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# Entrepreneurial Views and Rural Entrepreneurial Potential: Evidence from Greece

**Zafeirios Thomakis**[1] · **Irene Daskalopoulou**[1]

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## Abstract

The recent financial crisis in Greece seems to have structured a trend towards rural renaissance. This trend might be considered a chance for rural empowerment to emerge as a 'residual' phenomenon drawn from a return to the periphery propensity. With a view to provide insights on such possible rural empowerment, we analyse individuals' intentions towards entrepreneurship in rural areas. At the empirical level, we assess rural entrepreneurial potential and then we test for the factors that are conducive to it under an adopted operationalization of the n-tuple helixes approach to regional development. We employ data from two sources (micro level data from the Eurobarometer survey and contextual data from the Regional Accounts of the Hellenic Statistical Authority). Bootstrap logistic regression techniques provide robust empirical evidence of the importance of various sets of parameters including actor characteristics and actions, local community ties, civil services quality, the political environment, and the regional socio-economic structure. The predominant role of pecuniary concerns manifests the strong impact that the economic environment exerts on individuals' views towards entrepreneurship. On the other hand, individuals seem to view crisis as a chance for the private sector to develop under less protectionism and trustworthy civil services.

**Keywords** Rural areas · Entrepreneurship · Entrepreneurial views · n-tuple helix · Greece

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✉ Irene Daskalopoulou
daskal@uop.gr

Zafeirios Thomakis
zthomakis@uop.gr

[1] Department of Economics, University of the Peloponnese, Tripoli, Greece

## Introduction

A key issue in organizational psychology and entrepreneurship research relates to understanding the motivation to become an entrepreneur. Research alongside the organizational psychology strand developed the bipolar schema of pull and push factors to explain entrepreneurial motivation (Gilad & Levine, 1986; Herron & Sapienza, 1992; Kuratko et al., 1997). Push theory focuses on the negative external factors (e.g. job dissatisfaction, difficulty finding employment, insufficient salary, inflexible work schedule), while the pull theory suggests that individuals are attracted into entrepreneurial activities due to mainly pecuniary and other subjective achievements/goals (i.e. wealth, independence, self-fulfilment) (Hatak et al., 2015; Keeble et al., 1992; Orhan & Scott, 2001). Entrepreneurship research has focused on the analysis of the context of entrepreneurship suggesting that factors such as job displacement, previous work experience, own resources, and governmental influences might predict entrepreneurial activity (Krueger et al., 2000).

Johnson (1990) reviews the relevant literature and reports a fairly consistent relationship between achievement motivation and entrepreneurship but stresses the multi-dimensional character of entrepreneurship and the need to build theoretical models that account for the role and interplay amongst the various dimensions that are conducive to this phenomenon. Indeed, the study of entrepreneurship becomes even more complex when other interrelated parameters are brought into the analysis such as the stage of the entrepreneurial process (Estay et al., 2013; Segal et al., 2005), and the role of place (Besser & Miller, 2013; Figueroa-Armijos et al., 2012; Korsgaard et al., 2015). In their study of entrepreneurial motivation, Estay et al. (2013) identify different pathways as associated with different logics of action (e.g. innovative projects are linked to reproduction or imitation), and the different stages of business creation (e.g. development objectives and a person's need for independence are linked with the early stages of entrepreneurial process), whereas business growth and success are based on risk and creativity, competence, and the exploitation of advantages occurring in the wider environment of operation. Segal et al. (2005) study entrepreneurial motivation using a sample of 114 undergraduate business students at Florida Gulf Coast University. They find that self-employment intentions are predicted by a person's tolerance to risk, the perceived feasibility, and net desirability (Segal et al., 2005). Studying the effect of the economic recession in rural America, Figueroa-Armijos et al. (2012) find a shift in the motivation of individuals to become self-employed. Before the recession, opportunity-driven entrepreneurial activities were more likely to occur in rural counties, compared to urban counties, but during the economic recession, they observe a clear decline in opportunity entrepreneurship and an increase in necessity entrepreneurship. Lower incomes and part-time employment are linked with necessity entrepreneurship in all rural and mixed-rural counties, while education is linked with opportunity driven entrepreneurship (Figueroa-Armijos et al., 2012). Besser and Miller (2013) study entrepreneurial initiatives in remote rural towns and conclude that these are more likely to succeed in providing a flexible source of income, thus sustaining the survival of the

family business in contrast to initiatives motivated by a desire for great wealth and the need to experience a challenge. As they argue, community bridging social capital assists in the achievement of such goals by helping rural businesses in many ways (e.g. retain and attract skilled labour, reduce costs, access to capital, resident customer loyalty) (Besser & Miller, 2013).

More recently, Pato and Teixeira (2016) also suggest that more research is needed regarding both the theoretical underpinnings and the empirical manifestations of rural entrepreneurship owing to the dynamic evolvement of the social context within which entrepreneurship occurs. As Chell et al. (2008) argue, the entrepreneurial personality is the outcome of a given social construction. Similarly, Elfving et al. (2009) propose that the entrepreneurial intentions are context-driven in the sense that social norms affect people's intentions and interact with self-efficacy and individuals' motivations. Furthermore, Blackburn and Kovalainen (2009) suggest that we should place emphasis on the role that small businesses play in a society in order to escape normative views that tend to a priori advocate the existence, support, and development of the small business sector. This way we might actually discern a society's 'entrepreneurial opportunity' as formed by the mechanisms and processes that are used for the production of new economic goods and entities (Sarasvathy et al., 2010). To the extent that opportunity entrepreneurship depends on cultural values and social institutions, we might focus on how specific institutional contexts mitigate or enhance the effects of cultural drivers of opportunity entrepreneurship (Cullen et al., 2014).

