

ECONOMIC AND SOCIO-DEMOGRAPHIC FACTORS THAT INFLUENCE BEEKEEPERS' ENTREPRENEURIAL BEHAVIOR

Anca Aurora POPA¹, Liviu Al. MĂRGHIȚĂ¹, Cristina Bianca POCOL¹

E-mail: pocolcristinabianca@yahoo.com

Abstract

Several studies have shown that the decision to start an enterprise is linked to a set of economic and socio-demographic characteristics. The aim of the present study is to complement existing literature on the origins of entrepreneurial behavior by analyzing the beekeeping sector with the purpose of discovering the economic and socio-demographic factors that influence the intention to start a business. In this way, the present research examines two economic characteristics: the business plan and the dimension of the beekeeping exploitation and two socio-demographic characteristics: beekeepers' age and level of education. All these variables were found to be significantly correlated with the intention to start an enterprise.

Key words: entrepreneurship, beekeepers, plan, age, education

The purpose of the current paper is the study of economic and socio-demographic factors that influence entrepreneurship in the beekeeping sector. The decision to start a new firm is a complex multi-layered process (Arenius P., Minniti M., 2005). Studies in economics have identified many variables as triggering factors of entrepreneurial behavior. Demographic and economic factors such as education, age, wealth, and work situation are found to be important drivers of entrepreneurial behavior (Arenius P., Minniti M., 2005). According to Levesque and Minniti (2003), age, risk propensity, wealth and alternative employment options contribute to entrepreneurial decisions. The same study suggests the possibility of a decline in entrepreneurial activity in those countries that experience significant population aging.

Starting a new firm is an intentional act that involves repeated attempts to exercise control over the process in order to achieve the desired outcome (Gartner W.B., 1985; Shaver et al., 2001). Therefore, planning is valuable and important to the new firm. The business plan mediates the relationship between intention and actions because it specifies where and when one should act to achieve the intended goal (Gollwitzer P., 1999). Writing a business plan helps entrepreneurs select the target customers and gather the necessary information concerning the market. The business plan describes the company, analyzes the market, proposes a product and outlines financial plans for the business, ensuring future investors and

stakeholders that the proposal has potential for success and survival within the respective industry (Danna D., 2008). Business plans are considered to be important management tools for new ventures. World-wide, approximately 10 million business plans are written each year (Gumpert D. E., 2002). However, the link between planning and performance is supported when plans are actually implemented. Karlsson and Honig (2009) show that while many new ventures have business plans, these plans are frequently not implemented.

Levesque and Minniti (2003) have shown that the relationship between age and the likelihood of starting a new business is highest at a relatively early age and decreases thereafter. The same study underlines the fact that, as age increases, individuals become less and less willing to commit time to activities which yield returns over time, such as starting a new firm. Reynolds et al. (2003) emphasize the fact that individuals between 25 and 34 years are the most likely to be nascent entrepreneurs.

The theoretical literature in economics considers education to be an engine of innovation (Arenius P., Minniti M., 2005). According to Davidsson and Honig (2003), greater human capital is associated with increased opportunity perception and an increased likelihood of entrepreneurial behavior. Factors such as the availability of financing, education, labor markets, and quality of existing infrastructure have all been shown to be important factors that influence entrepreneurship (Levesque M., Minniti M., 2003).

¹ University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca

MATERIAL AND METHOD

The data within the present study was collected through a survey administered to a sample composed of 420 beekeepers from the North-West Region of Romania. The survey was conducted between November 2010 and February 2011. The North-West Region (Northern Transylvania) was set-up on the grounds of the Law 151/1998, modified by Law 315/2004, through the volunteer association of the local public administrations from the counties of Bihor, Bistrita-Nasaud, Cluj, Maramures, Satu-Mare and Salaj. The work tool used was the questionnaire, distributed during beekeepers' meetings, by post and on the internet. The data from the survey provides information concerning the characteristics of beekeepers from the North-West Region of Romania. The survey was meant to discover the factors that are correlated with the entrepreneurial intention. Therefore, the present study analyses certain variables that are significantly correlated with beekeepers' intention to become entrepreneurs using Pearson's Chi square test.

