the members contribute by participating in the governance of their cooperative; they inform themselves, take part in meetings, and discuss and decide about investments (Morfi et al., 2021; Grashuis and Cook, 2019). Besides, cooperatives create knowledge and capacity building for members through training or technical support (Verhofstadt, and Maertens, 2014). In general, it is expected that, cooperatives' achievement of social sustainability performance (Skill and knowledge, confidence/commitment, and trust), would positively influence members' attitude. Therefore, in line with the available literature, the following hypothesis three was formulated.

Hypothesis 3: Cooperatives' achievement of social sustainability performance (Skill and knowledge, confidence, trustworthiness, commitment, and reliability), positively influence members' satisfaction.

4. The cooperatives' environmental sustainability performance and satisfaction

Overall, agricultural cooperatives influence farmers to adopt environmentally friendly technologies/practices, and enable investing in organic amendment, thus, increases farm environmental sustainability (Yu et al. 2021; Ma and Abdulai, 2016; Zhou et al. 2018; Ma et al. 2018). Likewise, cooperatives play important role in enabling members to adopt sustainable practices by focusing on integrated pest management technology (Ma and Abdulai, 2016); increases the farmers' propensity to change their practices by reducing pesticide residues

(Zhou et al. 2018; Mills et al. 2017). Farmers may involve themselves in cooperatives that strive for environmental protection (Van Dijk et al., 2016). Besides, cooperative member democracy may be effective in coordinating member incentives to conduct environment friendly production (Morfi et al., 2015). Hence, contribute to clean and healthy environment. Accordingly, hypothesis four was developed as follow.

Hypothesis 4: Achievement of the environmental sustainability objectives by the cooperatives (forest conservation, soil conservation and clean and healthy environment), positively influence its members' satisfaction, as it enables them to sustainably produce specialty coffee beans.

Methodology

3.1. Description of the Study Area

The study area for the envisaged study was the south western Oromia, Ethiopia, home for coffee Arabica and *specialty coffee potential area.* The specific areas are the *specialty coffee potential Zones and districts of Jimma zone (Mana, Gomma, Gera), Buno Bedele zone (Bedele, Gachi, Didesa), and Ilubabor zone (Yayo, Hurrumu-Dadu, Matu).*

3.2. Research Design

Research design is the general plan of how to go about answering research question(s); that it is concerned with the overall plan for a research, (Saunders, et al. 2019). It is the overall configuration of a piece of research involving questions about what kind of evidence is gathered and from where, and how such evidence is interpreted in order to provide good answers to the initial research question (Easter by-Smith et al. 2012). Accordingly, the present study was employed *descriptive, abductive, concurrent mixed method, cross sectional survey research design*.

3.3. Type and Sources of Data

In this research, both qualitative and quantitative data were collected from primary and secondary data sources. Major sources of primary data were the cooperatives' member smallholder specialty coffee producers and the coffee producers' cooperatives' development offices' heads. Secondary data was collected from the relevant prior research reports from all sources.

3.4. Data Collection Tools

For the current study, methods of data collection used were *observation, key informant interview, and survey questionnaire.*

Observation was used to collect the production inputs the smallholder specialty coffee producers are using, such as, whether or not coffee is grown under shade, use of organic fertilizer, record keeping practices; the facilities used for drying coffee and the container/sack/bags used for packing & storage facilities used by the cooperatives. This is

due to the nature of the data collected, that the data was searched by the direct observation without asking from the smallholder specialty coffee producers and their cooperatives.
Semi-structured survey questionnaire was used to collect primary data from the smallholder specialty coffee producers, as it is more flexible and provide a balance between the freedom of the respondents to provide their own responses and the need for fixed control over the topic in a flexible manner. For successful implementation of the survey method, questioners were carefully selected and oriented on the appropriate approach to the respondents so that they were honest, and impartial. Also, the researchers have put every effort to create friendly atmosphere of trust and confidence so that respondents feel at ease while talking to and discussing with the questioner. Besides, the researchers have made field checks during data collection period to ensure that enumerators were not deviating from instructions they were given for performing their job correctly. Key informant interview was used to collect primary data from the cooperative development offices' heads.

