Guest editorial: Entrepreneurial practices in the agri-food industry: advancing the research agenda

Introduction
Entrepreneurship is generally considered crucial to the economic development and prosperity of societies (Acs et al., 2005; Jafari Sadeghi et al., 2019; Rubio-Bañoñ and Esteban-Lloret, 2016). In fact, launching new businesses not only creates employment, innovation and new markets that cause economic growth but also improves the quality of life at all levels of society for men and women (Elam, 2014; Sukumar et al., 2020). According to Davidsson (2003), entrepreneurship is a part of routine life, which contributes to society. Mitchell et al. (2000) and Baum and Locke (2004) explain it as the willingness of individuals to be self-employed. Raising the concept of readiness toward self-employment, Lau et al. (2012) consider entrepreneurship as not only linked to the individual’s need for self-achievement (as a motive for business creation) (Olugbola, 2017) but also as associated with the knowledge, skills and capabilities of those looking forward to creating a new business (Amoozad Mahdiraji et al., 2021; Jafari-Sadeghi et al., 2020; Lim et al., 2010). In general, entrepreneurship can be explored from different perspectives. For example, scholars have focused on the country attributes (Bruton et al., 2008; Sadeghi et al., 2019), others on firm attributes (Mensah et al., 2021; Zahra and Garvis, 2000) and still others who have identified individual attributes (Manolova et al., 2002; Sukumar et al., 2021).

When it comes to the agricultural and food sector, entrepreneurship has been perceived as an important pillar that contributes to dealing with the challenges and rapid changes that emerged in recent years (Gellynck et al., 2015; McElwee, 2006). This is particularly important since agricultural and food businesses have been pushed to align with obstacles, including new trends in food safety, consumer habits as well as changes in biotechnology and sustainability (Dias et al., 2019; Lans et al., 2017). In this vein, the adaptation of farmers and food entrepreneurs to the socio-economic changes, there has been an increasing interest among scholars in agri-food entrepreneurship research in recent years (Seuneke et al., 2013). On the other hand, entrepreneurs have been constantly working to exploit new opportunities to address new scenarios through generating added value from their farm and food-oriented activities (Alsos et al., 2011; Vesala and Jarkko, 2008). As the food industry expands, technology is already starting to influence food production, patterns of consumption and distribution circuits (Garousi Mokhtarzadeh et al., 2020; Xu et al., 2021). Start-ups have quickly jumped on the food-tech bandwagon, transforming the dynamics of the food sector. Recent years have seen an increase in the number of mobile apps for preparing food, food deliveries and even restaurants reviews. Businesses are responding to this trend by offering new tech products and services that efficiently address these users’ needs. These products and services are referred to as elements of the food-tech industry. Born from the alliance between innovative technology and the food industry, food tech can be described as the application of technology to improve any stage of food production and distribution. Undoubtedly, improving the conditions and facilitating the creation of these start-ups can help boost business in the food industry. In this vein, it should be noted that although there is a major difference between the agri-food sector and others such as high tech manufacturing, individuals who are involved in value creation within farms and businesses related to food and agriculture are regarded as entrepreneurs (Vermeire, 2009). Therefore, agri-food...
entrepreneurship can be seen similar to the entrepreneurial field which deals with different phenomena, such as innovation and technology advancement, corporate social responsibility, etc. Consequently, this special issue attempts to broaden the understanding of agri-food entrepreneurship by dealing with different topics.

Statistics of the submissions
In this special issue, we received a total number of 36 original submissions of which 17 were accepted (rejection rate 52.78%). The included papers contribute to entrepreneurship research in the agri-food sector. Each paper makes unique additions to our theoretical and empirical understanding of the extent to which small firms conduct entrepreneurial activities to provide value in the food sector. This high level of interest in our call for paper highlights the importance of the topic. In total, this special issue found interest from different locations on the planet as the diversity of submissions on diverse continents. Table 1 highlights the country of origin for the submissions in this special issue.

**Contributing papers**
This special issue includes a total number of 17 papers; hence, its contribution relies on five main research themes: 1) Internationalisation of food businesses; 2) Technology and agri-food business; 3) Knowledge management, innovation in agri-entrepreneurship; 4) Sustainability and agricultural entrepreneurship and 5) Ecosystem and environmental contexts. Figure 1 depicts the main research themes of this special issue.

*Theme 1. Internationalisation of food businesses*
The first theme focuses internationalisation of entrepreneurial firms. Indeed, three papers have explored overseas entrepreneurial intentions and processes in the context of the agri-food sector. Both process-oriented and collaborative approaches to internationalising of agri-food sector have been attempted. In this regard, Amoozad Mahdiraj et al. in their paper “A process-based guide for international entrepreneurs while investing in the agri-food sector of an emerging economy: A multi-layer decision-making approach” identified six barriers

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Table 1. Manuscript accepted by the country of origin
Figure 1. Main themes of this special issue

Entrepreneurship in agri-food industry

Theme 1. Internationalisation of food businesses

Theme 2. Technology and agri-food business

Theme 3. Knowledge management, innovation in agri-entrepreneurship

Theme 4. Sustainability and agricultural entrepreneurship

Theme 5. Ecosystem and environmental contexts

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that are unique to the agri-food sector and refer to the process-oriented approach. However, in the paper entitled “International collaboration formation in the entrepreneurial food industry: evidence of an emerging economy”, Razavi Hajiagha et al. highlight that the collaborative approaches influence networks and the key success factors that help the networks. Both these papers discuss these issues in the context of emerging economies and note the emerging economy characteristics and entrepreneurial abilities in the internationalisation of the agri-food sector. Moreover, the importance of branding and its determinants in the context of internationalisation is examined in the paper “Branding advantage of agri-food companies in competitive export markets: a resource-based theory” (Aghazadeh et al.- this issue).

