

Chapter 3

Organizational Legitimacy Research: Contributing Countries and Institutions from 1995 to 2014



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Abstract Organizational legitimacy has raised great concern in management research; however, no bibliometric studies have been conducted in this field. The aim of this paper is to show the structure formed by the countries and institutions that contribute to research on organizational legitimacy. The development and evolution of organizational legitimacy as a field of study is shown through a bibliometric study in four 5-year periods (from 1995 to 2014). The results provide information on the main countries and institutions that contribute to research in the field of organizational legitimacy, the lines of research that have been developed and who share them, how legitimacy research between countries and institutions is related, which countries and institutions represent real turning points in this field and how the dissemination of organizational legitimacy research between countries and institutions has evolved. In general, this paper shows how since the beginning of research on the concept of legitimacy applied to organizations and the countries that have generated the highest frequency of citations are the USA, Canada, England and Australia, followed later by China, the Netherlands, France and Spain, while the institutions with the most significant frequencies are Univ. of Alberta, Penn State Univ., Harvard Univ., Warwick Univ., York Univ. and Erasmus Univ. This study provides a comprehensive review of the contributors to the discipline of organizational legitimacy, different schools and lines of research, as well as a starting point for future researchers to continue to build a solid theoretical base.

Keywords Organizational legitimacy · Bibliometric analysis · Literature review · State of the art · Legitimacy · Business legitimacy · Bibliometric method · Legitimacy contributors

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3.1 Introduction

The concept of legitimacy as a key element of the institutional theory has aroused great interest among the scientific community. One of the reasons is because it allows for better understanding of the behaviour of organizations and their stakeholders. A simple search using the word legitimacy in business journals of major scientific databases, such as the Web of Science, shows more than 2000 articles. Two-thirds of these articles were published in the last decade (2007–2016) in numerous scientific journals, including the most prestigious ones: *Organization Studies*, *Academy of Management Journal* or *Strategic Management Journal*.

Since Suchman (1995) and Scott (1995) provided understanding of organizational legitimacy, great advances have been made in this field of research. Thus, studies have emerged, which analyse the behaviour of legitimacy sources (Bitektine, 2011; Tost, 2011), the actions that companies can develop to gain legitimacy (Cho & Patten, 2007; Suddaby & Greenwood, 2005) and the effects of legitimacy on obtaining resources (Pollack, Rutherford, & Nagy, 2012; Pollock & Rindova, 2003), the effect on business results (Cruz-Suárez, Prado-Román, & Prado-Román, 2014) and the effect on business success (Díez-Martín, Prado-Roman, & Blanco-González, 2013). All this has led to progress in a great number of lines of research such as the creation of companies (Tornikoski & Newbert, 2007; Zimmerman & Zeitz, 2002), internationalization (Kostova, Roth, & Dacin, 2008), corporate social responsibility (Scherer & Palazzo, 2007) or management of stakeholders (Mitchell, Agle, & Wood, 1997).

The great number of lines of research that has emerged related to the concept of organizational legitimacy has led to the emergence of some literature reviews. As the knowledge of a research field accumulates, its periodic analysis becomes essential. This type of work is of great value for the progress of science because it groups the main contributions in a field of research. The majority of existing reviews in this field have been qualitative. The most relevant review out of all of them, due to its number of citations, is ‘legitimacy in organizational institutionalism’ (Deephouse & Suchman, 2008), where a summary of theoretical and empirical research on organizational legitimacy is made and suggestions on the elements that make up the process of legitimization are given. This paper was updated recently in a version that responds to six big questions on organizational legitimacy: concept, importance, source, strategies, types and evolution (Deephouse, Bundy, Tost, & Suchman, 2017). Other reviews of interest are ‘legitimacy’ (Suddaby, Bitektine, & Haack, 2017) or ‘legitimation of new ventures’ (Überbacher, 2014).