RESULTS AND DISCUSSIONS

The average age of the sample is 45.13 years and 38.3% of the respondents have a certificate in superior studies (fig. 4). The majority of beekeepers (90,7%) intend to modernize and expand their beekeeping exploitations. They are doing this by improving their products and processes (64%), product diversification (51%) and buying more hives. 93% of beekeepers from the sample commercialize honey. The main reasons that hinder 64% of the beekeepers from starting a business are low income levels, advanced age, lack of experience and bureaucracy. However, 36% of beekeepers intend to start a business.

The business plan has an important role for the beekeeping sector as the commercial strategy of this sector at a national level should start at a smaller level, so as to ensure the economic benefit of small scale producers. If beekeepers write business plans, they clarify their goals and so they can set specific objectives, as planning facilitates the integration of goals into people's behavior (Bandura, 1997). As researchers sustain the fact that the evolution of new ventures is influenced by the activities that entrepreneurs undertake during the organizing process (Aldrich H., 1999), it is of extreme importance for beekeepers to plan their activity.

Beekeepers use their business plans to gain legitimacy from external actors, making their

exploitations well organized and established. However, the most common reasons for failure of the business plan are insufficient skills to execute it, lack of financial resources, poor understanding of the industry and market dynamics and lack of commitment to the plan. The value of planning for the performance of firms has been subject to a long debate in management and more recently in entrepreneurship science (Delmar and Shane, 2003). As most of the beekeepers from the sample are mainly nascent entrepreneurs, it is difficult to link the business plan to the performance of the beekeeping exploitation. However, Brinckmann et al. (2010) sustain that business planning increases the performance of both new and established small firms if different factors that moderate the strength of the relationship are taken into consideration. Rather than understanding entrepreneurship as a sequential process of planning followed by execution, the approach proposed by Brinckmann et al. (2010) stresses parallel activities of planning and doing with an increasing allocation of resources to the planning domain.

The percent of beekeepers that have a business plan in a written form (48,3%) is high due to the fact that most of these beekeepers applied for the European Union Funds and so they were asked to have business plans. Most of the beekeepers that practice apiculture as a hobby have a small number of colonies of bees and do not intend to start a business or modernize their beekeeping exploitation. These beekeepers claimed that they do not have a business plan and they do not think it would be useful (8,8%) (fig. 1). The development of apiculture in the North-West Region of Romania is a continuous process which requires planning the activities and implementing a business strategy as there is an important growth of demand for bee products, especially from countries with high purchasing power, which privilege quality and value added products (Mogni et al. 2007). The general strategies that should be followed in a beekeeping business plan could include the following: product development, distribution decisions and actions towards the improvement of the quality of the products.

Therefore, the present study analyses the relation between planning the beekeeping activities and the intention to start a business. The results of the study suggest that there is a strong association between the business plan and the intention to start a business, based on Pearson's Chi square values: 62.793, df. = 3, sig. = 0.000 (tab. 1).

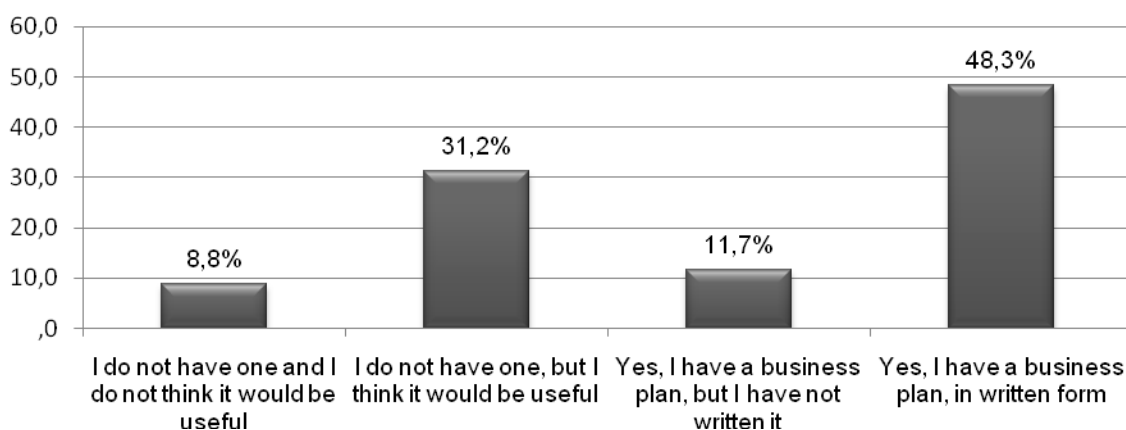


Figure 1 Answers to the question “Do you have a business plan?”

