

Determinants of Entrepreneurship in the Beekeeping Sector in the North-West Region of Romania

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Abstract. Entrepreneurship is based on the identification of opportunities and on the implementation of strategies. Promoting entrepreneurship in the beekeeping sector is extremely important because it determines the acceleration of sustainable socio-economic development through a superior capitalization of the potential of bees, the existing melliferous and human resources in a certain region. Using the survey as research method, the present research highlights that aspects such as beekeepers' innovative behaviour (apiary modernization), beekeepers' interpersonal skills (collaboration, association) and beekeepers' intentions (export, alliances) are factors that influence entrepreneurship in the beekeeping sector. Moreover, the empirical results show that motivation determines beekeepers to access funds necessary for starting a business. The development of entrepreneurship in the beekeeping sector implies that beekeepers must be innovative. Beekeepers' innovative behavior can be stimulated through management and marketing courses, collaboration and modernization of the beekeeping technology used. However, according to the present study, there are also factors that hinder entrepreneurship such as bureaucracy, lack of state support and high taxes. In order to diminish these factors negatively influencing entrepreneurship, beekeepers should discover opportunities for commercializing bee products both domestically and abroad. Furthermore, they have to implement long-term alliances with foreign enterprises so as to gain support for the successful development and expansion of the future business.

Keywords: beekeepers, factors, influence, collaboration, alliances, financing

INTRODUCTION

In the context of globalization, beekeepers are facing new challenges: agricultural policy changes in the European Union, increasing pressure on the quality of bee products, the need to develop the apiaries, introduction of new agro-technologies, changing social demands. In the past, in most cases, in order to manage an apiary successfully, experience was sufficient. Currently, due to changes in European Union (EU) policies, beekeepers must acquire new skills in order to meet new challenges. The European Union aims to improve the sustainability of agricultural systems, their economic viability, environmental soundness and social acceptability, and to enhance the contribution of agricultural systems to the sustainable development of society and ecosystems at large (EC, 2005). Therefore, in addition to experience in beekeeping, the entrepreneurial behavior is mandatory.

The entrepreneurial process consists of entrepreneur's actions to create a new firm (Gartner, 1985), the entrepreneur being the individual who creates a new value: an innovation or a new company (Bruyat and Julien, 2001), determining a change (Audretsch, 2002). Entrepreneurship is a dynamic process that includes vision, change and creation. The essential elements of entrepreneurship include willingness to take calculated risks, building an efficient team, finding resources, preparing a solid business plan and finally the ability to recognize

opportunities where others see chaos, contradiction and confusion (Kuratko, 2009). Entrepreneurship represents „the process of creating something different with value by devoting the necessary time and effort, assuming the accompanying financial, psychological, and social risks; and receiving the resulting rewards of monetary and personal satisfaction” (Hisrich and Peters, 1989). Recent research has shown that entrepreneurship influences economic growth (Acs *et al.*, 2009; Thurik and Wennekers 2004; van Stel, 2005). Entrepreneurship involves the following phases: the manifestation of an event that triggers the action of the entrepreneur (obtaining funding, innovation etc.) and the implementation, that phase of the entrepreneurial process in which a new enterprise is created (Borza *et al.*, 2009).

It is generally recognized that small and medium sized enterprises (SMEs) play an important role in the economic development of a country. Small and medium enterprises provide the majority of new jobs, are creative and innovative. However, SMEs are facing a number of problems at the European level such as administrative and regulatory burdens, access to finance, taxation, unfair competition, access to international markets, access to information and advice (Bernatonyte *et al.*, 2009). Bureaucracy is one of the problems of SMEs because it slows their development and discourages entrepreneurs (Schmiemann, 2008) and, therefore, the European Union’s aim is to reduce the administrative burden for SMEs (European Parliament, 2012).

The present research aims to identify the factors that influence the setting up of new enterprises in the beekeeping sector and the competences that support this process. Knowing the factors that influence entrepreneurship, strategies can be implemented in this sector, such as training courses for the development of beekeepers’ entrepreneurial skills.

MATERIALS AND METHODS

The data within the present study was collected through a survey on a sample composed of 420 beekeepers from the North-West Region of Romania, members of the Beekeepers’ Association, but not only and beekeepers that applied for different European Union measures, from 18 to 90 years old. The survey was conducted between November 2010 and February 2011 and the data was analysed using SPSS statistical program. The work tool used was the questionnaire, distributed during beekeepers’ meetings, by post and on the Internet. The present study identifies the most important influencing factors of entrepreneurship in the beekeeping sector by testing the association between several variables and the intention to start a beekeeping enterprise, using Pearson χ^2 (Chi square) test.