The progress of science is multiplied with the cooperation between researchers. As a field of research evolves, it undergoes a transition in its collaborative structure, from a small number of disconnected researchers to a much larger network, where a large collaborative group appears connecting the structure (Bettencourt, Kaiser, & Kaur, 2009). The process of scientific discovery and the reorganization of the collaborative structure of emerging fields can be understood in general terms as a process of cognitive and social unification of many initially separated efforts. Since new

conceptual findings arise from increasingly close collaboration between scientists, this made us become interested in the knowledge structure among contributors in the field of organizational legitimacy.

Thus, by using a bibliometric study we try to respond to what the main countries and institutions that contribute to research in the field of organizational legitimacy are, the lines of research that have been developed and who share them, how legitimacy investigations between countries and institutions are connected, which countries and institutions represent real turning points in this field and how the dissemination of research on organizational legitimacy between countries and institutions has evolved.

Beyond the objectives of this research, this paper continues with the description of the methodology used to respond to the previous questions. The results of the bibliometric analysis are then presented, and the conclusions of the study are established.

3.2 Research Method

In order to know the knowledge structure of organizational legitimacy between countries and institutions, a bibliometric study was carried out. Bibliometrics helps researchers to understand the origin and evolution of a discipline, as well as complement and extend the results obtained by using more traditional techniques of literature review (Ramos-Rodríguez & Ruíz-Navarro, 2004). Bibliometric methods have several possible uses: evaluating the performance of publications of scientists and institutions, as well as the mapping of science in order to reveal the structure and dynamics of scientific fields (Zupic & Cater, 2015).

In this paper we use the analysis of co-citations. Unlike the citation analysis, a co-citation is defined as the frequency with which two documents are cited together in a paper (Small, 1973). Therefore, documents are co-cited if they are included in the same paper. So, if two elements are cited together, they will probably have some kind of content related. In addition, the influence of the co-cited paper will be greater on its field of knowledge. In contrast, citation analysis provides information on the relative influence of a paper, so it is not capable of identifying interconnection networks between academics. Co-citation analysis is useful for reporting on paper networks and even detecting changes in paradigms and schools of thought (Zupic & Cater, 2015). However, the major drawback of co-citation analysis is that the frequency of co-citations is not independent of the moment at which the analysis is started, so papers of earlier dates are more likely to be the most co-cited (Vogel & Güttel, 2012).

Currently, the analysis of co-citations can be carried out using some of the numerous software of scientific visualization, such as Pajek, Jigsaw, VOSviewer or HistCite. These tools have their own advantages and disadvantages. However, CiteSpace was used in this work. It is scientific detection and visualization software based on Java, which enables to analyse the critical changes that take place in a field

of research (Chen, 2006; Chen, Ibekwe-SanJuan, & Hou, 2010). It is specially designed to support the analytical visualization process and can produce co-citation networks based on citations of articles that reveal the structure of a particular research field. Its results include being capable of extracting the main research clusters in a given field, as well as their connection. In addition, CiteSpace analyses co-occurrence networks not only between authors and keywords but also between institutions and countries.

The elaboration of the database for CiteSpace was done in several steps. First, the documents under analysis were selected. For this, only articles from scientific journals from the Social Science Citation Index (SSCI) containing the term 'legitimacy' in the title, abstract or keywords were analysed. Later we filtered the articles according to the scientific area to which they belonged. In this research, we are interested in articles related to the areas of business and finance. Third, we delimited the period of analysis, and only articles between 1995 and 2014 were selected. A total of 1605 articles were used in four 5-year analysis periods (1995–1999, 2000–2004, 2005–2009, 2010–2014). Each period had 87, 147, 453 and 918 articles, respectively. At this point, using the co-citation method, the literature suggests that its reliability improves when used to analyse past, noncurrent periods. For this last purpose, the use of bibliographic coupling would be more adequate (Vogel & Güttel, 2012).

After elaborating the database, the main paths of the evolution of organizational legitimacy between institutions and between countries were mapped. The analytical process consists of categorizing clusters of countries and institutions in the discipline of organizational legitimacy, identifying the major clusters in the knowledge map, identifying the key countries and institutions that connect knowledge paths and performing a chronological analysis of the evolution of knowledge between countries and institutions. This was done in the four time periods mentioned above. The following parameters in CiteSpace were used: (1) time slice, according to the analysis period (slice length = 1 year); (2) term source, country or institution; (3) node type, country or institution; (4) pruning, pathfinder/pruning the merged network; and (5) selection criteria, top 50 per slice.

