Aligning Agri-food Business with Sustainable Development and Quality of Life in Rural Areas: Stakeholders' Perspectives from Greece

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Abstract: The present study examined how the agri-food enterprises in Greece affect the socio-economic life of rural areas and contribute to ensuring food security. It sought the extent of their contribution to the revitalization of the local community and residents’ quality of life. Furthermore, it focused on the policy measures needed to ensure that their operation protects the environment and reduces their environmental footprint. Additionally, this research explored agri-food enterprises' impact in addressing the problems of rural societies in the context of their social responsibility. Qualitative research was conducted through semi-structured interviews with twelve central government and local self-administrative executives who formulate policies that shape or influence the agri-food sector and agri-food enterprises. The study revealed that agri-food businesses play a major role in the rural economy. At the same time, they are a key factor in linking sustainable development to the well-being of citizens. It was also highlighted that agri-food enterprises in Greece continue to leave a large negative environmental footprint and therefore a change in the framework of existing policies is needed to make the latter effective. In this regard, measures are needed to support agri-food enterprises with certain financial instruments in order to enhance the reduction of their environmental footprint. Finally, the research indicated the need for further strengthening of agri-food enterprises’ social responsibility toward rural residents. The contribution of this research has both theoretical and empirical value. It responds to the recent calls for greater investigation of agri-food enterprises and their contributions to sustainable development and rural residents’ quality of life as well. In this respect, the present primary study adds evidence to the international literature regarding the role of agri-food enterprises in the socio-economic life of rural areas by shedding light on various aspects while the findings can be used by the institutions (European, state, and local authorities) that are responsible for policy-making in the agri-food sector and agri-food enterprises respectively. Moreover, the findings can also be a valuable tool for the business world of agri-food entrepreneurship.

Keywords: agri-food enterprises, sustainable development, rural areas, quality of life

1. Introduction

The contribution of agri-food enterprises to the socio-economic well-being of rural areas and many regions has been significant over time (Lamprinopoulou, Tregear and Ness, 2006). In particular, the establishment of agri-food enterprises in the countryside leads to increased employment, a rise in rural income, and the development of different activities. According to European Commission data, the agricultural sector employs more than 400,000 people, representing 10% of the total workforce for 2020. Moreover, rural areas make up 63% of the Greek territory, while their inhabitants consistently account for 31% of the Greek population (European Commission, 2021). However, rural societies are experiencing a period of ongoing economic, social, and environmental transformation as a result of globalization, economic recession, demographic ageing, climate and environmental change (Apostolopoulos et al, 2023; Moschidis, Karamichalakou and Thanopoulos, 2022; Steiner and Cleary, 2014). All these factors affect the resilience of agri-food enterprises, and their ability to adapt to changing conditions is increasingly important (Steiner and Atterton, 2015). Creating an enabling environment for agri-food enterprises is often the answer to the need for self-organization, mutual support, and institutional support from the state.

Based on the current socio-economic environment, mainly shaped by the crises, this research focuses on the contribution of agri-food enterprises to local development, quality of life of rural residents, and sustainability.

Against a theoretical background, the role of agri-food enterprises in the cohesion and well-being of the local community and the promotion of sustainability is described with reference to the international literature. Then,
in order to approach the views and experiences of policymakers for agri-food enterprises in rural Greece, the methodology used was the purposive sampling technique. The data analysis was conducted in the native language of the survey participants and was structured under the two interacting dimensions: local development and residents' quality of life and sustainability. This is followed by the discussion, which includes recent and previous literature compatible with our own research. The paper concludes with the importance of establishing agri-food enterprises in the countryside, the main obstacles identified in the midst of crises, and support policies to further strengthen the development environment of agri-food enterprises towards sustainability. Finally, research questions to be addressed by future empirical studies are raised.