The above discussion illustrates that the heterogeneity characterizing the socio-economic, physical, and political environments in which entrepreneurship occurs might be more fully understood under a comprehensive theoretical framework (Carayiannis, 2008, 2009). Here we focus on assessing the entrepreneurial potential that might be available in rural[1] Greece by adopting an inclusive approach to identifying the determinants that are conducive to actors holding positive views towards rural entrepreneurship. This approach is based on the n-tuple helixes understanding of the knowledge-based innovation dynamics of contemporary societies (Carayannis & Campbell, 2010; Carayannis et al., 2012; Leydesdorff, 2012, 2013; Park, 2014). In particular, we adopt the Quintuple Helix model of innovation (Carayannis & Campbell, 2010; Carayannis et al., 2012) as a flexible theoretical framework within which an empirical operationalization is possible to yield informative results as to the effects that micro level characteristics and contextual factors exert on entrepreneurial views. As described by Carayannis et al. (2012: 2), 'the Quintuple Helix represents a suitable model in theory and practice offered to society to understand the link between knowledge and innovation, in order to promote a lasting development.' Indeed, the Quintuple Helix model allows for a holistic analysis of entrepreneurship as the outcome of forces and factors identified in five dimensions namely, the education system, the economic system, the natural environment,

[1] The terms rural entrepreneurship and entrepreneurship in the rural space are used interchangeably and refer to all (and not only to primary sector) activities.

the media-based and culture-based public, and the political system (Carayannis et al., 2012). This perspective allows for a multi-layer approach to entrepreneurship as part of a National System of Innovation wherein individual and contextual factors interact in a dynamic manner (Acs et al., 2014; Carayannis et al., 2018).

The multi-dimensional context of entrepreneurial potential is analysed here by testing for the plausible effect of a number of objective and subjective determinants. This in turn might yield informative policy insights as such a framework also allows for a distinction between the entrepreneurial constitution and entrepreneurial behaviours (Carayiannis & Stewart, 2014). Focusing on Greece is important given the special characteristics of the rural sector and its importance for the country's overall economic activity. Available knowledge addresses a number of important issues such as agricultural modernization and the use of national and supranational (mainly EU) funds (Daskalopoulou & Petrou, 2002; Labrianidis, 2017), the socio-economic, demographic and cultural impacts of migration inflows (Kasimis et al., 2003; Labrianidis & Sykas, 2009), rural development policies, and the potential of rural areas to develop alongside sustainable rural development pathways (Koutsou et al., 2014; Petrou et al., 2007; Williams & Vorley, 2015). However, rural entrepreneurship is an ongoing challenge for Greece as a field that combines both opportunities and counterincentives. The excessive migration flows occurring during the mid-1990s and 2000s and, the financial crisis have further exacerbated the challenge to build viable rural entrepreneurial paradigms in the Greek countryside. To that extent, our findings aim to enhance our knowledge and understanding of the individuals' views about rural entrepreneurship in Greece. In turn, these views can be thought of as a prerequisite of sustainable entrepreneurship, the latter defined as 'the creation of viable, profitable and scalable firms that engender the formation of self-replicating and mutually enhancing innovation networks and knowledge clusters leading towards what we call robust competitiveness.' (Carayannis, 2009 cited in Carayannis & Stewart, 2014: 6). At the empirical level, we study entrepreneurial views by means of analyzing a number of critical parameters that are identified by the vast literature on the subject and we elaborate on their interrelated effects under the multiple helixes approach (Carayannis & Campbell, 2010; Carayannis et al., 2012).

The paper is organized in four sections. Following this introductory section, 'Rural Entrepreneurship' is devoted to a brief background discussion concerning rural entrepreneurship and the hypotheses proposed by the study. 'Rural Entrepreneurship in Greece' reviews the relevant literature on Greece. 'Estimation Procedures, Data, and Variables' is devoted to the presentation of the empirical estimation methods, and the data and variables used in the analysis. 'Empirical Results and Discussion' presents the empirical results and discusses their interrelation to the extant knowledge in the field. 'Empirical Results and Discussion' comments on the limitations of the study and presents further research issues. 'Conclusion' concludes the paper with a discussion of the study's contribution and policy implications.

## Background Knowledge

### Rural Entrepreneurship

Rural entrepreneurship is a complex phenomenon since it relates not only to innovative initiatives in the rural space but to the socio-economic development of the rural community, as well (Wortman, 1990a, b). The interrelationship between new economic activity and space has been analysed as the locus of opportunities undertaken by individuals who are able to recognize them. In order to stress the importance of the interplay between sectoral specificities, rural space, and the community, Wortman (1990a: 330) proposes an adapted definition of rural entrepreneurship as '... the creation of a new organization that introduces a new product, serves or creates a new market, or utilizes a new technology in a rural environment'. He explicitly stresses the importance of the agricultural sector component of this type of entrepreneurship as realized in a rural community context (Wortman, 1990b). Similarly, Dabson (2001) suggests entrepreneurship is a means to revitalize rural America, subject to that policies to promote rural entrepreneurship focus on harnessing existing innovations, achieving economies of scale, and the identification and exploitation of comparative advantage. More recently, Korsgaard et al. (2015) distinguish between entrepreneurship in the rural place and rural entrepreneurship. As they suggest limited embeddedness in the locality, in the first case, and the leverage of local resources, in the second, are the key features of differentiation, structuring the way in which entrepreneurship is affected by space (Korsgaard et al., 2015). Nonetheless, Clausen (2020) relates the increasing rurality of a geographical space with a higher liability facing the potential entrepreneurs, owing to that the liability of rurality integrates with the risk associated with any new ventures.

Rationality then as a determinant of the decision to become an entrepreneur is a feature of the economic activity that takes place in a given setting. Roth and Wittich (1978) suggest that this type of rationality is both formal, i.e. efficiency related, and substantive, i.e. related to subjective conceptualizations of the economy or to a person's own ideological background. McGehee and Kim (2004) adopt this analytical framework to study the motivation for agri-tourism entrepreneurship initiatives of farmers in Virginia. As they suggest, both formal and substantive motivations are at play with regard to agri-tourism development in the study area. Formal motivations, that are economically rational justifications of the choice to expand to agri-tourism activities, include the farmers' attempt to offset falling income, or supplement the little profit of a season's poor yield, or simply to provide additional revenue for the household. On the other hand, substantive rationality occurs for individuals who relate such a choice with their own philosophical stance, sense of morality, or their vision for societal change (McGehee & Kim, 2004). De Souza et al. (2020) report that people's attachment to their place of origin and their appreciation of local products enhance their willingness to search for a good business opportunity within their local territory. This observation coincides with the importance of the 'family aspect of

entrepreneurial opportunities' to the extent that, quite often, ideas are generated, communicated, and realized at the intersection between family and business and thus intergenerational entrepreneurial legacy is a crucial parameter (Discua Cruz et al., 2020). Other studies identify gender and human capital as the decisive factors in shaping choices and identifying entrepreneurial opportunities. Pindado and Sánchez (2017) provide cross-country evidence of that agri-entrepreneurs have weaker entrepreneurial capabilities compared to those in other sectors but new entrants into the agricultural sector in European countries are more entrepreneurially oriented than established ones. Bhardwaj (2018) studies the role of education in women entrepreneurship in the different regions of India and reports the role of gender in critical decisions such as the sector of self-employment, the expansion strategy, and the links to the local community. Nonetheless, access to appropriate education is critical for equipping women so as to be able to exploit their capabilities and ideas and support the developmental potential of their communities (Bhardwaj, 2014).

