
A decade of the *International Journal of Entrepreneurship and Small Business*: a bibliometric analysis

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Abstract: The purpose of this paper is to offer a complete overview of the *International Journal of Entrepreneurship and Small Business (IJESB)*. By using Scopus and Google Scholar databases to analyse the most cited papers and the most prolific authors, the article provides a map of the knowledge produced and disseminated by *IJESB* taking 809 papers into consideration. Furthermore, through keywords correlation analysis, the authors highlight the most relevant topics and the relative importance in terms of number of citations, by analysing how they are clustered together. Finally, the paper shows the past, the present, and the future trends in *IJESB* through a representation of the average emergence date of each keyword.

Keywords: journal knowledge structure; bibliometric; literature; review; keywords; clustering; scholar; Scopus.

Biographical notes: Maria Carmen Laudano is a PhD student in Management and Business Administration from the University of Pisa (IT), and his research is mainly focused on entrepreneurial education, human resource and organisation studies. She has co-authored several papers published in *International Business Research* and *Journal of Management Development*.

Giacomo Marzi is a Lecturer in Strategy and Enterprise at Lincoln International Business School. His research is mainly focused on innovation management, new product development and bibliometric. He has authored and co-authored a number of papers that appeared in journals such as *Scientometrics*, *Business Process Management Journal* and *World Review of Entrepreneurship, Management and Sustainable Development*. His work has also been presented at conferences such as the Academy of Management and the European Academy of Management.

Andrea Caputo is a Reader in Entrepreneurship at the Lincoln International Business School (UK) and a member of the Scientific Committee of the Fondazione Bruno Visentini (Rome, Italy). He received his PhD in Management from the University of Rome Tor Vergata (IT). He has also been a visiting scholar at the University of Queensland Business School (AU), at The George Washington School of Business (USA), and at the University of Pisa (IT). His main research interests are related to negotiation, decision-making, entrepreneurship and strategic management. His work has been widely published in many international journals, including *JBR*, *BPMJ*, *EBR*, *WREMSD*, *IJESB*, and presented at many international conferences, such as the *AOM*, *EURAM*, *BAM* and *IACM*.

1 Introduction

The *International Journal of Entrepreneurship and Small Business (IJESB)* is a double-blind peer-reviewed journal published by the Geneva (CH)-based academic publisher Inderscience. At present, Prof.Dr. Leo Paul Dana is the Editor-in-Chief while Prof. Frank Hoy is the honorary Editor-in-Chief. This journal has published works by Zoltan Acs, David Audretsch, Per Davidsson, Benson Honig, Ivan Light, Donald F. Kuratko, David Smallbone, David Storey, and Roy Thurik among others.

IJESB was first published in 2004, in order to deepen in more detail the broad theme of entrepreneurship, addressed from different perspectives; in fact, papers of this journal refer to different entrepreneurial issues, from parallel or sustainable entrepreneurship to corporate ‘intrapreneurship’, from business ethics to family entrepreneurship.

The journal is a communication channel through which different persons, working in the entrepreneurial field, can learn from each other. The coordination of international researches makes it possible to overcome cultural and national barriers.

Specifically, the promotion and diffusion of entrepreneurial knowledge have been identified as *IJESB*’s main areas of interest, in order to advantage a wide range of universities, research institutions, government agencies and entrepreneurs worldwide.

Through a map of key concepts, the purpose of this paper is to analyse the structure and scientific production of *IJESB*. The authors allow scholars to individuate the most important papers of this journal since its foundation, by underlining the most influential contributions in the field of entrepreneurship (Marzi et al., 2017a). In doing so, we followed a similar methodology used by several relevant studies in the bibliometric field (Appio et al., 2016; Gómez-Núñez et al., 2016; Lin et al., 2016; Marzi et al., 2017c).

Moreover, our aim is to help scholars to have a wide perspective of the topic analysed by the journal. Thus, the present research is intended also as a compass to scholars that would like to better position their paper inside *IJESB* fields of research (Marzi et al., 2017b).

In particular, the keywords analysis was performed on three levels of detail. The first level represents the intensity of each keyword, which is defined as the relevance of each subject within the considered knowledge-base. The second level represents the clusters of keywords and highlights how the subjects join together, creating research fields. Finally, the third level represents the average keywords emergence and is calculated on the basis of the average age of their appearances on papers, i.e. the time when a keyword first appears and is used.

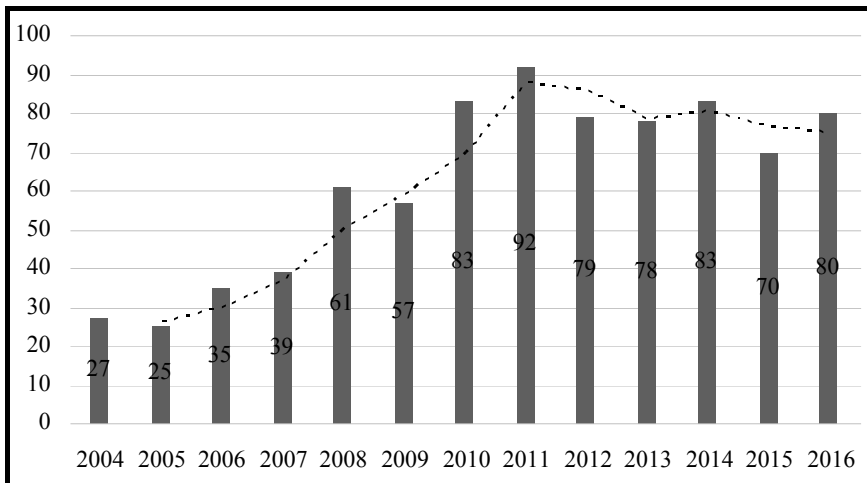
2 Bibliometric journal analysis

Regarding the sample selection, Scopus database has been chosen. The data cover all the publications of the journal beginning with the first available issue in 2004 to last in 2016 included. Data are gathered on 5 January 2017. Data are analysed using Microsoft Excel 2016 and Rapid Miner Studio 7.3 Educational Edition.

Table 1 Number of papers published every year in *IJESB*

<i>Year</i>	<i>Number of papers</i>	<i>Var.</i>
2004	27	---
2005	25	-7%
2006	35	+40%
2007	39	+11%
2008	61	+56%
2009	57	-7%
2010	83	+46%
2011	92	+11%
2012	79	-14%
2013	78	-1%
2014	83	+6%
2015	70	-16%
2016	80	+14%

Figure 1 Graphical evolution of papers published every year in *IJESB*



2.1 Papers overview

Firstly, we extracted the number of papers published on *IJESB* from 2004 to 2012. In particular, Table 1 shows years, NP and percentage variation compared to the previous

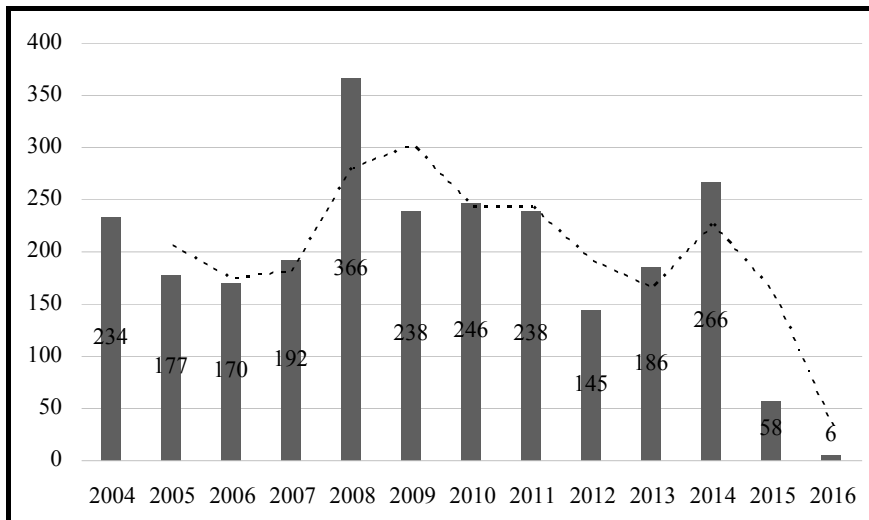
year. The journal, since its foundation, published more than twenty papers per year. However, every year, the number of papers published has increased and the year with the greatest number of contributions has been 2011 with 92 papers. In order to better understand the magnitude of the phenomena, the authors also provide a graphical illustration of the distribution of data collected over the years (Figure 1). As expected, especially during the first years, there was a significant increase in percentage of total contributions.

