

**A case study regarding Ecuadorian farmers' perspective on associative work in agriculture**

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**Abstract**

*This qualitative case study conducted in Ecuador aimed to explore the perspective of a group of farmers regarding agricultural associative work and assess their association's strengths, weaknesses, opportunities, and threats (SWOT analysis). The research is theoretically framed through the social capital theory and utilizes various methods, including one-on-one interviews, team group activities, flipcharts, field notes, and research memos. Four main topics emerged from the analysis: the importance of associative work, common goals and values, advantages and barriers of being part of the association. Participants expressed diverse perspectives on associative work, primarily focusing on the benefits and advantages of being associated. They perceived membership in an agricultural association positively and identified clear advantages of being part of it. The SWOT analysis revealed that product quality was the main strength of the association. However, the principal weakness was the lack of infrastructure, hindering the association's operations and growth. The most significant opportunity identified was the need for technical assistance to enhance agricultural practices and productivity. The most repetitive threat was the challenge of low productivity due to climate change, which poses a significant risk to the farm sector. Recommendations were made to consider the perspectives of other farmers' associations to gain additional insights into the role of such associations in Ecuadorian agriculture. Organizations working with small farmers are suggested to evaluate the current state of the associations they collaborate with. Conducting SWOT analyses will enable a comprehensive needs assessment of agricultural organizations, allowing for targeted interventions and support.*

*Keywords:* farmers' association, agriculture, associative work, SWOT analysis, case study

## **Introduction**

Associative work involves individuals coming together and aligning their efforts toward achieving shared goals to reap anticipated benefits (Fabian, 2013; Ratner, 2009; Rodríguez-Giraldez & Vicente-Ramos, 2020). Agricultural associations are groups of farmers working together to acquire goods for consumption, transform products, and offer agricultural outputs in the market, as well as providing services to the farmers to improve the economy, reduce production costs, and increase incomes (Chambo, 2009; Panzoni, 1958).

Formed by agricultural producers, an association can be responsible for coordinating production, commercialization, input acquisition, and providing farmers financial aid for short and long-term projects with the needed information and technology for innovation (Nilvises, 1988). These farmers' relationships in the association promote an inclusive agri-food system (Chambo, 2009; Mamani, 2017) that brings solutions to their local economic problems (Panzoni, 1958). However, distrust and lack of knowledge concerning how to start and successfully manage an association can limit the effectiveness of working cooperatively over the long term (Ferrando Perea, 2015).

Studies exploring farmers' participation in associations have helped to identify two common types of associative models: farmers who have learned how to work on a team to achieve long-term goals (Berdegué, 2001; Ruben et al., 2006) and farmers who are part of a group to obtain a specific benefit and return to working independently once the immediate benefits have been realized (Mamani, 2017).

In Ecuador, most of the associative agricultural work is based on the second model, and one of the contributing factors to the prevalence of this model can be the lack of education regarding cooperative or associative work, which implies sharing knowledge on how to work together as a team to accomplish a common purpose (Da Ros, 2007; Uset-Ruiz et al., 2020). An important concern for associative work in Ecuador is the absence of teamwork and collaboration among producers (Gómez-Ceballos et al., 2021). These problems are compounded in the country by legal loopholes in Ecuador's Ley de Cooperativas (Cooperative Law), which have been obstacles to addressing the needs of the agricultural cooperative sector (Da Ros, 2001). The multiple challenges facing Ecuadorian farmers can be more comprehensively addressed through collective action; to improve the performance of agricultural associative groups and enhance farmers' capacity to confront challenges more effectively, it is essential to strengthen and implement sound policy structures (Moreno Miranda et al., 2020).

One approach to strengthening farmers' associations includes the provision of capacity-building programs to train association members on effective organizational functioning, as Ecuadorian farmers often lack access to consistent training (Espinoza Loayza et al., 2019). Managers and decision-makers from agricultural cooperatives and associations are often forced to look for alternatives to improve organizational development and address capacity building. One of these alternatives may be the evaluation of internal and external factors affecting the association by using strengths, weaknesses, opportunities, and threats [SWOT] analysis (Barati et al., 2017; Sammut-Bonnici & Galea, 2015).

There is limited information regarding associative and cooperative work in agriculture in Ecuador. This research aims to reduce this gap through a comprehensive qualitative analysis.

## **Literature Review**

Farmers apply collective efforts to enhance their agricultural production and overcome constraints related to limited resources (Uset-Ruiz et al., 2020). A study conducted in Chile found that existing organizations facilitate the formation of agricultural associations, providing a time and space where ideas can be discussed and decisions made (Berdegué, 2001). The search for specific benefits can also lead to formalizing an association, such as obtaining certifications. One study conducted in Costa Rica demonstrated the success of small-scale farmers' associations, where farmers provide organic certification opportunities to the association members and establish marketing networks, managing high production volumes at low transaction costs (Ruben et al., 2006).

Two studies on agricultural associative work in Ecuador were found; results obtained from research on associative mechanisms have shown evidence of the significance of fostering cohesion among the people who interact in the agricultural organization, especially when these organizations have an associative work model (Uset-Ruiz et al., 2020). Enríquez-Estrella and Montenegro-Flores (2020) conducted case study research to analyze an associative and market management model in a local community in Ecuador, illustrating how this communal agricultural enterprise functions using collaborative approaches in the productive chain.

