


Agricultural Cooperatives as a Vehicle for Small-Scale Farmer's Viability and Sustainable Practices [†]

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Abstract: Nowadays, the agricultural sector is poised to undergo significant transformations towards sustainability. Small-scale farmers' restricted accessibility to resources hinders their ability to effectively adapt to such advancements. This research paper investigates the potential role of agricultural cooperatives as *deus ex machina*, offering an idea for solving the challenges faced by small-scale farmers. Additionally, it examines the potential benefits agricultural cooperatives could provide to large-scale farmers while simultaneously advocating sustainable agricultural practices. To gather accurate data, individuals who were members of cooperatives in the Larissa region of Greece were interviewed using questionnaires. The sixty qualitative interviews conducted shed light on the fact that cooperatives play a significant role in promoting sustainable agriculture and offer numerous benefits to their members, particularly small-scale farmers.

Keywords: agricultural cooperatives; sustainability; small-scale farmers

1. Introduction

In recent years, agriculture has adopted more environmentally friendly and sustainable methods. Most environmentally friendly agriculture operations need expensive equipment, funding, and expertise. Thus, small-scale producers may struggle to adapt to these strategies. Small-scale producers may need to unite and consolidate to remain relevant in the developing environmentally conscious agricultural movement.

Agricultural cooperatives, when operating well, act as a means of obtaining a wide range of valuable resources, including information, technology, marketing, credit, purchasing power, and equipment (van Dijk et al., 2019) [1] (p. 176). According to Papageorgiou, individuals engaged in farming operations may enjoy numerous advantages by participating in cooperatives, such as reduced production expenses and enhanced managerial practices (Papageorgiou, 2015) [2] (pp. 75–76).

To examine the impact of agricultural cooperatives on the viability of small-scale producers and the adoption of sustainable practices, a qualitative research study was conducted. In this study, we used a sample of 60 individuals, consisting of small-scale producers who are affiliated with cooperatives. Based on the findings of this research, it was reported that a significant majority of the small-scale producers who were surveyed and who are currently members of agricultural cooperatives expressed that these organizations have played a crucial role in ensuring their economic sustainability. Furthermore, it appears that in certain instances, these cooperatives have even assisted with the expansion of their operations. Additionally, it is worth noting that a significant majority of the participants reported that cooperatives have played an important role in furnishing them with valuable knowledge, guidance, and resources that are required for enhancing their output by using novel agricultural techniques. When specifically questioned regarding the utilization of



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techniques such as composting waste or precision farming, an overwhelming majority expressed the belief that these approaches are unfeasible to implement without involvement in cooperatives due to their substantial financial requirements.

Within each agricultural cooperative, there exists a heterogeneous composition of individuals, encompassing both small-scale and large-scale producers. However, similar to other industries, individuals with limited means encounter significant hurdles within the agricultural sector (Oleg Nivievskiy et al., 2023) [3] (p. 19). This study examines cooperatives' role in sustainability, their benefits to members, and their protection of small-scale farmers in the context of the current environmentally conscious agricultural paradigm. This study examines cooperative membership as a solution to small-scale producers' complex problems.

2. Methods

The data presented in this research paper were derived from qualitative interviews conducted with a sample of 60 small-scale farmers who were members of various agricultural cooperatives in the Larissa region of Thessaly, Greece, during the year 2023. Larissa was once home to a prominent union of agricultural cooperatives, which, regrettably, faced bankruptcy in the year 2012. Subsequently, numerous producers within the region have experienced an erosion in their trust in cooperatives. Conversely, within the Larissa region, a multitude of producers operating on a small-scale can be found. The choice of location was undertaken with the intention of highlighting the potential for cooperatives to support and revive small-scale producers. Furthermore, it was intended to demonstrate that the unfortunate and sad incident experienced by the union is now, and has been for a long time, a distant memory. Cooperatives have emerged as a promising trajectory in the agricultural sector, holding significant potential for the future.

