Entrepreneurial skills in Boyacá

Las competencias emprendedoras en el departamento de Boyacá

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Reflective article

Date of reception: 1 April 2014 Date of approval: 15 September 2014

https://doi.org/10.19053/22565779.3108

Abstract

This paper presents some reflections on entrepreneurial skills in the department of Boyacá, based on the results obtained in 2013, during the development of the second regional entrepreneurship competition, whose process and results are also presented. For this work some entrepreneurial skills were selected and instruments using the Likert scale were applied, which allowed the establishment of the skill level of entrepreneurs in Boyacá. The entrepreneurs from Boyacá believe in their ability to achieve goals, but are individualistic, have a low capacity for teamwork and weak leadership.

Keywords: entrepreneurial skills, entrepreneurs, entrepreneurial competition.

JEL: M13, L26, M19

Resumen

Este trabajo presenta algunas reflexiones acerca de las competencias emprendedoras en el departamento de Boyacá, a partir de los resultados obtenidos en una exploración realizada en el año 2013, durante el desarrollo del segundo concurso regional de emprendimiento, cuyo proceso y resultados también son expuestos. Para este trabajo, fueron seleccionadas algunas competencias y se aplicaron instrumentos utilizando la escala Likert que permitieron establecer el nivel de competencias de emprendedores y potenciales en prendedores de Boyacá. Los emprendedores boyacenses confían en su capacidad para el logro de objetivos, baja capacidad para trabajo en equipo, individualismo y liderazgo débil.

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Palabras clave: competencias emprendedoras, emprendedores, concurso emprendimiento.

INTRODUCTION

Today there is a marked trend in all the countries of the world, towards the promotion of entrepreneurship by government policies. At the national and regional levels (O'Connor, 2013) it has been established that the development of entrepreneurship is the road to progress and its promotion is important, since it favors all types of organizations, both public and private, in addition to large, medium and small enterprises. It also generates development in the national and international markets. (Soriano & Huarng, 2013). With this argument, among others, national, departmental and municipal governments, as well as universities and educational centers in general, have set themselves the task of devising strategies that encourage entrepreneurship. In this sense, Drucker presents the need for an entrepreneurial society, so innovation and entrepreneurship must be present in companies, the economy and society (Heinonen & Ruotsalainen, 2012). It is widely accepted that a capitalist society requires entrepreneurship to grow and progress (Birds, 2014), and that entrepreneurship is critical for economic development (Stuetzer, Obschonka, and Schmittrodermund, 2013, Stuetzer, Goethner and Cantner, 2012). In addition, it is a very useful area of study for individuals, societies and countries (Matiz, 2009).

This work presents the experience gained in the research led by the Competitiveness and Local Development (CODEL, by its acronym in Spanish), and the Value and Finance Management (GEVAFI, by its acronym in Spanish) research groups of the Business Administration School of the Universidad Pedagógica y Tecnológica de Colombia, in cooperation with the Government of Boyacá, the Secretariat for Productivity, ICT and Knowledge Management and the support of the Regional Entrepreneurship Network of the department of Boyacá. Two objectives were set out in this project: first, to carry out a diagnosis of some entrepreneurial skills of Boyacá entrepreneurs and their level of basic administrative knowledge in securities and markets, and the second, to develop the second departmental entrepreneurs' competition.

The first section presents an explanation for the emergence of the project, with its actors; in the second section the process of the determination of entrepreneurial competences is presented, along with a table with the competences, their definition and the conclusions obtained from the study. The third section shows the development of the aforementioned contest, its stages and the selection of the winners. Finally, some reflections are made by way of conclusions

ACTORS AND EMERGENCEOF THE PROJECT

Towards the first half of 2012, the Secretariat for Productivity, ICT and Knowledge Management of the Government of Boyacá expressed its interest in promoting and strengthening the entrepreneurial culture in the department, contemplated in the project "Implementation of the Program for the Promotion of the Culture of Entrepreneurship in the Department of Boyacá "(Preliminary Studies Interadministrative Cooperation Agreement, 2012) where the strategy of institutional articulation as a tool for the promotion of the culture of entrepreneurship allowed the signing of an inter-administrative cooperative agreement with the Universidad Pedagógica y Tecnológica de Colombia (UPTC) in order to strengthen the entrepreneurial and business competencies of the Department of Boyacá, supported by the Regional Entrepreneurship Network.

The main objective of the project is the promotion of entrepreneurial activity in the department, with the realization of awareness events in entrepreneurial skills; the evaluation of some entrepreneurial skills in the department, the design of the criteria and methodology to determine the best ideas and business models and the development of the second departmental competition of entrepreneurs as a stimulus to entrepreneurs or business people who voluntarily decided to participate in the process.

The proposal was supported by the Regional Entrepreneurship Network, a team made up of agents from government, business and academia, interested in fostering a culture of entrepreneurship in the department. This support was an indispensable motivating factor for the process. The support was also sought of the Chambers of Commerce of Tunja, Duitama and Sogamoso, with the databases of business people, so as to carry out the promotion of the proposal, the logistical support in physical spaces for the development of awareness workshops and other events. The Regional Guarantee Fund also participated as guarantor of the competition process.

DETERMINATION OF ENTREPRENEURIAL COMPETENCIES

In order to determine the profile of the entrepreneur from Boyacá, the competency approach was used. In this section, a brief reference is made to entrepreneurship and competencies, and ultimately the entrepreneurial competencies that were evaluated are determined.

