Organic companies' business models: emerging profiles in Italian bio-districts

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ABSTRACT

Purpose

The main goal of this research is to investigate the 'organic' phenomenon within a sample of companies and to try to depict the main business model (BM) features and profiles.

Design/methodology/approach

The methodology used for the current research is twofold: first, a literature analysis has been conducted in order to highlight the gap in the existing literature. Then, the different business model profiles were investigated through a survey questionnaire conducted among a sample of Italian organic companies and organic districts. The evidence from the literature review supported the researchers during the empirical phase.

Findings

From the literature review, it emerged that studies on the business models of organic companies and organic districts need a deep analysis and a literature gap on this topic has emerged. From the BM point of view, clustering sheds light on proactive companies, which are characterized by a higher level of education among entrepreneurs, greater investments in the business and the sale of products within and outside of the domestic market.

Research limitations/implications
Limitations include the number of answers collected through surveys and the focus on a single country.

Practical implications

The main practical implication focuses on the regulatory bodies that should better understand the business model characteristics and implement adequate policies for the development of organic companies and districts.

Originality/value

The paper enables the opening of the black box of organic companies and districts, which are still under investigated in the literature

Keywords: Organic companies, districts, business model, benefits.

Article classification: Research paper

Introduction

Organic production is defined by the European Commission Regulation 834/2007 as: "*an overall system of farm management and food production that combines the best environmental practices, a high level of biodiversity, the preservation of natural resources, the application of high animal welfare standards and a production method in line with the preference of certain consumers for products produced using natural substances and processes*". The International Federation of Organic Agriculture Movements (IFOAM) defines organic agriculture as a "*holistic production management*

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system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity" (IFOAM, 2005). Thus, organic farming is not only a sustainable method of production but also a holistic approach that can create multiple benefits, which can potentially contribute to territorial development (Franceschelli et al., 2018, Vincent and Fleury, 2015).

Simultaneously, it must be highlighted that organic farming is experiencing a period of rapid growth: the organic agri-food market in the EU has developed significantly in recent years, reaching a total value of approximately 30 billion euros with a 13% growth rate in 2015 (Willer et al., 2018).

Despite the great attention that the organic sector is receiving at the political and scientific levels (Watson et al., 2008; Wolf et al., 2015), there is a lack of detailed studies that focus on organic enterprises and, more specifically, on the key drivers at the basis of their business model that enhance their value creation process.

The business model features and consequent sustainable development (from the economic, social and environmental points of view) of organic companies, and of the local territories in which they operate, can also be influenced by the presence of local development projects that are known, in some cases, by different names: organic district, bio-district, organic agri-food district, organic region or ecoregion. The characteristics of these projects differ from country to country, can arise from different European and national funding and have different legal forms, but they share the common characteristic of investing in organic agriculture as a lever of sustainable rural development. For a common definition of those areas devoted to organic farming, it is possible to refer to the International Network of Eco Regions Association, which gives a definition of organic region as "*a territory naturally devoted to organic farming, where farmers, citizens, public authorities, realize an agreement aimed at the sustainable management of local resources, based on the principles of organic farming and agroecology*" (IN.N.E.R, 2017).

Regarding the benefits, different studies that focused on the clustering of firms in agriculture generally found that clustering can be advantageous for economic development (Fujita et al., 1999; Krugman, 1996).

Based on these premises, this research has the following purposes: to explore the phenomenon of organic companies through the lens of business model (BM) from the empirical point of view and to increase the understanding and knowledge of companies' business models by investigating the influence of different companies' profiles and districts.

The paper first focuses on the main concept of business models in the agricultural sector, then it highlights the literature gap that was identified due to the literature review. To bridge the gap, an empirical analysis of Italian organic companies and districts was conducted. Finally, the discussion, the conclusions and the future directions of the research are provided.

1. Business models in agriculture: literature overview

For the purposes of the current research, it is valuable to start the analysis from the general characteristics of business models, as it is a useful tool for understanding the structure and consequent value chain of the studied companies, with a specific focus on the agricultural sector.