**Theme 2. Technology and agri-food business**

The second theme deals with the synthesis of the role of technology in agri-food entrepreneurship. Three papers examine the adoption of the latest technologies, such as Web 4.0, artificial intelligence and data analytics. In this regard, the paper “Integrating agriculture and industry 4.0 under ‘agri-food 4.0’ to analyse suitable technologies to overcome agronomical barriers” by Arora et al. explores various factors that hinder the growth of the agricultural supply chain and how the latest technologies can be embedded to derive efficiencies and growth in the agri-food sector. This paper has developed a ranking system that can help stakeholders in choosing the best-suited technologies for more automation in the agricultural supply chain. A different perspective on new technology adoption is offered in “Exploring agricultural entrepreneurship and new technologies: academic and practitioners’ views” in which Secinaro et al. examine original and validated patents note that the true benefits of new technologies can only be realised only if ambiguity between agricultural entrepreneurship and expected benefits of technology usage can be diminished. Also, practical applications of the technology are highlighted by Jahanshahee Nezhad et al. Indeed, the paper “Designing a new mathematical model for optimising a multi-product RFID-based closed-loop food supply chain with a green entrepreneurial orientation” showcases mathematical modelling in the optimum implementation of RFID technology in a green supply chain.

**Theme 3. Knowledge management, innovation in agri-entrepreneurship**

A total number of five papers in this special issue discuss the knowledge and innovation management among entrepreneurial activities in the food sector. For instance, Rezaei et al. in the paper “What are the fundamental knowledge-sharing drivers in small family businesses in the restaurant and fast-food industry?” explore the dynamics of knowledge sharing from the perspective of a small entrepreneurial business in the food sector. They note the role played by individual, organisational and technical factors in the dissemination of knowledge in the ecosystem. In a similar vein, Garousi Mokhtarazadeh et al. in their paper entitled “Knowledge management capability, entrepreneurial creativity, entrepreneurial intensity and firm performance: the mediating role of ambidexterity” highlight that if a firm builds knowledge management capability and fosters entrepreneurial creativity, it can achieve ambidextrous innovation and thus enhance its entrepreneurial intensity and performance in the food industry. Moreover, other three papers have focussed on innovation in the agribusiness, such as green innovation (Muller et al. in “Green innovation in the Latin American agri-food industry: understanding the influence of family involvement and business practices”), vertical farms and innovative business models (Biancone et al. in “Using bibliometric analysis to map innovative business models for vertical farm entrepreneurs”) and greener dining space (Harrington et al. in “Building a greener dining scene: How do sustainable restaurateurs “crop up?””). Altogether, the papers in the section focus on
sustainability as the main direction of research with individual and agency interactions towards innovation and opportunity recognition.

**Theme 4. Sustainability and agricultural entrepreneurship**

Three papers were categorised under this theme, with the main focus on sustainability issues and the scope for innovation in agricultural entrepreneurship. In the first of the paper, “Determinants of entrepreneurial alertness: Towards sustainable agri-business development”, Shiri et al. explore entrepreneurial alertness towards sustainable agri-business development. The paper focuses on the determinants of entrepreneurial alertness towards sustainability by using a sample of 254 agricultural students from a higher education institution in Ilam province in Iran. The findings note that entrepreneurial alertness is dependent on human resources and social capital, and networks and associations can foster opportunities to create and develop relationships and communication between agricultural students and entrepreneurs. A further examination of alertness is seen in “Keep dreaming: How personality affects the recognition and exploitation of entrepreneurial opportunities in the agri-tourism industry”, in which Leonelli et al. look at personality and opportunity exploitation in the context of agri-tourism. Subsequently, in the paper “Organic pioneers and the sustainability transformation of the German food market: A politically structuring actor perspective”, Herzig et al. focus on the context of Germany and examine the sustainability of the food market is from a politically structured actor perspective.

**Theme 5. Ecosystem and environmental contexts**

The final category of papers yields three research done in regard to the environmental and ecosystem perspectives. For example, in the paper entitled “The correlates of energy management practices and sales performance of small family food firms in Turkey”, Onjewu et al. note the correlation between energy management practices in relation to sales in small firms in Turkey. Also, using Isenberg’s entrepreneurial ecosystem model, Hosseinzadeh et al., in “Dynamic performance development of the entrepreneurial ecosystem in the agricultural sector” highlight the main subsystems and their interrelationships in the agricultural sector that can improve production including the optimum use of arable land, water resources, and human capital. Finally, Petrolo et al. (“Agri-food entrepreneurship: Harvesting, growing and reseeding the orchard through a bibliometric study”) review the literature to reveal six thematic clusters. They consider agri-food entrepreneurship from initial “seeds” to the rich and diversified “fruits” of current debate. They suggest an integrated framework that highlights avenues for future research directions in agri-food entrepreneurship.

**Concluding remarks**

This special issue widens our understanding of the extent to which individuals and SMEs conduct entrepreneurial activities in the agri-food sector. It is a collection of prominent articles highlighting various aspects of agri-food entrepreneurship in five themes such as 1) Internationalisation of food businesses; 2) Technology and agri-food business; 3) Knowledge management, innovation in agri-entrepreneurship; 4) Sustainability and agricultural entrepreneurship and 5) Ecosystem and environmental contexts. Given that food is of the important concern in the global context, understanding how and under what conditions their managers and small ventures successfully drive value creation in this sector. This is yet an ongoing debate in the entrepreneurship and food literature; however, we believe that the published articles explore crucial dimensions of the topic, and we thank them for their precious contributions to this special issue.
References