Concerning the aggregate data, the overall number of citations of the 809 papers published in *IJESB* have been totally cited 2,522 times. According to the data, 2008 is the year with the highest number of citations (366). In general, as regard the trend of citations, we cannot individuate any particular pattern (see Figure 2).

Table 2 Number of citations totalled by papers published on *IJESB*

<i>Years</i>	<i>Citations</i>	<i>Var.</i>
2004	234	---
2005	177	-24%
2006	170	-4%
2007	192	+13%
2008	366	+91%
2009	238	-35%
2010	246	+3%
2011	238	-3%
2012	145	-39%
2013	186	+28%
2014	266	+43%
2015	58	-78%
2016	6	-90%

Figure 2 Graphical representation of citation of papers published every year in *IJESB*



Hence, the last two years have been the worst. Nevertheless, we supposed that most *IJESB* papers published in 2015 and 2016 have not been cited because citing articles are still under review or in press.

Focusing on Scopus content, Table 3 presents the most cited paper with at least 20 citations.

Table 3 Most cited papers (more than 15 cit.)

	<i>Authors</i>	<i>Title</i>	<i>Year</i>	<i>T.C.*</i>
1	Dana, L.P. and Dana, T.E.	Expanding the scope of methodologies used in entrepreneurship research	2005	106
2	Peredo, A.M., Anderson, R.B., Galbraith, C.S., Honig, B. and Dana, L.P.	Towards a theory of indigenous entrepreneurship	2004	80
3	Ramadani, V., Gërguri, S., Dana, L.P. and Tašaminova, T.	Women entrepreneurs in the Republic of Macedonia: waiting for directions	2013	68
4	Smallbone, D. and Welter, F.	Conceptualising entrepreneurship in a transition context	2006	68
5	Fayolle, A.	Evaluation of entrepreneurship education: behaviour performing or intention increasing?	2005	58
6	Ratten, V., Dana, L.P., Han, M. and Welpe, I.	Internationalisation of SMEs: European comparative studies	2007	50
7	McElwee, G.	A taxonomy of entrepreneurial farmers	2008	43
8	Dana, L.P., Etemad, H. and Wright, R.W.	Toward a paradigm of symbiotic entrepreneurship	2008	39
9	Steyaert, C.	Entrepreneurship: in between what?: on the 'frontier' as a discourse of entrepreneurship research	2005	37
10	Hindle, K.	A measurement framework for international entrepreneurship policy research: from impossible index to malleable matrix	2006	32
11	Maritz, A.	New Zealand necessity entrepreneurs	2004	32
12	Ratten, V.	Future research directions for collective entrepreneurship in developing countries: a small and medium-sized enterprise perspective	2014	31
13	Haugen, M.S. and Jostein, V.	Farmers as entrepreneurs: the case of farm-based tourism	2008	30
14	Tudisca, S., Di Trapani, A.M., Donia, E., Sgroi, F. and Testa, R.	Entrepreneurial strategies of Etna wine farms	2014	27
15	Tudisca, S., Di Trapani, A.M., Sgroi, F., Testa, R. and Giamporcaro, G.	Role of alternative food networks in Sicilian farms	2014	26
16	Blenker, P., Dreisler, P., Fæ, M.H. and Kjeldsen, J.	A framework for developing entrepreneurship education in a university context	2008	24

Note: *T.C. refers to SCOPUS total citations.

Table 3 Most cited papers (more than 15 cit.) (continued)

	<i>Authors</i>	<i>Title</i>	<i>Year</i>	<i>T.C.*</i>
17	Gueguen, G.	Coopetition and business ecosystems in the information technology sector: the example of intelligent mobile terminals	2009	24
18	Mueller, S.	Increasing entrepreneurial intention: effective entrepreneurship course characteristics	2011	23
19	Rodrigues, R.G., Raposo, M., Ferreira, J. and Do Paço, A.	Entrepreneurship education and the propensity for business creation: testing a structural model	2009	21
20	Berkes, F. and Adhiraki, T.	Development and conservation: indigenous businesses and the UNDP equator initiative	2006	21
21	Malecki, E.J.	Geographical environments for entrepreneurship	2009	20

Note: *T.C. refers to SCOPUS total citations.

The most cited study totalling 106 citation is ‘Expanding the scope of methodologies used in entrepreneurship research’ (Dana and Dana, 2005). This research stresses the importance of qualitative researches that result useful, to better understand in depth research subjects, especially in the entrepreneurial field. Furthermore, the authors have underlined that this inductive approach is fundamental to verify the validity of quantitative studies and obtain a holistic understanding by considering the whole of the environmental aspects.

The second one, ‘Towards a theory of indigenous entrepreneurship’, written by Peredo and colleagues (2004), has 80 citations and examines the definition of indigenous entrepreneurship and the development of this phenomenon, exploring three specific frameworks.

Furthermore, three more papers exceed fifty citations. In particular, those latter papers are authored by Ramadani et al. (2013), Smallbone and Welter (2006) and Fayolle (2005) (see Table 3).

The latter paper, namely ‘Evaluation of entrepreneurship education: Behaviour performing or intention increasing?’, is authored by Fayolle and it is an important paper published in IJESB, with more than 50 citations. Building on the Theory of Planned Behaviour, the authors of this paper look at new dynamic tools and approaches in assessing entrepreneurial education. Instead, in their research, Smallbone and Welter (2006) have analysed the entrepreneurial phenomenon in transition countries. In particular, through a review of pertinent literature, the authors have elaborated seven key propositions to understand the typical characteristics of entrepreneurship, the environmental context and the process of entrepreneurship in the analysed countries. Thus, entrepreneurship is interpreted as a nonlinear learning process, especially in transition contexts, because of the behavioural change of entrepreneurs who try to adapt to the changes of environmental contexts, creating several feedback loops between individuals and environment.

Finally, Ramadani and colleagues (2013) have studied the phenomenon of female entrepreneurship by analysing data from the Global Entrepreneurship Monitor (GEM). They underline future perspectives and actual problems of women entrepreneurs in Macedonia. After their study, this stream of research has evolved over time and

developed within the journal, which published a number of additional articles (e.g., Caputo et al., 2016; Ettl and Welter, 2010; Hernandez et al., 2012) and special issues on the topic (e.g., Vol. 27, Nos. 2/3).