Entrepreneurship. The term entrepreneurship has been especially related to innovation, but also to business, change, employment, value and growth (Torres, 2010). Schumpeter is considered a pioneer in the economic analysis of entrepreneurship (Karp, 2006) for his significant contribution to entrepreneurship theory. For this author, the entrepreneur spirit is the main driver of economic development with innovation as its central element (Lordkipanize, Bretzel & Backman, 2005). The entrepreneur's function is to exploit an invention or technological possibility that generates new products or services, new forms of production, sources of supply of raw materials, or forms of organization that revolutionize the established pattern of production (Shumpeter, 1943). An entrepreneur is someone who

identifies a need in the market, makes decisions about human, financial, material resources, and who also takes risks, which is rewarded by economic benefits (Ras & Vermeulen, 2009). The entrepreneur assumes financial, social, and sociological risks, and invests time and effort to receive a monetary reward and personal satisfaction (Antonia, Ciencias, Ve, Zulia & Cervilla, 2013, citing Hisrish, 2006)

There are six schools of thought that define the entrepreneurial spirit: the "great person" school of entrepreneurship and that of "psychological characteristics" which define entrepreneurs according to their personal qualities; the classical school, which defines the entrepreneur as one who has the ability to recognize opportunities; the management school and the leadership school, which focus on the management skills of entrepreneurs, and the sixth school, which defines entrepreneurship within the organization (intrapreneurs), such as the ability to adapt. (Cunningham and Lischeron, 1991, cited in Sambasivan et al., 2009)

Competencies

According to the Royal Spanish Academy, a second meaning of competency is "skill, aptitude, suitability to do something or to intervene in a particular matter". Competency combines resources such as knowledge, know-how and skills (Higuita, Molano & Rodríguez, 2011). There is a relationship between competencies, aptitudes and personality traits, although competency also refers to knowledge acquired by an individual through experience, which is why it is linked to the practice of a specific activity. Competencies materialize in behaviors that are carried out when the knowledge, aptitudes and personality traits are put into practice (Martínez & Carmona, 2009). An essential feature of competency, then, is action. Thus, a competency is built up integrating motivation, knowledge, values, attitudes and emotions, in order to generate an action (Fernández & Fernandez, 2010).

Within the sociocultural theories of personality, that of traits focuses on determining what personality traits an individual should have in order to achieve certain goals or to hold a position. As an example, a person can be more or less extroverted, more or less confident, submissive or dominant, etc., however, personality traits do not allow the prediction of the behavior of individuals at work, moreover, a certain trait can be perceived positively or negatively by different people or depending on specific contexts. This is one of the reasons why the competency approach facilitates the understanding of those skills and intentions of people which are verified through their behaviors.

The competency approach focuses on observable behaviors; in this sense, is more oriented towards the expected results of the person. It is not enough to have knowledge, for the results of a person may not be consistent with their titles and experience, in other words, people's actions can be far from what they know or say. It is important not only to know, it is indispensable to know how to do, to be able to do and to want to do. Modern management combines results management with competency management. The individual

achieves adequate performance through the application of knowledge, skills, experience, aptitudes and motivation, in behaviors that allow them to solve problems or face situations specific to their environment (Castellanos, 2006).

Mertens (2000) defines competency as an aptitude that is achieved by acquiring and developing knowledge, skills and abilities that are expressed in knowledge, doing and know-how. They are a set of properties in permanent modification, subject to the test of the resolution of concrete problems that present some degree of uncertainty and technical complexity (Gallard & Jacinto, 1995).

Entrepreneurial competencies

Entrepreneurship, in a functional way, is assumed to be an attitude (Castellanos, Chávez & Jiménez, 2003). Entrepreneurship requires competencies, or, in other words, people who start a business idea have certain competencies. The entrepreneur is mobilized by desire, necessity or opportunity (Rogoff, 2007, quoted in Torres, 2010). Thus, entrepreneurial competencies imply capacities, skills, abilities and aptitudes that make it possible for the entrepreneur to perform well in the entrepreneurial process (Gómez & Zatizábal, 2011). In this behavioral approach, the action of undertaking is a process that necessarily leads to the development of an idea with the creation of a company (Alda, Villardón & Elexpuru, 2012). It also makes it possible to determine if a person can realize his intention to start up a new company and make it grow successfully; the greater the entrepreneur's ability, the more they profit from the business (Plehn-Dujowich, 2009).

The entrepreneur has the capacity to generate ideas and turn them into something new in order to positively transform their life and their environment (Duarte & Ruiz, 2009). The entrepreneur generates motivation in others so as to achieve a goal. On the other hand, the decisions of entrepreneurs are influenced by the opinions of others, including the decision to participate in a business initiative (Bosma et al., 2012), thus entrepreneurship goes beyond the individual and also involves interaction with others, with the environment and is also immersed in a specific culture (Orrego, 2008). The study of entrepreneurship then, includes economic, psychological, social and cultural attributes (Rodriguez, 2009).

The existence of an entrepreneurial opportunity is not enough to guarantee the entrepreneurial spirit, in addition, it is necessary to have the capacity to make decisions regarding the allocation of resources and the exploitation of them to obtain a profit (D'Este, Mahdi, Neely & Rentocchini, 2012). The national culture influences entrepreneurship (Zapalska, Dabb & Perry, 2003). The performance of new companies depends on the ability of the entrepreneur to influence the actions of stakeholders, so the social competence of the entrepreneur is of great importance and within this the political ability that consists of the ability of the individual to understand others and use that knowledge to influence them (Tocher, Oswald & Shook, 2010).

The literature on entrepreneurial potential is diffuse, there is no agreed upon definition nor a conceptualization of the potential business manifestation and its measurement (Santos, Caetano, & Curral, 2013). Santos et al. (2013), citing Raab, Stedham and Neuner (2005), define entrepreneurial potential as the degree to which an individual possesses characteristics that are associated with successful entrepreneurs.

The process of entrepreneurship is deeply linked to the characteristics of the individual who is the main agent in the decision of entrepreneurial initiatives and who assumes responsibility and consequences, although it must be recognized that entrepreneurship is not only the result of the actions and characteristics of an individual, since external factors such as the economic, political, technological and legal context play a relevant role (Santos et al., 2013). In this sense, other authors suggest that entrepreneurship should not be defined solely in terms of what the entrepreneur is and does, but rather by analyzing who creates goods and services and with what (Rhee & White, 2007).

Although research on training and the development of entrepreneurial human capital is scarce, empirical studies report a low correlation between human capital indicators, such as education and experience, and progress in enterprise creation (Stuetzer, Obschonka, Davidsson, Schmitt-Rodermund, 2013). A theoretical model has been proposed that emphasizes the importance of a combination of human capital aspects in balanced skills or competencies for entrepreneurs (Lazear, 2005), as they must possess, combine and balance skills for the use of diverse resources such as physical, human and financial capital (Stuetzer et al., 2012). If the entrepreneur has more skills, the opportunity cost of coordinating workers, in productive terms, is higher, so skilled workers should need the attention of the employer less (Baptista, Lima, & Preto, 2012).