3.5. Sampling Techniques and Sample Size

Sampling techniques

For this study, *purposive sampling and* systematic *random sampling techniques* were used. Purposive sampling was employed for selecting the sample coffee producing zones and their respective districts based on their coffee production potentials and to select the district cooperatives development offices. Systematic random sampling was used to select the sample of cooperative members small holder specialty coffee producers. Reasons for using systematic random sampling include, the systematic random sampling technique is operationally more convenient than simple random sampling; it ensures that each unit has an equal probability of inclusion in the sample. In this method of sampling, the first unit is selected with the help of random numbers, and the remaining units are selected automatically according to a predetermined pattern (Stephen, 1992); a 1-in-k systematic random sampling approach.

The sample size

According to the zonal offices of cooperatives development of Jimma, Buno Bedele & Ilubabor, (2022), the study population of the smallholder specialty coffee producers was 11,402.

The sample size for the study is calculated using Kothari, (2004), formula.

$$n = \frac{z^2 pqN}{e^2(N-1) + z^2 pq}$$

Where: n is the sample size, N is population of the smallholder specialty coffee producers of the three coffee potential zones selected for the current study p is sample proportion for a sample of size n, where, p is 0.5 and p + q = 1; e is margin of error, where margin of error

considered for this study is 5%; *Z* is the value of the standard variate; Z at 0.05 level of significance is 1.96.

Accordingly, a sample of 372 smallholder specialty coffee producers' cooperatives' members were participated. Besides, nine (09) district cooperatives' development offices' heads were involved. Hence, the total sample size was 381 respondents.

3.6. Measurement Tools

For the purpose of the envisaged study, reliability tests were checked for reliability assurance. Besides, the assumptions of multiple regression (multicollinearity, normality, linearity homoscedasticity) were checked for model fit.

3.7. Methods of Data Analysis

For data analysis, both qualitative and quantitative methods of data analysis were used.

Qualitative data analysis: Analysis of the qualitative data involves the coding of data, identifying of key themes, as well as accumulating and recording data under selected themes and sub-themes (Creswell 2018). According to Marshall and Rossman (2014), the themes are identified from the interview transcripts, literature reviews and the experience of the researcher. Accordingly, the identification of the themes for this study was based on the text of the interview transcripts. Thus, the qualitative responses from the interview were recorded on the schedule and analyzed using the method of thematic analysis.

Quantitative data analysis: The collected data was analyzed using SPSS version 23 software. Quantitative methods used were Descriptive statistics and Multivariate Regression analysis.

Descriptive statistics: Descriptive statistics such as; frequencies, percentage, and mean were used for the analysis of extent of cooperatives' objectives achievement, from district cooperatives offices heads and smallholder specialty coffee producers' perceptions.

Multivariate Regression: Since, multivariate regression analysis controls for all important variables on which data are available, it was used for the analysis of *satisfaction* of the smallholder specialty coffee producers with performance of their cooperatives.

The Model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_n X_n + \varepsilon$$

Where:

- *Y* is the dependent variable, cooperative's members' satisfaction
- *X*s are the independent variables (*X1*= cooperative's performance in executing the objectives of its establishment; *X2*= the economic sustainability performance achieved; *X3*= the social sustainability performance achieved; *X4*= the environmental sustainability performance achieved).
- ε is the error term

- Coefficient B_0 is the model's "intercept," representing the expected value of ***Y*** if all the independent variables are zero, (β0+ β1X0+β2X0+β3X0+β4X0= 0).
- Parameters β_1 to βn are the slope coefficients (or partial regression coefficients) for independent variables X_1 to $X4$.

3.9. Variables' Definitions

Dependent variable: The dependent variable is the smallholder specialty coffee producers' satisfaction with performance of their cooperatives.

Independent variables: The independent variables are the cooperative's service delivery performance, economic sustainability performance, social sustainability performance and environmental sustainability performance. They are ordinal variables taking the value *"1"= no satisfaction, "2"= Low satisfaction, "3"=Medium satisfaction, "4"=High satisfaction, and "5"=Very high Satisfaction*, depending on respondents perceptions on the extent of their satisfaction with their cooperatives' performance. These variables are defined in table 1, below.