RESULTS AND DISCUSSIONS

Regarding the socio-demographic profile of the respondents, the age groups between 25 and 64 are found in approximately equal proportions. The age group between 35 and 44 comprises the largest number of beekeepers (24.5%) and it can be noticed that a growing number of young people are interested in beekeeping (19.5% are between 25-35 years old), encouraged particularly by the possibility of accessing European funds. The average age of the sample is 45 years old.

As regards the products sold, 93.1% of beekeepers sell honey, 49.4% pollen, 59.7% propolis, 43.9% wax, 8.8% royal jelly, and venom is sold only by three respondents. Concerning the means of commercializing bee products, 80.7% of respondents sell their products to friends and acquaintances, 62.8% sell to processors, 18.4% of respondents choose the direct sales in local markets, 7.4 % distribute their products to a few shops, 2.4% of the respondents have their own shop and 0.2% sell in large commercial chains. The main

advantage of direct selling to friends and acquaintances or through a personal shop is that the enterprise controls the transfer process to the final consumers, this form of commercialization implying that the market is local. The advantage of selling to processors is that beekeepers reduce their costs, the main disadvantage being that the beekeeper loses control over the way in which his products are sold.

In the context of the analysis of the factors that influence entrepreneurship, the preset study aims to find out beekeepers' reasons for practicing beekeeping. Turning the passion for beekeeping into a business occurs when beekeepers begin to dedicate time to this activity and hope to make a profit. According to Ojwaya (2006), in the communities where beekeeping is practiced for a commercial reason it determines an increase in the number of enterprises dealing with production of beekeeping equipment and number of firms that distribute bee products. Therefore, although in many cases beekeeping cannot become the only source of income for people in rural areas, its role as a source of additional earnings, food and employment should not be underestimated.

Human actions are usually the result of motivational and cognitive factors, the latter including abilities, intelligence and skills (Locke, 2000). According to Baum *et al.* (2001) it is necessary to include motivation in the theories regarding the entrepreneurial process. Locke and Baum (2007) analyse an array of motivating factors that are relevant in entrepreneurship such as intentions, perseverance, vision, independence, achievement, motivation, drive, and egoistic passion. The following table presents the main reasons for practicing beekeeping: passion (43.8%), passion and in order to sell bee products (21.2%), sell bee products (17.9%) and tradition in the family (11.9%).

Tab. 1

Distribution of the respondents according to their reasons for practicing beekeeping

Variable	Frequencies	Percent (%)
Passion	184	43.8
Passion and in order to sell bee products	89	21.2
In order to sell bee products	75	17.9
Tradition in the family	50	11.9
I do not know/I do not answer	22	5.2

The following table highlights the means through which the respondents learned beekeeping.

Tab. 2

Distribution of the respondents according to the means through which they learned beekeeping

Variable	Frequencies	Percent (%)
From another beekeeper	166	39.5
From someone in the family	146	34.8
Alone	54	12.9
During a beekeeping course	42	10.0
In another way	12	2.9

The results show that it is very useful for a beginner to have alongside someone experienced in beekeeping, as 39.5% of the respondents stated that they learned most things necessary for practicing beekeeping from another beekeeper. According to the results of the present study, this supervisor is sometimes a family member, as 34.8% of the respondents stated that they have learned most things required for practicing beekeeping from someone in

the family. Therefore, the existence of a beekeeper in the family can be an influencing factor of the decision to practice beekeeping.

The entrepreneurial intention rate represents the percentage of people intending to start a business in the next three years (Gyorfy *et al.*, 2008). Regarding the intention to set up a beekeeping business, a percentage of 36.1% of respondents plan to establish a beekeeping business in the following three years, and 63.9% of beekeepers do not intend to start an enterprise. The following table presents the main factors that influence entrepreneurship.