Birds (2014) studies, in a university in England, the competencies that a university entrepreneur should have and specifically refers to the professors who can eventually be academic spin off managers. The entrepreneur demonstrates certain specific skills, behaviors and experience, presents the ten competencies raised by Chakravarthy and Lorange (2008) and each one allows to be seen the degree to which individuals exhibit entrepreneurial behavior in the course of their employment in higher education. The competencies are: strategic thinking (seeing the big picture), the ability to market the strategy, the ability to obtain support and to mobilize resources, skills in forming and motivating a team, risk taking, orientation to action, self-confidence, experience and networking, which consists of the establishment of contacts and their use for the benefit of the business venture (Birds, 2014).

Santos, Caetano and Curral (2013) argue that each individual has the potential for entrepreneurship, made up of diverse competencies and motivations: entrepreneurial motivations, competence in management, psychological competencies and social skills. These four dimensions include eleven subdimensions. Entrepreneurial motivations are the

desire for independence, economic motivation, self-efficacy; managerial competencies are vision, a capacity for resource mobilization, and leadership capacity; psychological capacities include the capacity for innovation, emotional intelligence, resilience (the individual's ability to overcome a traumatic situation), and finally, social skills, such as communication and persuasion and the ability to develop networks.

Normally, entrepreneurs fail once or several times in the quest to realize their entrepreneurial expectations. Some give up with their first failure, for others this is not an option, because their desire is so strong that they go ahead with other ideas. These are called serial entrepreneurs, who generate numerous ideas and undertakings. Entrepreneurs with great skills, retain their entrepreneurial spirit and if their business does not meet their expectations, close and start anew; they are serial entrepreneurs. On the other hand, entrepreneurs with poor skills, close their business and enter the labor market or keep it in operation (Plehn-Dujowich, 2009)

Krueger and Brazeal (1994) present a model of entrepreneurial potential, so a person can have high entrepreneurial potential but does not necessarily consider their participation in a business activity or vice versa (Santos et al., 2013). Entrepreneurial potential is defined as a process of interaction between the perceived attractiveness, which takes into account social norms and attitudes; the perceived viability, which has to do with self-efficacy, and the propensity to act (Santos et al., 2013).

Stedham and Neuner (2005) suggested that entrepreneurial potential is expressed by seven characteristics: need for achievement, locus of control, propensity to take risks, problem solving, willingness to assert oneself, tolerance of ambiguity and emotional stability (Santos et al., 2013). On the other hand, the competencies in future entrepreneurs, taking into account the technological boom, are: collaborative skills, which are related to teamwork skills, joint learning and creation; time competency, which refers to the optimal use of time; technological competencies; environmental competencies, which deal with the relationship between people and nature and the environment; systems competence, which corresponds to holistic thinking; and social skills, which has to do with the ability to understand diverse cultural contexts and lifestyles (Heinonen & Ruotsalainen, 2012).

The *Bogotá Emprende* program defines entrepreneurial competencies as the knowledge, skills, abilities and attitudes necessary to carry out the work of entrepreneurship, encompassing a series of attributes that are comprised of individual and social elements and that are acquired with experience, so they require both formal education (knowledge) and non-formal (experience). The entrepreneurship competencies proposed by this program are the exploration capacity (the intention to increase knowledge), entrepreneurial thinking (having the initiative to act along with the means to modify this through the implementation of practical solutions), strategic thinking (having a clear objective, knowing how to achieve it, performing strategic analysis for decision making), teamwork (working

cooperatively with others to obtain an articulated result), leadership (involves influencing others, implies communication processes, aimed at achieving goals and objectives), goal orientation (focusing work to achieve objectives, taking into account the cost-benefit of actions), negotiation (ability to reach agreements, solve conflicts and achieve alliances and negotiations where the parties benefit), proactivity (ability to anticipate needs, problems and situations so as to provide solutions), social projection (taking into account the benefit to others as well as themselves), personal ability (assertiveness and clarity in the transmission of information) and personal integrity (respects principles, values and people) (*Bogotá emprende*, 2010).

In this paper, entrepreneurial competencies were considered as those necessary for the creation of a company, personal competencies were explored based on probable behaviors of entrepreneurs in specific situations. The behavioral approach focuses on the entrepreneurial process and the behaviors and activities that are carried out in it. One of the strengths of this approach lies in the conceptualization of the entrepreneurial phenomenon, where the undertaking is a process that concludes with the creation of a new company or the development of an idea.

For the competencies, the *Bogotá Emprende* program was taken into account, since it was the most important model of implementation in the country, and six of the eleven competencies were considered (exploration capacity, goal orientation, leadership, teamwork, proactivity and strategic thinking). For each one of these were defined questions oriented to attitudes, using the Likert scale. The instrument was applied to entrepreneurs (156) from the main cities of the department (Tunja, Duitama and Sogamoso), who voluntarily decided to participate in the process and attended three awareness events organized to promote the second departmental entrepreneur competition: one in Tunja , another in Duitama and one more in Sogamoso. Table 1 presents the conclusions obtained.

COMPETENCY	FINDINGS
Goal orientation. It is the capacity to	Most boyancense entrepreneurs have the
focus one's efforts in order to reach a	capacity to fulfill the goals they set for
goal, taking into consideration the cost-	themselves, by trusting in and making use of
benefit relation (Bogotá Emprende,	their capacities to achieve them.
2010). The capacity to steer one's actions	
towards an expected outcome (Alles,	
2004).	
Exploration capacity. Consists of the	Most of the people surveyed have not
action of increasing knowledge,	developed this capacity. They prefer to do
surpassing the formulation of questions	things in the same way as they have in similar
related to the normal development of	or previous situations. There is low exploration