Also, the paper of Ratten et al. (2007) has 50 citations. This research is about the internationalisation of small and medium-sized enterprises (SMEs) from a broad point of view, by analysing this phenomenon in 27 European countries. First of all, the authors have identified the principal drivers of European SME internationalisation; then, a conceptual model of SME international entrepreneurship has been elaborated by Ratten and colleagues (2007).

Moreover, another significant contribution to *IJESB* is the work of Gueguen (2009): this scholar has reviewed the different strategic behaviours within and between business ecosystems to stress the importance of cooptation.

Especially in recent years, another critical issue analysed in *IJESB* is entrepreneurial education; in this field of research, the study of Blenker et al. (2008) and Rodrigues et al. (2009) have become particularly prominent. Blenker et al. (2008) have underlined the necessity for university systems to structure new pedagogical and educational programs in order to develop students' entrepreneurial attitude and skills. Rodrigues et al. (2009) have focused on the antecedents that impact students' entrepreneurial intention to start up a business. Indeed, building on a structural equation model on a sample of university students, Rodrigues and colleagues highlight the relevant role of personality traits and, mostly, the significant influence of entrepreneurial education.

Finally, also, Mueller (2011) has identified the entrepreneurship course features that increase the students' entrepreneurial intention; building on the theory of planned behaviour, through a quantitative study with ex ante and ex post measurements, the efficient role of specific characteristics of some courses – such as student-oriented teaching – was underlined.

Then, while in Table 3, we show the 16 most cited papers in Scopus, to provide a wider perspective, in the following table (Table 4) we present the ten most cited papers in Google Scholar. Please note that in this table, the number of citations (G.T.C.) represents the Google Scholar's number of citations instead of Scopus's.

Table 4 Google Scholar most cited papers

	<i>Authors</i>	<i>Title</i>	<i>Year</i>	<i>G.T.C.*</i>
1	Peredo, A.M., Anderson, R.B., Galbraith, C.S., Honig, B. and Dana, L.P.	Towards a theory of indigenous entrepreneurship	2004	179
2	Fayolle, A.	Evaluation of entrepreneurship education: behaviour performing or intention increasing?	2005	151
3	Dana, L.P. and Dana, T.E.	Expanding the scope of methodologies used in entrepreneurship research	2005	143
4	Smallbone, D. and Welter, F.	Conceptualising entrepreneurship in a transition context	2006	141
5	Filion, L.J.	Operators and visionaries: differences in the entrepreneurial and managerial systems of two types of entrepreneurs	2004	86
6	McElwee, G.	A taxonomy of entrepreneurial farmers	2008	82

Note: * G.T.C. refers to Google Scholar total citations.

Table 4 Google Scholar most cited papers (continued)

	<i>Authors</i>	<i>Title</i>	<i>Year</i>	<i>G.T.C.*</i>
7	Mueller, S.	Increasing entrepreneurial intention: effective entrepreneurship course characteristics	2011	75
8	Ramadani, V., Gërguri, S., Dana, L.P. and Tašaminova, T.	Women entrepreneurs in the Republic of Macedonia: waiting for directions	2013	70
9	Haugen, M.S. and Vik, J.	Farmers as entrepreneurs: the case of farm-based tourism	2008	69
10	Maritz, A.	New Zealand necessity entrepreneurs	2004	66
11	Hindle, K.	A measurement framework for international entrepreneurship policy research: from impossible index to malleable matrix	2006	65
12	Berkes, F. and Adhikari, T.	Development and conservation: indigenous businesses and the UNDP equator initiative	2006	63
13	Izquierdo, E. and Buelens, M.	Competing models of entrepreneurial intentions: the influence of entrepreneurial self-efficacy and attitudes	2011	62
14	Steyaert, C.	Entrepreneurship: in between what? On the 'frontier' as a discourse of entrepreneurship research	2005	60
15	Gueguen, G.	Coopetition and business ecosystems in the information technology sector: the example of intelligent mobile terminals	2009	57
16	Tata, J. and Prasad, S.	Social capital, collaborative exchange and microenterprise performance: the role of gender	2008	57

Note: * G.T.C. refers to Google Scholar total citations.

Several papers from Table 3 are also in Table 4, thus, we restrict our description only to the researches not yet analysed.

First, there are two publications with more than 140 citations: 'Expanding the scope of methodologies used in entrepreneurship research' (Dana and Dana, 2005) and 'Conceptualising entrepreneurship in a transition context' (Smallbone and Welter, 2006). The former study stresses the importance of qualitative researches that result useful, to better understand in depth research subjects, especially in the entrepreneurial field. Furthermore, the authors have underlined that this inductive approach is fundamental to verify the validity of quantitative studies and obtain a holistic understanding by considering the whole of the environmental aspects.

Instead, in their research, Smallbone and Welter (2006) have analysed the entrepreneurial phenomenon in transition countries. In particular, through a review of pertinent literature, the authors have elaborated seven key propositions to understand the typical characteristics of entrepreneurship, the environmental context and the process of entrepreneurship in the analysed countries. Thus, entrepreneurship is interpreted as a nonlinear learning process, especially in transition contexts, because of the behavioural

change of entrepreneurs who try to adapt to the changes of environmental contexts, creating several feedback loops between individuals and environment.

The distinctive features of entrepreneurs have been analysed also by Filion (2004) in “Operators and visionaries: differences in the entrepreneurial and managerial systems of two types of entrepreneurs”; in fact, this paper examines the entrepreneurs’ behaviours from the perspective of the four basic elements presented as the classical approach to managerial activities, such as plan, organise, command and control. This is an empirical study with a sample of 116 entrepreneurs, divided into two groups; the first is composed of 42 entrepreneurs, classified as operators, and the second one of the remaining entrepreneurs defined visionaries. The principal difference between these two types of entrepreneurs regards the development of the strategic vision. For the visionaries, the vision is the vital basic condition of social systems, while for the operators, this is only a task to be accomplished. Inevitably, this choice influences how entrepreneurs organise their activity systems, such as the human resources management.

Moreover, the empirical research of Haugen and Vik (2008) “Farmers as entrepreneurs: the case of farm-based tourism” recognises the characteristics of a specific type of farm-based tourism entrepreneurs. This paper analyses the impact of the additional activities associated with farm-based tourism on a representative sample of 1,677 farmers. Indeed, a survey conducted in 2006 has allowed to collect an important dataset, which combines sociocultural data with economic data on farm-based tourism. The conclusion of this study underlines how the tourism entrepreneurship is vital for the farm-based economies; the entrepreneurial farmers, that in general show a higher level of education compared to other farmers, contribute to the growth of the sector, by planning and sustaining their activities.

Furthermore, there are two other papers with more than 60 citations, i.e., “Development and conservation: indigenous businesses and the UNDP Equator Initiative” (Berkes and Adhikari, 2006), and “Competing models of entrepreneurial intentions: the influence of entrepreneurial self-efficacy and attitudes” (Izquierdo and Buelens, 2011), both linked to themes that are particularly frequent in publications in *IJSEB*, as underlined in the following paragraphs.

Specifically, based on 42 indigenous cases in the UNDP Equator Initiative database, Berkes and Adhikari (2006) have studied the phenomenon of indigenous entrepreneurship, its specific resources and benefits produced. The principal contribution of this research is the analysis of the nature of networks that result extensive and pervasive, even if these partnerships rarely involve joint ventures with non-indigenous businesses.

Still, Izquierdo and Buelens (2011) in their paper have elaborated two models to examine the impact of self-efficacy and attitude on entrepreneurial intent. These two models are based on two different theories but the empirical evidences consistently assess the role of entrepreneurial education in improving entrepreneurial intent, through targeted actions on attitude and self-efficacy.

