

Entrepreneurship in Colombia: Review and State of Knowledge

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Abstract: This study reviews entrepreneurship in Colombia and for this reason it presents a study of technological surveillance based on search equations in the scopus database. Thus, the plan defined includes five stages: scientific production, outstanding researchers in scientific production, countries with the greatest number of publications, outstanding institutions with scientific production and main contributions. Faced with the results, the growing trend during the studied period was evidenced and the lack of consensus around the central object and concepts as well as the absence of a central theoretical model, place entrepreneurship in a pre-theoretical state.

Key words: Entrepreneurship, entrepreneur, technological surveillance, trends, publications

INTRODUCTION

The present study shows central elements that illustrate the trends in the field of entrepreneurship in Colombia. For this reason, it is a contribution aimed primarily at researchers interested in issues such as entrepreneurship, entrepreneurs, entrepreneurial spirit and business creation, among others. The review on the field of knowledge allows to infer that the knowledge built around the entrepreneur and entrepreneurship comes from different disciplines which generates in addition to ambivalence and polysemy, dissimilar positions.

In this logic duo to the rise of new technologies, trends such as technological surveillance have been imposed as competitiveness strategies of some sectors (Navia *et al.*, 2018) to a large extent, justified by the volume of relevant information needed for decision making (Palop and Vicente, 1999; Ramirez-Calvo *et al.*, 2013). Recognizing the potential value of bibliometric analysis (Daim *et al.*, 2006; Lee *et al.*, 2017) many researchers have focused their studies on tools such as data mining (Lee *et al.*, 2014) and patent analysis (Lee *et al.*, 2009).

Technological surveillance (hereinafter referred to as TS) can be defined as the systematic and organized process of searching, capturing and analyzing information of a technological, commercial, competitive and normative nature nationally and internationally which allows anticipation to clarify the actions through the decisions, passing through appropriation and allowing a collective or organizational learning (Du Toit, 2013; Anonymous, 2000, 2014).

Although, there are different types of technological surveillance this study focuses on the advances in scientific and technological production. This is due to the fact that TS is focused on the advances of the state of the art and technology available and emerging in any business sector.

MATERIALS AND METHODS

Construction of the search matrix: The construction of the search matrix is oriented towards the definition of the scope of the study. This is developed jointly by experts and researchers who due to their knowledge and experience, provide key elements to take into account in its development.

Search equation (TITLE-ABS-KEY (entrepreneurship) OR TITLE-ABS-KEY (entrepreneur) OR TITLE-ABS-KEY (l'esprit AND d'entreprise) OR TITLE-ABS-KEY ("entrepreneurial spirit")) AND (LIMIT-TO (AFFILCOUNTRY, "Colombia")) AND (LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) OR LIMIT-TO (PUBYEAR, 2012) OR LIMIT-TO (PUBYEAR, 2011)).

Identification of the tools to be used: for the elaboration of the research, the main databases containing information related to the research topic were identified and accessed using:

Scopus: The largest database of citations and abstracts of peer-reviewed literature: scientific journals, books and conference proceedings. It has intelligent tools to track,

analyze and visualize research, offering an overview of the global production of research in the fields of science, technology, medicine, social sciences and thearts and humanities.

Analysis of the information: The Matheo Analyzer technological surveillance software was used to process the information through which it was possible to obtain an accurate manipulation of the files exported from each of the databases. The software manages an interface that allows a better visualization and manipulation of the data obtained, thus, generating exchange relationships for groups of data.

RESULTS AND DISCUSSION

The results obtained through the developed search equation show for the period 2011-2017, a total of 230 knowledge products related to the area of study and scientific production with an increasing trend as of 2013 which is accentuated in 2015 (Fig. 1).

On the other hand, compared to the most prolific researchers, David Urbano stands out with 25 scientific studiess, followed by Claudia Alvarez with 19, Sebastian Aparicio with 5, Esteban Lafuente with 5 and Maria Noguera with 4 (Fig. 2).

Also, in relation to the journals in which the scientific studies on entrepreneurship have been published, Espacios Magazine stands out with 33 studies, followed by innovate with 9 studies, the Venezuelan Magazine of Management with 7, the Social Sciences journal with 6 and Notebooks of Administration with 5 (Fig. 3).