In their critical analysis of the research regarding the interrelationship between entrepreneurship and rural space, Stathopoulou et al. (2004) suggest that rurality defines a 'territorially specific entrepreneurial milieu' as it constitutes a dynamic entrepreneurial resource, featuring opportunities and constraints that are embedded in specific territorial characteristics and which rural entrepreneurs should either overcome or exploit. They identify the distinct physical, social, and economic characteristics of rural areas as the locus of this territorial specificity and urge for more research on the formation and realization of the entrepreneurial process in rural areas (Stathopoulou et al., 2004). Teilmann (2012) studied local action group projects in LAG-Djursland, Denmark, and reports that municipality projects stimulate more social capital and high level of motivation leads to increased social capital among groups of local actors. King et al. (2019) analyse social capital as a determinant of rural innovation projects in New Zealand and find that bridging social capital and competence trust are key determinants of successful innovation.

Kalantaridis and Bika (2006) further enhance our understanding of the embeddedness of economic activity in a given setting by suggesting the existence of wider, than the local community, boundaries. Using rural Cumbria as the study area, they suggest that the interface between agency and his/her context might go well beyond the locality, and thus, further research is needed over the contextual factors of rural entrepreneurial activity (Kalantaridis & Bika, 2006). Bhinekawati et al. (2020) also report the interaction between social norms and subjective norms as a field of interplay that significantly affects entrepreneurial intentions in rural areas. On the other hand, studying a Scottish shellfish cooperative, Tregear and Cooper (2016) challenge the so far popular assumptions about how embeddedness and social capital shape collective action and learning in rural areas. As they argue we should interpret these concepts more expansively as knowledge exchange and learning (embedded in small rural networks and other social capital generation mechanisms) might involve broader to the local territory interpretations, involving adherence to sectoral norms and not to the local community context (Tregear & Cooper, 2016). Bhardwaj (2019) for example focuses on the entrepreneurial ecosystem characteristics of each region and suggests that it is knowledge management (exercised within high-tech firms)

**Table 1** Determinants of rural entrepreneurship: insights from selective studies

| Author | Country | Determinant |
|---|---|---|
| Wortman (1990b) | USA | Innovation |
| Stathopoulou et al. (2004) | Europe | Territorially specific entrepreneurial milieu |
| McGehee and Kim (2004) | USA | Individual motivations |
| Kalantaridis and Bika (2006) | Cumbria/UK | Local and extra-local community ties |
| Tilt et al. (2007) | Washington State/USA | Perceptions of space, community, livelihood |
| Dodd & Gotsis, 2007 | Greece | Religion |
| Bitros and Karayiannis (2010) | Greece | Institutions and entrepreneurial morality |
| Teilmann (2012) | Denmark | Social capital (local action groups) |
| Carayannis et al. (2012) | Cross-country | Quintuple Helix model |
| Carayannis and Rakhmatullin (2014) | Europe | Quadruple/Quintuple Innovation Helixes |
| Bhardwaj (2014; 2018) | India | Women education and training |
| Tregear and Cooper (2016) | Scotland/UK | Embeddedness and social capital |
| Kolehmainen et al. (2016) | Finland, Sweden, Hungary, Scotland | Quadruple Helix |
| Pindado and Sánchez (2017) | Europe | Human capital |
| Bhardwaj (2019) | India | Life-style choices |
| Sa et al. (2019) | Portugal | Triple Helix |
| King et al. (2019) | New Zealand | Bridging social capital, trust |
| De Souza et al. (2020) | Brazil | Attachment to place of origin |
| Discua Cruzet al. (2020) | Honduras | Intergenerational entrepreneurial legacy |
| Bhinekawati et al. (2020) | Indonesia | Social and subjective norms |

The table reports the main focus or key findings of each study as analysed here

that will be critical for the identification of life-style choices and strategic intent in support of an innovation culture that will locally be expressed through entrepreneurship. On the other hand, the role of local networks, values, and life-style choices has also been studied in the strand of research analysing the relationship between religion and entrepreneurship (see Block et al., 2020, for an overview of research in the field). Available knowledge suggests that this relationship is context-specific and the observed variations ought to a complex set of interactions amongst ideological positions, socio-cultural values, and symbolic representations of individual interests (Dodd & Gotsis, 2007).

Overall, extant knowledge suggests that many factors interact and shape the rural entrepreneurship phenomenon. Table 1 reports some key insights as drawn from the above mentioned studies. In reporting the main focus or critical findings of these studies, we see that an inclusive theorization of these aspects is needed in order to more fully elaborate on the plausible importance and relevance of any empirical findings.

In order to bring together the many explanatory factors that have been proposed by different strands of research, we utilize the n-tuple helix theorization

as our analytical framework (Carayannis & Campbell, 2010; Carayannis et al., 2012; Park, 2014). We suggest that empirical findings over a large set of parameters might be more fully elaborated under an informative and flexible analytical framework. In particular, the Quintuple Helix is a comprehensive model that extends the Triple Helix innovation model (academia/universities, industry, state/government) (Etzkowitz & Leydesdorff, 2000; Carayannis et al., 2012) and the Quadruple Helix model (media/culture, civil society) (Leydesdorff, 2012) by accounting for the 'natural environment of society' and the heterogeneity that might be emerging as a result of different socioecological challenges (e.g. the environment) (Carayannis & Campbell, 2010; Carayannis et al., 2012). To that extent, we do not set out to test the model. Rather we adopt a multiple-helix approach in order to contextualize and elaborate on the effects of various sets of parameters upon the rural entrepreneurial potential (Carayannis, 2008, 2009; Carayannis & Campbell, 2010; Carayannis et al., 2012).