Finally, another important publication is “Social capital, collaborative exchange and microenterprise performance: the role of gender” (Tata and Prasad, 2008) that has more than 55 citations. Given that the significant influence of social capital on success or failure of microenterprises and the relevance of the role of women in the creation of new microenterprises, the authors have decided to analyse the role of gender in the micro

entrepreneurial social capital context. Specifically, the conceptual model emphasises the relationships between gender, social capital configuration, performance, and collaborative exchange in the realm of microenterprises; the results assess important influences between these factors.

Table 5 Most prolific authors

#	Name	N.P.*	#	Name	N.P.*
1	Dana, L.P.	39	34	Ashourizadeh, S.	3
2	Williams, C.C.	12	35	Bent, R.	3
3	Kraus, S.	9	36	Bradley, R.T.	3
4	Fayolle, A.	8	37	Chand, A.	3
5	Schøtt, T.	8	38	Cheraghi, M.	3
6	Yazdanfar, D.	8	39	Clausen, T.H.	3
7	Rezaei, S.	7	40	Di Trapani, A.M.	3
8	Anderson, R.B.	6	41	Dowling, M.	3
9	Gill, A.	6	42	Ferreira, J.	3
10	Ratten, V.	6	43	Filion, L.J.	3
11	Frederick, H.H.	5	44	Gillin, M.	3
12	Henschel, T.	5	45	Groen, A.	3
13	Lasch, F.	5	46	Gundolf, K.	3
14	Le Roy, F.	5	47	Horodnic, I.A.	3
15	Masuda, T.	5	48	Jaouen, A.	3
16	McElwee, G.	5	49	Kamei, K.	3
17	Singh, G.	5	50	Märk, S.	3
18	Biger, N.	4	51	Nadin, S.	3
19	Breitenecker, R.J.	4	52	Nakara, W.A.	3
20	Dana, T.E.	4	53	Ramadani, V.	3
21	Gurau, C.	4	54	Reavley, M.A.	3
22	Ismail, K.	4	55	Roessingh, C.	3
23	Johansen, V.	4	56	Salamzadeh, A.	3
24	Leitão, J.	4	57	Schwarz, E.J.	3
25	Madichie, N.O.	4	58	Sgroi, F.	3
26	Pollard, D.	4	59	Testa, R.	3
27	Roth, S.	4	60	Tudisca, S.	3
28	Seaman, C.	4	61	Uhlaner, L.	3
29	Smith, R.	4	62	Ulijn, J.	3
30	Torri, M.C.	4	63	Vang, J.	3
31	Vignali, C.	4	64	Yami, S.	3
32	Vrontis, D.	4	65	Zucchella, A.	3
33	Wilton, W.	4			

Note: *N.P. refers to SCOPUS number of papers.

2.2 *Author's overview*

In the present research, we also analysed the authors linked to *IJESB*. Table 5 shows the most prolific authors (including co-authorship) with at least three papers. From our analysis Prof. Leo Paul Dana, currently Professor of Entrepreneurship at Montpellier Business School emerged as the most prolific author with 39 papers published in this journal since its foundation; from his works, indigenous and international entrepreneurship emerges as the author's principal field of research.

The second author who has more than ten published papers in *IJESB* is Colin C. Williams, Professor of Public Policy at Sheffield University Management School; the interests of this scholar especially regard the informal, shadow and hidden economy.

The third author with a major number of papers published in this journal is Professor/Chairholder Sasha Kraus, at University of Liechtenstein; a large part of his publication is about SMEs strategies and entrepreneurial orientation.

Then, we can cite three other important authors who have written eight papers in *IJESB*: Fayolle, Schøtt and Yazdanfar. Professor Alain Fayolle is the Director of Research Centre, EMLyon Business School, and his studies are focused on entrepreneurship; in particular, this author has analysed the micro-mechanisms of entrepreneurial intention. Thomas Schøtt is a Professor of Entrepreneurship, Organisation and Social Network Analysis at University of Southern Denmark while Darush Yazdanfar is an Assistant Professor of Corporate Finance in the Department of Social Sciences at Mid Sweden University. His primary interests include entrepreneurial and corporate finance; indeed, his publications in *IJESB* are about capital structure and its impact on the financing of enterprises.

Furthermore, Shahamak Rezaei emerged as another important author for *IJESB*; frequently he is co-author of Prof. Leo Paul Dana and his principal field of research is immigrant and ethnic entrepreneurship.

Finally, we can cite Anderson, Gill and Ratten who have written more than five papers in *IJESB*. According to the principal themes of this journal, numerous publications of Prof. Robert B. Anderson concern indigenous entrepreneurship. Amarjit Gill is a fulltime faculty member at the University of Saskatchewan and his research interests include corporate finance and small business management. Instead, Vanessa Ratten is an Associate Professor of Entrepreneurship and Innovation, and most of her works regard knowledge development and technological innovations.

2.3 *Institutions and countries overview*

Regarding the main institutions which have a major number of published papers in *IJESB*, the most important University is the University of Canterbury, totalling 23 papers. Then, as emerged from Table 6, other academic institutions which have contributed with more than ten papers published in *IJESB* are Groupe Sup de Co Montpellier Business School, Syddansk Universitet, Leeds Beckett University, University of Sheffield and UNITEC Institute of Technology.

Consequently, in Table 7, we show that the majority of contributions to *IJESB* are from France.

Coherently with the scope of the journal, an elevated number of recent contributions come from authors from emerging economies such as Iran, Israel and Malaysia, allowing researchers from those countries to publish their papers in an appreciated international journal.

Table 6 Most prolific institution (with more than two papers)

#	<i>Institution</i>	<i>N.P.*</i>	#	<i>Institution</i>	<i>N.P.*</i>
1	Groupe Sup de Co Montpellier Business School – GSCM-Montpellier Business School	26	51	Auckland University of Technology	4
2	University of Canterbury	23	52	Universitat Siegen	4
3	SyddanskUniversitet	16	53	Ludwig-Maximilians-UniversitatMunchen	4
4	Leeds Beckett University	16	54	Friedrich Schiller Universitat Jena	4
5	University of Sheffield	14	55	InstitutTeknologi Bandung	4
6	UNITEC Institute of Technology	12	56	Queen Margaret University	4
7	GSCM-Montpellier Business School	10	57	Universite Grenoble Alpes	4
8	University of the South Pacific	10	58	EMLYON Business School	3
9	Universidade da Beira Interior	9	59	EDHEC Business School	3
10	Universite Montpellier 1	9	60	Montpellier Research in Management	3
11	University of Tehran	9	61	INSEEC Business School	3
12	Mid Sweden University, Ostersund	9	62	Wirtschaftsuniversitat Wien	3
13	Robert Gordon University	8	63	Loughborough University	3
14	Universite de Strasbourg	8	64	University of Abertay Dundee	3
15	University of Zagreb	7	65	McGill University	3
16	VrijeUniversiteit Amsterdam	7	66	University Utara Malaysia	3
17	University of Twente	7	67	University of Waikato	3
18	Roskilde Universitetscenter	7	68	Christchurch College of Education	3
19	Universitat St. Gallen	7	69	Tecnologico de Monterrey	3
20	University of Regina	7	70	Utrecht University	3
21	JyvaskylanYliopisto	7	71	University of Bradford	3
22	Massey University	6	72	Linkopingsuniversitet	3
23	University of Innsbruck	6	73	University of Adelaide	3
24	University of Liechtenstein	5	74	University of Limerick	3
25	Nottingham Trent University	5	75	Queensland University of Technology QUT	3
26	La Trobe University	5	76	Rollins College	3
27	Rijksuniversiteit Groningen	5	77	University of Windsor	3
28	HokuseiGakuen University	5	78	Universited'Angers	3
29	Aalborg Universitet	5	79	OulunYliopisto	3
30	NordlandsForskning	5	80	EIM Group	3
31	Open University of the Netherlands	5	81	UniversitateaAlexandruIoanCuza	3
32	University of Lincoln	5	82	Universita degli Studi di Pavia	3

Note: * N.P. refers to SCOPUS number of papers.