To evaluate the status of an organization and propose strategies for improvement, researchers have used SWOT analysis as a technique to identify strategic planning and management factors from diverse viewpoints (Barati et al., 2017; Quezada et al., 2019; Sammut-Bonnici & Galea, 2015). Strengths and weaknesses are internal organizational characteristics that are either helpful or harmful to accomplishing objectives; opportunities and threats are defined as external circumstances that either support or hinder achieving organizational goals (Hay & Castilla, 2006). Internal organizational characteristics typically comprise factors under the organization's direct control, such as staffing or infrastructure. External characteristics are factors outside the direct control of the organization, such as a shifting market or an economic downturn. As an organization undertakes the identification of these internal and external factors that affect its functioning, it facilitates a more comprehensive understanding of assets and liabilities and enhances decision-making (Phadermrod et al., 2019).

The SWOT analysis has been used to evaluate subjective opinions about a specific topic, often reflecting current situations during a brainstorming process (Phadermrod et al., 2019). In agriculture, this tool has been used to examine the actual status of farmers' organizations and create a framework that helps to understand strengths and address opportunities (Oladele & Sakagami, 2004). For this study, participants were provided with training on the use of SWOT methodology and how to conduct a deep analysis. As part of the training, participants used the SWOT analysis as a baseline for understanding current organizational status and exploring opportunities for improvement.

## **Theoretical Framework**

The theoretical framework applied to this research was Social Capital Theory, which is comprised of different components, including social networks and interaction between individuals, that open access to other types of resources (Bourdieu, 1986; Putnam, 2000). This theory may be applied to organizations and examines the types of relationships created in a group of individuals who are seeking to accomplish desired outcomes (Whiteley, 2015).

The effectiveness in achieving agricultural associations' goals is related to the strength of the relationships between the members (Warren, 2001). In agricultural contexts, associative work can be construed as an organizational system that improves the competitiveness of small-scale farmers. However, some factors that limit these agricultural producers from working associatively over the long term are distrust and the need for process knowledge (Ferrando Perea, 2015).

Social capital has been conceptualized in different forms; the applicable concept for this research focuses on the networks and interactions of individuals who desire to maximize utility and have shared interests (Coleman, 1988; Silvert et al., 2022). This perspective of social capital theory is utilized to analyze relationships and networks, aiming to enhance knowledge of how bonding, bridging, and linking social capital can produce effects on the dynamics of these relationships (Silvert et al., 2022). Framing social capital in this way highlights the intra-organizational relationships between the participants, creating value for individuals who are part of the agricultural organization in this study (Bizzi, 2015). As Whiteley (2015) highlighted, social capital theory encourages the relationship of individuals who are seeking to fulfill a desired goal; in this case, the participants for this research were part of an association that interacted primarily around the shared goals of efficient farming and production of agricultural goods for the market. Therefore, the analysis for this research is grounded in the social capital approach.

### **Purpose and Objectives**

This research sought to gain insight into farmers' perspectives on associative work in agriculture and evaluate the status of a farmers' organization in which they are actively engaged. To achieve these goals, the research was guided by two specific objectives: 1) to identify the experiences of farmers regarding associative work in the agricultural context and 2) to explore the organizational status of an agricultural association using the SWOT analysis.

### **Methods**

#### **Research Design**

Case study methodology is used in agricultural research and provides a detailed understanding of a problem or situation in a specific context (Rashid et al., 2019). Case studies are essential in agricultural investigations by providing a sound source of practical information and perspective that may complement theoretical concepts (Scoones, 2009). A constructivist lens was used to understand participants' opinions and enhance their understanding of agricultural associative work (Creswell & Creswell, 2018).

For this qualitative research, the instrumental case study approach focused on understanding agricultural associative concerns, primarily to examine factors involved in the failure or success of agricultural organizations that practice associative or cooperative work (Eisenhardt, 1989; Friedman, 1992). In this study, members of an agricultural association received training on the importance of collaborative work. As part of the training, one activity included developing a SWOT analysis focused on the association. The SWOT analysis is a methodology often used in organizations to construct a strategic plan, identify potential problems, and look for solutions to organizational issues and other barriers to success (Kelsey, 2018). This SWOT analysis was included in the research design because it was important to understand how farmers describe the strengths and weaknesses of their association and what opportunities and threats these farmers perceived while working with the association.

## Target Population

The population included members of a cocoa and plantain agricultural association who reside in a rural area of a coastal province of Ecuador. The association members had requested a workshop on organizational strengthening for the association. A total of 15 adult participants were part of the sample; eight were men, and seven were women. All participants were over 21 years old. Pseudonyms were used to guarantee the participants' confidentiality. The people who live in this agricultural community are "*montubios*," which is an ethnic identity unique to the people living in the rural region on the coast of Ecuador (Nagar et al., 2021). This specific target population consists of a small group of *montubios* farmers who work associatively to meet market demands for cocoa and plantain products.

The lead researcher submitted supporting documentation to the Texas Tech University Institutional Review Board (IRB), and approval to conduct the research was granted under the number IRB2022-214. After receiving IRB approval, the lead researcher recruited participants through recommendations from agricultural organization leaders, reaching out to participants through phone calls, WhatsApp messages, and person-to-person communication. Purposive sampling was used in the recruitment process with the following stipulations for participation: (1) the individuals considered themselves part of the organization, (2) they lived in the community, and (3) they could discuss the organization's challenges and opportunities. The lead researcher invited the participants to attend the organizational strengthening workshop, and those people who confirmed interest in attending the workshop were asked to participate in the research. Researchers used a verbal consent statement in the local language (Spanish), which was read and accepted by the participants prior to the start of the research.