The business model (BM) concept, which is multifaceted, focuses on a holistic approach to describing how companies conduct business. Since the mid-1990s studies have revealed increasing interest by academics and practitioners in the use of BMs as descriptive and analytical constructs. The term 'business model' is frequently used in both academia and business, but it is generally acknowledged

that there are multiple definitions for this term (Amit and Zott, 2001; Morris et al. 2005; Osterwalder and Pigneur 2010). Traditionally, a BM is defined as a conceptual tool that consists of a set of elements and cause and effect linkages that express the company's path toward long-term goals (Osterwalder and Pigneur, 2010; Teece, 2010). Furthermore, the importance of the culture of the owner-manager, including their attitudes, perceptions and intentions, in determining the BM's success is emphasized (Barth et al., 2017, Bini et al., 2016, Jolink and Niesten, 2015, Ulvenblad et al. 2014).

Osterwalder and Pigneur (2010) offered the business model canvas (BMC) concept as a useful tool that enables the user to describe and think through the BM of an organization and its competitors. Nine BM blocks are identified by the authors, covering the four main areas of business: customers, offers, infrastructure, and financial viability.

Despite the relevance of the BM topic, empirical research has been carried out predominantly on the information technology, biotechnology, and manufacturing sectors, as well as on start-ups (Demil et al., 2015; Lambert and Davidson, 2012), while BMs in the organic sector and, more generally, in the agricultural sector have not been investigated thoroughly (Bresciani, 2017, Vrontis et al., 2016). Indeed, limited research attention has been paid to BMs in agriculture and in the agri-food sector (Ulvenblad et al., 2014), with some exceptions (Fujimoto, 2012; Kusraeva, 2018; Mohammad and Malek., 2017; Poláková; 2015; Pölling, et al., 2017; Vorley, 2008).

Another author that investigated BMs in an agricultural context is Fujimoto (2012), who established a BM of sustainable farming in an unfavourable area, and was aware that ecologically best does not necessarily mean technologically and economically best, as well.

Beuchelt and Zeller (2013), concluded that successful BMs depend on the ability of farms to introduce upgrading strategies into the BM, such as: i) improvement of the product, ii) change or addition of functions in the chain (e.g., focusing on new aspects such as processing, exporting, roasting); and iii) improvement of the value chain.

Kusraeva (2018), starting from the work of Tret'iak (2013), used a framework based on five "blocks" of marketing relationships to examine the BM characteristics of Russian agribusiness companies and found that agribusiness companies are inextricably linked with the value chain, which is characterized by the multitude of relationships between all the stakeholders (from producers to consumers).

Jolink and Niesten (2015), studying organic food enterprises in the Netherlands, identified different BMs: the income model (generating an ongoing and stable income), the subsistence model (meeting basic financial obligations), the growth model (believing that it is possible to be profitable and completely sustainable at the same time) and the speculative model (making the world better by selling ecoproducts).

Other authors, such as Poláková (2015), Pölling et al. (2017) and Mohammad and Malek, (2017) investigated the model theorized by Osterwalder and Pigneur (2010), and applied it to agricultural enterprises.

Poláková (2015) analysed the BM of a small Czech agricultural company using the BM frameworks proposed by several authors, such as Shafer et al. (2005) and Osterwalder and Pigneur (2010). The authors discovered that none of the selected frameworks took into account the peculiarities of the small and individual farm sectors, affirming that, in these businesses, the customer is no longer the main interest of the owner and that the creation of an offer is influenced by the owner's set of priorities and the farm environment.

Pölling et al. (2017) used the BMC to analyse the organization and performance, both economically and socially, of 50 urban farms located in Spain, Italy, and Germany. The authors classify the most

common urban farming BMs into three categories: 'low cost specialization', 'differentiation' and 'diversification'.

Finally, the BM canvas was also used by Mohammad and Malek (2017) to conduct an *ex-ante* investigation of the introduction of innovative technologies in two rural communities in Bangladesh.

In conclusion, the investigated articles on the agricultural sector focused on a BM analysis based on selected frameworks in order to explore key success factors and influencing factors related to performance (Ferraris et al., 2016), as well as the BM configurations (Bogers and Jensen, 2017). Among the frameworks, the most used is the BM canvas, which will also be used in this research to investigate the sample features.