On the other hand, the National University of Colombia stands out as the institution that publishes the most research studies on entrepreneurship with 28 documents, followed by the University of Medellin with 27, the Autonomous University of Barcelona with 25, the University of the Andes with 24, the EAFIT University with 22 and the North University with 12 (Fig. 4).

Literature in Colombia on entrepreneurship is mainly focused on scientific studies which are mostly made up of research results and a few reviews. The institutional theory is the one that has the greatest acceptance among the researchers. At the same time there is a wide variety of themes developed.

Alvarez *et al.* (2014) conducted a comparative analysis between developed and developing countries in relation to the influence exercised by formal institutions in business activity. The results indicate that with the exception of Latin America there is a statistically significant relationship between public spending and business activity. In turn, legislation on entrepreneurship has a positive and significant influence on entrepreneurship in all countries. Similarly, both the

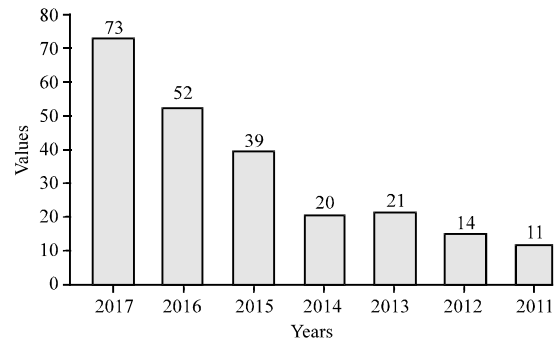


Fig. 1: Evolution of scientific production 2011-2017

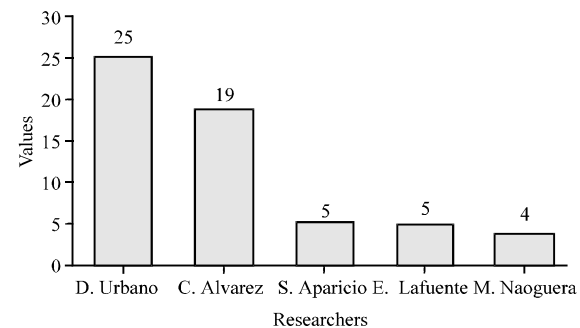


Fig. 2: Main researchers

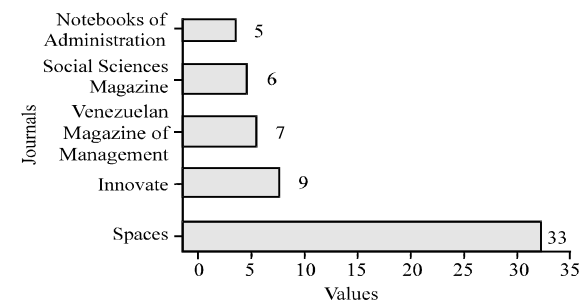


Fig. 3: Main journals

legislation on unemployment and financial freedoms have a positive relationship with entrepreneurship in developed countries.

On the other hand, Ramirez analyzed, under the focus of institutional economic theory, the influence of social networks (family, friendships and other contacts) in the entrepreneurial activity of university students. It is a work with a qualitative (case study) and quantitative (survey) component. The research established that the family network is the most important with respect to networks of friends and personal contacts. The family network provides motivation, contacts, information and resources. Family also behaves as a trigger and incubator of