## Data Collection and Analysis

This data collection took place over the course of two weeks of training with association members who voluntarily participated in the workshop. A total of 15 participants were initially interviewed to understand what they knew about the association's status. Throughout the interview process, researchers ensured that questions (see Appendix A) from the interviews were clearly asked to the participants and tried to make them feel comfortable. Interviews were audio-recorded, and the interviewers transcribed those recordings to guarantee the precision of the data (Lamino Jaramillo et al., 2022). The interviews lasted between 30 to 40 minutes per participant, and open-ended questions were asked regarding the importance of the association for farmers, requirements for membership, motivation for membership, values of the organization, as well as the benefits and challenges of being part of the association.

During the training, participants were taught how to conduct a SWOT analysis of the agricultural association. Thirteen of the interview participants were actively engaged in the training; the two remaining interview participants completed the training but did not actively participate. Researchers conducted non-participatory observations throughout the training, explaining the process before the observations and then observing the participants as they interacted and engaged in the training sessions (Creswell & Creswell, 2018). The non-participatory evaluation was complemented by taking field notes, documenting the farmers' participation in the training, and creating research memos following the observation activities.

For the data analysis, researcher memos were used to preserve important information that could not be audio recorded, guaranteeing the triangulation of information sources (Saldaña,

2013). Researchers coded the transcribed interviews by hand and analyzed the data, using an initial open coding process to more clearly understand the data (Corbin & Strauss, 1990). After the first coding cycle, axial coding was used due to the wide variety of data forms under analysis. Researchers then grouped the different codes into categories based on their importance to the research objectives (Saldaña, 2016). Data were collected in Spanish, and the English translation of the main findings was required for the analysis and presentation of the data. The translation was made by the main researchers; three of the five researchers are bilingual. Themes emerged from the coding and categorization process that were then connected to the social capital theory that framed this research.

### **Trustworthiness and Rigor**

According to Creswell and Creswell (2018), qualitative research should ensure credibility, transferability, dependability, and confirmability as the main aspects of research rigor. Multiple data sources, such as one-on-one interviews, observations, memos, and field notes, enhanced this study's credibility (Creswell & Creswell, 2018). Transferability corresponds to validity in quantitative research (Cope, 2014). There are several ways to enhance transferability (Creswell & Creswell, 2018), such as providing a detailed description of the sampling procedures used in the study. In this study, researchers implemented purposive sampling to select the participants based on specific characteristics (Palinkas et al., 2015).

According to Lincoln et al. (1985), dependability is comparable to reliability in qualitative research. One strategy for enhancing dependability is to explain in detail how the research was implemented. In addition, we implemented a double-coding procedure as a method of coding comparison (Hanson et al., 2019) to further enhance the dependability of the research.

Finally, based on Ary et al. (2019), confirmability means the availability to reflect results directly from the research participants rather than researchers' own ideas or biases. To ensure confirmability, researchers engaged in reflexivity practices (Ary et al., 2019; Creswell & Creswell, 2018), which included a detailed review of the interviews and ruminating on the biases and assumptions that could appear during the data analysis. Different methods were applied by the researchers to accomplish confirmability through flexibility; this included the use of memos, field notes, and direct quotations to guarantee that they express exactly what the participants said.

Even with some strategies employed to mitigate bias, it remains crucial to underscore that researcher bias cannot be eliminated from the research process (Creswell & Creswell, 2018). To fully disclose potential biases, two members of the research team are from Ecuador and have worked with producers in Ecuador on other occasions. These researchers belong to the same nationality as the participants, and the lead researcher is from the same culture as the participants. Both researchers are very familiar with the issues, ideologies, and ideals expressed by the participants.

## **Findings**

### **Objective 1: To Identify the Experiences of Farmers Regarding Associative Work in the Agricultural Context**

Participants were asked to define what associative work means and how important being part of the association is for them. After transcribing the interviews and analyzing them through the coding process, four themes emerged regarding the farmers' perception of agricultural

associative work: (1) the importance of associative work, (2) the common goal and values of the association members, (3) the advantages and (4) barriers of being part of the association. A description of the four emerging themes is provided in Table 1.

**Table 1**

*A Description of the Emerging Themes Identified for Objective One*

Theme	Description
Importance of associative work	The association must consist of members who work collectively and want to improve their livelihoods. Working associatively involves sacrifices, obtaining incentives, and being focused on goals.
Common goals and values	It mainly enhances the quality of agricultural products for trading at a fair price. Members' values are loyalty, sincerity, work ethic, leadership, unity, inclusion, and commitment.
Advantages	It includes receiving training from institutions, working with exporters, fair prices, and new trading opportunities.
Barriers	It includes difficulty reaching an agreement, different ways of thinking, and a lack of economic resources.

*Note.* The description of themes summarizes what people mentioned in the interviews.

### ***Importance of Associative Work***

The emerging data from the interviews allowed researchers to understand farmers' perspectives regarding the importance of associative work in the agriculture association. Participants stated that an agricultural association is comprised of a group of farmers who work collectively to enhance a product from the farm and improve the economic income of the association through commitment, teamwork, love for the farm, and shared goals.