In light of the above discussion, we propose that the diversity of the micro and meso level dynamics that structure the rural entrepreneurial potential might be empirically studied in the context of the following hypotheses:

H1. The intrinsic characteristics of actors and their actions affect their views on rural entrepreneurship
H2. Local community ties affect individuals' views on rural entrepreneurship
H3. Civil society institutions and public administration affect individuals' views on rural entrepreneurship
H4. Political institutions affect individuals' views on rural entrepreneurship
H5. The wider regional characteristics affect individuals' views on rural entrepreneurship

Hypotheses H1 to H4 refer to micro level effects, capturing the role of individual characteristics (H1), and the effects of perceptions about the local community (H2), the quality of local institutions (H3), and the political environment (H4). H5 accounts for objective regional characteristics such as economic growth, industrial structure, rurality, and entrepreneurial incomes in the primary sector of the economy. In focusing primarily on the subjective evaluations of individuals, we try to identify the effect of individual level evaluations and actions as the critical parameters of different entrepreneurial views (Carayannis & Stewart, 2014). As Carayannis and Stewart (2014) suggest, the different patterns of entrepreneurial behaviour might be empirically validated by the in-depth analysis of the intrinsic characteristics of the entrepreneurial actors and actions. On the other hand, as a flexible and inclusive framework, the Quintuple Helix model allows us to also account for a number of regional and sectoral characteristics in order to provide evidence on their interrelated effect on the developmental potential of rural areas in Greece. Such an approach is in line with the theorizations of the 'rural character' as dependent upon not only visual but also cognitive perceptions of space and the individuals' understandings of community, livelihood, development, etc. (Tilt et al., 2007). Sa et al. (2019) use the Triple Helix approach to study the peripheral regions of northern Portugal and do report the entrepreneurs' awareness of the wider economic, social, and cultural

impact that their activities exert upon local development. In the case of Greece, Bitros and Karayiannis (2010) also report the role that personalized and localized institutions play in shaping entrepreneurial morality as embedded in a given context. On the other hand, our analytical approach is in line with the argument that the higher extensions of the Triple Helix model can indeed be composed in many different ways depending on the topological and structural characteristics pertaining to each study (Ivanova, 2014). The embeddedness of such factors in a given regional context is decisive of the developmental potential that a region might develop. Indicative are the recent cross-country findings of Kolehmainen et al. (2016) who suggest that we might fill the 'black box' of regional development by bringing together the university, industry, government, and community characteristics that interact in a collaborative process of development. They use the quadruple helix model to analyse four case studies of remote, rural, and less-favoured areas in Finland, Sweden, Hungary, and Scotland, and they identify it as a most appropriate framework for sketching the knowledge-based regional development potential of different areas (Kolehmainen et al., 2016).

The next section provides a brief overview of the literature concerning rural entrepreneurship in Greece with a view to present the large number of parameters that also structure the country's rural entrepreneurial potential.

## Rural Entrepreneurship in Greece

Due to its economic significance, the agricultural sector in Greece has been, and still is, subject to extensive research. Despite its continuous decline, particularly in the decades following the country's accession to the EU, the agricultural sector employs an important share of the country's economically active population and contributes significantly to the country's gross domestic product (GDP). In 2018, the agricultural sector accounts for 10.9% of total employment in the country, 3.7% of the gross value added produced, and 0.4% of gross fixed capital formation in the country. The corresponding figures in 2008 were 11.4% of total employment, 3.1% of gross value added, and 0.2% of gross fixed capital formation (see HSA[2]). After the harsh financial crisis and the economic recession period that it signalled for Greece, the agricultural sector remains an important pillar of the country's productive base. However, we need knowledge on the current situation if we are to use entrepreneurship as a means to exit the economic recession and gain a sustainable competitive advantage (Williams & Vorley, 2015). In addition to that, declining agricultural support levels seem to promote landscape uses that local gatekeepers consider potentially harmful for their physical and socio-economic environment (Tzanopoulos et al., 2011). Providing case study evidence, Tzanopoulos et al. (2011) report that local stakeholders in Zagori view the sustainable development of their region as critically relying upon the conservation of low input extensive farming and mild tourism development. In line with such

[2] Data available by the Hellenic Statistical Authority at https://www.statistics.gr/en/statistics/agr

arguments, our aim here is to provide insights as to whether rural entrepreneurial potential exists and if so under what conditions it could be considered as a viable development path for the Greek countryside.

Existing knowledge shows that in some cases, the pressure to overcome the recession itself and the longstanding structural impediments of the primary sector (Galani-Moutafi, 2013; Gkartzios, 2013; Lang & Fink, 2019) has given room to innovations and entrepreneurial initiatives that can sustain growth and rural development. Indicative are the findings of Lang and Fink (2019) who utilize social capital theory and place-based entrepreneurship literature in order to analyse rural social entrepreneurs and their institutional environment. As they argue both horizontal and vertical networking strategies can be employed by rural social entrepreneurs to the advantage of their businesses and the development of the local community as well (Lang & Fink, 2019). Gkartzios (2013) analyses counter-urbanization in times of crisis. Through in-depth interviews with counter-urban migrants in Greece, he shows that the recent crisis motivated relocations as a means to address unemployment and avoid a deteriorating urban lifestyle (increased crime, insecurity etc.). In contrast to existing conceptualizations of counter-urbanization as a phenomenon associated with pro-rural lifestyle choices, or class aspirations and ageing processes, he points to a 'crisis counter-urbanization' phenomenon the motivation of which is unemployment at the place of origin and not idyllic constructions of rurality (Gkartzios, 2013). With regard to the rural paradigm that might emerge as a result of the financial crisis and the trend to return in rural spaces, Galani-Moutafi (2013) suggests that newcomers in rural spaces critically reproduce the representation of rural space conflict (Galani-Moutafi, 2013). Studying Mesta in the Aegean island of Chios, Galani-Moutafi (2013) suggests that albeit slow the counter-urbanization phenomenon triggered by the economic recession carries contradictions not only about the meaning (or symbolic representation) of rural space but most importantly it carries contradictions about the production and consumption of place schemes and differentiated power relations that might change the social order of the rural communities. This is important as a mosaic of networks with the local community might be at place (Iakovidou et al., 2012). For example, Iakovidou et al. (2012) analyse the heterogeneity of women entrepreneurs in the rural areas of five northern Greece regions and reveal different bonds with the local community and the local economy. As they report women entrepreneurs share the same business profile albeit their bonds to the local community relate to them being 'locals' or 'daughters-in-law' or 'urban-newcomers' (Iakovidou et al., 2012).

Other studies focus on the cooperation paradigm and suggest that we need to promote competitive forms of collaboration as a means to support an improved socio-economic status of rural residents and rural local communities as a whole (Koutsou et al., 2014; Sergaki & Nastis, 2011; Trigkas et al., 2020). Sergaki and Nastis (2011) propose collective entrepreneurship initiatives as more competitive forms of collaboration that adhere to the three key imperatives, i.e. that of economic development, environmental protection, and social equity. Koutsou et al. (2014) analyse the presence, content, and effects of social capital among young farmers in rural Greece. They report limited participation in producer groups, a fact that negatively affects access to innovation, while they also find that collective actions are positively linked

with individuals reporting high personal trust and low institutional trust (Koutsou et al., 2014).

