Is there conceptual convergence in research on female entrepreneurship? Perspectives from a co-citation analysis (1998–2014)

Objectives

There are various studies defending the existence of an under estimation as to the entrepreneurial potential of women. This latent and undervalued potential bears important implications for innovation, job creation and even extending to the very generation of wealth across the global economy Green et al., 2013; Marlow et al., 2008; Minitti et al., 2005). A notable impediment to boosting the rates of self-employment of women lies within the persistent masculinized social *persona* of the stereotypically portrayed entrepreneur and thus conveying a lack of interconnection between aspects bound up with femininity and entrepreneurship (Ahl, 2006; Eddleston & Powell, 2008; Rudman & Phelan, 2008; Gupta et al., 2009). Thus, gender based differences in entrepreneurial intentions and activities do not stem from any essential biological differences but rather reflect the embedded social disincentives (de Bruin et al., 2007; Gupta et al., 2008). Correspondingly, this research seeks to advance the literature on this issue and fill a gap on gender based entrepreneurship, more specifically female entrepreneurship.

Conceptual convergence frequently gets tagged as a holy grail for research on entrepreneurship (Grégoire et al., 2006). However, there has been little empirical research focusing on the extent and the nature of this convergence. We here center our focus on the co-citation networks emerging out of an initial sample of 122 articles indexed to WoK/ISI between 1998 and 2014. Our results convey evidence as to the different levels of convergence that have characterized research on female entrepreneurship over these years as well as trends in the conceptual themes attracting academic attention over different periods. Furthermore, our study reports evidence on how this field of research increasingly depends upon its own literature and a factor pointing to the unique contribution it makes to the management sciences.

Through recourse to bibliometric techniques, we undertook analysis of the co-citations: a methodology deployed most frequently to define in detail the relationships ongoing within a particular scientific field and to map out the main scientific articles in this same scientific field (Jeong, Song, & Ding, 2014; Small, 1973; Zitt & Bassecoulard, 1994).

Hence, this research seeks to make two specific contributions to the field: i) knowledge on the conceptual map of female entrepreneurship and; ii) the construction of a new set

of approaches that shall aid in perceiving new trends in the field of female entrepreneurship.

Literature review

In recent decades, there has been a proliferation of studies on gender and entrepreneurship with the mass entrance of women into the workplace, the duality of the female related issues such as work-family and workplace based gender disparities (Goldin, 1990). Relatively less attention has gone to the female propensity towards entrepreneurship whilst recent studies have reported a very significant rise in the percentage of companies founded by women (Center for Women's Business Research, 2004). Despite this rise, there are still significant differences when comparing the numbers of new companies founded by men against those by women in which female business owners are at significant statistical disadvantage to their male counterparts (Delmar and Davidsson, 2000; Minniti et al., 2005). There is however widespread recognition that women do play an important role in national development and growth processes (Minniti et al., 2005). There is also a consensual perspective that the launch of new companies represents a fundamental component to economic growth and expansion (Acs et al., 2005). There are also various studies defending that men display stronger entrepreneurial profiles than women (de Bruin et al., 2007; Díaz-García and Jiménez-Moreno, 2010; Gupta et al., 2009). On the other hand, beyond the weighting of genetic characteristics differentiating between men and women, the other core factor influencing such differences stems from cultural based questions (Wilson et al., 2004; Shinnar et al., 2012). Correspondingly, these cultural values serve to shape the gender roles and the social stereotypes in terms of the occupations deemed appropriate for males and for females (Heilman, 1983). This has, in turn, ensured the traditionally male field of entrepreneurship (Ahl, 2006) remains a place where men set up more new companies than women (Marlow, 2002).

Thus, just as women prove important to economic growth and entrepreneurship proves important to this same end, we especially need to understand the factors that either motivate or discourage women from starting new businesses and firms (Langowitz and Minniti, 2007) and just which of the new trends existing in the literature may explain and leverage female entrepreneurship in society.

Methodology

This study deployed co-citation analysis of references both upstream and downstream to the references resulting from research. This involved analysis of co-citations of references both deriving from the research and references researched in accordance with the articles that they respectively cite. These co-citation analytical processes served to identify two networks of articles, one alluding to references about female entrepreneurship and a network containing the references underlying those resulting from the research while we also determined the clustering of references through the appropriate analytical means.

We identically carried out analysis of the authors in terms of their nationality and academic affiliation based upon the number of articles published.

All of these analytical procedures made recourse to the VOSviewer software version 1.5.7 for the construction and visualization of bibliometric maps and correspondingly combining the VOS mapping technique with a strong visual component (van Eck & Waltman, 2009, 2010). The determination of the clusters and the respective networks of references was carried out in accordance with the methodologies previously adopted by van Eck & Noyons (2010) with their proven reliability in terms of mapping data constructed by the Multidimensional Scaling approach (van Eck, Waltman, & Berg, 2010).