2. Literature Review

2.1 Agri-food enterprises and social sustainability

Rural agri-food enterprises are vital for the future of food systems and rural prosperity (Hwalla et al, 2016; Woodhill et al, 2022). Even in times of crisis, decentralized networks have been shown to work best, as was the case during the Covid-19 pandemic (Apostolopoulos et al, 2021). There is evidence that agribusinesses contribute to enhancing local resources, cultural heritage, quality of life (MacDonald and Jolliffe, 2003; Tregear, 2005; Sá, Casais and Silva, 2018), and local economies (Steiner and Atterton, 2014). Rural villages are currently emerging as complex ecosystems (Sgroi, 2022), in which agriculture, processing, distribution and consumption are integrated to enhance the environmental, economic, social and food context of a particular region (Manikas, Malindretos and Moschouris, 2019). Strengthening existing or developing new relationships between all food system stakeholders (Manikas, Malindretos and Moschouris, 2019) develops community resilience, an important indicator of social sustainability (Blay-Palmer et al., 2020; Magis, 2010). Building community resilience requires the development of social capital and interpersonal ties (McManus et al., 2012; McMorran, Scott and Price, 2014; Taylor et al., 2014). In terms of social capital, it is developed by creating new networks in local communities (Fiseha and Oyelana, 2015). These are directly linked to the revitalization-well-being of rural areas (Wiskerke, 2009? Ammirato et al, 2021), job creation, small-scale agriculture (Fiseha and Oyelana, 2015), promoting local food production (Brown and Miller, 2008), making quality products available at affordable prices to consumers (Flaccavento, 2011) and attracting non-family actors (Barbieri and Mahoney, 2009) to establish new farms (Vogt and Kaiser, 2008). Moreover, Abdollahzadeh and Sharifzadeh (2014) showed that the establishment of tourism businesses in the countryside seems to increase the demand for local agricultural products.

2.2 Agri-food enterprises and environmental sustainability

The agri-food sector is the sector of the economy that has the greatest impact on the environment. A necessary goal of sustainable development, as defined by the United Nations in the 2030 Agenda (United Nations, 2020), is to maintain healthy agricultural ecosystems (Sgroi, 2022). Research by Fiseha and Oyelana (2015) shows that sustainable agricultural practices can have a positive impact on community wellbeing, that is, the quality of the living environment, the health of residents and even the harmonious coexistence of farmers and residents. Agribusinesses are now moving from the traditional linear model of the food system “production-processing-consumption-waste” to the circular model (Soldi and Cavallini, 2020). The role of the institutional framework and government support is crucial for agri-food enterprises to remain viable (Apostolopoulos et al., 2021) however further research is needed (Karwacka et al., 2020).

3. Methodology

The main purpose of this study was to trace the views and experiences mostly of the officials responsible for the design and development of agri-food policies that contribute to sustainable development and the quality of life of the inhabitants. To achieve this, we conducted qualitative research as it’s well suited to elicit opinions and experiences (Fossey et al., 2002). Qualitative research allows understanding of the entrepreneurial phenomenon within its own context (Van Burg et al, 2020; Krauss, 2005;) while it clarifies and explains the complexity of entrepreneurial actions (Drakopoulou-Dodd et al, 2014; Al-Busaidi, 2008).

Purposive sampling technique was adopted in order to approach certain stakeholders (Kenny, & Duckett, 2003) relevant to the subject. The sample size was such that it did not distort individual characteristics and was based on the principles of relevance and adequacy (Polit and Hungler, 1999; Morse and Field, 1996). Additionally, we used semi-structured interviews to collect qualitative data (DeJonckheere and Vaught, 2019; Creswell and Poth, 2019).
2016; Lincoln and Guba, 1985) on twelve executives from state, regional, and local authorities. The interviews were conducted in February 2023. They lasted approximately forty-five minutes and were conducted in Greek, the native language of the survey participants. The interviews were conducted by telephone and online, as data collection via telephone or internet is as reliable as face-to-face interviews (Saarijärvi and Bratt, 2021; Apostolopoulos et al, 2021; Lacono et al, 2016). Prior to the interview, the managers who would participate in the survey were thoroughly informed about the objectives of the research. Moreover, they were assured that their anonymity was guaranteed and agreed to participate in the research.