As in the past, necessity and opportunity emerge at the driving forces of entrepreneurial activities in the rural space of Greece and further complex the dynamically evolving issue of identifying and supporting an inclusive agricultural and rural development paradigm in the country. This goal has been served by the excessive rural migration inflows of the mid-1990s, a period in which migrants have assisted in the agricultural modernization plans of the 'entrepreneurial' family farms, in the survival of pluriactive farms that sought to retain their socio-cultural lifestyle, while they also enabled pluriactive farmers who had abandoned agriculture to re-enter the sector (Kasimis & Papadopoulos, 2005; Kasimis et al., 2003; Labrianidis & Sykas, 2009). Zampetakis and Kanelakis (2010) study opportunity entrepreneurship in southern Crete and, in particular, the personal and contextual factors affecting business start-ups due to the identification of opportunities in rural contexts. Using a random sample of 81 business owners, they report that the entrepreneurs' personality, prior knowledge, expectation of future social status, and level of education are significant predictors of opportunity entrepreneurship.

Female entrepreneurship in rural Greece merits special reference. Through a comprehensive review of female entrepreneurship in the rural areas of Greece, Gidarakou (2015) suggests that it is a choice undertaken primarily as a means to contribute to the economic diversification of households and predominantly involves small private enterprises and women's cooperatives. In addition, evidence are provided that women entrepreneurship can built rural community resilience against adverse exogenous shocks. Applying an ethnographic research approach, Bakas (2017) studies 20 tourism handicraft micro-entrepreneurs in Crete and Epirus, in 2012, and provides evidence of such resilience built upon a culture of entrepreneurial involvement that is primarily focused on achieving community (as opposed to private) gain. Analyzing women's cooperatives in the less favoured and mountainous areas of Florina (Northern Greece), Chatzitheodoridis et al. (2017) report the active role of women in improving their position in small communities. Engaging in agro tourism and small-scale processing husbandries, they are able to provide supplementary income to their households and empower the local community by attracting younger people to stay in the community and possibly continue such initiatives (Chatzitheodoridis et al., 2017).

Other studies also analyse gender as a critical factor in selecting entrepreneurship as a career choice. Iakovidou et al. (2009) analyse the motivation and other reasons that distinguish female entrepreneurs in the rural areas and suggest that women are a distinct and largely unexplored source of the labour force. As they argue, different types of women entrepreneurs might be observed owing to the interaction of space (i.e. of the different geomorphologic characteristics of rural areas) and the different economic profiles of women (Iakovidou et al., 2009). Studying the career choices of women in the Greek countryside, Anthopoulou (2010) focuses on the different behavioural patterns that underlie these choices and in particularly the associated balance between job demands and the demands of family life. Analyzing business initiatives in the Peloponnese region, she concludes that they primarily involve small individual businesses utilizing local

resources (farm production, traditional recipes, family labour), while tacit knowledge and know-how, the small and flexible scale of the production and the family character of the business minimizing entrepreneurial risk (Anthopoulou, 2010). Koutsou et al. (2009) analyse women's entrepreneurship choices between private and cooperative agro-tourism business in the Greek countryside. Through personal interviews with 199 women, they identify the choice to select a cooperative schema with older, lower educated and risk averse women, whereas the private form of enterprise is chosen by younger, better educated, and more self-confident women (Koutsou et al., 2009). In addition, Lassithiotaki (2011) performs a qualitative analysis of the entrepreneurship choices of rural women in the prefecture of Heraklion (Crete) and reports the interplay of a number of decisive parameters. As she argues, time constraints (ought to traditional domestic roles), low level of education, lack of professional skills, and related experience are found to coexist with risk aversion towards new ideas and innovation, modern business methods, etc. (Lassithiotaki, 2011).

Education is an important leverage for enhancing the entrepreneurial potential of Greek regions and of women in particular. Vliamos and Tzeremes (2012) provide evidence on the factors that are conducive to the entrepreneurial process using case study evidence from the region of Thessaly in central Greece. As they argue, entrepreneurial skills and in particularly education and previous experience, the desire for independence and sense of control, and the wider (socio-economic, financial and regional) institutional environment exert the most decisive effects on the entrepreneurial process (Vliamos & Tzeremes, 2012). Kakouris et al. (2018) analyse the 'gender gap' in entrepreneurship in Greece using survey data from local graduates and practitioners in the region of Peloponnese. They do report the important role of education in empowering female entrepreneurship through for example building self-confidence in entrepreneurial tasks (Kakouris et al., 2018). Entrepreneurship education is a step further to building the human capital skills of potential entrepreneurs. Fafaliou (2012) indicatively reports that Greek students do acknowledge the need to get specialized entrepreneurial education if they are to feel more confident in pursuing their own self-employment plans.

The above mentioned overview briefly summarizes our knowledge regarding the entrepreneurial potential in rural Greece as emerging primarily via the (a) pre-existing life-style choices either independently (or cooperatively) accommodated, and often informed by gender and the career choices of women, or (b) as a response to a crisis situation related to unemployment and/or deteriorating living conditions in other primary location and employment choices. So the entrepreneurial response often reported as a sustainable development pathway does not build on evidence regarding the stock of entrepreneurial potential available in the rural areas of the country. Here we focus on identifying this potential and determine the factors that are conducive to it. To that extent, we might argue that the n-tuple helix model is a way to renew the study of rural entrepreneurship in Greece through the use of a holistic and flexible analytical framework (Carayannis & Rakhmatullin, 2014; Carayiannis et al., 2012).

## Empirical Analysis

### Estimation Procedures, Data, and Variables

In analyzing the least researched issue of individuals' attitudes towards entrepreneurship in rural areas in Greece, we identify those individuals that hold positive entrepreneurial attitudes as the entrepreneurship potential of a rural area and try to detect the factors that are conducive to such views. In line with the above discussion we might analyse entrepreneurial views (EV) as a function of five sets of parameters accounting for (1) actor characteristics and actions, (2) the local community, (3) the civil society and public administration context, (4) the public policy sphere, and (5) the regional context. The dependent variable of entrepreneurial views can be considered as a pair of random variables $(Y_0, Y_1)$, where $Y_1$ denotes an individual reporting positive views on rural entrepreneurship and $Y_0$ represents an individual reporting negative views on rural entrepreneurship. The probability of observing response $Y_1$ is

$$P_i = E\left(Y = 1 \middle| X_i\right) = \frac{1}{1 + e^{-\beta_0 + X\beta_x}} \tag{1}$$

where $P_i$ is the probability of positive views on rural entrepreneurship $(Y_1)$ and $X$ is a set of covariates (predictors). Equation 1 can be estimated as a logistic distribution function, while the odds ratio in favour of positive rural entrepreneurship view is given by $P_i \big/ \left(1 - P_i\right)$ (Gujarati, 1995).