Table 1. Summary of the dependent and Independent variables

Variables	**Code**	**Type**	**Measurement**	**Sign**
Dependent variable Members' overall satisfaction	MOS			
Independent Variables				
Cooperatives' Service delivery Performance (X1)	SDP			
1. Input supply at lower cost	SDP1	Ordinal	Likert scale	+
2. Training services	SDP2	Ordinal	Likert scale	+
3. Participation in coffee price decision	SDP3	Ordinal	Likert scale	+
4. Finding better market & providing price information	SDP4	Ordinal	Likert scale	+
5. Developing members' saving culture	SDP5	Ordinal	Likert scale	+
6. Investment in community infrastructure	SDP7	Ordinal	Likert scale	+
Economic sustainability performance (X2)	ECSP			

7. Fair price paid	ECS1	Ordinal	Likert scale	+
8. Diversified sources of income	ECS2	Ordinal	Likert scale	+
9. Improved net income	ECS3	Ordinal	Likert scale	+
10. Premium price	ECS4	Ordinal	Likert scale	+
11. Asset ownership	ECS5	Ordinal	Likert scale	+
Social sustainability performance (X3)	SOSP			
12. Skill & knowledge improved	SOS1	Ordinal	Likert scale	+
13. Confidence in transparency	SOS2	Ordinal	Likert scale	+
14. Trust in market information	SOS3	Ordinal	Likert scale	
15. Reliability in payment	SOS4	Ordinal	Likert scale	+
16. Commitment/guarantee of fair price	SOS5	Ordinal	Likert scale	+
Environmental sustainability performance (X4)	ENSP			
17. Forest conservation	ENS1	Ordinal	Likert scale	+
18. Soil conservation	ENS2	Ordinal	Likert scale	+
19. Clean & green environment	ENS3	Ordinal	Likert scale	+

Note: MOS= Members' overall satisfaction, SDP= service delivery performance, ECSP= economic sustainability performance, SOSP= social sustainability performance, ENSP= environmental sustainability performance.

Results and Discussions

4.1. Results of the study

4.1.1. Qualitative result

Types of certificate and Services delivered by the sample cooperatives to their members

According to the result of the qualitative analysis, the sample district cooperatives development offices heads confirmed that, all of the nine (09) district cooperatives' development office heads of the study districts mentioned that the sample cooperatives were certified for specialty certificate, specifically, fair-trade, shade grown, organic & fair-trade double certificates. While the types of service delivered by the cooperatives to their members include: providing production inputs to members at lower cost, providing market information, providing training on coffee production and saving culture; letting members participate in coffee price setting, keeping record on members' coffee production, harvesting, and processing, and investment in community clean water source, access road, Health clinics, schools and environmental protection from the premium price.

4.1.2. Quantitative analysis result

Descriptive Analysis

Table 2 presents perception of the sample district cooperatives' offices on service delivery by the cooperatives.

Table 2. Perception of the district cooperatives' offices on service delivery by the cooperatives

Types of Service delivery objectives & achievement	**Response**			
	Agree		Disagree	
	n	%	n	%
Objectives of providing inputs		**74**		**26**
Coops. achieved objective of providing production input to members at lower cost	8	88	1	12
Coops. achieved objective of providing *training* on coffee production	7	78	2	22
Coops. achieved objective of developing members' saving culture	5	56	4	44
Traceability objective		**88**		**12**
Coops. achieved objective of letting members participate in	8	8	1	12

coffee price setting		8		
Coops. achieved objective of providing timely market information to members	8	88	1	12
Coops. achieved objective of keeping record on members' coffee production practice	8	88	1	12
Investment objectives		**33**		**67**
Coops. achieved objective of investment in community clean water source	4	44	5	56
Coops. achieved objective of investment in community access road	1	12	8	88
Coops. achieved objective of investment in community Health clinics	3	33	6	66
Coops. achieved objective of investment in community schools	2	22	7	78
Coops. achieved objective of investment in protecting the environment	5	56	4	44