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<th>Table 1: Characteristics of participants in the semi-structured interviews</th>
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<td><strong>Property</strong></td>
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<td>R2 Executive of the Hellenic Agricultural Insurance Organisation</td>
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<td>R3 Executive of the Hellenic Agricultural Organisation</td>
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<td>R4 Executive of the Regional Government of Peloponnese</td>
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<td>R5 Chamber Executive</td>
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<td>R6 Member of the Directorate of Agricultural Economy and Veterinary Medicine</td>
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<td>R7 Executive of the Decentralized Administration of Peloponnese-Western Greece and Ionian Islands</td>
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<td>R8 Executive of the Decentralized Administration of Peloponnese-Western Greece and Ionian Islands</td>
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<td>R9 Municipal Executive</td>
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<td>R10 Municipal Executive</td>
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<td>R11 Executive of Development Company</td>
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<td>R12 Municipal Executive</td>
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The content of the interviews was classified into two sections. The first one concerned the contribution of agri-food businesses to local development and residents' quality of life. The second one addressed the contribution of agri-food businesses to sustainability by examining the framework of necessary measures to protect the environment and reduce the environmental carbon footprint and whether this framework of measures is implemented in practice by agri-food businesses.

4. Data Analysis

Data analysis was conducted in the native language of the survey participants to avoid ambiguity or misinterpretation (Maneesriwongul and Dixon, 2004; Temple and Young, 2004); only the references were translated into English (Van Nes et al, 2010). First, the interviews were examined individually on an inductive approach (Thomas, 2006; Creswell, 2005) before being compared with each other. The emerging themes and subthemes were recorded (Gioia et al, 2013) and captured in Table 2. Then, the creation of categories was specified in detail, and coding was independent and exclusive (Krippendorf, 2018; Smith, 2001). It should be noted that combining the results extracted from the interviews with previous research from the international literature added value, reliability, and validity to the research findings (Flick et al, 2004).

<table>
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<th>Table 2: Emerged themes and sub-themes</th>
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<td><strong>Emerged issues</strong></td>
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<td>Contribution of agri-food businesses to local development and residents' quality of life</td>
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Emerged issues | Subjects | Summary
--- | --- | ---
| The contribution of agri-food businesses to addressing the problems of local communities in the context of their social responsibility | More input is needed from them to address local problems

Contribution of agri-food businesses to sustainability

| Measures in the operation of agri-food businesses to protect the environment | Significant steps have been taken to acquire pro-environmental characteristics
| Measures taken by agri-food businesses to reduce their carbon footprint | Further institutional measures accompanied by financial instruments are needed
|  | Continued rigorous controls are needed

5. Findings

The findings were structured based on the two emerging themes: i) the contribution of agri-food enterprises to local development and residents’ quality of life, and ii) the contribution of agri-food enterprises to sustainability.

- **Contribution of agri-food businesses to local development and residents’ quality of life.**

It was detected by the survey participants that agri-food enterprises contribute to the socio-economic life of the rural areas in which they operate. They create jobs and keep the population in the countryside. They contribute to the local economy, create wealth and through this create quality of life for the inhabitants.

"The establishment of agri-food businesses contributes not only to a reduction in unemployment, new jobs, increased income and economic growth but also to the retention of the local population in the area, the upgrading of human resources and the strengthening of entrepreneurship. This sector is also directly linked to the cultural heritage of each region." (R12)

"Agri-food businesses are central to the economy, the socio-economic development of a region and the well-being of its citizens. They underpin all the activities of economic and social life. It is agri-food businesses that further boost GDP, employment, exports and contribute with their technologies to the modernisation of production." (R7)

Survey participants consider that the establishment and operation of agri-businesses in the countryside attract other businesses directly or indirectly linked to agri-businesses and businesses in other sectors.