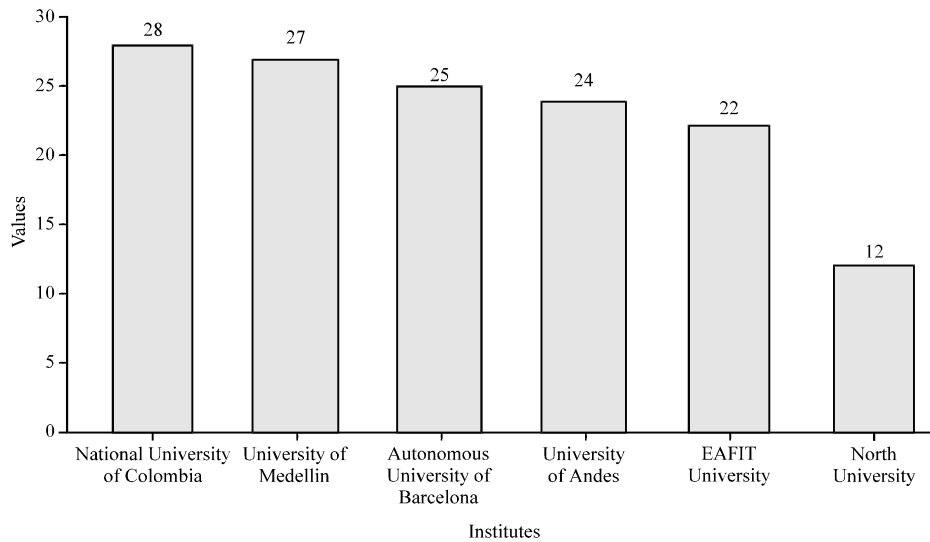


Fig. 4: Main institutions

entrepreneurship. Likewise, friend's network is important because it provides motivation, knowledge and access to contacts.

Merigo and Peris-Ortiz (2014) formulated a new method of decision making with the incorporation of a new generalized probabilistic operator of weighted averages. Castro *et al.* (2014) analyzed the dimensions of social capital and its relation to three types of interactions that exist in a business incubator: the creation of networks, advice and obtaining resources thus finding that the interactions to obtain resources constitute the most significant aspect of business incubators for entrepreneurs. Blanco-Oliver *et al.* (2014) constructed a model to detect the financial difficulties of the newly created microenterprises through the use of financial, non-financial and macroeconomic variables.

Leiva *et al.* (2014) studied former employees of a multinational company who created their own companies and their relationship with the entrepreneurial learning obtained while they were employees, finding a negative correlation: no significant differences were found among entrepreneurs for having had work experience in the multinational company. Valencia *et al.* (2014) carried out a review of the theoretical body around entrepreneurial motivation. Fernandez-Serrano and Linan (2014) investigated the cultural values and entrepreneurial activity of countries with different degrees of development, identifying that cultural variables, together with the rate of entrepreneurial activity, clearly distinguish between developing and developed countries, since, the results indicate that in the countries with less development a higher level of entrepreneurship is

generated. According to the researchers, this situation may be the product of a certain combination of cultural values such as belonging and egalitarianism.

Arango (2014) argues that the subject cannot be detached from the bioethical contents of entrepreneurship, since, it is a person who thinks, acts and undertakes. Since, all entrepreneurs start from an idea that will turn into actions such actions from a bioethical perspective, obey basic principles of the market, of law but also of bioethics. Therefore, Garcia wonders: to what extent entrepreneurship and innovation have considered the bioethical component in its content? This consideration is made from a qualitative approach of a documentary type that considered the normative tracking of official pages of 20 Latin American countries and finds that entrepreneurship and bioethics are related in terms of human talent, poverty, the common good and solidarity, the environment, the management of economic resources, bioethical commitment with clients, bioethical limits to innovation and social undertakings focused on the quality of life of people. Similarly, it concludes that there is no explicit mention of bioethics in the standards on entrepreneurship, science, technology and innovation of the Latin American countries studied for which its inclusion is claimed.

Van Hemmen *et al.* (2013) show that high rates of charismatic leadership are positively associated with entrepreneurial activity. Tovar and Victoria (2013) warn of the academic interest that has been generated around what has been called return migration with which an emigrant returns to their place of origin. In particular, the researchers review studies that show the relationship

between return migration and entrepreneurship as this can contribute to the development of the countries of origin, stimulate innovation and encourage the creation of small and medium-sized companies. The investigations detected were of econometric type. For their part, the researchers warn that this phenomenon has been little studied in the country, cataloging the studies carried out as characterizations of those who return.

Orrego (2012) states that the study of entrepreneurship has not been sufficiently explored from a human dimension, so, he proposes bases to approach its study from phenomenology that is from the fundamental notion of the subject to the configuration in experience of interdependence with others. The phenomenological perspective of entrepreneurship, accused by Orrego, involves analyzing the concrete behavior of entrepreneurship which has to do with the world of life that interweaves subjective experience with intersubjective experience. What Orrego (2012) proposes to explain is the correlation between man his reality and the world of things that is the structure of human experience. This implies understanding the entrepreneur immersed in a social world or field of action organized according to the meanings that they have assigned to their surroundings.