Participants provided definitions of agricultural associations; for instance, Pedro said that an association is "a group of people that want to work together with others to improve an agricultural product," whereas Lucas said that an association is "a group of people that seek a common goal." Eduardo mentioned that it is a "human group that looks for the economic improvement of the members." Eduardo added, "Agriculture has been the support of all my life; it means my daily livelihood earned from farm work."

Most of the responses answered from the perspective of associative work indicated that farmers have formed a network to accomplish shared objectives in their agricultural organization. Associated farmers seek to increase their agricultural production, strengthen the relationship between members, and solve problems inside the organization. Karina mentioned that "The association's objective would be to seek improvements for all; being inside an association is good, we are learning, we are advancing." Diego stated, "I was encouraged to join the association because I wanted to change my way of working in the field, to get out of using agrochemicals." The previous quotations demonstrate that participating in an association is working toward a common goal through the effort and motivation of the members, especially in improving their knowledge and decreasing the use of agrochemicals in the field.

Also, farmers believed that the association should be recognized in the community and that all members must meet the requirements to become members, such as working together, having

agricultural lands for production, carrying out Good Agricultural Practices (GAP), participating in meetings, and being in constant training.

Leonor mentioned, “As we have received training and participated in meetings, the new members should also have these benefits.” Mariana said, “Work hard for the well-being of the family and make improvements in the field to be able to give a healthy product through the application of GAP.” Those thoughts represent what association members expect in the agricultural organization, especially for new members starting to be part of meetings and training.

### ***Common Goals and Values***

Members seek to sell quality products, meet market demands, and have better marketing opportunities. Maria stated, “We should accomplish expectations that the market demands, with products free of agrochemicals. The association encourages us to do things to improve our production.” For María, focusing on finding family sustenance and improving their quality of life through agriculture were primary goals.

The interview process and researcher memos helped to identify the farmers’ perceptions, allowing researchers to understand that associated farmers are very proud of their work in the field. Participants shared that agricultural production represents strength, economic income, job sources, well-being, agricultural sustainability, history and tradition, and a business that farmers should know how to operate. Furthermore, farmers considered that working in an association has helped them focus on and share a vision with other farmers. For Pedro, the association represented: “Love for the product, there is a love for the crop because honestly, as I say, I like the field (...) I love farming.”

Pedro had a clear idea of what agriculture and associative work represented; some aspects, like love for farming and collaborative work, were common in the interviews. Eduardo echoed Pedro’s sentiment, saying, “The association is a way for members to work together seeking to improve their way of life, an alternative way to obtain a better standard of living.”

Goals are a powerful part of the agricultural organization for the association’s members because farmers can set up a path to accomplish them and make them real. Due to the importance of goals for the organization, association members are willing to work to accomplish them through effort and commitment.

They stated how essential it is to have values in the organization. The association’s members espoused values such as loyalty, sincerity, work ethic, leadership, unity, inclusion, and commitment. For example, Mario mentioned, “We must be united, have loyalty, commitment, and be firm in the objectives and dreams that we have, focus on what we are going for, be focused and loyal, working for the same leadership.” These core values were repeated across the farmers’ responses, especially the commitment to the association, affirming that the core values embraced by the individual farmers have been applied to the association.

Regarding the importance of core values in the organization and the relationship with the pursuit of common goals, farmers expressed that a way to accomplish objectives in the association can be to have good values that allow them to work on them.

### ***Advantages***

Advantages of being part of an association emerged from the data analysis, such as accessing training, gaining insights from other members, being listened to by the authorities, encouraging the abandonment of agrochemical use, and receiving fair product prices. In addition, members mentioned that the benefits of being associated include receiving training from external institutions, such as private or public organizations, receiving fair prices for their products, and being more recognizable as agricultural producers.

Farmers also mentioned that some advantages opened the door to other advantages. For example, having quality products and better prices in the market encouraged farmers to be associated and work together to accomplish common goals. Carla stated, “One of the advantages is having a voice, having a voice with the authorities (government); if someone makes a request alone, one will not be heard.” Mariana said, “The advantage of being associated is, well, to have a higher economic income; it is to sell in quantity and quality as a group.”

### ***Barriers***

Common limitations of being part of an association also emerged from the data analysis, including the challenges to meet the market demand, requirements to be a member of the association only written on paper, absence of partners in meetings and training, lack of transportation to the city, non-compliance with the rules, and problems when making decisions.

Participants mentioned barriers related to non-compliance in the delivery of the products due to the lack of engagement of the members on the quantity and quality of the agricultural products. For example, Lucas referred to the quantity, saying, “If we do not meet the requirements requested by the industry that asks us for our product, we are going to have a disadvantage, we fail as an association, for not complying with the demand.”

Additionally, David referred to the quality of the product, saying, “The problem for us is not complying with the regulations required by the association. Therefore, it is necessary to have a good product quality.” Highlighting the engagement of the associates to fulfill the quality parameter as an agricultural organization.

Despite the farmers’ organization’s challenges, members know that they should collectively solve current and potential problems, work as a team to face them, and look for feasible solutions. For this reason, the association leaders seek to strengthen the organization and incentivize the farmer’s participation.