"In the industrial zone of Tripoli, when businesses began to operate, refrigerators for the distribution of products, a paper mill was automatically established which produced cartons. In many areas, there are organized industrial zones which among themselves develop synergies and effects with the aim of reducing costs in the production of products." (R2)

"With the completion and establishment of agri-food enterprises in the countryside, external enterprises are needed to repair, maintain and transport the products to consumers. Of course, all the professions and services that support a prosperous society are being developed and upgraded, such as catering, entertainment, sport, supplementary education, etc. The end result of all these activities leads to the overall development of the place”. (R4)

"Businesses of different disciplines can exist as satellites in a subsidiary capacity, supporting agri-food businesses and cooperating with them where necessary. These can be transport companies, companies that supply the agri-food enterprise with various packaging materials and machinery. But also companies which provide services, such as telecommunications support, software and so on, which are directly dependent on and need to work with the agri-food business." (R5)

Reflection with different approaches by the participants developed on the extent to which agribusinesses contribute to addressing the problems of local communities in the context of their social responsibility. The contribution was not questioned but reservations were expressed by four participants about the size and effectiveness of the contribution.

"It is necessary to solve the waste disposal issues because social problems are created. Through the circular economy, a solution will be found. Therefore, rural entrepreneurship contributes to many social measures when there is a larger scale that defines its sustainability." (R3)
Local businesses contribute to issues of collective interest, such as the development of cultural actions, social solidarity actions, and actions of vulnerable social groups. I believe that healthy businesses established in the region contribute greatly to increasing employment, increasing income, and increasing purchasing power. Every healthy business creatively helps society and therefore its social responsibility is fulfilled either through sponsorships or through the legislation in force that protects the environment.” (R2)

- Contribution of agri-food businesses to sustainability

Survey participants consider that significant steps have been taken in recent years to make agri-food businesses environmentally friendly in their operations. However, it was pointed out that additional institutional measures with financial support tools and strict controls are needed to enhance environmental protection.

“In recent years there has been an improvement in the institutional framework and it requires all businesses to respect the environment. There are also difficult cases in management such as special waste but the situation is constantly improving. In any case, however, we cannot claim that we are at 100% of good environmental practice.” (R11)

"There have been serious steps forward towards sustainable agricultural production and sustainable agri-food businesses, but we are far from reaching the goal of sustainability. More measures are needed to support agri-food businesses with specific financial instruments to enhance environmental protection.” (R7)

In recent years, as a result of the strict European and national framework and the development of competition, agri-food businesses have been taking more and more environmental protection measures, drastically reducing their environmental footprint.

"In the last 10 years and with the energy crisis, all businesses, especially agri-food businesses, are moving towards the use of renewable energy sources, such as photovoltaics, biomass and contribute to reducing their carbon footprint.” (R10)

"Several companies are taking measures because they cannot export products without the required carbon footprint reduction label. The development of competition between companies is an additional incentive for compliance in this direction that I mentioned earlier”. (R1)

6. Discussion

Greek agri-food businesses have been experiencing a continuous state of crisis since 2009 (Sdrolias et al, 2022; Apostolopoulos et al, 2022; Giannakis & Bruggeman, 2017). The 2009 financial crisis has lasted more than ten years in Greece, as the country’s credit rating was downgraded and it was forced to join stability programmes and certain surveillance mechanisms (Maris, Sklias and Maravegias, 2022; Walter et al, 2018; Vasilopoulou, Halikiopoulou, and Exadaktylos, 2014; Karamichas, 2009). The financial crisis was followed by the health crisis and then the current energy crisis emerged, with significant consequences for agribusinesses (Apostolopoulos et al, 2023; Moschidis, Karamichalakou and Thanopoulos, 2022; Apostolopoulos et al, 2021). The present research was conducted in this uncertain environment of ongoing crises. By examining in depth the contribution of agri-food enterprises to local development and citizens’ quality of life, it emerged that agri-food enterprises have a positive impact on the socio-economic conditions of rural Greece, create jobs and keep local populations in rural spaces.