Tab. 3

Factors that influence entrepreneurship

Variable	Pearson χ^2	df	Sig value
Experience in beekeeping	34,379	5	0,000
Reason for practicing beekeeping	10,341	3	0,016
Participation in a course of management or marketing	6,263	1	0,012
Interest for beekeeping courses	20,317	4	0,000
Collaboration with enterprises from the beekeeping sector	31,441	4	0,000
Measure 112	46,976	4	0,000
The National Beekeeping Programme	35,57	4	0,000
Modernization	17,909	1	0,000
The strategy to export bee products	21,648	1	0,000
Strategic alliances with enterprises from the beekeeping sector	14,734	1	0,000
Personal distribution system	29,019	1	0,000
The size of the apiary	25,997	3	0,000
The age	60,158	5	0,000
Level of education (Last school graduated)	19,371	4	0,001

According to the χ^2 test there is a significant connection between the variables listed in the above table and the intention to set up a business. Potential entrepreneurs are motivated both by the fact that they can sell products and make profit, as well as by emotional factors such as passion and love of nature. Entrepreneurs in the beekeeping sector should possess sound knowledge of beekeeping, as well as knowledge of management and marketing. To support entrepreneurship in the beekeeping sector certain networks of cooperation between beekeepers should be implemented, as well as various business support programs. According to Shane and Venkataraman (2000), only certain people find entrepreneurial opportunities because they have prior information necessary to identify an opportunity and knowledge to appreciate it. Consequently, beekeepers who attended management and marketing courses are interested in starting a business.

Regarding the role of collaboration with enterprises from the beekeeping sector, the results of the present study are similar to the scientific literature according to which social capital influences the entrepreneurial performance (Van Praag, 2002). Bosma *et al.* (2004) demonstrated that specific investments in human and social capital enhance entrepreneurial performance substantially, for all three distinguished performance measures: survival, profits and generated employment. The social capital refer to interactions between people, based on cooperation and trust, on contacts and connections, persuasive abilities, interpersonal and communication skills (Man *et al.*, 2002). Similarly, the results of the current study underline the fact that the network of advisers comprised of beekeeping firms influences entrepreneurship through discovery of new opportunities.

Each apiary needs financial resources, management skills, information and abilities to develop. Small apiaries have limited resources and so they have to access external resources. Therefore, there is a strong connection between the access to measures meant to sustain beekeeping and the intention to start an enterprise, in accordance to Wiklund and

Shepherd (2005) who sustain that entrepreneurial strategies require considerable financial resources to be successful. Therefore, Measure 112 “Setting up of young farmers” aims to improve the competitiveness of the beekeeping sector by supporting young farmers’ installation process, the modernization of the apiaries in accordance with the requirements for environmental protection, safety at work, hygiene and animal welfare. Moreover, Measure 112 is intended to improve farm management, increase the revenue of apiaries managed by young farmers and sustain the young farmers that start beekeeping for the first time, encouraging them to invest (MADR, 2012).

Research undertaken by Hessels and van Stel (2011) investigate the relationship between a new start up and economic growth, by taking into consideration the orientation towards export. The results of the study indicate that new start ups oriented towards export contribute to knowledge spill over, increased competition and finally to economic growth. Comparatively, the results of the present study indicate that there is a very significant connection between the export of bee products and the intention to establish a business.

Possessing a complex social network through alliances is a strength that can help beekeepers gain access to information on profitable business opportunities and financial resources. Correspondingly to the findings of the present study, Donckels and Lambrecht (1995) found that the creation of alliances positively affects firm growth. Similarly to the results of the current research, Levesque and Minniti (2003) explain that age, propensity towards risk assumption, the financial situation and alternative options for employment are factors that contribute to entrepreneurial decisions. The same study suggests the possibility of a decline in entrepreneurial activities in countries with an aging population (Levesque and Minniti, 2003). Literature in economics considers education as an engine of innovation (Arenius and Minniti, 2005). According to Davidsson and Honig (2003), education is associated with an increased perception of opportunities and a high probability of entrepreneurial behavior as the present research is also indicating.

A study undertaken in Sicily by Vindigni *et al.* (2004) analyses a cluster of firms in a rural area and investigates the entrepreneurs’ innovative behaviour and the decisive role that the learning process has in determining the success of the enterprises. The research underlines the importance of the close relationship between learning and entrepreneurial achievement: family background and professional learning are key factors in this process. The study shows that the market channel utilized for commercializing bee products is mainly the direct channel, without interference in general of intermediaries, a fact demonstrated also by the present research as beekeepers who have a personal distribution system are more inclined towards an entrepreneurial behaviour. The production diversification and the search for new varieties reveal the interest of some enterprises to capture new consumer segments (Vindigni *et al.*, 2004).