2. Research on organic companies' BMs: the literature gap

In this section, the main goal is to understand the state of the art in terms of research about organic companies' BMs and the role of districts.

The first step towards reaching the declared goal was to conduct a literature review, or a sum of available research studies, by identifying the focus of research, trends and issues from past studies (Meredith, 1993). Tranfield et al.'s (2003) three-stage procedure was followed: planning, execution, and reporting.

During the planning stage, the goals of the research, the research question and the key data source were defined.

Specifically, the research question underlying the literature review analysis is: *are studies on organic companies' BMs operating within organic districts widespread?*

To conduct the literature review, it was decided to limit the sources to published articles and reports because, as observed by Podsakoff et al. (2003), these can be considered validated knowledge.

The second stage of our systematic review process, execution, consists of five steps:
1. Enter the search string with Boolean logic, exactly in the same way, into the following three scientific journal databases: EBSCO Business Source Complete, Scopus and Google Scholar. Initially, literature focusing on three strands was investigated: organic districts; organic companies (or other synonyms of 'companies', such as 'enterprises' and 'firms'); business models. This investigation led to very few results. Consequently, the spectrum of studies concerning business models has been expanded to include, more generally, the agricultural and agri-food sector, and not limited to the organic field.
2. Search for literature that is represented by the selection of studies in relevant research databases. Three parameters guided the selection of papers: (i) papers were written in English and Italian, due to the native language of the researcher, (ii) the time horizon of the search was not chronologically restricted, in order to include all relevant papers until 2018, (iii) only peer-reviewed articles, scientific books and conference papers were selected (Anessi-Pessina et al., 2016).
3. Analyse the identified papers by eliminating duplicates and loosely focused papers. After these initial stages, 109 papers were obtained using the specific search strings previously

described. Fifty articles were deleted because they did not cover the areas of investigation. A total of 18 articles were selected for the critical literature review.

4. and 5. Enter a quality assessment of data extraction into a reference management database (in this case, Excel) and synthesize the literature data. The authors and titles of these selected papers were imported into an Excel sheet, and the full papers were downloaded and analysed using a basic meta-analysis (see Table 1).

Moreover, to ensure reliability, a database including the final list of selected papers was prepared and cross-checked by a second researcher. The analysis and selection of the papers was always carried out based on reference to the accounting and management disciplines.

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Table 1: meta-analysis of selected publications

The last stage of the process involves descriptive and conceptual analyses of the final data set.

From this first analysis, some relevant aspects emerged. Considering the years of publication, it is clear that the issue of BMs in the agricultural sector has achieved increased relevance in recent years. Furthermore, all the journals published only one article each on the subject, with the exception of the journals *Sustainability* (three articles) and *Business Strategy and the Environment* (two articles). These two pieces of evidence confirm a gap in the debate on BMs in agriculture; however, because the number of publications has increased in recent years, it is possible to suggest that the topic is gaining more interest from the research community.

The topics related to agricultural enterprises (such as farms, agribusiness, etc.) are present in all articles, while organic agriculture is not particularly widespread (2 out of 18). In the agricultural context, the BM topic (discussed in general terms) is investigated in 33% of papers (6 out of 18).

Consequently, with the second stage focused on the empirical analysis of a sample of organic companies and districts, the research tries to bridge the existing gap, highlighting the features of the BMs of organic companies belonging to organic districts.

Specifically, the research questions that emerged from the literature gap are:

- *What are the different BM profiles emerging from organic companies operating within organic districts?*
- *Does belonging to an organic district generate benefits for the companies?*

3. Peculiarities of organic companies' BMs: empirical analysis

3.1 Research design and methods

The second methodological stage focuses on an empirical analysis of a sample of Italian companies operating in the organic sector. As previously stated, the goal is to depict the sustainable BM features of organic companies operating within organic districts. Organic districts have been investigated in order to evaluate their contribution to the value creation of companies.

This stage of the research is characterized by different phases. First, a preliminary mapping of the existing organic districts in Italy was conducted in order to identify, update and provide univocal information about the Italian organic districts. Twenty-nine districts and 718 companies emerged.