Aguilar-Barcelo *et al.* (2011) analyzed the motivations and perspectives related to entrepreneurship with the objective of finding, if these could be linked to the possibility of formalization. The researchers found that the desires to be financed to have as a current goal the expansion of the business to perceive market potential or to pretend to be their own boss, significantly favor formalization. The perceived competition was not relevant to encourage or not the formalization.

On the other hand, Tellez (2010) reviewed of the historical literature on Antioquia colonization with the aim of analyzing it in relation to contemporary aspects such as entrepreneurship and competitiveness. According to the researchers reflection, the characteristics of the competitiveness of the analyzed region as well as the peculiar style of entrepreneurship and management of its naturals have been transformed or "lost" in the words of the researcher.

Enciso-Congote (2010) when reviewing the literature on entrepreneurship, compared the competencies necessary for performance in the work environment and those that characterize the entrepreneurial attitude. In his reflection, the researcher argued that both employment and entrepreneurship detached from their interest in the common good. Likewise, he affirmed that the employment culture, derived from the modern bureaucratic mentality, produced habits contrary to those required to develop

entrepreneurial attitudes. As a consequence, independent visions of the market and society have been built which have been transferred to the academic educational plans. For this reason, the researcher invokes the incorporation of a political dimension in the formative process that favors the awareness of students regarding their commitment to the common good.

CONCLUSION

As can be seen the number of studies related to entrepreneurship is increasing especially during the last 3 years. Likewise, researchers linked to institutions from other countries that publish on entrepreneurship related to Colombia or in alliance with national researchers are identified which links them to the country. The National University of Colombia is the institution that has published the most in this respect, despite the fact that the researcher with the highest related production is from the Autonomous University of Barcelona. On the other hand, regarding the analysis of the production, the presence of diverse disciplines of knowledge is perceived with particular perspectives and objectives that stimulate the proliferation of partial studies, generating at the same time ambivalence around the object of study of entrepreneurship. The lack of consensus around the central object and concepts, added to the absence of a central theoretical model, place the field in a pre-theoretical state.

The understanding of entrepreneurship and entrepreneurs demands an integrative approach that surpasses the monodisciplinary and partial vision, imposed, so far, by each discipline of knowledge. Integrating the individual with the environment and the opportunity in a temporal perspective will undoubtedly enrich the explanatory power of the phenomenon under study. Entrepreneurship is a process that has taken place in the figure of the entrepreneur and this above all is an agent with capacity for action and decision which implies considering it in the temporality and the conjugation of personal and socio-cultural experiences.

Undoubtedly, this gap between individual and environment suggests the space for a new conceptual work that polarized positions and allows a more grounded exploration, both of the conditions or factors of the environment (sociocultural or institutional) and the subjective conditions of the agents which are combined in the entrepreneur's constitution.

Under this integrative approach, the entrepreneur is the central figure of the process, since, they are responsible for creating new value whether it is an innovation or a new organization. Now, the entrepreneur

has some resources which in terms of Bourdieu are not only economic but social, cultural and symbolic which are put at stake for the creation of the new value. Consequently, the entrepreneur is an agent that is part of a field and that, therefore, establishes relationships and works for his position an agent that acts conditioned by a framework of rules and institutions constructed in the interaction with other agents and inscribed in the subjective world of the agent themselves.

Then, approaching the study of entrepreneurship from the integrative and constructivist approach such as the one proposed, implies understanding the way the entrepreneur is constituted. That is identifying the dispositions or habits on which their practices are structured with which in the end it detects and materializes an opportunity. Now, the entrepreneur is located in a social space which does not determine them but allows its appearance and action, so, the entrepreneur must be studied in relation to their social, political, cultural, economic and technological environment. Finally, this new integrative perspective demands the inclusion of the historical dimension which identifies in addition to the trajectories of the entrepreneur, the evolution and emergence of actors, institutions and in general social, cultural, economic and technological conditions which become efficient causes for the detection and consolidation of an opportunity that is concrete in the creation of new value.

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