Table 1

Owning a business plan * Intention to start a business (*Crosstabulation*)

		Intention to start a business		Total	
		Yes	No		
Owning a business plan	I do not have one and I do not think it would be useful	Count	4	33	37
		% of Total	1.0	7.9	8.9
	I do not have one, but I think it would be useful	Count	20	109	129
		% of Total	4.8	26.1	30.9
	Yes, I have a business plan, but I have not written it	Count	17	32	49
		% of Total	4.1	7.7	11.7
	Yes, I have a business plan, in written form	Count	110	93	203
		% of Total	26.3	22.2	48.6
Total		Count	151	267	418
		% of Total	36.1	63.9	100.0

Beekeeping is relatively cheap to start, it is favorable to the environment through the pollinating activity of bees, is sustainable, generates income and requires a low level of inputs (land, labor, capital and knowledge in its simplest form).

Most of the beekeepers that intend to start a business (13,6%) have maximum 50 colonies of bees (figure 2). These beekeepers, despite the fact that they do not have a large exploitation, they want to commercialize their products, they want to develop and make profit. According to Pearson's

Chi square values: 25,997, df. = 3, sig = 0.000, the dimension of the beekeeping exploitation is highly correlated to the intention of starting a business (tab. 2).

As some of the beekeepers already have a business, Table 3 presents the association between the dimension of the beekeeping exploitation and the type of exploitation. Pearson's Chi square values: 114,483, df. 12, sig. = 0,000 show the fact that there is a strong association between the dimension of the beekeeping exploitation and the type of exploitation.

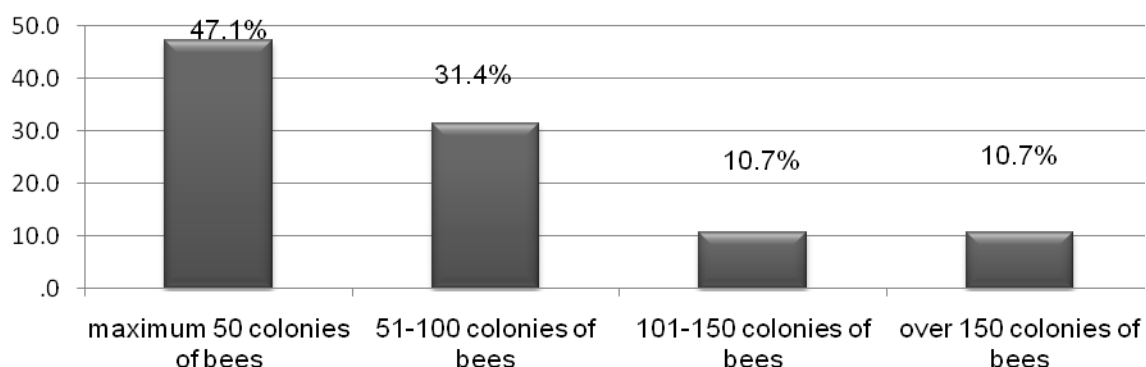


Figure 2 Distribution of the sample according to the dimension of the beekeeping exploitation

Table 2

The dimension of the beekeeping exploitation (number of colonies of bees) * Intention to start a business (Crosstabulation)

			Intention to start a business		Total
			Yes	No	
Dimension of the beekeeping exploitation	maximum 50 colonies of bees	Count	57	140	197
		% of Total	13,6	33,5	47,1
	51-100 colonies of bees	Count	41	90	131
		% of Total	9,8	21,5	31,3
	101-150 colonies of bees	Count	26	19	45
		% of Total	6,2	4,5	10,8
	over 150 colonies of bees	Count	27	18	45
		% of Total	6,5	4,3	10,8
Total		Count	151	267	418
		% of Total	36,1	63,9	100,0