Then, two kinds of questionnaires were prepared: one questionnaire was addressed to organic companies belonging to an organic district, and another questionnaire was addressed to the management bodies of organic districts. Questionnaires were sent by e-mail, as a google form link, to all the Italian districts (29) and the companies (718) belonging to those districts.

The sending phase took approximately 2 months, with numerous reminders. At the end of the process, a response rate of 29% was reached for organic districts and of 15% for organic companies. This compares favourably with rates reported in previous online surveys (Lucianetti, 2006; Tavitiyaman et al., 2012).

The answers collected were recorded in an Excel file and analysed using SPSS software.

3.2 The sample features

The sample is composed of 107 Italian enterprises that belong to specific organic districts. Of these organic companies, 19% are located in regions of the North East, 33% are in the North West, 25% are in the Centre and 23% are in the South.

Regarding the legal status of companies belonging to organic districts, it emerges that the vast majority are small enterprises that can be classified as individual enterprises (64.5%), while associations/partnerships represent 20.5%; cooperatives make up 8.4%; and only 6.6% are limited companies. The companies belonging to the organic districts are predominantly family firms (75.7%), between the first and second generation (57%), with more than ten years of activity (66.4%). Referring to the years of activity, it emerged that, generally, organic companies are well consolidated within the local territory. Only 6.5% are young companies with less than 3 years of activity.

3.3 Company Profiling: BM peculiarities

The analysis identifies the most characteristic profiles of the investigated companies operating within organic districts. For company profiling, the three most relevant dimensions ("Features") have been selected. These dimensions are:

- education of the entrepreneur (low-high): a lower level includes elementary school and lower and upper secondary school, while the higher level includes a bachelor/master's degree and post-lauream degree;
- exporting company (yes-no): companies that are not exporters are those that do not show foreign turnover;
- investments (limited or absent - over 100,000 euros): this dimension captures the past and current investment propensity of the company. Companies that belong to the group "limited or absent" are those that declared to have invested, on average, less than 100,000 euros in the past five years.

The *Twostep* clustering algorithm applied to these three dimensions returns two groups ("clusters"). The measure of *silhouette* is equal to 0.4. This indicator, which represents the goodness of the identified clustering solution, can be considered particularly positive (de Amorim and Hennig, 2015; Li et al., 2017; Rousseeuw, 1987).

Cluster 1 has a number n = 57 and is characterized by entrepreneurs with lower education (in 100% of the cases), who made limited or no investments (100%) and who do not sell abroad (in 60% of cases). Consequently, Cluster 1 can identify companies with a passive behaviour that prefer to maintain the *status-quo* instead of investing and exploiting new markets. This Cluster is labelled "Passive companies".

Cluster 2 has a number of n = 50 and is characterized by entrepreneurs with higher education (in 72% of cases), who make investments (52% of the companies declare to have invested more than 100,000 euros) and who sell products abroad (in 54% of cases). This cluster is labelled "Proactive companies" as it characterizes companies with a proactive attitude that seek to lay the foundation for long-term value creation.

Comparing the features of the two clusters, it emerges (in Table 2) that, as regards the years of activity and more specifically the class "between 3 and five", companies belonging to Cluster 2 are statistically younger than companies of Cluster 1 ($p < 0.001$).

Moreover, the most important result is related to the companies' turnover: the proportion of companies in Cluster 2 with a turnover in the last 5 years greater than 300,000 euros is 28%, compared to 8.8% of Cluster 1 ($p < 0.001$). At the same time, companies in Cluster 1 declared significantly lower operating costs than companies in Cluster 2; indeed, the proportion of companies in Cluster 1 that have operating costs lower than 50,000 (77.2%) is statistically higher ($p = 0.022$) than that of companies in Cluster 2 (38%). This evidence can be a consequence of a lower turnover achieved by companies in Cluster 1. At the same time, the percentage of companies in Cluster 2 that show annual average costs greater than 200,000 are statistically higher (24% versus 7% of Cluster 1, $p < 0.001$).

Moving to the observation of the "main activities", it is evident that companies in Cluster 2 are more involved in agritourism (40.8% versus 12.3% of Cluster 1, $p < 0.001$) and in restaurant activities (26.5% versus 10.5% of Cluster 1, $p = 0.032$).