Table 1. Boyacense Entrepreneurial Competencies

activities and go even deeper, obtaining a greater amount of useful information (Bogotá Emprende, 2010)	capacity and, therefore, a certain aversion to doing different things or doing them differently, or to taking risks.
Teamwork. Capacity to collaborate with others, to be part of a group. It implies having positive expectations regarding others, understanding them, and generating and maintaining a good work environment (Alles, 2009). It supposes the capacity to collaborate and cooperate with others, be part of a group and work together (Bogotá Emprende, 2010).	In general, this is done out of convenience, given that the <i>boyacense</i> entrepreneur is unaccustomed to teamwork, there is a low tendency for collaboration and cooperation with others, unless it is necessary or compulsory.
Leadership. Capacity to generate commitment and achieve the support of others (Alles, 2009). It is led by a communication process, to the achievement of one or several goals. It is the capacity to manage one's own work or to guide and support the actions of others, so as to fulfill objectives (Bogotá Emprende, 2010).	The difficulty is evident, <i>boyacense</i> entrepreneurs feel that they have a low interpersonal influence, which is important for managing their work, and guiding and supporting the actions of others when it comes to fulfilling objectives. There are difficulties as regards communication and teamwork with people who may have different points of view, a situation that shows a high degree of individualism in the <i>boyacense</i> . This hinders their capacity to lead processes or initiatives where, undoubtedly, the participation of multiple people is required, who share diverse knowledge and expectations.
Proactivity. This is a permanent attitude of being ahead of others in their actions. It is the predisposition to act proactively and not only think about what to do in the future (Alles, 2004). To anticipate situations, needs, and problems so as to provide solutions (Bogotá Emprende, 2010).	There is a tendency to follow what has already been done, what has already been tried, what is coherent with the limited exploration competency. There is no evidence of a permanent attitude of being ahead of others.
Strategic thinking. It is the capacity to understand the changes in the environment and establish their impact on the short, medium and long term, optimize strengths and act over weaknesses, and make use of	Low planning capacity. It seems that the entrepreneur lives from day to day, has difficulties in realizing what their business should be. They only focus on the product or service without observing the market, the majority have a reduced view. Therefore, it is

Source: elaborated by the authors from the selected competencies.

It also inquired into the understanding of basic business concepts in finance and markets, taking into account that their understanding and application are considered important for the development of business initiatives because they enable the company to operate successfully. For this purpose, four areas were selected: financial, markets, strategic and operational processes. Four questions were designed for each area, the objective of which was to determine the strengths and weaknesses that the Boyacá entrepreneurs have, which allows the entities that promote entrepreneurship to approximate the knowledge that the entrepreneurs should acquire. Table 2 presents the results obtained.

Table 2. Knowledge of entrepreneuria	l concepts, Boyacá entrepreneurs
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Area	FINDINGS	
Financial. It was enquired	Around 80 % claim to know the importance of financial	
into about basic financial	statements. However, sixty per cent say that they have	
concepts and financial	some basic knowledge about them. About 85% say they	
statements, budgets, costs	have some knowledge regarding investment budgets, costs	
and profitability.	and the way to calculate profitability.	
Markets. It was enquired	In the market area, there is evidence of the difficulty	
into about knowledge of the	regarding the study of real market needs, the entrepreneurs	
competition, clients' needs	do not carry out studies about the product and the	
and marketing strategies.	competition, they do not know the environment or the	
Distribution channels.	market they want to become involved in. There are also	
	flaws regarding the use of strategies to reach the proposed	
	objective, as there is no market research, it is impossible to	
	establish the strategies to follow in order to reach those	
	objectives, as they are the basis of the idea or business	
	model to develop successfully.	
	Boyacense entrepreneurs, in general, do not know about	
	different distribution methods or channels for the product,	
	which prevents them from implementing action plans that	
	allow them to reach the target market.	

SECOND DEPARTMENTAL ENTREPRENEURS COMPETITION

The Global Entrepreneurship Monitor -GEM- (2012) recognizes that business creation is one of the most important drivers of the economic growth of countries. In Colombia, this economic growth is based on innovation, associated with factors such as entrepreneurship, financing, government support programs for entrepreneurship, support in the creation of companies and a legal norm that supports the activity; factors aimed at taking advantage of existing opportunities in the market, in order to have a significant impact on production, employment and technological innovation.

The alliance between government, academia and the private sector made it possible to identify business ideas and new companies. In Boyacá, the process of strengthening entrepreneurial and business competencies is framed in the national entrepreneurship policy. This policy specifies the role of the state as an agent within the entrepreneurial processes and determines the conceptual, legal and institutional framework that encompasses entrepreneurship as a public responsibility (ECLAC, 2011).

In the legislative sphere, the process is underpinned by Law 1014 of 2006 "Promotion of entrepreneurship culture", whose objective is: to promote the entrepreneurial spirit, articulating the educational system and national productive system, which work together based on the principles established by the constitution aimed at strengthening business processes that contribute to local, regional and territorial development. This law establishes the need for coordination between companies, academia and the state, in order to foster and strengthen quality entrepreneurship.

Undoubtedly, entrepreneurship has become a matter of the public, academic and institutional agenda, one of the main reasons being that entrepreneurship has a great influence on the dynamics of an economy, and international evidence shows that the countries with the highest degree of development are those with a high degree of innovative entrepreneurship. It can be said, then, that the dynamics of an economy depend on business initiatives, as they affect aggregate demand, competitiveness and the need for innovation so as to enter a given market. Hence the interest in the development and strengthening of entrepreneurial skills, which are evidenced in new ventures and business ideas with an opportunity in the market.

That is why, during the process of this second departmental entrepreneurship competition, a permanent accompaniment was made of the entrepreneurs in order to strengthen their competencies and to make them themselves the main agents in the transformation of their reality, with the action-participation approach, the gaps that exist between theory and practice can be narrowed; reality is observed to generate changes in practice. (Ortíz & Borjas, 2008) Each of the phases developed is described below:

Initially, requests were made from the databases of the Chambers of Commerce of Duitama, Tunja and Sogamoso. In addition, visits were made to the National Learning Sevice (Sena, by its acronym in Spanish), universities, entrepreneurship entities and the business development centers of the department, in order to select entrepreneurs and newly created companies (less than three years), allowing direct contact with the identified actors. Awareness-raising events were organized by the Secretariat of Productivity, ITC and Knowledge Management in Tunja, Duitama and Sogamoso. A formal invitation was made to the entrepreneurs and business people identified, with the objective of promoting the second departmental entrepreneurs' competition. During these events the instrument of information gathering was applied, which allowed the determination of the profile of the Boyacá entrepreneur and their level of entrepreneurial know-how, which is explained in the second section.

