



EXTENDED ABSTRACT

Title:

On the current literature on cluster entrepreneurship: where are we today and where should the research go in the future?

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Abstract: *(minimum 1500 words)*

Objectives - In recent years author and document citation and co-citation analyses –all of them developed in the fields of *bibliometrics* and *scientometrics*– have been relatively often applied to map the ‘intellectual structure’ of different scientific fields or domains. Also, in the field of management (Zupic & Čater, 2015). Even to the literature on clusters or entrepreneurship (Ferreira, Fernandes & Kraus, 2019; Hota, Subramanian & Narayanamurthy, 2019; García-Lillo et al., 2018, 2017; among others). The technique of *bibliographic coupling* between scientific papers¹ which seeks to identify the various active research fronts in a scientific field or discipline by means of a study about the most recent literature (Kessler, 1963)–and additionally, offers a more realistic portrait of the current state of the art–, it has been a less commonly used analysis technique, though. The present research work precisely has as its purpose to apply this technique to papers on entrepreneurship in clusters and local systems, recently published in a wide variety of journals, thus trying to identify and visualize –through social network analysis (SNA)– the aforementioned research fronts.

In recent years, the phenomenon of entrepreneurship in clusters –or *cluster entrepreneurship* (Hervas Oliver et al., 2017)– has attracted increasing interest among a wide group of scholars and academics in the fields, among others, of *planning development* –many academics, policy makers, and business leaders stress the importance of local conditions for explaining spatial differences in entrepreneurship and economic development–, *strategic management* or the field of *economic geography* facing researchers interested in assessing the local causes and consequences of entrepreneurship

¹ Bibliographic coupling examines the extent to which documents cite the same secondary documents. This implies that the primary, citing document rather than the cited, secondary documents is the focus of analysis (Batistič & van der Laken, 2019; Vogel & Güttel, 2013). The general assumption is that the more the bibliographies of two documents overlap, the stronger their connection is. Bibliographic coupling is different from other bibliometric methods as it does not derive the importance of papers within a scholarly community from their citation count or relations (Verbeek et al., 2002). This prevents an (over)emphasis on mainstream documents that may be popular but insignificant to a fields’ intellectual development. Moreover, because it relies on the references within documents, the results of bibliographic coupling are more stable over time because reference lists do not change over time (in contrast to citation counts and relations). All this makes coupling particularly suitable for detecting current trends and future priorities, as these are commonly covered in the more recent publications, which inherently are not the most cited.



(Zhu et al., 2019; Alvedalen & Boschma, 2017; Kasabov, 2015; Breznitz & Taylor, 2014; Rocha, 2013; Costa & Baptista, 2012; Delgado, Porter & Stern, 2010; among others).

In the current literature on the geography of new firm formation, much attention is given for instance to the role of regional knowledge sources based on the knowledge spillover theory of entrepreneurship² (Bishop, 2019; Kanellopoulos & Fotopoulos, 2019; Stuetzer et al., 2018; Qian, Acs & Stough, 2013; Agarwal, Audretsch & Sarkar, 2010; among others). At the same time, several other studies in the field of *strategic management* show the importance of agglomeration economies for new firm formation or encourage new firm entry (Alcácer & Chung, 2014; Wang, Madhok & Li, 2014) or focus its attention on how linkages among firms and related institutions, which are the key characteristics of the cluster phenomenon, can serve as an important determinant of new firm formation trying to shed light on *how* entrepreneurship occurs in clusters (Capozza, Salomone & Somma, 2018; Wang & Tan, 2018; Wang, Tan & Li, 2018; Artz, Kim & Orazem, 2016; Chatterji, Glaeser & Kerr, 2014; Jennings et al., 2013).

Once the above arguments have been established and given the importance and implications in the economic growth of the phenomenon of *entrepreneurship in clusters* justifies *per se*, in the opinion of the authors of this research work, the need to deepen into the topic analyzed.

Data and Methods – In relation to the data, the ‘source-documents’ utilized to carry out the present research work were retrieved from the Web of Science™ (WoS) Core Collection (CC). The WoS CC is composed of six indices maintained by Clarivate Analytics. In our specific case, and using the aforesaid database –in particular, two of its indexes: the *Social Sciences Citation Index* (SSCI) and the *Emerging Sources Citation Index* (ESCI)–, a total of 146 research papers published in different journals belonging to the areas of *economics, business, management, regional urban planning, geography, environmental studies, development studies, and urban studies* during the period comprised between 2005 and 2019 (until the database consultation date: 30 January, 2019) –were retrieved.

In concern to the methodology, ‘bibliometric methods’ were utilized, as well the social network analysis (SNA).

Results - Particularly, the analysis techniques mentioned above, together with principal components factor analysis, would have allowed us –adopting or following a quantitative method of a deductive nature for that purpose– to identify the most active research areas or “fronts” in the international research devoted to the topic under analysis: the phenomenon of entrepreneurship in clusters.

Conclusions - The authors believe that research developed here provides –through a kind of ‘meta-analysis’– a valuable outlet from which future researchers could benefit, since allow us to identify the research “fronts” which shape the vanguard of knowledge and to know the most important current and future research trends in the area under examination.

Particularly, regarding possible research lines in the coming years, the present study constitutes the starting point for future analyses that should help better understand the scientific domain or field analyzed. The various analyses performed would have also allowed us to make out –in the form of potential opportunities for future research– the existence of research “niches,” “spaces” or areas yet to be covered at all. For example, the opportunity it supposes to continue analyzing the interaction between local systems and industrial clusters and entrepreneurial processes at the firm level or the importance of investigating the relationship between social capital and entrepreneurship in these agglomerations of firms in order to move towards the development of a true theory of social capital that allows to understand the dynamics of *cluster entrepreneurship* (Hervas-Oliver et al., 2017). Social capital sometimes enhances and sometimes obstructs entrepreneurship. As Dana & Light (2012, p. 35) point out, “social capital encourages entrepreneurship when people can access essential resources via social networks, thus conserving their time and money. Membership in multiple social networks also enhances people’s mental capability to perceive opportunity, additionally encouraging their entrepreneurship. Social capital’s ob-

² The prevailing theories of entrepreneurship have typically revolved around the ability of individuals to recognize opportunities and then to act on them by starting new ventures. This has generated a literature asking why entrepreneurial behavior varies across individuals with different characteristics while implicitly holding constant the external context in which the individual finds herself. Thus, where the opportunities come from or the sources of entrepreneurial opportunities are also implicitly taken as given. By contrast, according to the theory of knowledge spillover entrepreneurship, a context with more knowledge will generate more entrepreneurial opportunities while a context with less knowledge will generate fewer opportunities (Audretsch & Keilbach, 2007, p. 1245).



struction occurs when closed social networks exclude prospective entrepreneurs from essential resources, reward safety and mediocrities rather than risk and entrepreneurship, or impose mental conformity upon network participants”.

Keywords: *Entrepreneurship; Clusters and local systems; Bibliometrics; Bibliographic coupling analysis (BCA); Social network analysis (SNA).*

JEL codes: L26, R11, R58, C45

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