Source: The authors

The result in table 2 above, show on average, 74% of the district cooperatives' development offices' heads agreed that, the sample cooperatives have achieved objective of providing inputs to members. That is, providing market information (88%), providing production inputs at lower cost (88%), training to members on coffee production (78%), and developing members' saving culture (56%) of the respondents respectively. On average, 88% of the district cooperatives' development offices heads agreed that, the sample cooperatives have achieved *traceability* objectives, that is, letting members to participate in coffee price setting decision (88%), providing timely market information (88) and keeping record of producers' coffee production practices(88%). On average, (33%) of the district cooperatives' development offices' heads agreed that, the cooperatives have achieved objective of investment. That is, investment in community clean water source achieved objective of investment. That is, clean water development (44%), community health clinics (33%), community school (22%) and objective of investment in protecting the environment (56%) each. While, 12% of the district cooperatives' development offices' heads agreed that, the cooperatives have achieved objective of investment in community access road.

Perception of the sample producers on objectives achievement by their cooperatives

Table 3. Descriptive Statistics of perception of the sample producers' on cooperatives' objective achievement

Cooperatives' objectives & achievement	Mean	Std. Deviation	N
Coop. achieved objective of providing training to members	3.6532	.54021	372
Coop. achieved objective of providing market information	3.5914	.59170	372
Coop. achieved objective of Input supply at lower cost	3.4113	.66501	372
Coop. achieved objective of letting members participate in price setting	3.2043	.81508	372
Coop. achieved keeping record of members' coffee production & process	3.3043	.71508	372
Coop. achieved objective of developing soil conservation structures	3.3145	.71118	372
Coop. achieved objective of investment in clean water source	2.7634	.56201	372
Coop. achieved objective of developing members' saving culture	2.6478	.80909	372
Coop. achieved objective of investment in community schools	2.5081	.58040	372
Coop. achieved objective of investment in community Health clinics	2.3414	.62655	372
Coop. achieved objective of investment in village level roads	2.1215	.23402	372
Coop. achieved objective of providing loan/credit service to members.	1.0188	.22552	372

Source: The authors

The statement that, "producers' cooperatives have achieved the objective of providing training" has the highest mean value (3.6532) with relatively low standard deviation (.54021), indicating strong agreement among respondents with minimum variation. Likewise, the statement that "producers' cooperatives have achieved objective of providing better market information to members" (mean= 3.5914, SD=.59170), and "producers' cooperatives have achieved objective of input supply at lower cost"(mean = 3.4113, SD= .66501), reveals better or strong consensus among the respondents with relatively lower perception variation. Likewise, the statements that "producers' cooperatives have achieved objective of providing better market information to members" (mean= 3.5914, SD=.59170), and "producers' cooperatives have achieved objective of letting members to participate in coffee price setting decision" with (mean = 3.2043, SD=.81508), as well as "cooperatives have achieved objective of keeping record of members' coffee production & process" (mean=3.3043. SD=.71508), indicate strong consensus and lower perception variation among the respondents. Besides, the statement "producers' cooperatives have achieved objective of developing soil conservation structures" (mean =3.3145, SD=.71118), showing existence of similar perception of the respondents towards the effort of their cooperatives to develop soil erosion protection

and hence the environment. Also, the statement that "producers' cooperatives have achieved objective of developing members' saving culture" (mean=2.6478, SD= .80909), designate medium consensus among the respondents.

Pertaining the investment effort of the sample cooperatives from the premium price, the statements that "producers' cooperatives have achieved objectives of investment in *clean water source (mean =2.7634, SD=.56201); health clinics (mean=2.3414, SD=.62655); in community school (mean=2.5081, SD=.58040),* and *in-village roads (mean=2.1215, SD=.23402),* highlight consensus among the respondents' perceptions with relatively lower perception variation, and lower cooperatives' achievement.

Finally, the statement that "producers' cooperatives have achieved objectives of providing loan/credit service (mean= 1.0188, SD= .22552), indicate agreement of the respondents on the lowest cooperatives' achievement.