### **Objective 2: To Explore the Organizational Status of an Agricultural Association Using the SWOT Analysis**

Researchers utilized the flipcharts (see Appendix B) elaborated by the participants in a group activity about the organization’s SWOT analysis. Based on information in researcher memos, field notes, and interview transcripts, farmers expressed a lack of knowledge regarding assessing the organization's strengths, weaknesses, opportunities, and threats; however, with the researchers' guidance, farmers could work in groups to elaborate a SWOT analysis. As part of this activity, all groups exposed their points of view and discussed them with the trainers. At the end of the activity, the categories of strengths, weaknesses, opportunities, and threats were clarified

and organized based on agreement among the groups. Key findings of the four categories are provided in Table 2.

**Table 2**

*A Description of the SWOT Categories Identified for Objective Two*

<i>SWOT Categories</i>	<i>Description</i>
Strengths	Good quality products, environmentally friendly production, farmers owning the land, farms with GAP certification, farmers working on their production, and external recognition as an association.
Weaknesses	Lack of infrastructure, low financial resources, lack of knowledge regarding financial management, price not according to the quality of the product, and a low number of members.
Opportunities	Technical assistance and training, improvement of product quality, more job chances, associative marketing, production increase, and a better lifestyle for the families.
Threats	Low productivity is caused by climate change, pest and disease attacks, incompetent government policies, non-compliance with the requirements, and external toxic fumigations.

*Note.* The description of the categories summarizes what was discussed in the group activity.

### ***Strengths***

Despite the three different groups mentioning various strengths in the SWOT analysis activity, the most common strength among the participants was the quality of the products. Participants highlighted the uniqueness of their products due to their environmentally friendly production and processing. Lucas mentioned, “The association is strengthening the people who have a product so that we can all share in good quality.”

As part of the observations and visits to the different farms, researchers confirmed the strengths mentioned by the farmers; for example, the farms belonging to the association were the only ones with a GAP certificate and agricultural-protection policies compared with other farms, which made them unique compared with neighboring producers.

### ***Weaknesses***

As part of the SWOT activity, the lack of infrastructure was the principal weakness identified among the three groups, related to the lack of financial resources. Due to the increase in demand and the rigorous market requirements, the association’s infrastructure was one of the weaknesses in processing its agricultural products and meeting market demand.

As part of the observations and research notes, researchers noticed that even though the raw material was following a value-added transformation process using the existing equipment, there was still a need to have more sophisticated and higher-capacity machinery. In addition, equipment that would facilitate the transformation process and aid in commercialization, such as a sorting machine, roasting equipment, and chocolate refiners, was missing from the association's current technical capabilities.

In addition to the limited availability of suitable equipment to enhance processing and commercialization, the association suffered from inadequate roads to get to their processing facility. To access the association's facility, the association members had to construct a wooden bridge to cross a small river that cut off direct access to the processing facility.

### ***Opportunities***

The opportunities mentioned by most of the farmers in the three groups were focused on technical assistance and training. Participants usually contact different institutions and have received positive responses regarding agricultural-based support. For example, Eduardo, one of the members, mentioned the following:

In my case, I did not know how to prune. However, I already have learned it; here, they taught me with the training that has been given. They have taught me how to prune, fertilize, and not use chemicals on the soil, so everything goes to improve the farm.

Additionally, as part of the non-participatory observations and visual information, researchers noticed that during the two weeks working with the community, other institutions were developing technical workshops regarding crop management, which have helped the members to accomplish the association's goals.

### ***Threats***

Participants mentioned that low productivity caused by climate change and other factors such as pests and diseases were the principal threats to the association. María mentioned, "The biggest limiting factor for us is the existence of pests and the unexpected change of weather, which damages the product." Principally, due to lower production, participants said they have experienced water scarcity and soil quality degradation, blaming climate change for these effects.

Additionally, during the teamwork presentation, they mentioned that many agricultural companies bordering the farms of the association's members do not take care of the neighbors when they apply agrochemicals. They emphasized how challenging it may be to control cross-contamination on their farms. One of the main principles that association members applied to their farms was avoiding agrochemicals. Jorge mentioned, "I was encouraged to join the association, to change the way of working in the fields, to stop using agrochemical chemicals because it began to affect my health."

## **Conclusions and Recommendations**

For this case study, the participants demonstrated diverse perspectives on associative work, mainly focusing on its advantages. Despite their limited experience working associatively, they held a highly optimistic view of being part of an agricultural organization and quickly recognized the clear benefits of association. This indicates an application of social capital theory because the participants are linked for a general purpose, creating a bond between the members. However, participants expressed a need for further clarification on how to engage more effectively in such work. In addition, it has been shown that bonding social capital is helpful in addressing the problem of lack of social cohesion and farmers' decreased confidence in working with their peers (Lowitt et al., 2015; Silvert et al., 2022)

Farmers in this study demonstrated concerns primarily related to their limited production capacity. They perceive their current production levels as a barrier to fully realizing the benefits

of association. Similar findings were obtained by Lowitt et al. (2015), where authors stated that some small farmers face barriers to production constraints due to factors such as financial access, markets, information, and knowledge. This highlights the importance of addressing productivity challenges and providing necessary resources and technical assistance to enhance agricultural practices. Investments in resources, infrastructure, and improved market access are key forms of linking and bridging social capital, helping link farmers with external support and opportunities. This type of social capital, aside from having common objectives as an association, identifies and creates needs or gaps that must be filled (Whiteley, 2015).