As regards the reasons that lead companies to choose the organic method, it emerges that 70.0% of companies in Cluster 2 declared that such a method enhances their corporate image, compared to 48.1% of Cluster 1 ($p = 0.022$).

The use of alternative food networks as distribution channels is statistically higher among companies in Cluster 1 (mean 10.0; $p = 0.016$) than it is among companies in Cluster 2 (mean 3.0).

Strong ties with the clientele are a value proposition observed statistically more meaningfully among companies in Cluster 2 (mean of 4.0 compared to 1.0; $p = 0.027$). Promotional activities and compliments are statistically more significant in companies of Cluster 2.

Finally, companies in Cluster 2 show an average of family members significantly lower ($p = 0.037$) than that of companies belonging to Cluster 1.

Please add here
Table 2: cluster comparison – companies' features

The results based on the two profiles identified bring to light some interesting peculiarities related to the BMs. In this regard, Table 3 summarizes the main features and differences emerging for the two profiles identified for the different blocks of BMs (Osterwalder and Pigneur, 2010).

Please add here
Table 3: BM comparison according to the Business Model Canvas

Finally, the main economic performance indicators were analysed for these two Clusters, specifically the average values of ROI, ROS, ROA and ROE, in order to identify whether a more successful BM emerges. The ROI of Cluster 1 is 1.95, while that of Cluster 2 is 5.51. The ROS of Cluster 1 is 1.36, while that of Cluster 2 is 3.89. The ROE of Cluster 1 is 1.82, while that of Cluster 2 is 3.10. Finally, the ROA of Cluster 1 0.68, while that of Cluster 2 is 2.25.

From this profiling, it appears that the BMs of proactive companies are more profitable, as these show higher economic performances.

After depicting the main BM features of organic companies, a brief overview on organic districts is provided to compare the different points of view related to sustainability-oriented benefits.

3.4 Benefits springing from districts

Finally, the main benefits were investigated, and the point of view of the organic districts was compared with those of organic companies.
Table 4 focuses on the economic, social and environmental benefits.

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Table 4: comparison of sustainability benefits

Specifically, as regards economic benefits, it emerges that the general tendency of organic districts is to move toward the neutral value of the Likert scale, even if the cost saving and the turnover increase tendencies are aligned with those of organic companies toward low values. Consequently, organic districts are thought to have a neutral impact on the generation of economic benefits for the associated organic companies.

As regards social benefits, the tendencies are not particularly aligned; it emerges that organic districts seem to be not particularly involved in increasing social benefits related to persons, while more efforts are directed towards valorising heritage and safeguarding local production.

Finally, regarding the environmental benefits, it emerges that the organic district encourages the environmental protection of the territory, confirming the benefits perceived by organic farms.
A discussion of the results achieved through the empirical analysis will be provided in the next section.

4. Discussion and Conclusion

Due to the relevance of the organic companies for the local economy and sustainable development, the research took these kinds of agricultural companies into consideration, specifically those belonging to organic districts, as such districts can empower organic companies, enabling them to achieve competitive advantages and an integrated approach to sustainable development toward shared objectives. However, despite the relevance and the growth of organic companies, these companies are not particularly investigated in the literature, especially from the economic and managerial points of view. Indeed, from the literature analysis a gap emerged; no results were found about the BMs of organic enterprises or organic districts, underlining a twofold gap in the literature.
Consequently, this study tried to highlight the peculiarities of organic companies' BMs using the Osterwalder and Pigneur (2010) concept of business model canvas (BMC), the most widespread concept used in these kinds of studies and which enables the user to think through the BM, as underlined in the literature review. Different profiles of such companies were identified:

- passive companies with a conservative approach (low level of education of the entrepreneur, business mainly oriented to the local territory, limited investments); and
- proactive companies with the will to invest and improve the business (high level of education of the entrepreneur, also expanding the business abroad).

This distinction has also been made according to what emerged in the literature. Indeed, the features of the owner-manager, such as their culture or their educational level (Barth et al., 2017; Jolink and Nielsen, 2015; Ulvenblad et al., 2014.), particularly the importance of the culture of the owner-manager (Bini et al., 2016) and their propensity to invest or their ability to introduce upgrading strategies that may require a change in the traditional way of conducting business, for example through exports, (Beuchlet and Zeller, 2013) can lead to successful BM.