During the design of the competition, the terms of reference were designed by the Competitiveness and Local Development research group -Codel, by its acronym in Spanish-, a document containing the description and objective of the competition, definitions (national entrepreneurship law and policy), inscription, categories, requirements, conditions, modalities of presentation, population, process objective, acknowledgments, copyright, among other things, and the guidelines to be followed for the execution of the contest were established. Three formats were also developed for the inscription of participants into the competition, according to the categories established by the Codel research group, which are mentioned below:

I have an idea: entrepreneur or group of entrepreneurs (natural persons), students of basic high school, grades 10 and 11 of the educational institutions of the department of Boyacá, who have a business idea and have not initiated any formal business process.

I want my company: entrepreneur(s) or businesspeople that have a business model in the design stage or in the initial stage of start-up.

I am an entrepreneur: entrepreneurs (natural or legal persons) who are already consolidated, but who have not exceeded two years of formalization before the entity in charge.

Each of the formats contained the personal data of the entrepreneurial team and the description of the idea or business model, and as an annex, a set of instructions was elaborated for each format, which described how the participant should complete the format; the reference for the elaboration of the formats was the Canvas model.

The enrollment was made through the website of the Universidad Pedagógica y Tecnológica de Colombia, where was found the general information, stages, terms of reference, schedule consultation, formats and instructions, registration process and the option for recording doubts. 76 entrepreneurs and business people were enrolled. The process had a better reception in the municipalities of Tunja, Duitama and Sogamoso, in which there was a greater participation in the competition with the ideas and business models, probably because it was in these municipalities that the awareness-raising events were carried out.

The participants had to fill out and upload the format to the website, they were also requested to make a video, in which they had to explain their idea, and also upload it to the web. During this stage, there was permanent accompaniment for the resolution of the concerns of those who entered the contest. Table 3 shows the participation by municipality.

33 12 13 2
13
2
2
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76

Table 3. Participation by municipality

Source: elaborated by the authors.

As for the economic sectors, the highest participation was obtained in services, industry and agribusiness. Other sectors in which the participation is low and that could be strengthened are ICT and tourism, since the department is expecting the development of these sectors.

Table 4. Participation by sector

SECTOR	NUMBER	PERCENTAGE
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Agroindustrial	12	16
Agricultural	6	8
Craft	5	7
Trade	7	9
Education	4	5
Industrial	17	22
Services	20	26
ICTs	2	3
Tourism	3	4
TOTAL	76	100

Table 5.	Participation	by	category
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CATEGORY	NUMBER OF PROJECTS	PERCENTAGE
Category 1. Business idea	18	24
Category 2. I want my own	37	49
business		
Category 3. I am an	12	16
entrepreneur		
Do not meet the criteria	9	12
TOTAL	76	100

Source: elaborated by the authors.

During the awareness-raising stage, it became evident that for future opportunities, it will be necessary to cover the entire department, since the aforementioned awareness-raising was developed only in the larger municipalities (Tunja, Duitama and Sogamoso), although most of the 123 municipalities were invited to participate through information sent to the town halls and educational institutions.

Once the closure for the enrollments was defined, a pre-selection was made, along with a verification of compliance with the requirements according to the terms of reference. There were 67 short-listed projects that were sent to the evaluation team of the contest, which was made up of ten members from the Regional Entrepreneurship Network, experts in the different economic activities within which the projects were framed.

For the evaluation, a document was designed with the criteria and methodology so as to determine the best ideas and business models, according to the terms of reference. The criteria for selecting business ideas are presented in Table 6 and the criteria for selecting business models in Table 7. The projects were assigned, taking into account the nature of the projects and the profile of the evaluators to whom the projects and evaluation criteria were submitted, in addition they signed a confidentiality agreement. The entire process was overseen by the Regional Guarantee Fund.

CRITERION	DESCRIPTION	
Creativity and innovation	The entrepreneurial team presents an original solution, it is	
	either new or contains a new association among other ideas	
	already known. It has the potential to be applied successfully	
	in the specific market to which the proposal is referred.	
Technical knowledge	The entrepreneurial team shows technical knowledge and	
	presents their idea with clarity.	
Differentiation	The product/service has differentiating factors with respect to	
	its competition as regards its physical characteristics, design,	
	performance, price structure, distribution channels,	
	advertising.	
Business potential	There is clarity as regards the supplies that the product or	
	service requires:	
	*Its competitors have been identified as well as their location,	
	size, participation in the market, and price.	
	*Substitute products or services have been identified.	
	*Its clients and the market niche to which they belong have been identified.	
Potential of the idea in	The product/service has space for growth in the international	
different markets	market and it is possible for it to expand in time (future	
different markets	growth) and space (diverse countries).	
Link with research	To carry out the project, alliances are considered with	
activities and strategic	institutions that make fulfilling the objectives easier	
alliances	(universities, companies, the state, society and networks).	
Alignment with	The business idea is highly related to the outstanding or	
government plans and	potential sectors of the department of Boyacá.	
productive sectors of the		
department of Boyacá		
Clarity in the presentation	The presentation of the business idea is clear and coherent.	
of the business idea	Through the presentation document and the video, it is	
	possible to understand the idea.	
Source: elaborated by the authors		

Table 6. Selection Criteria for business ideas

Source: elaborated by the authors.

Table 7. Selectio	n Criteria for	business model
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CRITERION			DESCRIPTION
Profile	of	the	The project is presented by a multidisciplinary team, the
entrepreneurial team			knowledge and competences of which are coherent with the
			nature of the business model. The team has skills and
			experience that added up contribute greatly to the success of