Table 6 Most prolific institution (with more than two papers) (continued)

#	<i>Institution</i>	<i>N.P.*</i>	#	<i>Institution</i>	<i>N.P.*</i>
33	Swinburne University of Technology	5	83	Carleton University	3
34	Universite Concordia	5	84	Universita degli Studi di Palermo	3
35	Jonkoping International Business School	5	85	University of South Wales	3
36	University of Liechtenstein	4	86	Macquarie University	3
37	Montpellier Business School	4	87	Ulster University	3
38	Carmel Academic Center	4	88	UniversitiTeknologi Malaysia	3
39	ESC Rennes School of Business	4	89	Indiana University	3
40	Instituto Superior Tecnico	4	90	Universite du Quebec a Trois-Rivieres	3
41	Universita degli Studi di Bergamo	4	91	Handelshogskolani Stockholm	3
42	VaasanYliopisto	4	92	Dublin City University	3
43	Multimedia University	4	93	University of Nebraska - Lincoln	3
44	Indian Institute of Science	4	94	LundsUniversitet	3
45	Ostlandsforskning	4	95	Aberystwyth University	3
46	Hogskolan Vast	4	96	Universitat Regensburg	3
47	University of Saskatchewan	4	97	University of Queensland	3
48	Alpen-Adria-Universität Klagenfurt	4	98	Saint Petersburg State University	3
49	HogskolaniHalmstad	4	99	TechnischeUniversiteit Eindhoven	3
50	Universitat Autònoma de Barcelona	4	100	Intercollege Nicosia	3
			100	Intercollege Nicosia	3

Note: * N.P. refers to SCOPUS number of papers.

Table 7 Most prolific countries (with more than two papers)

#	<i>Country</i>	<i>N.P.</i>	#	<i>Country</i>	<i>N.P.</i>
1	France	128	28	Israel	10
2	UK	99	29	Indonesia	8
3	USA	93	30	Cyprus	7
4	New Zealand	64	31	South Africa	6
5	Germany	59	32	Ghana	5
6	Canada	45	33	Slovenia	5
7	Sweden	42	34	United Arab Emirates	5
8	Netherlands	38	35	Czech Republic	4
9	Australia	35	36	Greece	4
10	Italy	29	37	Kenya	4
11	Denmark	28	38	Macedonia	4

Note: *N.P. refers to SCOPUS number of papers.

Table 7 Most prolific countries (with more than two papers) (continued)

#	Country	N.P.	#	Country	N.P.
12	Finland	24	39	Mexico	4
13	Malaysia	23	40	Nigeria	4
14	India	19	41	Oman	4
15	Portugal	18	42	Russian Federation	4
16	Norway	17	43	Saudi Arabia	4
17	Spain	17	44	Tunisia	4
18	Iran	16	45	Argentina	3
19	Austria	15	46	Bangladesh	3
20	Switzerland	15	47	China	3
21	Brazil	12	48	Ecuador	3
22	Japan	12	49	Egypt	3
23	Ireland	11	50	Pakistan	3
24	Liechtenstein	11	51	Romania	3
25	Belgium	10	52	Taiwan	3
26	Croatia	10	53	Turkey	3
27	Fiji	10			

Note: *N.P. refers to SCOPUS number of papers.

3 Keyword analysis

3.1 Method

Having presented the number of papers published in *IJESB* and the authors' and countries' overviews, we now move to the analysis of the keywords. Through the use of the text-mining routine VOSviewer 1.6.5 (Van Eck and Waltman, 2010), we provide a visualisation of the research streams developed by this extensive number of papers, a methodology that has been validated in recent bibliometric studies in the field of Marzi et al. (2017a, 2017b)

The text-mining routine builds a map, where the *terms' distance* is interpreted as indication of the relatedness among the different keywords.

The smaller the distance occurs between two or more terms, the stronger the terms are related to each other. To determine the terms' relatedness, we analysed the co-occurrences in the publications (Van Eck et al., 2010).

Following the terms analysis, the next step involved the deployment of a cluster analysis. The cluster analysis is based on the measurement of intra- and inter-cluster diversity with the aim of better understanding the degree of knowledge-based diversity within each cluster (Van Eck and Waltman, 2014). Finally, in order to understand to what extent a given cluster can be considered different than another one the script performs a t-test. It is used to examine the differences in their diversity (Van Eck and Waltman, 2009; Waltman et al., 2010). For a detailed mathematical explanation about VOS technique and VOSviewer please see Van Eck and Waltman (2007, 2009, 2010).

Specifically, regarding this paper, the keyword analysis is performed by analysing the keywords provided by the authors which appear at least five times in the dataset (i.e., occurrences – OC). To ensure data reliability, we performed a manual selection and, as a result, from a total of 146 keywords, 80 were considered suitable for the purpose of the study.

We filtered the keywords that could not explain anything by themselves (i.e., ‘method’, ‘age’ or ‘space’) following Ding et al. (2014).

Figure 3 Keywords density visualisation (see online version for colours)