Furthermore, teamwork is a prominent characteristic among agricultural association members in their collaborative work. This may be reflected in the collective activities undertaken by the farmers, highlighting their willingness to assist one another with various farm tasks, knowledge sharing and expertise, and effectively delegating responsibilities. The cooperative environment within the association encourages a culture of mutual support and interdependence among the farmers. This strong sense of cohesion and teamwork represents bonding social capital, strengthening internal relationships, and fostering close-knit connections. Thus, the concept of social capital is evidenced by how farmers have created their networks and a safe work environment.

By actively engaging in collaborative endeavors, like jointly working on farm activities, the farmers foster a sense of camaraderie and solidarity within the association. This cooperative approach enhances farm operations' efficiency and promotes a continuous exchange of ideas, experiences, and best practices among the members. Farmers can leverage each other's strengths and expertise through this collaborative teamwork, improving agricultural outcomes and overall productivity. As evidence of these findings, Mamani (2017) stated that it is important to emphasize agricultural associations and empower farmers to work together in a more organizational model. In addition, strengthening social networks among farmers could form an association to share information and technology while supporting the local economy by forming cooperation as the community participates in it (Mulyani et al., 2022).

According to the Social Capital Theory (Bizzi, 2015; Whiteley, 2015), the importance of this social capital dynamic is based on the support for collaborative work and how this would improve the livelihood. The common goals and values of the association members were represented by looking for improvement opportunities as a business organization and practicing essential values such as commitment to meet these objectives. Ferrando (2015) found that the main factors that favor associative work are economic benefits, quality optimization, market access, raising financial resources, and reducing costs. The advantages of being associated far outnumbered the barriers. Farmers highlighted the importance of receiving technical assistance and support from other institutions.

The SWOT analysis technique helped identify the characteristics of the agricultural association. Regarding strengths, farmers are very proud of their product quality and more confident in what they have as an organization. Unfortunately, a weakness was the lack of infrastructure, a factor related to the lack of money to invest in improving the processing facility. One opportunity for the association was to foster access to technical assistance and training, which demonstrated a strong desire to become more effective as an association. The most common threat was the reported low productivity caused by climate change, recognizing the enormity of this threat to their livelihoods.

It is important to recognize that findings might vary based on the context. When data were collected for this case study, participants were mainly low-income associated farmers of cocoa and plantain produce in a rural town on the coast of Ecuador. For instance, the situation could change representatively in other regions of the country or the same place but at different times. However, a similar context was presented in Gómez-Ceballos et al.'s research (2021), where the socioeconomic characterization of the participants was people of low economic resources. Ecuador's policies on associative work mechanisms are insufficient to strengthen associative entrepreneurship proposals for small farmers (Gómez-Ceballos et al., 2021). For this reason, it is recommended that practitioners, educators, or extension agents provide targeted training and education programs focusing on practical associative work (Lamiño et al., 2022). These educational programs should be delivered to farmers in a way that makes sure that participants will understand the importance of associative and collaborative work, including the benefits and accomplishment of group goals. This would help farmers understand the principles and mechanics of working together in an association. In addition, clear guidelines and practical examples of successful associative initiatives should be shared to provide them with a concrete roadmap.

While this study is limited in scope to the farmers' association, additional research could be conducted by surveying the population using socio-economic variables and data on yields, marketing, and profits. For this reason, it will be helpful to understand the different perspectives of farmers regarding associative work and, at the same time, consider the variables mentioned above. Additionally, it is important to note that some of Ecuador's sociocultural specificities may limit the findings' generalizability. This limitation is also inherent in the qualitative case study approach, which, while offering the strength of providing detailed insights into unique situations and conditions, also limits the immediate transferability of the results. It is also recommended that the collected data be compared with farmers from other associations, which could provide additional insight into the impact of farmers' associations in Ecuadorian agriculture.

### References

- Ary, D., Jacobs, L. C., Sorensen, C. K., & Walker, D. A. (2019). *Introduction to research in education* (Tenth edition). Cengage.
- Barati, A. A., Kalantari, K., Nazari, M. R., & Asadi, A. (2017). A hybrid method (ANP-SWOT) to formulate and choose strategic alternatives for development of rural cooperatives in Iran. *Journal of Agricultural Science and Technology*, 19(4), 757–769. <http://jast.modares.ac.ir/article-23-9832-en.html>
- Berdegú, J. (2001). *Cooperating to compete: Associative peasant business firms in Chile*. <https://edepot.wur.nl/139854>
- Bizzi, L. (2015). Social capital in organizations. *International encyclopedia of the social & behavioral sciences* (2nd edition). Elsevier. <https://doi.org/10.1016/B978-0-08-097086-8.73108-4>
- Bourdieu, P. (1986). "The forms of capital." In J.G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). Greenwood Press.
- Chambo, S. (2009). *Agricultural co-operatives: Role in food security and rural development*. Expert Group Meeting on Co-operatives Held. <https://www.un.org/esa/socdev/egms/docs/2009/cooperatives/Chambo.pdf>