Cooperative' performance and Members' Satisfaction (Multivariate Regression Analysis)

For the purpose of the envisaged study, while reliability test was checked for consistency assurance; the assumptions of multiple regression (multicollinearity, normality, linearity, homoscedasticity) were checked for model fit. Pertaining the internal consistencies, no absolute rules exist, however most agree on a minimum internal consistency coefficient of 0.70 (Robinson, 2009). Hinton et al. (2004), have suggested that (0.70-0.90) Cronbach's alpha indicates high reliability. Accordingly, in the present study, Cronbach's alpha coefficient was 0.798, which indicate high reliability.

Multicollinearity test

No Multicollinearity: It is essential that the *independent variables* are not too highly correlated with each other, a condition known as multicollinearity. This can be checked using: VIF and Tolerance.

Variance Inflation Factor (VIF), VIF values above 10 and Tolerance scores less than 10% indicate problem of multicollinearity. Table 5 below shows the collinearity statistics. The analysis of collinearity results showed these assumptions were met as Tolerance scores were between 0 and 1, meanwhile, Variance Inflation Factor (VIF) scores were below 10. Hence, there is no multicollinearity problem.

Table 4. Collinearity statistics

Variables	Collinearity Statistics	
	Tolerance	VIF
Members' satisfaction with coops' service delivery performance	.577	1.733
Members' satisfaction with economic sustainability performance	.569	1.758
Members' satisfaction with social sustainability performance	.722	1.385
Members' satisfaction with environmental sustainability performance	.847	1.180

Source: The authors

Multivariate Normality: The analysis assumes that the residuals (the differences between observed and predicted values) are normally distributed. This assumption was assessed through statistical tests called the Shapiro-Wilk test. Accordingly, Shapiro-Wilk test of normality shows significance value of 0.061, which is greater than the significance value (α) 0.05. Therefore, the result show that, the data are normally distributed.

Linear Relationship: the core premise of multiple linear regression is the existence of a linear relationship between the dependent variable and the independent variables. This linearity can be visually inspected using scatterplots, which should reveal a straight-line relationship rather than a curvilinear one. Accordingly, the normal P-P plot of regression standardized residual depicts that, there is a linear relationship between cooperatives' performance and members' satisfaction.

Homoscedasticity: The variance of error terms (residuals) should be consistent across all levels of the independent variables. That is, a scatterplot of residuals versus predicted values should not display any discernible pattern, such as *a cone-shaped distribution*, which would indicate heteroscedasticity. Accordingly, the scatter plot for overall variables show the data are normally distributed.

Hypothesis Testing

Having the multivariate regression requirements above fulfilled, the ensuing section presents hypothesis testing.

Table 5. Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.872[a]	.760	.757	.17091

a. Predictors: (Constant), ECS, ENS, SOS, COSD: ECS= Economic sustainability, SOS= Social sustainability, ENS= Environmental sustainability, COSD= Cooperative's Service Delivery

b. Dependent Variable: Members' satisfaction

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	33.858	4	8.465	291.896	.000[b]
	Residual	10.720	367	.029		
	Total	44.578	371			

a. Dependent Variable: Members' satisfaction

b. Predictors: (Constant), ECS, ENS, SOS, & ECS= Economic sustainability, SOS= Social sustainability, ENS= Environmental sustainability, respectively; COSD= Cooperative's Service Delivery (Source: the authors).

The model summary in table 5 shows, adjusted R square of 0.757. That means, 75.7% of the dependent variable is explained by the independent variables together.

Table 6. Unstandardized and standardized coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Decision on hypothesis
		Beta	Std. Error	Beta			
1	(Constant)	.272	.109		2.492	.013	
	Members' satisfaction with COSDP	.255	.032	.268	7.950	.000	Accepted
	Members' satisfaction with ECSP	.227	.034	.230	6.764	.000	Accepted
	Members' satisfaction with SOSP	.273	.022	.372	12.355	.000	Accepted
	Members' satisfaction with ENSP	.234	.020	.332	11.938	.000	Accepted

a. Dependent Variable: Members' Satisfaction

Note: ECSP= Economic sustainability performance, SOSP= Social sustainability performance, ENSP= Environmental sustainability performance, COSDP= Cooperative's Service Delivery Performance (Source: the authors).

The table 6 depicts that: all the independent variables do have a positive and significant influence, on the members' satisfaction at significance level of less than 0.01 (0.000). This is further detailed below.