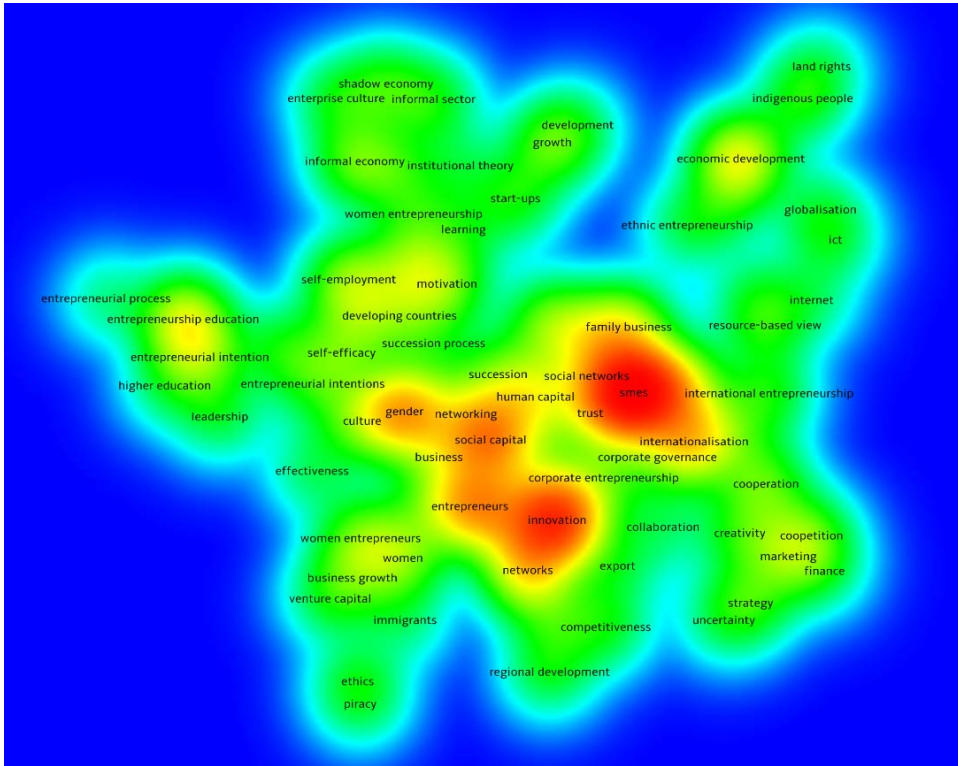


Table 8 Keywords density in detail

#	<i>Keyword</i>	<i>Occ.</i>	#	<i>Keyword</i>	<i>Occ.</i>
1	SMEs	70	41	Enterprise culture	8
2	Innovation	51	42	Regional development	8
3	Gender	31	43	Resource-based view	8
4	Social capital	31	44	Self-efficacy	8
5	Entrepreneurs	29	45	Theory of planned behaviour	8
6	Economic development	24	46	Developing countries	7
7	Internationalisation	24	47	Entrepreneurial intentions	7
8	Networks	23	48	Leadership	7

Note: *Occ. refers to number of occurrences.

Table 8 Keywords density in detail (continued)

#	<i>Keyword</i>	<i>Occ.</i>	#	<i>Keyword</i>	<i>Occ.</i>
9	Entrepreneurship Education	21	49	Local development	7
10	Entrepreneurial orientation	20	50	Public policy	7
11	Family business	17	51	Start-up	7
12	Human capital	16	52	Venture capital	7
13	Self-employment	15	53	Women entrepreneurship	7
14	Opportunity recognition	13	54	Business growth	6
15	Performance	13	55	Effectiveness	6
16	Women	13	56	Ethics	6
17	Cooperation	12	57	Ethnic entrepreneurship	6
18	Entrepreneurial intention	12	58	Export	6
19	Growth	12	59	Globalisation	6
20	Informal economy	12	60	ICT	6
21	Motivation	12	61	Innovativeness	6
22	Social entrepreneurship	12	62	Collaboration	5
23	Women entrepreneurs	12	63	Community	5
24	Culture	11	64	Corporate governance	5
25	Global entrepreneurship monitor	11	65	Development	5
26	Coopetition	10	66	Entrepreneurial process	5
27	Marketing	10	67	Finance	5
28	Networking	10	68	Higher education	5
29	Trust	10	69	Immigrants	5
30	Corporate entrepreneurship	9	70	Indigenous entrepreneurship	5
31	Indigenous people	9	71	Institutional theory	5
32	Informal sector	9	72	Internet	5
33	International entrepreneurship	9	73	Land rights	5
34	Shadow economy	9	74	Learning	5
35	Start-ups	9	75	Market orientation	5
36	Strategy	9	76	Piracy	5
37	Succession	9	77	Social networks	5
38	Business	8	78	Succession process	5
39	Competitiveness	8	79	Uncertainty	5
40	Creativity	8	80	Value creation	5

In the next figures, we show the results of the analyses. In Figure 3 and Table 8, we show the density of the keywords. Figure 4 and Table 9, respectively, show and explain the aggregation of the keywords per cluster. Finally, Figure 5 and Table 10, shows the average emergence of the analysed keywords.

Figure 4 Keywords clustering (see online version for colours)

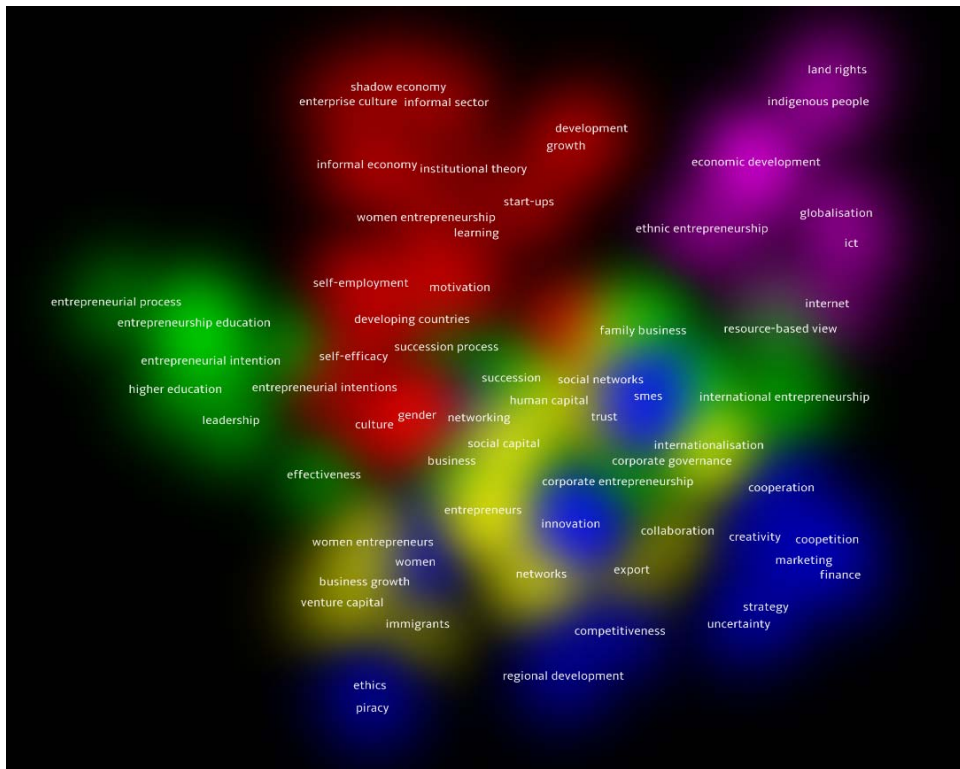


Table 9 Keywords distribution legend

<i>Cluster</i>	<i>Keywords</i>
Red (1)	Culture, developing countries, development, enterprise culture, entrepreneurial intentions, gender, growth, informal economy, informal sector, institutional theory, learning, motivation, opportunity recognition, public policy, self-efficacy, self-employment, shadow economy, social entrepreneurship, start-ups, women entrepreneurship
Green (2)	Business, corporate entrepreneurship, corporate governance, effectiveness, entrepreneurial intention, entrepreneurial orientation, entrepreneurial process, entrepreneurship education, family business, higher education, innovativeness, international entrepreneurship, leadership, market orientation, resource-based view, succession, succession process, theory of planned behaviour
Blue (3)	Community, competitiveness, cooperation, cooptition, creativity, ethics, finance, innovation, local development, marketing, networking, piracy, regional development, SMEs, strategy, uncertainty, women
Yellow (4)	Business growth, collaboration, entrepreneurs, export, global entrepreneurship monitor, human capital, immigrants, internationalisation, networks, performance, social capital, social networks, trust, venture capital, women entrepreneurs
Purple (5)	Economic development, ethnic entrepreneurship, globalisation, ict, indigenous entrepreneurship, indigenous people, internet, land rights, value creation

Figure 5 Average keywords emergence (see online version for colours)