Results

The initial sample of 122 references was reduced to those containing only five or more citations, resulting in 27 publications. This set containing those 27 articles with no less than five citations was in turn cited by a total of 323 publications. Based upon these articles, we undertook co-citation analysis of the 27 strong group. The scope of the sample ended up being reduced to 23 articles given that four articles did not contain any co-citation of their peers. The co-citation analysis served to established the respective co-citation network (Figure 1) and group the 23 articles into three clusters (Table 2): i) cluster 1 - Behavior Approach, ii) cluster 2 - Institutional Approach and; iii) cluster 3 - Governance Approach. Hence, we correspondingly verified that whatever the analytical approach made to the various factors influencing female entrepreneurship, this would draw on a combination of these three approaches: the Behavior, the Institutional and the Governance approaches.

As regards the authors included within the 122 article research sample, the results reveal that 238 authors accounted for these publications. Based upon the systematization of the authors with the greatest number of articles as well as the largest number of citations and the average number of citations per article, it proved possible to identify the authors with the greatest number of publications (table 3): Dodescu, A (five publications), Minniti, M (four publications) and Badulescu, A, Brush, CG, Ghani, E, Kerr, WR and O'Connell, SD (three publications). Regarding the sources, we may report that the 122 research based articles were published in 92 journals of which 77 (67.1%) published but a single article on this theme. The journals with the largest number of articles published, citations and article citation averages (table 4) were identified and specifically: Small Business Economics (eleven articles), Entrepreneurship & Regional Development (five articles) and the European Journal of Development Research (five articles). As regards the total number of published article citations, our findings highlighted Small Business Economics (90 citations), Entrepreneurship & Regional Development (80 citations) and Gender Work and Organization (54 citations). As regards the average number of citations per article, the best placed journals are Gender Work and Organization (27 citations per article), American Economic Review (17 citations per article) and Entrepreneurship & Regional Development (16 citations per article).

Implications and Value

Entrepreneurship is a process by which something new and different gets done with the purpose of generating wealth that individuals aggregate into value for society. Entrepreneurship is a specific field, a set of practices capable of guaranteeing the generation of wealth and a better performance to the societies that support and nurture such practices. Their basis is not only knowledge but above all knowing how to do as well as how to be, thus, the way in which people define not only themselves but also the ways in which they interrelate with their surrounding environments. Hence, the models of education prevailing in families, schools and the community in general prove so very important to the fostering of an entrepreneurial society.

Returning now to the two contributions this research project seeks to make, we verify how the conceptual map about female entrepreneurship proves a very recent field of study with the United States accounting for the leading studies. As regards the construction of this new set of approaches enabling the theoretical justification of studying female entrepreneurship, we may report three approaches:

i) *Behavior approach* – this approach features a group of researchers who defend the study of female entrepreneurship through the genetic characteristics making up the differences between the genders alongside the ways in which they influence culture and the environments in which such entrepreneurial practices take place;

ii) *Institutional approach* – here, the authors defend that gender based entrepreneurship tends to prosper in environments in which there is institutional support as well as the appropriate legislation and access to risk capital;

iii) *Governance approach* – in this case, female entrepreneurship tends either to advance or to fail in accordance with the respective prevailing governmental policies.

This conceptual convergence may also enable researchers to set out a theoretically more robust and concrete approach to this field of research. We thus seek to contribute towards the theoretical aggregation of perspectives able to explain the factors driving or hindering gender based entrepreneurship.

Women invest in entrepreneurship for the same reasons as men, hence, striving to sustain themselves and their families and enrich their lives through the career resulting as well as financial independence. We should highlight how female participation in entrepreneurship varies significantly around the world even whilst generally below male levels of participation. Societies differ in their perceptions and customs regarding female paid labor and their participation in business. The various different levels of education and development may also considerably influence the social beliefs prevailing, which generally correlates with the level of acceptance as to women holding careers. However, in some cases, women press ahead with entrepreneurial projects, irrespective of perceptions or simply because their families need the income. Furthermore, the acceptance by society as to children entering into the care of third persons while careers continue, added to the cost and availability of such services, holds considerable weighting in the decisions taken. The female entrepreneur also needs the cooperation and support from investors and financiers, employees, suppliers and consumers. Whenever these factors act as impediments, society loses an opportunity to draw on the entrepreneurial energies of a significant proportion of the population. Female entrepreneurship has grown around the world in recent decades. This phenomenon is also intimately bound up with the increase in the number of women receiving advanced education and training at both the technical and university levels.

Never overlooking economic reality, the approaches made by this research project should serve as a bridge between economies and academic science. This integration of

the social sciences stems from principles of rational action, considering that rationality is built out of and supported by beliefs, cultures and social values. Institutions, networks and histories necessarily hold a fundamental role in integrating these theories. Learning to be entrepreneurial and enjoying entrepreneurship means above all developing leadership skills. Therefore, the efforts and roles of entrepreneurs of both genders require due legitimation by their respective different host societies.

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