	the project.		
Technical knowledge of	The entrepreneurial team shows technical knowledge of the		
the entrepreneurial team	industry in which the project is established.		
Technical feasibility	The project is technically feasible. It is possible to carry it out		
reclinear reasionity	under the conditions of the team and with the technology		
	available.		
Responsible and	The project involves the use or application of clean		
Responsible and sustainable use and	technologies that reduce or prevent pollution and the		
application of technology	consumption of resources.		
Creativity and innovation	1		
Creativity and innovation	The entrepreneurial team presents an original solution, it is		
	either new or contains a new association among other ideas		
	already known. It has the potential to be applied successfully		
	in the specific market to which the proposal is referred.		
Differentiation	The product/service has differentiating factors with respect to		
	its competition as regards its physical characteristics, design,		
	performance, price structure, distribution channels,		
	advertising.		
Business potential	There is clarity as regards the supplies that the product or		
	service requires:		
	*Its competitors have been identified as well as their location,		
	size, participation in the market, and price.		
	*Substitute products or services have been identified.		
	*Its clients and the market niche to which they belong have		
	been identified.		
Investment opportunity	The proposal presents an investment opportunity for		
	companies or people with resources.		
Potential of the idea in	The product/service has space for growth in the international		
different markets	market and it is possible for it to expand in time (future		
	growth) and space (diverse countries).		
	Potential economic, social and environmental impact. The		
and environmental impact	development or improvement of the project is important for		
	economic, social and environmental development.		
Link with research	To carry out the project, alliances are considered with		
activities and strategic	institutions that make fulfilling the objectives easier		
alliances	(universities, companies, the state, society and networks).		
Alignment with The business idea is highly related to the outstandi			
government plans and	potential sectors of the department of Boyacá.		
productive sectors of the			
department of Boyacá			
Clarity in the presentation	The presentation of the business idea is clear and coherent.		
of the business idea	Through the presentation document and the video, it is		
	possible to understand the idea.		

During this first round of evaluation, it was evident that hardly any ideas and business models met the established criteria; moreover, none of the proposals satisfied them by 50%, with which it can be concluded that the entrepreneurs in the department require more training, mentoring and support in terms of basic business knowledge and business plans. It also suggests that the educational institutions of the department should improve entrepreneurship training by providing students not only with concepts but also the analytical tools useful for making business decisions (financial, market).

As a result of this first evaluation, ten business ideas were selected as the winners of recognition for category one (1); eleven business models for category two (2) and eight business models for category three (3). The results are presented in Tables 8, 9 and 10.

No	NAME	CITY	SECTOR
1	La Cascarita Factory	Tunja	Agroindustry
2	Touristic guide	Tunja	Tourism
3	Microideas	Duitama	Industry
4	Desserts and cakes	Tunja	Industry
5	Use of yucca, bore, erythrina edulis	San Eduardo	Agroindustry
	and sugar cane		
6	Chamber oven	Tunja	Industry
7	Pottery	Tunja	Trade
8	Libasart Products	Tunja	Agroindustry
9	Italian food	Tunja	Trade
10	Desserts	Tunja	Agroindustry

Table 8. Finalists category 1. I have an idea.

Source: elaborated by the authors.

Table 9. Finalists category 2. I want my own business.

No	NOMBRE	CITY	SECTOR
1	Camino muisca	Sogamoso	Tourism
2	Art and gastronomic culture	Tunja	Tourism and
			industry
3	Ecoturistic Center	Sogamoso	Tourism
4	Macana Café	Sogamoso	Agriculture
5	Applications to decorate houses	Duitama	Industry
6	200 technical signs assemblage and	Tunja	Services
	maintenance of networks and		
	computers		

7	Forrajes verde	Tunja	Agricultural
8	Todo a mano	Sogamoso	Craft
9	Las delicias de mi tierra	Tota	Agroindustry
10	Porvenir Woodwork workshop	San Eduardo	Industry
11	Muisca therapeutic center	Tunja	Services

Source:	elaborated	by the	authors.
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No	NAME	CITY	SECTOR
1	Soluciones profesionales Group SAS	Sogamoso	Services
2	Quinua de los Andes	Soracá	Industry
3	Cleaning and modification of articulated trucks	Duitama	Services
4	Editic	Tunja	Education
5	Ecosistem – Advertisement design	Nobsa	Services
6	Técnicas y estrategias en comunicaciones SAS	Tunja	Services
7	Cultivation, transformation and commercialization of <i>chamba</i> (typical fruit)	Miraflores	Agriculture
8	Pomarosa gourmet coffee	Tunja	Trade

A second round of evaluation was carried out, where the method used was the panel of experts. For the final stage, each of the teams selected in the first round (tables 8, 9 and 10) had to present and describe their ideas to the panel of judges. For this stage, the methodology and criteria for evaluation were established, in agreement with the judges and with each of the participants previously informed, with the respective date, place and time of the presentation. The established criteria were very simple, compared to the first evaluation, because as already mentioned, the entrepreneurs were far from meeting the initial criteria. These were: proposal of value, markets, technical, entrepreneurial and financial profile. Even with the simplification of the criteria and decrease in the requirements, it was observed that entrepreneurs hardly understand economic, financial and business concepts and for some it was very difficult to present their idea to the public.

Finally, social and economic recognition was granted to each of the winners in a public ceremony held on June 20, 2013 in the Convention Center of the Tunja Chamber of Commerce, which was attended by officials of the Secretariat of Productivity, ICT and Knowledge Management of the Government of Boyacá, researchers from the Universidad Pedagógica y Tecnológica de Colombia of the GEVAFI Research Group, members of the Regional Entrepreneurship Network, entrepreneurs and business people who participated in

the process of strengthening the entrepreneurial and business skills of the department of Boyacá, and representatives from the local media.

CONCLUSIONS

Boyacá entrepreneurs are confident in their ability to **achieve goals**. The development of this competence is of great importance, because, in fact, feeling capable to do something is fundamental to achieving it. The Boyacá entrepreneur is able to combine available resources to solve particular situations.

As far as exploration capacity is concerned, a lot of work is required, since the Boyacá entrepreneur generally has a limited exploration capacity, which undoubtedly limits the capacity for innovation and, therefore, to discover or generate new ideas for the solution of regional problems. This low exploration capacity is probably related to some features of the educational system, oriented to contents where the student believes, without doubting, everything that the teacher says. Even in the university there is a lack of a desire to explore, to know new things, since the student usually goes as far as the teacher tells him; so it is necessary to awaken in the young, the exploratory spirit necessary for scientific, technological and business advancement. It is necessary to improve education towards entrepreneurship, not about entrepreneurship (Osorio & Pereira, 2001).

The entrepreneur also has a low **capacity for teamwork**, preferring, in principle, to do things alone, perhaps because of low confidence in other people. In fact, the thinking in general is that working with others brings problems, generates conflicts and there is a danger that they will want to take advantage of their ideas. It is necessary that knowledge be brought together, as Nonaka and Takeuchi (1995) would say, that this tacit knowledge that exists in each person is shared, socialized with others, this is the first step in that spiral of knowledge. It is also urgent to look for mechanisms to build trust among people, to be clear that teamwork allows mutual benefits and generates synergy. Universities in the region need greater intra and intercommunication, students from different faculties in each university and different universities must know each other, work together, find ways to turn ideas from technical and technological peers into businesses.