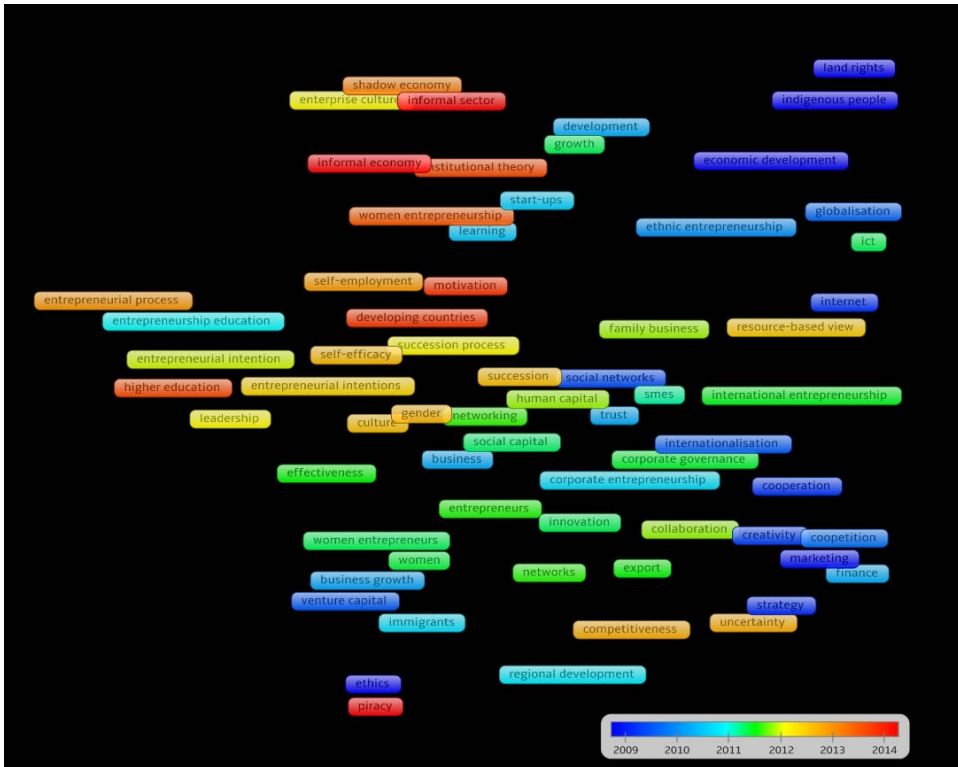


Table 10 Detail of keywords' average emergence year

#	Keyword	AEY	#	Keyword	AEY
1	Informal economy	2014.00	41	International entrepreneurship	2011.44
2	Informal sector	2014.00	42	Corporate governance	2011.40
3	Piracy	2014.00	43	Women	2011.38
4	Start-up	2014.00	44	Growth	2011.33
5	Public policy	2013.86	45	ICT	2011.33
6	Motivation	2013.58	46	Innovation	2011.33
7	Developing countries	2013.57	47	Women entrepreneurs	2011.33
8	Higher education	2013.40	48	Social capital	2011.29
9	Institutional theory	2013.40	49	SMEs	2011.17
10	Women entrepreneurship	2013.29	50	Opportunity recognition	2011.08
11	Local development	2013.14	51	Entrepreneurship education	2011.00
12	Market orientation	2013.00	52	Regional development	2010.88
13	Shadow economy	2013.00	53	Immigrants	2010.80
14	Social entrepreneurship	2013.00	54	Corporate entrepreneurship	2010.78

Note: *AEY refers to the keyword's average emergence year.

Table 10 Detail of keywords' average emergence year (continued)

#	Keyword	AEY	#	Keyword	AEY
15	Entrepreneurial process	2012.80	55	Start-ups	2010.67
16	Self-employment	2012.73	56	Community	2010.60
17	Competitiveness	2012.62	57	Learning	2010.60
18	Uncertainty	2012.60	58	Development	2010.40
19	Gender	2012.55	59	Finance	2010.40
20	Self-efficacy	2012.50	60	Trust	2010.40
21	Culture	2012.45	61	Business	2010.38
22	Succession	2012.44	62	Theory of planned behaviour	2010.38
23	Entrepreneurial orientation	2012.40	63	Business growth	2010.33
24	Resource-based view	2012.38	64	Ethnic entrepreneurship	2010.17
25	Entrepreneurial intentions	2012.29	65	Indigenous entrepreneurship	2010.00
26	Enterprise culture	2012.00	66	Coopetition	2009.90
27	Leadership	2012.00	67	Globalisation	2009.83
28	Succession process	2012.00	68	Internationalisation	2009.75
29	Entrepreneurial intention	2011.92	69	Venture capital	2009.71
30	Family business	2011.82	70	Social networks	2009.60
31	Global entrepreneurship monitor	2011.82	71	Creativity	2009.50
32	Human capital	2011.81	72	Cooperation	2009.42
33	Collaboration	2011.80	73	Internet	2009.40
34	Innovativeness	2011.67	74	Value creation	2009.40
35	Performance	2011.62	75	Strategy	2009.33
36	Networking	2011.60	76	Marketing	2009.10
37	Networks	2011.57	77	Economic development	2008.92
38	Entrepreneurs	2011.55	78	Ethics	2008.50
39	Effectiveness	2011.50	79	Indigenous people	2006.22
40	Export	2011.50	80	Land rights	2006.00

Note: *AEY refers to the keyword's average emergence year.

3.2 Keywords density overview

Table 8 shows that SMEs (70 occurrences) and Innovation (51 occurrences) represent the primary keywords that we can find in *IJESB* papers.

Apart from these two keywords, as shown in Figure 3, we can underline other additional focal points around the keywords Gender, Social Capital and Entrepreneurship. Furthermore, from our analysis it emerges that some important keywords are mostly used in conjunction with the aforementioned focal points, such as human capital (Uhlener et al., 2011), social network and networking (Nakara et al., 2012), corporate governance

and corporate entrepreneurship (Collin and Smith, 2006). If we consider the principal aims of *IJESB*, this phenomenon is obviously comprehensible.

Regarding publication trends in recent years, we can note that there has been a growing number of contributions in *IJESB* concerning entrepreneurial intention (Al-Jubari et al., 2017; Hadjimanolis, 2016) and female entrepreneurship (Orser and Riding, 2016; Ratten, 2016).

3.3 *Keywords cluster overview*

In the following section, we develop a cluster image to recognise how different streams of research interact with each other in *IJESB*. In particular, thanks to cluster analysis, we can represent the degree of diversity of investigated knowledge according to each cluster. When publications or keywords belong to the same cluster they are strongly linked together. In other words, any given cluster represents a stream of research or a particular topic based on the similarity of the keywords used to categorise each article. Furthermore, we can observe that some themes belong to a particular cluster but they are in the proximity to another one. This implies that, despite the fact that publications are objectively linked to each other, they do not have connections strong enough to belong to the same cluster. This is generally due to the unfeasibility to show the VOS output with the third dimension (Van Eck and Waltman, 2010).

The red cluster (1) represents the area of entrepreneurship for growth. In particular, Todorovic and McNaughton (2007) have written one of the most important paper in this cluster; it proposes an innovative framework that interprets visionary entrepreneurship as a principal driver in developing economies to enhance the role of culture and resource-availability. The paper clearly shows that the legal and capital infrastructures are not sufficient to develop entrepreneurship in a country; in this research, it clearly emerges how the success of entrepreneurial activity is affected by both the local resource availability and the cultural environment.

The green cluster (2) takes corporate and family entrepreneurship into consideration in a wider perspective. In this case, one of the most recent paper is written by Mustafa (2015). This research provides some suggestions as to how corporate entrepreneurship might be sustained within medium-sized family firms. In particular, a qualitative in-depth case study is conducted and underlined that the organisational support factors for corporate entrepreneurship, which generally emerged from the existing literature, may not be sufficient in Malaysian family firms. From this single case study emerges the importance of family member involvement and open communication.