Effect of cooperatives' service delivery objective achievement on members' satisfaction

The analysis show that, there is significant & positive relationship between cooperatives' service delivery objective achievement & members' satisfaction. That is, a 1 standard deviation increase in cooperatives' service delivery performance resulted in 0.268 standard deviation increase in overall members' satisfaction.

Effect of cooperatives' economic sustainability performance on members' satisfaction

There is significant & Positive relationship between cooperatives' economic sustainability performance & members' satisfaction. That is, a 1 standard deviation change in members' economic sustainability performance has resulted in 0.230 standard deviation increase in overall members' satisfaction.

Effect of cooperatives' social sustainability performance on members' satisfaction

There is significant & Positive relationship between cooperatives' social sustainability performance & members' satisfaction. That is, a 1 standard deviation change in members' social sustainability performance has resulted in 0.372 standard deviation increase in overall members' satisfaction.

Effect of cooperatives' environmental sustainability performance on members' satisfaction

There is significant & Positive relationship between cooperatives' environmental sustainability performance & members' satisfaction. That is, a 1 standard deviation change in members' social sustainability performance has resulted in 0.332 standard deviation increase in overall members' satisfaction.

4.2. Discussions

The result of the qualitative analysis revealed that, all of the nine (09) district cooperatives' development office heads of the study districts mentioned that the sample cooperatives were certified for specialty certificate, specifically, fair-trade, shade grown, organic & fair-trade double certificates. Also, all of the nine (09) district cooperatives' development offices heads of the study districts mentioned that, the major services that the district cooperatives' development offices have provided to the coffee producers' cooperatives in the coffee season of 2022/23 (2014/15 EC), include, providing production inputs to members at lower cost, providing market information, training on coffee production and saving culture; letting members participate in coffee price setting, keeping record on members' coffee production,

harvesting, and processing, and investment in community clean water source, access road, Health clinics, schools and environmental protection from the premium price.

The result of quantitative analysis show that, on average, 88%, 74%, and 33% of the district cooperatives' development offices' heads agreed that, the sample cooperatives have achieved objective of traceability, providing inputs to members at lower cost, investment in community infrastructure. The lowest achievement being investment in clean water source; health clinics; community school and in-village roads.

Pertaining the effect of cooperative's service delivery performance on members' satisfaction, the current finding unveiled that, cooperatives' service delivery objective achievement was positively and significantly related to members' satisfaction. That is, a unit change in cooperatives' service delivery performance had resulted in 0.268 increase in overall members' satisfaction. Accordingly, the hypothesis that cooperative's service delivery objective achievement (input supply, communication, transparency, payment reliability, training, saving culture, community investment) is positively influence members' satisfaction, is accepted. This finding is supported by the prior studies (Grashuis and Su, 2019;Marete, 2010), which revealed that, the success of a cooperative is often a reflection of member satisfaction; thus, members' satisfaction is primarily a result of expected and realized benefits from cooperatives, as the satisfaction of members creates positive attitudes towards the cooperative. Also, the study by Mojo et al. (2017), supports the finding of the present study that, members' satisfaction with their cooperatives' services provision is of paramount importance. Likewise, Liebrand and Ling, (2014), confirmed that, the key to being a successful cooperative is performing functions and providing services to members' satisfaction; thus, the more satisfied members are with their cooperative, the less likely they are to drop out.

Besides, the result of the study show that, cooperatives' economic sustainability performance has significant & positive relation with members' satisfaction. That is, a unit change in members' economic sustainability performance has resulted in 0.230 increase in members' satisfaction. Thus, the *hypothesis that, achievement of the economic sustainability objective by the cooperatives (fair price, premium price, diversified sources of income, net income, and asset ownership) has positive relation with members' satisfaction, is accepted. This result is in line with the findings of the prior researches* (Ma et al. 2018; Cechin et al. 2013), which confirmed that cooperatives influence the economic performance of their members, through providing higher prices to its members; help farmers to improve their profits (VanDijk, 2014), through reducing their cost of production (Yu and Nilsson, 2021; Liebrand and Ling, 2014); thus, positively influence members' incomes through better access to inputs and technical expertise; consequently, improve members' living conditions and satisfaction with cooperatives' economic sustainability performance (Grashuis and Su, 2019; Mojo et al. 2017; Ma and Abdulai, 2016; Verhofstadt and Maertens, 2014).