Table 3

Dimension of the beekeeping exploitation * Type of beekeeping exploitation (Crosstabulation)

		Type of beekeeping exploitation					Total
		Amateur beekeeper	Sole Proprietorship	Individual business	Family business	Registered Company	
Dimension of the beekeeping exploitation	maximum 50 colonies of bees	145	43	4	6	0	198
	51-100 colonies of bees	59	61	7	5	0	132
	101-150 colonies of bees	16	24	3	2	0	45
	over 150 colonies of bees	7	17	14	6	1	45
Total		227	145	28	19	1	420

Theoretical studies (Levesque M., Minniti M., 2003) have shown that younger individuals are more likely to start a new firm than older ones. Consequently, the age distribution of persons practicing apiculture is important for the rate of new firm creation in the beekeeping sector.

The majority of beekeepers (24,5%) are included in the 35-44 group category (fig. 3). The ageing of the beekeeping population does not represent a problem as, due to the possibility of access to the European Union Funds and of making profit by commercializing bee products, there is an increasing number of young people who intend to

engage in this activity (19,5% of beekeepers from the sample are included in the 25-34 category).

The correlation between age and the intention to start a business is presented in Table 4. The results show that age can be considered a triggering factor of entrepreneurship as there is a statistically significant association between age and the decision to start a business (based on Pearson's Chi square values: 60,158, df. = 5, sig. = 0.000). As it can be observed from Table 4, the likelihood of being an entrepreneur decreases with age.

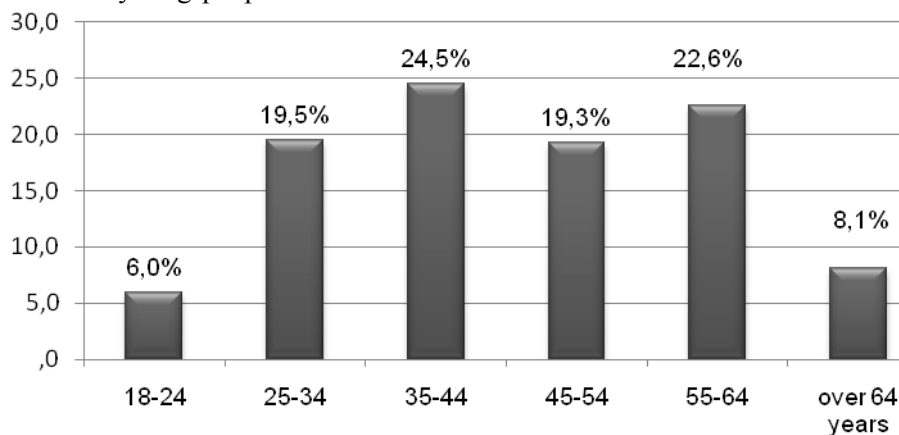


Figure 3 Sample distribution according to beekeepers' age

Table 4

Age * Intention to start a business (Crosstabulation)

			Intention to start a business		Total
			Yes	No	
Age	18-24	Count	16	9	25
		% of Total	3,8%	2,2%	6,0%
	25-34	Count	46	36	82
		% of Total	11,0%	8,6%	19,6%
	35-44	Count	48	55	103
		% of Total	11,5%	13,2%	24,6%
	45-54	Count	24	55	79
		% of Total	5,7%	13,2%	18,9%
	55-64	Count	16	79	95
		% of Total	3,8%	18,9%	22,7%
	over 64 years	Count	1	33	34
		% of Total	,2%	7,9%	8,1%
Total		Count	151	267	418
		% of Total	36,1%	63,9%	100,0%

Beekeepers were asked to provide their highest level of education. Based on Pearson's Chi square values: 19,371, df. = 4, sig. = 0.001, education is highly correlated to the intention of starting a business (*tab. 5*). The results suggest that the likelihood for a beekeeper to be an entrepreneur increases steadily as individuals have higher levels of education. The five categories are „Maximum 8 classes”, „Vocational school”, „High school”, „Post high school” and „University degree”.