- Cope, D. G. (2014). Methods and meanings: Credibility and trustworthiness of qualitative research. *Oncology Nursing Forum*, 41(1), 89–91. <https://doi.org/10.1188/14.ONF.89-91>
- Corbin, J., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, pp. 13, 19.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95–S120. <https://doi.org/10.1086/228943>
- Creswell, J., & Creswell, D. (2018). *Research design: Qualitative, quantitative, and mixed methods approach* (Vol. 5). Thousand Oaks, CA: SAGE Publications, Inc.
- Da Ros, G. (2007). El movimiento cooperativo en el Ecuador. Visión histórica, situación actual y perspectivas [The cooperative movement in Ecuador. Historical vision, current situation and perspectives]. *CIRIEC-España, Revista de Economía Pública, Social y Cooperativa*, 57, 249–284.
- Enríquez-Estrella, M. Á., & Montenegro-Flores, K. I. (2020). Análisis de caso del modelo de gestión asociativo a nivel rural en acopio de fréjol, en la comuna las rocas cantón Alausí, provincia de Chimborazo [Case analysis of the associative management model at the rural level in bean collection, in the commune of Las Rocas, Alausí canton, Chimborazo province]. *Economía y Negocios*, 11(1), 34–46. <https://revistas.ute.edu.ec/index.php/economia-y-negocios/article/view/1063>
- Espinoza Loayza, V., Rojas, D., Salas Tenesaca, E. E., & Samaniego Namicela, A. (2019). Fortalecimiento organizacional de asociaciones de productores de café en las provincias de Loja y Zamora Chinchipe, Ecuador. [Organizational strengthening of the coffee-producers associations in Loja and Zamora Chinchipe provinces]. *Revista Vínculos*, 5(1). <https://doi.org/10.24133/vinculospe.v5i1.1580>
- Ferrando Perea, A. (2015). Asociatividad para mejora de la competitividad de pequeños productores agrícolas [Associativity to improve the competitiveness of small agricultural producers]. *Anales Científicos*, 76(1), 177. <https://doi.org/10.21704/ac.v76i1.779>
- Gómez-Ceballos, G., Vázquez-Loaiza, J. P., Herrera-Torres, D. P., & Vega-Luna, A. J. (2021). Popular and solidarity economy: Policies and realities in the local context. The case of the agricultural productive associations of El Valle, Ecuador. *Sustainability*, 13(23), 13469. <https://doi.org/10.3390/su132313469>
- Hay, G., & Castilla, G. (2006). *Object-based image analysis: Strengths, weaknesses, opportunities, and threats (SWOT)*. 4–5. [https://www.isprs.org/PROCEEDINGS/XXXVI/4-C42/Papers/01\\_Opening%20Session/OBIA2006\\_Hay\\_Castilla.pdf](https://www.isprs.org/PROCEEDINGS/XXXVI/4-C42/Papers/01_Opening%20Session/OBIA2006_Hay_Castilla.pdf)
- Hanson, C. S., Ju, A., & Tong, A. (2019). Appraisal of qualitative studies. In P. Liamputtong (Ed.), *Handbook of Research Methods in Health Social Sciences* (pp. 1013–1026). Springer Singapore. [https://doi.org/10.1007/978-981-10-5251-4\\_119](https://doi.org/10.1007/978-981-10-5251-4_119)
- Lamiño Jaramillo, P., Boren-Alpizar, A., Morales Vanegas, S., & Millares-Forno, C. (2022). Training, Trust, and Technology: A Mixed-Methods Study of Latin American Extension Workers' Experiences During COVID-19. *Journal of International Agricultural and Extension Education*, 29(1), 40-56. DOI: <https://doi.org/10.4148/2831-5960.1017>

- Lamino Jaramillo, P., Boren-Alpizar, A. E., Morales, S., Burris, S., & Carpio, C. (2022). A love-hate relationship: An ethnographic study of migration with Lenca women in rural Honduras. *Migration and Development*, 11(3), 1218-1241. <https://doi.org/10.1080/21632324.2021.1934022>
- Lincoln, Y. S., Guba, E. G., & Pilotta, J. J. (1985). Naturalistic inquiry. *International Journal of Intercultural Relations*, 9(4), 438-439. [https://doi.org/10.1016/0147-1767\(85\)90062-8](https://doi.org/10.1016/0147-1767(85)90062-8)
- Lowid, K., Hickey, G. M., Saint Ville, A., Raeburn, K., Thompson-Colón, T., Laszlo, S., & Phillip, L. E. (2015). *Factors affecting the innovation potential of smallholder farmers in the Caribbean community. Regional Environmental Change*, 15(7), 1367-1377. <https://doi.org/10.1007/s10113-015-0805-2>
- Mamani, I. (2017). *Experiencias exitosas de asociatividad de los agricultores familiares en los sistemas alimentarios [Successful experiences of associativity of family farmers in food systems]*. Food and Agriculture Organization of the United Nations. <https://www.fao.org/3/i6850s/i6850s.pdf>
- Moreno Miranda, C., Paredes, M. F., Solís, N., Moreno, R., & Rama, D. (2020). Structural analysis of nontraditional Andean fruit chains: The case of the Inca berry agri-food network in Ecuador. *Journal of Agriculture and Environment for International Development (JAEID)*, 114(1), 57-76. <https://doi.org/10.12895/jaeid.20201.934>
- Nagar, S. D., Conley, A. B., Chande, A. T., Rishishwar, L., Sharma, S., Mariño-Ramírez, L., Aguinaga-Romero, G., González-Andrade, F., & Jordan, I. K. (2021). *Genetic ancestry and ethnic identity in Ecuador. In Human Genetics and Genomics Advances* (Vol. 2, Issue 4, p. 100050). Elsevier BV. <https://doi.org/10.1016/j.xhgg.2021.100050>
- Nilvises, P. (1988). *The role of agricultural leaders in farmer associations and the implications to agricultural extension education in Thailand* (p. 167) [Doctor of Philosophy, Iowa State University, Digital Repository]. <https://doi.org/10.31274/rtd-180813-8878>
- Oladele, O., & Sakagami, J. I. (2004). SWOT analysis of extension systems in Asian and West African countries. *International Journal of Food, Agriculture and Environment*, 2(2), 232-236. [https://www.wflpublisher.com/admin\\_1992/pdf/articles/Article.4.2004.104609.pdf](https://www.wflpublisher.com/admin_1992/pdf/articles/Article.4.2004.104609.pdf)
- Panzoni, E. (1958). *Cooperativismo agrario y desarrollo rural [Agrarian cooperativism and rural development]*. Revista del Instituto de Estudios Cooperativos. <http://sedici.unlp.edu.ar/handle/10915/43716>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health*, 42(5), 533-544. <https://doi.org/10.1007/s10488-013-0528-y>
- Phadermrod, B., Crowder, R. M., & Wills, G. B. (2019). Importance-performance analysis based SWOT analysis. *International Journal of Information Management*, 44, 194-203. <https://doi.org/10.1016/j.ijinfomgt.2016.03.009>
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster <https://doi.org/10.1145/358916.361990>