Beuchelt and Zeller (2013), concluded that successful BMs depend on the ability of farms to introduce upgrading strategies into the BM, such as: i) improvement of the product, ii) change or addition of functions in the chain (e.g., focusing on new aspects such as processing, exporting, roasting); and iii) improvement of the value chain.

From the BM evidence related to these two profiles it emerged that, in case of proactive companies, the economic dimension assumes a greater relevance; indeed, such companies achieved a greater turnover and invested greater resources in operating activities compared to passive companies, which declared to have approached organic production also to increase their company's image.

Furthermore, proactive companies are more inclined to diversify the business with agritourism and restaurant activities to reduce risk, enhance income sources and create strong ties with customers, as well as to adopt marketing policies such as promotional activities and compliments.

Finally, proactive companies are relatively young (as they have operated in the territory for a limited number of years) and are characterized by a greater involvement of non-family members, while passive companies are mainly characterized by employees belonging to the family.

The proactive company's BM shows a greater long-term vision of the entrepreneurs, oriented towards laying the foundation for a lasting profitability, which has been rewarded to date with better economic performances.

However, such companies were able to maintain a strong sustainability orientation through links with the territory and traditions and the use of environmental practices.

For the abovementioned reasons, proactive companies show a BM that can be traced, using the model of Jolink and Niesten (2015), to the "growth model", as these entrepreneurs aim to develop their business, balancing profitability goals and sustainability.

In contrast, passive companies can be traced to the "subsistence model", as entrepreneurs aim to survive or maintain the results just achieved in a local dimension.

Finally, after focusing on organic enterprises, empirical analysis was also conducted to determine if belonging to an organic district offered any economic, social and environmental benefits.

From the research, it emerged that companies do not perceive particular economic benefits from their belonging to an organic district, and this is in contrast to what emerged from the literature (Fujita et al., 1999; Krugman, 1996). However, the lack of economic benefits can also be a consequence of organic companies' behaviours; the limited network and collaborations with the other companies in the districts do not allow for the achievement of the benefits arising from the sharing of knowledge and resources.

Regarding the social benefits, organic companies perceive those benefits related to the safeguarding of tradition as significant, while they do not perceive efforts to promote the inclusion of specific categories of workers (e.g., disadvantaged people). Additionally, organic companies do not feel part of a big family.

Environmental benefits are strongly perceived; consequently, the involvement of organic districts in encouraging companies' behaviour toward environmental practices is recognized (Vincent and Fleury, 2015).

Based on this evidence, it is possible to affirm that the challenge of organic districts in contributing to the sustainable development of organic companies and of a local territory is not yet complete. Indeed, only the efforts toward the environmental dimension have been recognized. However, this result should not be surprising given that the organic districts represent a relatively new phenomenon. This research has some limitations, mainly linked to the number of answers collected. However, some interesting practical and theoretical implications emerged.

The *practical* implications could be addressed by implementing adequate policies for the development of organic companies and districts as instruments for the sustainable development of the local community. In this way, the communication of the key factors to attract more customers could be more effective. Furthermore, the results can also be useful for organic districts as, based on the peculiarities of organic companies' BMs and the benefits perceived and derived from belonging to a district, it is possible to better target the services and address future efforts.

Finally, organic companies can be seen as drivers of agroecological tourism, strengthening the linkages between tourism and agriculture while fostering sustainability principles (Addinsal et al., 2017).

From the *theoretical* point of view, this study contributes to the national and international debate on the peculiarities of agricultural enterprises and, more specifically, on organic companies and districts, and tries to bridge the existing research gap on BM features.

Future studies could expand the sample by also including other European organic companies and districts in order to better understand the different key factors for sustainable value creation. Additionally, it is possible to expand the current analysis making a comparison based on farm size as it generally has an impact on operational costs, revenues and investments. Also, data can be enlarged by adopting a method based on interviews in order to deepen specific BM features and the logical cause and effect linkages among key factors and sustainability issues.

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