- Beekeepers with university degrees or high school degrees are more likely to start a business than those holding a degree of vocational school or maximum 8 classes.

Apart from education, the results of the study reveal the fact that 45,2% of beekeepers are very interested in beekeeping courses and 47,4% of beekeepers are interested in management and marketing courses.

The analysis of the factors that are associated to the intention of starting a business is meant to stimulate actions towards the implementation of measures favorable to entrepreneurship in the beekeeping sector. In the North-West Region of Romania, beekeeping as a business can become an important source of income for small farmers.

In order to diversify and improve beekeepers' knowledge, the frequency and the topics of the training courses for beekeepers should be increased. These training courses could include topics such as: information regarding domestic consumption of bee products, competitive strategies for the development of the beekeeping exploitations, means of differentiating hive products by origin, quality and important aspects of foreign commerce.

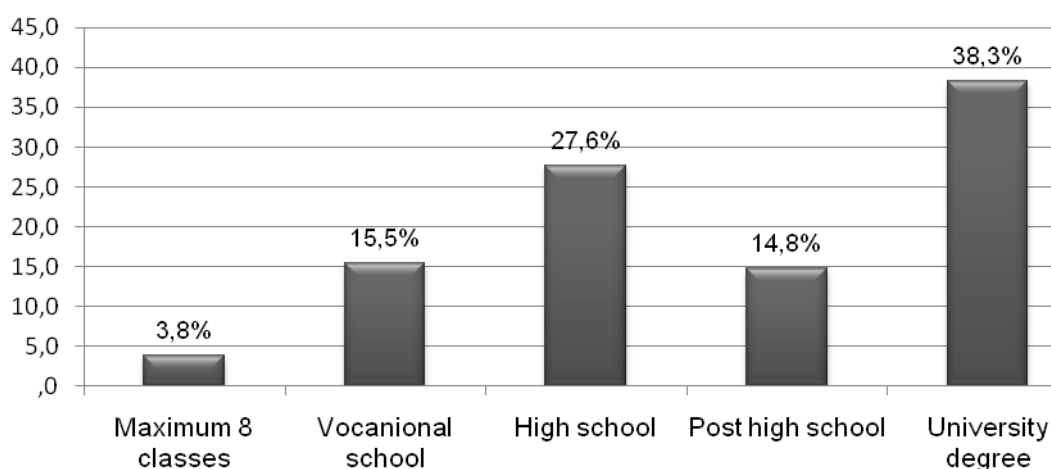


Figure 4. Sample distribution according to education

Table 5

Education * Intention to start a business (Crosstabulation)

			Intention to start a business		Total
			Yes	No	
Highest degree	Maximum 8 classes	Count	1	15	16
		% of Total	1,2	3,6	3,8
	Vocational school	Count	15	50	65
		% of Total	3,6	12,0	15,6
	High school	Count	53	62	115
		% of Total	12,7	14,8	27,5
	Post high school	Count	17	45	62
		% of Total	4,1	10,8	14,8
	University degree	Count	65	95	160
		% of Total	15,6	22,7	38,3
Total		Count	151	267	418
		% of Total	36,1	63,9	100,0

CONCLUSIONS

The present study reveals the fact that beekeepers' intention to become entrepreneurs is influenced by age, education, the business plan and the dimension of their beekeeping exploitation. These variables are highly correlated to the intention of starting a new business.

Considering the increasing demand of European consumers for natural products, Romanian beekeepers should develop and increase the export of bee products to the European Union. Export of bee products can be a profitable route, despite the fact that it demands a lot of potentially, knowledge, expertise, contacts and investment.

Beekeepers sometimes underestimate the fact that apiculture can be a substantial income generating source. Bee products have a wide variety of uses and applications, but only few of these are fully exploited. In order for these products to gain access to markets, beekeepers should develop and engage in entrepreneurial behaviors and establish processing activities for honey and its by-products. Moreover, these entrepreneurial behaviors can combat the unemployment of the rural people. As the majority of beekeepers are still using traditional equipment, introducing modern technology should be the first step to undertake.

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