If there is a low propensity for teamwork, with a marked individualism, as is expected, the **leadership** competence is also weak, the principle of leadership involves influencing others to achieve a purpose, it also means generating a shared vision of what is wanted and if it is difficult to work with others, communicate with others, know their expectations, abilities, etc., then being able to influence them is unlikely.

Entrepreneurship needs strategic thinking and in this aspect the Boyacá entrepreneur must build a greater capacity for planning. If one starts from a lack of clarity regarding the objectives, then of the strategies to achieve something will be uncertain. On the other hand, a large number of entrepreneurs do not know their business in depth, it is likely that this condition is because they are entrepreneurs by necessity and not opportunity and the entrepreneur is content to receive what is necessary to meet certain needs. On the other hand, for the enterprise, an adequate ecosystem must be generated and one of the fundamental components is infrastructure, since the access to many municipalities is difficult, which generates barriers for entrepreneurs

The department must work intensely on the strengthening of entrepreneurial skills, focusing on the sectors it has declared as potentials for the future. We must take into account that the fact of betting on everything causes wear and weak sectors. During the process of the second departmental entrepreneurship contest, the low level of knowledge of the community regarding basic administrative and economic concepts was observed as well as, in general, in the formulation of a business plan.

In an upcoming competition or activities to promote the entrepreneurial culture, it is necessary to reach all municipalities, because in this opportunity there was practically only the participation of Tunja, Duitama and Sogamoso. This exercise allowed the determination of some shortcomings regarding competencies as well as social problems that afflict certain groups and in which the departmental government and universities must intervene.

Some of the business opportunities must be identified and promoted more decisively, for although some were presented in the competition, most of them were by necessity, which generated some compassion towards some entrepreneurs among the judges of the second regional entrepreneurship competition, due to their difficult living conditions; which is why work in social innovation and social entrepreneurship is also required. Equally important is the fundamental role of the university in supporting entrepreneurs and their ideas, following up on feasibility studies, business plans and business management.

It is important to recognize that entrepreneurship does not necessarily have to do with business activity, because to undertake means to start something, a work or a business, a commitment, which is difficult or dangerous (Royal Spanish Academy). The presence of risk means that not all people are willing to engage in the undertaking, so one of the fields of study of entrepreneurship is precisely identifying what are those characteristics, skills and features that entrepreneurs have.

REFERENCES

Alda-Varas, R., Villardón-Gallego, L. & Elexpuru-Albizuri, I. (2012). Propuesta y validación de un perfil de competencias de la persona emprendedora. Implicaciones para la formación. *Electronic Journal of Research in Educational Psychology*, 10(28), 1057-1080. Recuperado de http://www.redalyc.org/articulo.oa?id=293124654006

- Alles, M. (2004). Diccionario de comportamientos. Gestión por competencias. La trilogía. Buenos Aires: Gránica.
- Alles, M. (2009). Diccionario de competencias. La trilogía. Buenos Aires: Gránica.
- Antonia, M., Ciencias, R. De, Ve, S., Zulia, U. & Cervilla, M. A. (2013). Modelos de negocio de emprendimientos por y para la base de la pirámide. Revista de Ciencias sociales, XIX, 289–308.
- Baptista, R., Lima, F. & Preto, M. T. (2012). Entrepreneurial skills and workers' wages in small firms. *Small Business Economics*, 40(2), 309–323. Doi:10.1007/s11187-012-9463-7.
- Birds, R. (2014). Entrepreneur-managers in higher education: (how) do they exist? *Journal* of Higher Education Policy and Management, 36(1), 62–73. doi:10.1080/1360080X.2013.844663
- Bogotá Emprende (2010). *Identifica y potencializa tus competencias emprendedoras*. Recuperado de http://www.bogotaemprende.com/documentos/3551_26_03_10_1doc_competenci as.pdf.
- Bosma, N. et al. (2012). Entrepreneurship and role models. *Journal of Economic Psychology* 33(2), 410-424.
- Castellanos, D., Chávez P. & Jiménez N. (2003). Propuesta de formación en liderazgo y emprendimiento. *INNOVAR Revista de Ciencias Administrativas y Sociales*, (22) 145-156. Recuperado de http://estudiosterritoriales.org/articulo.oa?id=81802214
- Castellanos, O. (2006). Bases conceptuales e impacto de la implementación de ompetencias laborales en la relación individuo organización. *Cuadernos de Administración, 19,* 81 101.
- Cepal (2011) Apoyando a las pymes: Políticas de fomento en América Latina y el Caribe. Recuperado http://www.cepal.org/publicaciones/xml/0/45410/lcr.2180.pdf.
- D'Este, P., Mahdi, S., Neely, A. & Rentocchini, F. (2012). Inventors and entrepreneurs in academia: What types of skills and experience matter? *Technovation*, *32*(5), 293–303. Doi:10.1016ñ/j.technovation.2011.12.005
- Duarte, T. & Ruiz, M. (2009). Emprendimiento, una opción para el desarrollo. *Scientia Et Technica, XV*(43), 326-331. Recuperado de http://www.redalyc.org/articulo.oa?id=84917310058