For our empirical analysis, we use data from two sources. Our micro level data are drawn from the Eurobarometer 90.3 (2018) (European Commission, 2019) dataset for Greece which provides information on a number of special topics that are relevant for our analysis (e.g. civil society and public administration, political issues). The Standard Eurobarometer survey applies a multi-stage, random data collection procedure.[3] This involves first the selection of the sampling points (after stratification for population size and density), and second, a selection of a cluster of addresses for each primary sampling unit (in Greece respondents are chosen using a random route procedure). A total of 1012 individual level observations are available. Our contextual variables are drawn from the Regional Accounts of the Hellenic Statistical Authority (ELSTAT) and refer to 10 Greek regions. Regional data are used with 1-year lag compared to micro level data; i.e. they refer to 2017, so as to capture the effect of regional trends on micro perceptions.

Our dependent variable is calculated as a dummy coded variable taking the value of 1 for residents of rural areas that have reported having very positive or fairly positive views on entrepreneurship and the value of zero in the event of rural residents reporting fairly negative or very negative views on entrepreneurship. Positive views represent almost 35% of our sample. Given data availability and the study's aim, the

[3] For an analytical description of the sampling procedure and fieldwork see: https://www.gesis.org/en/eurobarometer-data-service/survey-series/standard-special-eb/sampling-and-fieldwork

five sets of the independent variables were constructed next. Following our previous discussion, we test for the effect of (1) actor characteristics and actions, approximated by the demographic profile of respondents (controls for age, gender, marriage, and children), their human capital (education), their socio-economic status (social class, financial situation), their values (freedom, innovation, religion), and their actions (self-employed); (2) the role of the local community, approximated by the respondents' ties to their place of residence (attachment) and their evaluations of the quality of local public administration authorities; (3) the civil society and public administration quality, approximated by the respondents' trust on key institutions (media, justice/legal system, the police); (4) the political institutions of the country approximated by the respondents' political interest, their evaluations of institutions for democratic governance (political parties, national government, national parliament, EU), and their evaluations of the economic outcomes of the country (situation of national economy, protectionism, crisis, and financial expectations); and (5) the regional context approximated by rurality (population density), economic growth (per capita GDP), the industrial structure (employment in agriculture), and entrepreneurial opportunities in the primary sector (entrepreneurial income in the primary sector).

Table 2 presents the definition, measurement, and basic descriptive statistics of all variables used in the analysis.

## Empirical Results and Discussion

Since our dependent variable is measured on a dichotomous (0–1) scale, we use a binomial logistic regression model in order to predict the probability that a rural resident positively views entrepreneurship ($y = 1$) (Harrell, 2015). Given the need to study both micro-level and contextual effects with a relatively small sample of observations, we run bootstrap logistic estimation techniques involving stratified resampling with the use of 50,000 samples and 95% bias corrected and accelerated (BCa) confidence intervals (Efron & Tibshirani, 1986). Table 3 reports our predictions and the empirical model's summary information. Our model summary results indicate very satisfactory fit and prediction levels. This is shown by the typically calculated tests, omnibus $\chi^2$ value, and various *pseudo* $R^2$ values, i.e. the Cox and Snell $R^2$ and the Nagelkerke $R^2$ values, which are measures of the explained variation. As shown, the explained variation in the dependent variable from our model is 43.5% (Nagelkerke $R^2$). As regard the effectiveness of our predictions, our model correctly classifies 77.7% of our cases, while both the sensitivity and specificity rates are also very satisfactory (65.2% and 84.5% respectively).

As regard our predictions, important evidence is provided with regard to the proposed hypotheses. In particular, all our hypotheses are supported. As regard actors' characteristics and actions (H1), the probability that an individual positively views rural entrepreneurship increases for respondents of a higher social class and for self-employed persons. Pecuniary concerns are also important albeit negatively affect the probability that a person holds positive entrepreneurial views. Better financial situation of the household and higher income satisfaction are both parameters that

**Table 2** Definition, measurement, and basic descriptive statistics of variables

| Variable name | Definition and measurement | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Rural entrepreneurial potential | Dependent variable: dummy, 1 = positive views on entrepreneurship | 0 | 1 | .35 | .48 |
| Actor characteristics and actions | | | | | |
| Controls | | | | | |
| Gender | Dummy, 1 = male | 0 | 1 | .49 | .50 |
| Age | Ordinal, 7 ≥ 75 years | 1 | 7 | 4.11 | 1.70 |
| Married | Dummy, 1 = respondent is married | 0 | 1 | .71 | .46 |
| Child | Dummy, 1 = children in household | 0 | 1 | .42 | .49 |
| Human capital | | | | | |
| Education | Years of education in ten categories, 9 ≥ 22 years | 0 | 9 | 4.82 | 3.10 |
| Higher education | Dummy, 1 = yes | 0 | 1 | .68 | .47 |
| Socio-economic status | | | | | |
| Social class | Social class—self-assessment: 5 = the higher class of society | 0 | 5 | 2.04 | .98 |
| Current financial situation | Own assessment of household financial situation: 4 = very good | 0 | 4 | 2.12 | .75 |
| Paying bills | Difficulties in paying bills, 4 = never | 1 | 4 | 1.72 | .69 |
| Actions | | | | | |
| Self-employed | Dummy, 1 = respondent is self-employed | 0 | 1 | .18 | .38 |
| Values | | | | | |
| Individual freedom | Important personal value individual freedom: dummy, 1 = mentioned | 0 | 1 | .21 | .41 |
| Religion | Important personal value religion: dummy, 1 = mentioned | 0 | 1 | .19 | .39 |
| Self-fulfilment | Important personal value self-fulfilment: dummy, 1 = mentioned | 0 | 1 | .04 | .20 |
| Local community | | | | | |
| Place attachment | Attachment to city/town/village: 4 = very attached | 1 | 4 | 3.81 | .48 |
| Regional/local public authorities | Trust in regional/local public authorities: dummy, 1 = tend to trust | 0 | 1 | .29 | .45 |
| Civil society and public administration | | | | | |
| Media | Trust in media: dummy, 1 = tend to trust | 0 | 1 | .22 | .42 |
| Justice/legal system | Trust in justice/legal system: dummy, 1 = tend to trust | 0 | 1 | .56 | .50 |