They directly and indirectly support rural enterprises and the socio-economic life of the area (Sá, Casais and Silva, 2018; Fiseha & Oyelana, 2015; Tregear, 2005; MacDonald & Jolliffe, 2003). At the same time, research has shown that despite moments of crisis, rural enterprises have shown adaptability and resilience (Steiner & Atterton, 2015; Steiner & Markantoni, 2014; Morrison, Wilson and Bell, 2012), even utilizing the tool of diversification (Lang et al, 2022; Steiner & Atterton, 2014). Furthermore, the research of Behl et al. (2021) highlighted the causal relationships between social capital, motivation and various other factors in terms of entrepreneurs’ diversification efforts in the new supply chain environment. Evidence consistent with the findings of the present research on agri-food enterprises in rural Greece. Moreover, the finding that differentiates agri-food enterprises in rural Greece from other research findings is the critical evidence of reduced social responsibility activity towards local communities and addressing social issues. Of course, there is no doubt about their overall contribution to society. Additionally, the research by Giannarakis & Theotokas (2011) showed that firms during crises increase their performance by enhancing corporate social responsibility to regain lost trust. However, the same research showed increased corporate social responsibility performance during the financial crisis, with the exception of only 2009-2010.
Regarding the pro-environmental role of the agricultural sector and agri-food firms, research shows that these activities leave a strongly negative environmental footprint (Amin-Chaudhry, Young and Afshari, 2022; Bajan & Mrówczyńska-Kamińska, 2020). The present study showed that agri-food enterprises in rural Greece are quite sensitive to pro-environmental issues. The European and national environmental protection framework enshrines the protection of the environment, however, in this study issues for additional institutional measures and control mechanisms were raised. Furthermore, according to Fiseha & Oyelana (2015), sustainable practices in the agri-food sector have a positive impact on the well-being and rural residents’ quality of life. The orientation of these enterprises from the traditional linear to the circular agri-food model is a critical path leading to the new sustainable model of production and consumption (Soldi & Cavallini, 2020; Toop et. al., 2017). The fact that agri-food enterprises are becoming increasingly environmentally conscious has also been highlighted in the research of Steiner and Atterton (2015). Finally, through regional and local policies, the government should create a positive development environment for the agricultural sector and agri-food enterprises (Manikas, Malindretos and Moschuris, 2019; Mangla et al, 2018).

7. Conclusion

Agri-food enterprises, even in an environment of long-term crisis, offer economic and social benefits to society and contribute to the improvement of food security. They also contribute to sustainable development and provide income and jobs while keeping the rural population from migrating to urban centres. They contribute to the enhancement of local resources and the inhabitants’ quality of life. They regenerate the countryside and support agricultural production, and the food supply chain, even in difficult times of crisis. At the same time, they create a dynamic business environment in rural areas. They have shown adaptability and resilience to crises. However, new support policies are also needed from government and local self-administrative authorities to further strengthen their development environment towards sustainability. In addition, agri-food enterprises are continuously improving their environmental footprint while contributing to sustainable development goals.

The research contribution has theoretical and empirical implications. It responds to the call for greater research interest in agri-food firms in the context of extended crisis by adding important findings to the international literature. At the same time, the findings of this paper appear to be a useful tool for policymakers regarding planning for the agricultural sector and agri-food enterprises. This primary study could also be a valuable tool for entrepreneurs who are active or intend to become active in the agri-food sector.

8. Limitations and future research

The present research was conducted during a continuous crisis period for agri-food enterprises. The crisis is still ongoing; therefore, these enterprises’ resilience and adaptability to shocks have yet to be definitively assessed. In addition, this research focused on the views of the policymakers regarding agri-food enterprises. Future research should also focus on agri-food entrepreneurs and rural residents in order to achieve a holistic approach.

References


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