In this research, we employed a sampling technique. Purposive sampling, often known as a judgmental procedure, was the sampling technique employed. This technique depends on the researcher's discretion when choosing the individuals and instances (small-scale producers who are members of cooperatives) that can offer the most useful data to meet the study's goals. Initially, we initiated communication with individuals who were affiliated with several agricultural cooperatives in Larissa. The participants were then divided into small-scale and large-scale farmers according to agricultural holding size based on the questionnaire. Sergaki and Michailidis assert that there exists a multitude of classifications pertaining to small-scale producers (Sergaki & Michailidis, 2020) [4]. According to the FAO's definition, small-scale food producers are individuals engaged in farming or entrepreneurial activities who have limited opportunities and operate under structural limitations, including inadequate access to resources, technology, and markets (FAO, 2017) [5]. Following the segregation of the two cohorts, we proceeded to administer questionnaires to the cohort of small-scale producers, constituting our sample size of 60 individuals.

It is essential to bear in mind that the findings derived from this research were obtained from a limited sample size of 60 individual cases, all of which originate from a single geographic region. Hence, it is probable that the obtained results may not accurately represent all situations in their entirety.

3. Results

3.1. Cooperatives and Their Role in the Promotion of Sustainable Practices

The majority of the cooperative members reported that they engaged in sustainable practices and programs and possessed knowledge of initiatives. Educative webinars and expert consultations helped to disseminate this information. Moreover, most respondents reported that their cooperatives actively promote investments in heavy machinery, equipment, and technology that enable sustainable agricultural approaches like precision farming and waste composting (Table 1).

Table 1. Key questions and results regarding the role of cooperatives in the promotion of sustainability.

<i>Question</i>	<i>Positive</i>
Access to information pertaining to sustainable practices, programs, and initiatives available through the cooperative	88%
Access to educational seminars about more eco-friendly practices available through the cooperative	81%
Access to information about important agricultural issues and recent developments available through the cooperative	76%
Provision of consultations on sustainable practices with esteemed specialists and advisers by the cooperative	65%
Promoting investments through means that facilitate the implementation of sustainable methods by the cooperative	61%

3.2. Cooperatives and Their Role in the Viability of Small-Scale Producers

The results of our study demonstrate that small-scale producers can gain significant benefits in terms of enhanced purchasing power through their participation in cooperatives. Additionally, small-scale farmers with limited resources might increase their household income by working in a cooperative. Another significant advantage that small-scale producers derive from cooperatives is their ability to become members with minimal financial investment. In addition to this, individuals gain access to a type of organization that has experienced significant growth over the course of several years, attracting substantial investments, all through the payment of a nominal charge. Another salient aspect to consider is that cooperatives engage in purchasing products from all of their members at an agreed-upon rate price. When a large-scale producer with more bargaining power demands a higher price from the cooperative, the cooperative buys from the small-scale producer at the same price (Table 2).

Table 2. Key questions and results regarding the role of cooperatives in the viability of small-scale producers.

Question	Answer
Does the cooperative buy products at the same price from all members?	100% stated cooperatives buy products from members at the same price
Is farming the only thing you do for a living?	79% had a distinct primary occupation
Cooperatives contributing to the augmentation of household income	37% positive answers
In the absence of cooperative membership, would you opt to divest your land?	21% stated they would consider it

4. Discussion and Conclusions

The examination of the efficacy of cooperatives in the Larissa region holds significance, as these entities have faced long-standing stigmatization in the aftermath of a regrettable incident.

The present manuscript focuses on a comprehensive analysis of the advantages that small-scale producers derive from their participation in cooperatives. Additionally, this study investigates the techniques employed by cooperatives to foster sustainability, thereby enabling their members to stay abreast of contemporary environmentally conscious agricultural practices.

Members regard access to information and facilitation through the provision of technology, equipment, and heavy gear as the most significant advantages cooperatives provide. Hence, the Greek government’s prioritization of reinforcing the cooperative education regulation holds significant importance. Additionally, the convening of member meetings holds significance in facilitating the exchange of perspectives and plays a crucial role in the decision-making process.

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