- Quezada, L. E., Reinao, E. A., Palominos, P. I., & Oddershede, A. M. (2019). Measuring performance using SWOT analysis and balanced scorecard. *Procedia Manufacturing*, 39, 786–793. <https://doi.org/10.1016/j.promfg.2020.01.430>
- Rashid, Y., Rashid, A., Warraich, M. A., Sabir, S. S., & Waseem, A. (2019). Case study method: A step-by-step guide for business researchers. *International Journal of Qualitative Methods*, 18, 160940691986242. <https://doi.org/10.1177/1609406919862424>
- Ratner, C. (2009). Cooperativism: A social, economic, and political alternative to capitalism. *Capitalism Nature Socialism*, 20(2), 44–73. <https://doi.org/10.1080/10455750902941086>
- Ruben, R., Slingerland, M., & Nijhoff, H. (Eds.). (2006). *The agro-food chains and networks for development*. Springer. <https://library.wur.nl/ojs/index.php/frontis/issue/view/203>
- Saldaña, J. (2013). *The coding manual for qualitative research* (Vol. 2). SAGE Publications Inc.
- Saldaña, J. (2016). *The coding manual for qualitative research* (Vol. 3). SAGE Publications Inc.
- Sammut-Bonnici, T., & Galea, D. (2015). SWOT Analysis. In C. L. Cooper (Ed.), *Wiley Encyclopedia of Management* (pp. 1–8). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118785317.weom120103>
- Silvert, C. J., Ochieng, W., Perez Orozco, J., & Asanzi, A. (2022). Dissecting the roles of social capital in Farmer-to-Farmer extension: A Review. *Journal of International Agricultural and Extension Education*, 29(4), 7-26. <https://doi.org/10.4148/2831-5960.1058>
- Scoones, I. (2009). Sustainable rural livelihoods: A framework for analysis. In B. Davis, S. O. Y. Pritchard, & H. J. Binswanger-Mkhize (Eds.), *Agricultural markets in a transitioning economy: An Albanian case study* (pp. 25-41). The World Bank.
- Uset-Ruiz, F., Merizalde-Paredes, J. R., Pérez-Campdesuñer, R., Sánchez-Rodríguez, A., García-Vidal, G., & Martínez-Vivar, R. (2020). Influence of social networks in associativity mechanisms and their impact on agricultural results. *International Journal of Business & Management Science*, 10(1), 83–100.
- Warren, M. E. (2001). *Democracy and association*. Princeton University Press. <https://doi.org/10.1515/9781400823925>
- Whiteley, P. (2015). Social Capital. *International encyclopedia of the social & behavioral sciences* (2nd edition). Elsevier. <https://doi.org/10.1016/B978-0-08-097086-8.93127-1>

## Appendices

### Appendix A. Questions Used During the Interview Process

#### Spanish

1. ¿Cómo explicaría qué es una asociación agrícola?
2. ¿Qué caracteriza a una asociación agrícola?
3. ¿Cómo ha sido su experiencia con las asociaciones agrícolas?
4. ¿Qué importancia tiene para usted formar parte de la asociación?
5. ¿Cuáles son los requisitos para pertenecer a una asociación agrícola?
6. ¿Qué le animó a unirse a la asociación?
7. ¿Cuáles cree que son las ventajas de estar asociado?
8. ¿Cuáles cree que son las limitaciones de estar asociado?

#### English

1. How would you explain what an agricultural association is?
2. What characterizes an agricultural association?
3. How has your experience with agricultural associations been?
4. How important being part of the association is for you?
5. What are the requirements for belonging to an agricultural association?
6. What encouraged you to join the association?
7. What do you think are the advantages of being associated?
8. What do you think are the limitations of being associated?

### Appendix B. Flipcharts of SWOT Analysis in Spanish from the Group Activity.