**Table 2** (continued)

| Variable name | Definition and measurement | Min | Max | Mean | SD |
|---|---|---|---|---|---|
| Police | Trust in police: dummy, 1 = tend to trust | 0 | 1 | .68 | .47 |
| Public administration | Trust in public administration: dummy, 1 = tend to trust | 0 | 1 | .20 | .40 |
| Political institutions | | | | | |
| Democracy | | | | | |
| Political interest | Political matters discussion index, 4 = strong interest | 1 | 4 | 2.99 | .89 |
| Political parties | Trust in political parties: dummy, 1 = tend to trust | 0 | 1 | .05 | .21 |
| National government | Trust in national government: dummy, 1 = tend to trust | 0 | 1 | .12 | .33 |
| National parliament | Trust in national parliament: dummy, 1 = tend to trust | 0 | 1 | .14 | .35 |
| European Union | Trust in European Union: dummy, 1 = tend to trust | 0 | 1 | .29 | .45 |
| Economy | | | | | |
| Current situation economy | Assessment of national economy situation: 4 = very good | 1 | 4 | 1.39 | .56 |
| Protectionism | Vies towards protectionism, 5 = very positive | 1 | 5 | 2.41 | 1.04 |
| Immigrants | Immigrants contribute a lot, 4 = totally agree | 0 | 4 | 1.96 | .82 |
| Crisis effect | Crisis revealed private sector better placed to create jobs: 4 = totally agree | 0 | 4 | 2.66 | 1.04 |
| Expectation financial | Expectations financial situation of hh: 3 = better | 0 | 3 | 1.53 | .74 |
| Regional characteristics | | | | | |
| Population density | Normalized population density (ln) | 0 | 100 | 10.78 | 28.19 |
| GDP per capita | Per capital gross domestic product (in euros, at current prices) (ln) | 11,538.56 | 22,784.03 | 14,264.68 | 3,233.98 |
| Employment primary sector | Regional employment in agriculture (ln) | 13,649.51 | 87,524.84 | 43,532.23 | 22,968.20 |
| Income primary sector | Regional entrepreneurial income from agriculture (in million euros, current prices) (ln) | 5.87 | 1,100.49 | 491.505 | 367.70 |

Own elaborations of Eurobarometer (2018) and HSA (2017) data. Some Eurobarometer variables have been positively recoded

**Table 3** Bootstrap logistic regression estimates: positive views on rural entrepreneurship

| | B | S.E | Wald $\chi^2$ | Sig | Exp(B) |
|---|---|---|---|---|---|
| Constant | − 33.168 | 14.705 | 5.088 | .024 | .000 |
| Actor characteristics and actions—Controls | | | | | |
| Gender | − .044 | .184 | .058 | .810 | .957 |
| Age | − .034 | .060 | .316 | .574 | .967 |
| Married | .249 | .217 | 1.311 | .252 | 1.283 |
| Child | .081 | .197 | .170 | .680 | 1.084 |
| Human capital | | | | | |
| Education years | − .085 | .052 | 2.630 | .105 | .918 |
| Higher education | .032 | .333 | .009 | .923 | 1.033 |
| Socio-economic profile | | | | | |
| Social class | .207 | .111 | 3.468 | .063 | 1.230 |
| Financial situation (hh) | − .352 | .148 | 5.645 | .018 | .703 |
| Paying bills | − .323 | .156 | 4.299 | .038 | .724 |
| Actions | | | | | |
| Self-employed | .981 | .231 | 18.076 | .000 | 2.667 |
| Values | | | | | |
| Individual freedom | − .136 | .216 | .398 | .528 | .873 |
| Religion | − .178 | .233 | .584 | .445 | .837 |
| Self-fulfilment | .109 | .381 | .082 | .775 | 1.115 |
| Local community | | | | | |
| Attachment to local town/village | .594 | .211 | 7.939 | .005 | 1.812 |
| Regional/local public authorities quality | − .187 | .234 | .639 | .424 | .829 |
| Civil society and public administration | | | | | |
| Media | .070 | .230 | .092 | .761 | 1.072 |
| Justice/legal system | − .033 | .212 | .024 | .878 | .968 |
| Police | .037 | .217 | .029 | .865 | 1.038 |
| Public administration | .655 | .268 | 5.987 | .014 | 1.925 |
| Political institutions—Democracy | | | | | |
| Political interest | .125 | .106 | 1.377 | .241 | 1.133 |
| Government quality | − .251 | .333 | .567 | .451 | .778 |
| Parliament quality | .689 | .314 | 4.810 | .028 | 1.992 |
| EU quality | .001 | .236 | .000 | .995 | 1.001 |
| Political parties quality | − .125 | .444 | .079 | .778 | .882 |
| Political institutions—Economic situation | | | | | |
| Current situation economy | .355 | .170 | 4.351 | .037 | 1.426 |
| Protectionism | − .326 | .092 | 12.676 | .000 | .722 |
| Immigrants | .102 | .113 | .814 | .367 | 1.108 |
| Crisis effect | .178 | .090 | 3.893 | .048 | 1.195 |

**Table 3** (continued)

| | B | S.E | Wald $\chi^2$ | Sig | Exp(B) |
|---|---|---|---|---|---|
| Financial expectations | .088 | .143 | .376 | .540 | 1.092 |
| Regional characteristics | | | | | |
| Population density | − 2.452 | .321 | 58.418 | .000 | .086 |
| GDP per capita | 6.320 | 2.814 | 5.046 | .025 | 555.818 |
| Employment primary sector | 1.508 | .953 | 2.506 | .113 | 4.519 |
| Entrepreneurial income primary sector | − .242 | .300 | .654 | .419 | .785 |
| Model summary and classification | | | | | |
| Summary statistics | $\chi^2$ ($p$) | | | 357.727 (< .001) | |
| | − 2 Log likelihood | | | 857.237 (< .001) | |
| | Cox and Snell square | | | .318 | |
| | Nagelkerke $R$ square | | | .437 | |
| Classification | Overall | | | 77.7% | |
| | Sensitivity | | | 65.2% | |
| | Specificity | | | 84.5% | |