In 2007 a research was undertaken analyzing entrepreneurship in Romania, called the “1st Report on Entrepreneurial Activities in Romania”, within the Research Center for Entrepreneurship and Business Development (Lafuente and Driga, 2007). The study was conducted on a sample of 1.449 individuals from Romania and aims to present and identify the demographic and the socio-cultural factors as well as the motivations of individuals involved in entrepreneurial activities, in order to provide a broader perspective regarding the characteristics and motivations of potential and active entrepreneurs in Romania. The results of this study indicate that the rate of women involved in entrepreneurial activities is of 9.58%, while the rate of men is slightly higher, of 16.75%. The average age of those involved in entrepreneurial activities is between 33 and 35 years old. In addition, the results emphasize the importance of the presence of entrepreneurs in the family in the consolidation of the entrepreneurial activity. According to this study, 38.60% of those involved in entrepreneurial

activities report the presence of an entrepreneur in the family. In terms of why these people are involved in entrepreneurial activities, the survey indicates that people perceive in general entrepreneurship as an opportunity to capitalize business opportunities and in order to improve the quality of their life (Lafuente and Driga, 2007).

The present study is intended to determine also the factors that hinder entrepreneurship. In this way, respondents who stated that they do not intend to start a business were asked to indicate the reasons for not doing so. Among these reasons the following statements were mentioned: “lack of experience”, “lack of money”, “fear of failure”, “is too complicated and expensive”, “distrust in state institutions”, “excessive bureaucracy”, “old age”, “I do not see the point”, “I am happy with what have”, “lack of necessary time”, “economic crisis”. It can be noted that beekeepers’ decision not to set up an enterprise is influenced both by external factors (political, economic) and internal factors (financial situation, personal motivation). Moreover, the question “Which do you think are the main two reasons why some beekeepers do not want to start a beekeeping firm?” is intended to highlight beekeepers’ perception regarding the favorability of the business environment and the barriers to the establishment of businesses in the beekeeping sector. Respondents’ answers reveal that they consider bureaucracy to be the main hindering factor (63.3%), together with the lack of state support (52.6%). Most beekeepers (83.1%) do not believe that entrepreneurship is hindered by reduced consumption of bee products (Tab.4).

Tab. 4

Distribution of the respondents according to their perception regarding the factors that hinder entrepreneurship

Variable	Percent (%)
Bureaucracy	39.6
Lack of state support	32.9
High taxes	10.9
Reduced consumption of bee products	6.4
The economic crisis	5.7
Other cause	4.5

The results show that 7.1% of the respondents stated “other cause” and mentioned the following factors as being responsible for the lack of involvement in starting an enterprise: “insufficient information”, “lack of passion”, “ignorance of the legal framework for Sole Proprietorship or LLC”, “lack of information and support in preparing the documentation”, “most beekeepers have another source of income”, “not everyone is able to work with bees”, “lack of funds”, “income is obtained only after several years of practice”, “lack of interest”.

CONCLUSION

The analysis of entrepreneurship in the beekeeping sector in the North-West Region of Romania resulted in the identification of certain factors that are significantly associated with and that influence the intention to set up a business in the beekeeping sector and also the factors that hinder entrepreneurship. The results of the present study indicate that the main factors that influence entrepreneurship in the beekeeping sector are experience, motivation, beekeeping courses, courses in management / marketing, collaboration with firms from the beekeeping sector, accessing Measure 112 and the National Beekeeping Programme, modernization of the apiary, export of bee products, strategic alliances with enterprises from the beekeeping sector, possessing a personal commercial distribution system, the size of the

apiary, age and beekeepers' level of education. Therefore, it is necessary for beekeepers to acquire knowledge of what is new, modern and efficient in the beekeeping sector in order for them to become successful entrepreneurs. Moreover, government policies can support entrepreneurship by reducing bureaucracy and providing access to funds necessary to start a business. The direct financial support in the form of subsidies increases the resources of potential entrepreneurs.

As demonstrated by other scientific papers (Cadwallader *et al.*, 2011; Popa *et al.*, 2011), in order to facilitate the process of starting a new enterprise in the beekeeping sector, beekeepers should cooperate with enterprises from the country, but especially with those from abroad, which represent a valuable social capital and which provide information concerning proficient managerial practices. Encouraging entrepreneurship implies as well the process of removing the obstacles faced by new firms.

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