- Fernández, L. & Fernández, E. (2010). Competencias emprendedoras y desarrollo del espíritu empresarial en los centros educativos. Recuperado de http://www.redalyc.org/articulo.oa?id=70618037001
- Gallard, M.A. & Jacinto, C. (1995). Competencias laborales tema clave en la articulación educación-trabajo. En CIID-CENEP. *Boletín de la Red Latinoamericana de Educación y Trabajo*, No.2. Buenos Aires, Argentina: mimeo.
- Gómez, M. & Satizábal, K. (2011). Educación en emprendimiento: fortalecimiento de competencias emprendedoras en la Pontificia Universidad Javeriana Cali. *Economía, Gestión y Desarrollo*, (111), 121-155.
- GEM. (2012). *Global Entrepreneurship Monitor Colombia 2011 2012*. Recuperado de http://www.gemconsortium.org/docs/2820/gem-colombia-2012-report.
- Heinonen, S. & Ruotsalainen, J. (2012). Toward the Age of Neo-Entrepreneurs. World Future Review, 4(2), 123–133. Doi:10.1177/194675671200400216
- Higuita, D., Molano, J. & Rodríguez, M. (2011). Competencias necesarias en los grupos de investigación de la Universidad Nacional de Colombia que generan desarrollos de base tecnológica. *INNOVAR Revista de Ciencias Administrativas y Sociales, 21*(41) 209-224. Recuperado de http://www.redalyc.org/articulo.oa?id=81822806016
- Karp, T. (2006). The inner entrepreneur: A constructivistic view of entrepreneurial reality construction. *Journal of Change Management*, 6(3), 291–304. Doi: 10.1080/14697010600876864
- Lazear, E. P., Kreps, D., Lucas, R., Mcmillan, J., Oyer, P., & Prendergast, C. (2005). Entrepreneurship. University of Chicago. Journal of Labor Economics, 23(4). Stanford, CA.
- Ley 1014 de 2006. Disponible en Ministerio de Comercio, Industria y Turismo www.mincit.gov.co
- Lordkipanidze, M. Brezel, H. & Backman, M. (2005). The entrepreneurship factor in sustainable tourism development. *Journal of Cleaner Production* 13(8), 787 798.
- Martínez, F. & Carmona, G. (2009). Aproximación al concepto de competencias emprendedoras: valor social e implicaciones educativas. *REICE Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación, 7*(3) 82-98. Recuperado de http://www.redalyc.org/articulo.oa?id=55114063007.

- Matiz, F. (2009). Investigación en emprendimiento, un reto para la construcción de conocimiento. *Revista Escuela de Administración de Negocios EAN*, (66), 169–182.
- Mertens, L. (2000). La gestión por competencia laboral en la empresa y formación profesional. Madrid: Organización de Estados Iberoamericanos para la Educación, la Ciencia y la Cultura
- Nonanka, I. & Takeuchi, H. (1995). *La organización creadora de conocimiento*. Oxford: Oxford University.
- O'Connor, A. (2013). A conceptual framework for entrepreneurship education policy: Meeting government and economic purposes. *Journal of Business Venturing* 28(4), 546-563.
- Ortíz, M. & Borjas, B. (2008). La investigación acción participativa: Aporte de Fals Borda a la educación popular. Espacio Abierto, 17 (4), 615 626.
- Orrego, C. (2008, julio-diciembre). La dimensión humana del emprendimiento. *Revista Ciencias Estratégicas, 16.* Recuperado de http://www.redalyc.org/articulo.oa?id=151312829001> ISSN 1794-8347
- Osorio, F. & Pereira, F. (2011, julio-diciembre). Hacia un modelo de educación para el emprendimiento: una mirada desde la teoría social cognitiva. *Cuadernos de Administración,* 24. Recuperado de http://www.redalyc.org/articulo.oa?id=20521435001
- Plehn-Dujowich, J. (2009). A theory of serial entrepreneurship. *Small Business Economics*, 35(4), 377–398. Doi:10.1007/s11187-008-9171-5
- Ras, P. & W. J. V. Vermeulen (2009). Sustainable production and the performance of South African entrepreneurs in a global supply chain. The case of South African table grape producers. *Sustainable Development 17*(5), 325 - 340.
- Rhee, K. S. & White, R. J. (2007). The Emotional Intelligence of Entrepreneurs. *Journal of Small* Business & Entrepreneurship, 20(4), 409–425. Doi:10.1080/08276331.2007.10593408
- Rodríguez, A. (2009). Nuevas perspectivas para entender el emprendimiento empresarial. *Pensamiento & Gestión*, (26) 94-119. Recuperado de http://www.redalyc.org/articulo.oa?id=64612291005

- Santos, S. C., Caetano, A. & Curral, L. (2013). Psychosocial aspects of entrepreneurial potential. *Journal of Small Business & Entrepreneurship*, 26(6), 661–685. Doi:10.1080/08276331.2014.892313
- Sambasivan, M. et al. (2009). Impact of personal qualities and management skills of entrepreneurs on venture performance in Malaysia: Opportunity recognition skills as a mediating factor. *Technovation* 29(11), 798-805.
- Shumpeter, J. (1943). *Capitalism, socialism and democracy*. Routledge. London and New York. Taylor and Francis e-Library. Recuperado de: Digamo.free.fr/capisoc.pdf.
- Sobrado, F. & Fernández, E. (2010). Competencias emprendedoras y desarrollo del espíritu empresarial en los centros educativos. *Educación XX1, 13*(1), 15-38. Recuperado de http://www.redalyc.org/articulo.oa?id=70618037001
- Soriano, D. R. & Huarng, K.-H. (2013). Innovation and entrepreneurship in knowledge industries. *Journal of Business Research* 66(10), 1964-1969.
- Stuetzer, M., Goethner, M. & Cantner, U. (2012). Do balanced skills help nascent entrepreneurs to make progress in the venture creation process? *Economics Letters*, *117*(1), 186–188. Doi:10.1016/j.econlet.2012.05.002
- Stuetzer, M., Obschonka, M., Davidsson, P. & Schmitt-Rodermund, E. (2013). Where do entrepreneurial skills come from? *Applied Economics Letters*, 20(12), 1183–1186. Doi:10.1080/13504851.2013.797554
- Stuetzer, M., Obschonka, M. & Schmitt-Rodermund, E. (2013). Balanced skills among nascent entrepreneurs. *Applied Economics Letters*, 93–114. Doi:10.1007/s11187-012-9423-2
- Tocher, N., Oswald, S. L. & Shook, C. L. (2010, May). Extending the social competence perspective. *Entrepreneurship & Regional Development*, 37–41. Doi:10.1080/08985626.2010.535856
- Torres, C. (2010). Consideraciones para la formación en emprendimiento: explorando nuevos ámbitos y posibilidades. Estudios Gerenciales 26 (117): 41-60.
- Zapalska, A. M., Dabb, H. & Perry, G. (2003). Environmental Factors Affecting Entrepreneurial Activities: Indigenous Maori Entrepreneurs of New Zealand. *Asia Pacific Business Review*, 10(2), 160–177. Doi:10.1080/13602380410001677191