Classification cut off point is 0.5

lower the probability that a person reports positive entrepreneurial views. All other parameters capturing human capital, the socio-demographic profile of respondents, and human values have not been found to exert statistically significant effects. Local community ties (H2) are found to positively affect individuals' views on rural entrepreneurship as attachment to place has been found to have a positive and statistically significant sign. Civil society institutions are also important (H3). The higher the perceived quality of public administration services, the higher the probability that an individual holds positive views on rural entrepreneurship. Political institutions have been found to exert statistically significant effects on individuals' views on rural entrepreneurship (H4). Perceived quality of democracy is a positive predictor of the probability that a person views rural entrepreneurship favourably. On the other hand, mixed effects are observed as regard the effects of peoples' evaluations of economic policies. These however present a quite interesting picture. In particular, positive evaluations over the current situation of the national economy increase the probability that a person holds positive entrepreneurial views. Similarly, positive effects are presented in the case of respondents who believe that the crisis has been an opportunity for the private sector to emerge as a better place for the generation of jobs. On the other hand, favourable views about protectionism are found to decrease the probability of holding positive entrepreneurial views. As regard the contextual factors (H5), they are also observed as important predictors of the probability that a person holds positive rural entrepreneurship views. Urbanization as proxied by population density is found to exert negative effects on entrepreneurial views, while growth (per capita GDP) is found to enhance the probability that a person reports positive views on rural entrepreneurship.

Taken together, these findings point to four important observations. The first relates to the predominance of pecuniary concerns illustrated at both the micro and the contextual levels (H1 and H5). The second relates to the importance of civil society institutions at the local and regional/national level (H3 and H4). The third point relates to the importance of personal feelings and perspectives (H2 and H5). Finally, the last important observation relates to the catalytic role of the regional economic and industrial characteristics (H5). These findings are largely in line with available knowledge suggesting that personal motivation, financial considerations, the quality of institutions, government, and the industrial structure of a region are decisive factors of entrepreneurship and/or entrepreneurial potential (Bhardwaj, 2019; Bitros & Karayiannis, 2010; De Souza et al., 2020; Kalantaridis & Bika, 2006; McGehee & Kim, 2004; Stathopoulou et al., 2004; Vliamos & Tzeremes, 2012).

The lack of statistically significant effects as regard a number of critical parameters namely, age, gender, human capital, and personal values, as suggested by the relevant literature (Anthopoulou, 2010; Dodd & Gotsis, 2007; Fafaliou, 2012; Iakovidou et al., 2009; Kakouris et al., 2018; Koutsou et al., 2009; Lassithiotaki, 2011) merits some further discussion. It is plausible that the effect of these parameters might be blurred for three reasons. The first one relates to the period of analysis. Our dataset involves a cross-section of observations in the year ending a decade of crisis suggesting that existing financial pressures and fear of tomorrow (as regard the economic development of the country, instability etc.) might push individuals to prioritize security (e.g. withhold to certain choices or postpone others). The second reason relates to the size of our sample. A larger set of observations would allow us to test for plausible differences among gender, age, and education sub-samples, for example. The last reason relates to the lack of more informative variables for some of the analysed parameters. For example the role of religion might more fully analysed using proxies that capture religiousness and spirituality, local and extra/local religious ties, network support, etc. (Block et al., 2020; Dodd & Gotsis, 2007).

## Limitations and Further Research

The use of a rather small (1012) cross-section of observations is acknowledged as a limitation of the resent study. Longitudinal data would allow us to study the dynamics of entrepreneurial views as emerging in a crisis period and possibly realized in the next stage of the economy where a more supportive socio-economic and political environment might be present to ensure greater stability. Data that would cover the period before and immediately (e.g. 3 years) after the crisis would allow such an analysis. In addition to that, longitudinal data would allow us to employ other techniques for example multi-level estimation techniques in order to analyse entrepreneurial views as structured (nested) within given regional environments. Such an analysis would allow us to explore the potential attractiveness of regions as entrepreneurship locations. Finally, more detailed data on a number of key parameters would allow to study individuals' views, the role of social networks, information flows and informal socio-economic and financial support, etc. Given such information is available further knowledge could be provided as regard the phase during which an idea

of change in life style and/or employment 'matures', which are the factors that are conducive to it, and the role that different socio-economic, political, and physical environments play in such a process.

## Conclusion

The study analyses Greece's rural entrepreneurial potential. This is one of the least researched areas despite of its importance for any rural regeneration process, both ongoing and future. The agricultural sector has been severely affected by the financial crisis, following the harsh effects experience by the country as a whole. Falling rates of employment and investments, decreasing domestic demand for (agricultural) products, increased pressure for improvements in productivity and the competitiveness of all sectors of the economy are some of the most pressing challenges facing the Greek economy and the agricultural sector as well. At the same time, it is still one of the most important economic engines of the country and one with much unexploited advantages. A wide range of entrepreneurial motivations are needed for these advantages to materialize into innovative rural initiatives.

In this context, we study rural residents' views on entrepreneurship in an attempt to identify potential locus of opportunities and the group of people that will be more likely to exploit them. We adopt the n-tuple helixes model as a solid theoretical framework within which to provide plausible explanations of our empirical results and provide an informative discussion of how and why entrepreneurial views matter for building the developmental potential of rural areas in Greece. For the empirical analysis, we use micro level and regional data and apply binomial logistic regression techniques in order to identify the factors that affect the probability that individuals report positive views about rural entrepreneurship. Our results show that an individual's attitude towards rural entrepreneurship is much affected by pecuniary concerns, while it is a source of optimism that self-employed people hold positive views towards prospective rural entrepreneurial activities. Recent evidence verify the importance of personality traits such as optimism in surviving the harsh economic crisis that Greece experienced (Kottika et al., 2020). The important role of regional effects is also reported. Given the interplay of micro and regional level factors, future research in the field might focus on further analyzing the push and pull factors that might enhance rural entrepreneurship. Finally, at the policy level, it is important to note that the process of developing appropriate tools that might motivate people to undertake entrepreneurial activities in the rural areas of the country might place more emphasis on the above mentioned interplay. The nowadays increased emphasis on supporting modern agricultural cooperatives and rural social enterprises for example might be a way forward subject to that past pathogenies are effectively dealt with (Bika, 2011; Trigkas et al., 2020). To that extent knowledge on the factors underlying positive views towards rural entrepreneurship, both pecuniary and non-pecuniary, e.g. the role of local culture, networks, and a supportive environment, are essential if we are to design efficient rural entrepreneurship support measures and cultivate the rural entrepreneurial potential.

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