The blue cluster (3) is connected to the area of creativity and competitiveness. One of the most representative paper in this area is the one written by Kariv (2010); this research aims at analysing the gender differences among relationships between management strategies and business performance in a sample of 233 entrepreneurs, focusing especially on creativity and innovation (C&I). The findings of this study surprisingly suggest that the role of gender was not relevant in affecting business performance, thus contradicting several previous studies in this research area. Another example of a paper in this cluster is the important study of Cubico and colleagues (2010) about the description of entrepreneurial profile, through a specific entrepreneurial aptitude test (TAI); in different fields of applications, the specific items of this test discriminate between entrepreneurs and non-entrepreneurs. For this reason, regarding academic and training aspects, the

identification of various entrepreneurial attitudes and competences is important to create an environment where students can develop an entrepreneurial culture.

The yellow cluster (4) takes global entrepreneurship into consideration. In particular, we can find different researches in this area that use the methodology of GEM, for example Maritz (2004) or Malecki (2009). Specifically, the latter paper clearly shows the irregular geographical distribution of creation of new firms.

Indeed, entrepreneurs, societies and local environments are strongly correlated to each other and the cultural and social influences are critical success factors for the process of firms' formation and economic growth.

The purple cluster (5) regards topics related to the yellow one and this area refers to the role of entrepreneurship in developing.

This group includes not only the most cited paper of *IJESB* written by Peredo et al. (2004) about indigenous entrepreneurship, but also other important studies, for example Haugh (2005). In particular, this research stresses the challenges for social enterprises. Through three case study examples, the author explains the wider contribution of social enterprises to local and regional development by promoting knowledge creation, aggregation and local and regional economic growth.

3.4 *Keywords average emergence*

With the present level of analysis, we provide the average emergence of keywords expressed throughout years, based on the same keywords dataset of previous analysis. In Figure 5, linked to Table 10, we have structured the label colours which represent the average age of keywords. The keywords taken into consideration are not older than 2,006 because we believe that eight years of data visualisation are useful to individuate the recent field evolution.

Particularly, the colour coldness is related to the keywords average; if colours are warm (yellow, orange, and red) the keywords are considered more recent while if the colours are cold (blue, light blue, green) they are associated with more outdated keywords.

In detail, from Figure 5, we can deduce that it is possible to divide the data into three groups:

- 1 blue and light blue: from 2006 to 2010 – old cluster
- 2 green and yellow: from 2011 to first months of 2012 – mid cluster
- 3 orange and red: from the last part of 2012 forward – recent cluster.

Consequently, it is possible to assemble together the keywords in the old cluster (blue and light blue) which are associated to specific forms of entrepreneurship (such as the indigenous and ethnic) or corporate strategies (i.e., internationalisation or globalisation).

In the old cluster (blue and light blue), in addition to important papers cited in the previous paragraphs, such as Peredo et al. (2004) or Ratten et al. (2007), we can also find Loughnane (2009). This scholar intriguingly highlights that it is not essential for organisations to be innovative in order to be highly successful. Indeed, in modern organisations, the real problem is not the lack of creativity but the shortage of management skills necessary to take new ideas through to value creation.

If we analyse the mid cluster (green and yellow) it is possible to note keywords, including entrepreneurial intentions, family business, women entrepreneurs or enterprise

culture, etc. In this group, especially Ahmad and Xavier (2011), who analyse the factors that influence Yemeni women entrepreneurs in various businesses emerge. From this qualitative research, it appears that several reasons drive Yemeni women to become entrepreneurs, such as the need for independence, the desire to improve their standard of living, the need of achievement and control over their personal life.

Finally, considering the recent cluster (orange and red), we can understand the future trends of *IJESB*. Thus, the orange or red keywords denote a switch to typical modern management and economic topics such as shadow and informal economy, informal sector, and social entrepreneurship. For example, we can consider the recent paper of Williams and Martinez (2014), that aims at providing, for the first time, an estimation of the proportion of businesses which start new trading in informal economy in order to test-trade their business. These findings cannot be generalised because the analysis refers to small sample in just one country; nevertheless, this paper is important to stimulate further researches on nascent entrepreneurship. However, informal economy and informal sector are the streams of research of several papers in 2016, underlining the importance of this cluster analysis to individuate the future direction of the entrepreneurial and management literature. Specifically, about the informal economy, we can cite Sallah and Williams (2016) or Slutsky et al. (2016) that, respectively, studied the role of the informal economy and tendencies of small businesses, both in developing countries, such as Sub-Saharan Africa or Arabia. Instead, regarding the theme of the informal sector, we can consider Williams and Horodnic (2016) that highlighted the necessity to overcome the traditional marginalisation thesis to a broad analysis of the phenomenon of entrepreneurship in the informal sector.

4 Conclusions

Regarding the methodology, the present research contributes to the scientific community with a respected example of a bibliometric approach, even if it has the typical limitation of a bibliometric study. In general, even if they have only offered a wider perspective on the present field of study, the authors have taken a huge amount of papers into consideration; the significant number of researches considered do not allow to deepen all the literature in detail.

However, the authors aimed to offer a map of the knowledge base of one of the emerging entrepreneurship journals, through an analysis of more than 800 articles published in *IJESB*, using SCOPUS and GOOGLE SCHOLAR databases. First of all, this paper has taken the investigation of the most relevant papers published by *IJESB* over the last decade into consideration. From our analysis, both on Scopus and Google Scholar database, ‘Towards a theory of indigenous entrepreneurship’ (Peredo et al., 2004) and ‘Evaluation of entrepreneurship education: behaviour performing or intention increasing?’ (Fayolle, 2005) result the most cited papers on *IJESB*. Furthermore, we have explored the principal contributors and their countries of origin to offer a comprehensive pic of the scope and reach of the journal. Specifically, the present work identified Prof. Leo Paul Dana as one of the most prolific authors and, also, that the majority of contributions to *IJESB* are from France, even if, coherently with the scope of the journal, an elevated number of recent contributions come from authors from emerging economies. Then, the keywords analysis is useful to individuate the recent evolution field in global management research; in particular, through the aggregation of the keywords per cluster,

we provide a visualisation of the more recent streams of research where scholars have focused their interest.

In terms of theoretical implications, the results of cluster analysis show that new forms of entrepreneurship still play an important role in global management research, such as indigenous and ethnic, social or women entrepreneurship.

Finally, the present paper provides some useful insights on the literature trajectories of such journal and, indeed, we remark the new streams of research also regard the antecedents of entrepreneurial character (i.e., self-efficacy, motivation, etc.), entrepreneurial education or gender differences in entrepreneurship. Additionally, we have conducted the analysis of the average emergence year of keywords, from which it emerged that the most recent keywords are informal economy or informal sector, used, for example, by Williams and Martinez (2014) or Ratten (2016); consequently, these issues also represent promising research topics for *IJESB*. However, piracy and start-up also constitute two fundamental keywords that delineate the future direction of research on this journal; as an example, we can cite Chaboud (2014), in “Pirates never sail alone: exploring the mechanics of social entrepreneurship involved in software piracy”, that investigated the software pirates’ practices as social entrepreneurs that invest social capital in their constant efforts to support a pirate community.

Our evidences suggest the growing importance of *IJESB* as a prominent outlet for entrepreneurship research.

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