The result of this study confirms that, cooperatives' social sustainability performance has significant & positive relation with members' satisfaction. That is, a unit change in members' social sustainability performance has resulted in 0.372 increase in members' satisfaction. Accordingly the hypothesis that, cooperatives' achievement of social sustainability performance (Skill and knowledge, confidence, Trust, commitment, and reliability), is positively influence members' satisfaction, is accepted. This finding is supported by the prior study of Yu and Nilsson, (2021), which indicate that, cooperatives create knowledge and capacity building for members, thus achieving this objective results in members' satisfaction. Likewise, the study by ; Grashuis and Cook, (2019), confirmed that agricultural cooperatives have impacts on their members capacity (skill and knowledge) through training or technical support; thus, successful performance of cooperatives in this regard will lead to members' satisfaction. Besides, Hernández-Espallardo et al. (2013), show that farmers may prefer to accept lower prices if the cooperative can cope with transaction cost problems such as securing market access, providing information about the cooperative management/communication and helping farmers to meet market requirements and society expectations. Hence, achieving this objective would result in members' satisfaction with their cooperatives' performance. Also, achieving trust and reputation are key determinants of cooperatives' performance (Yu et al. 2021); hence, positively related to members' satisfaction (Yu and Nilsson, 2021; Grashuis and Cook, 2019).

The findings of the current study revealed that, cooperatives' environmental sustainability performance has significant and positive relation with members' satisfaction. That is, a unit increase in members' environmental sustainability performance has resulted in 0.332 increase in members' satisfaction. Accordingly the hypothesis that, achievement of the environmental sustainability objectives by the cooperatives (forest conservation, soil conservation and clean and healthy environment) is positively and significantly related to members' satisfaction is accepted. This finding is in line with earlier insights (Yu et al. 2021; Ma and Abdulai, 2016; Zhou et al. 2018), which confirm that, agricultural cooperatives may influence farmers to adopt environmentally friendly technologies/practices, such as soil and water conservation, organic farming, thus, increases farm environmental sustainability.

Conclusions and Recommendations

Conclusions

Based on the results and discussions, the following conclusions were drawn.

In the year 2022/23 (2015 EC) coffee season;

- The sample smallholder specialty coffee producers' cooperatives were best at achieving the objective of finding and providing timely market price information, providing training, letting members to participate in coffee price setting decision and keeping record of members' coffee production practices; while, they were performed better in the achievement

of objectives of immediately making payment for supplied members' coffee, and supplying inputs at lower cost.

- Particular to the objectives of developing members' saving culture, and investment in rural clean water source development, it could be concluded that the smallholder specialty coffee producers' cooperatives' performance was low.

Based on the result of the multivariate regression analysis it could be concluded that all the independent variables (economic, social, and environmental sustainability objectives achievement, as well as service delivery objective achievement), do have a positive and significant influence on the sample cooperatives' satisfaction.

The largest contribution to the members' satisfaction being provided by the social sustainability performance, followed by the environmental sustainability performance and cooperatives' services delivery objective achievement.

Members' satisfaction with the economic sustainability objective achievement was less than the other contributing achievements.

Recommendations

- It is better that, the district offices of cooperatives' development, and the cooperatives themselves consider improvement alternatives so that the low performance of the smallholder specialty coffee producers' cooperatives' particular to the objectives of developing members' saving culture and investment in rural clean water source development, be improved.
- Also, it is better that the district offices of cooperatives' development and the cooperatives strongly work together to improve the identified low and poor cooperatives' performance specific to the objectives of investment from the premium price in rural access road, community health clinics and schools; and enable the producers to easily access their cooperatives' market, get health service and easily access education service in their village.
- Finally, having a forum of the district offices of cooperatives' development, the producers' cooperatives, the members themselves and other stakeholders, could help to work effectively in an integrated manner, so that, the identified low and poor performance areas could be improved

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