3.3 Results

Organizational Legitimacy Knowledge Structure by Country

Figures 3.1, 3.2, 3.3 and 3.4 show the network of countries that contributed to the study of organizational legitimacy from 1995 to 2014. Countries are represented by nodes, whose size depends on the frequency of citations received. Thus, during the 1995–1999 period, the country that generated the highest frequency of citations in the field of organizational legitimacy was the USA (34 citations), followed by Canada (14 citations) and England (11 citations). These countries represent the core of studies on organizational legitimacy. The ten countries that produced the

Fig. 3.1 The network of countries for organizational legitimacy: 1995–1999

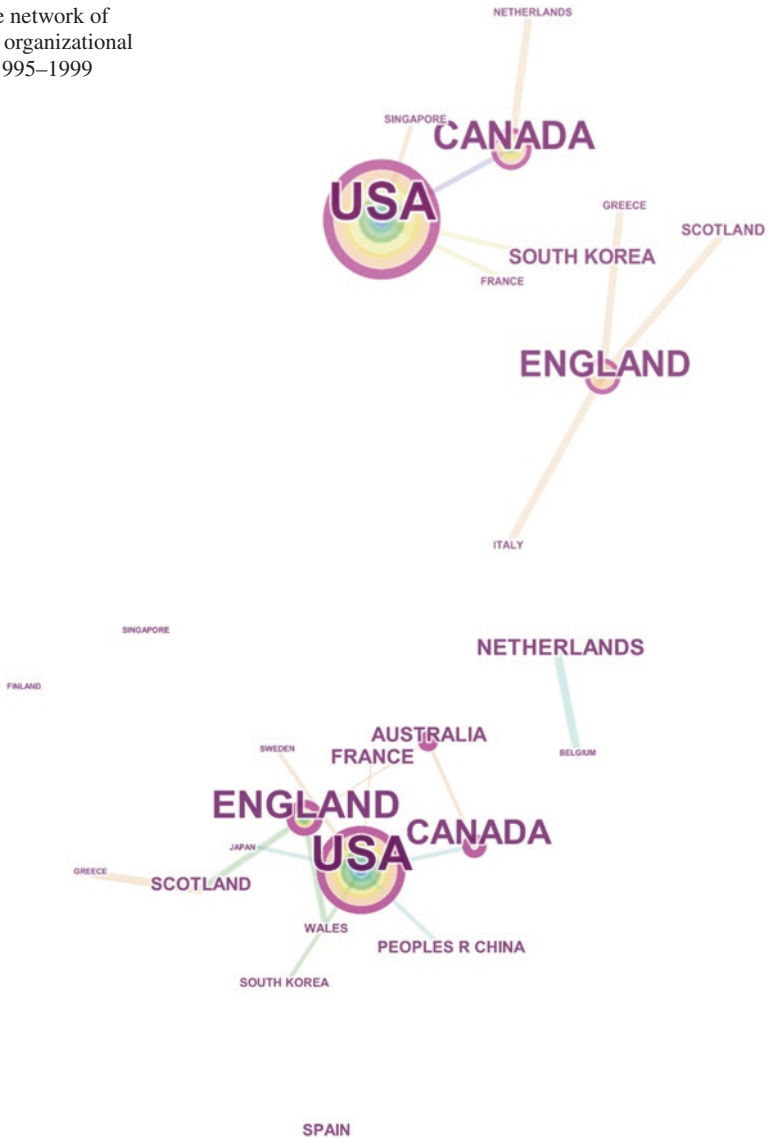


Fig. 3.2 The network of countries for organizational legitimacy: 2000–2004

most citations in the field of organizational legitimacy, in each of the four study periods, are shown in Table 3.1. It is worth noting that during the following study periods (2000–2004, 2005–2009, 2010–2014), the USA continues to be the country that contributes most to the field of organizational legitimacy, generating more than twice as many citations as the second or third country that contributes most to this area. Besides, Canada and England continue to be, behind the USA, the

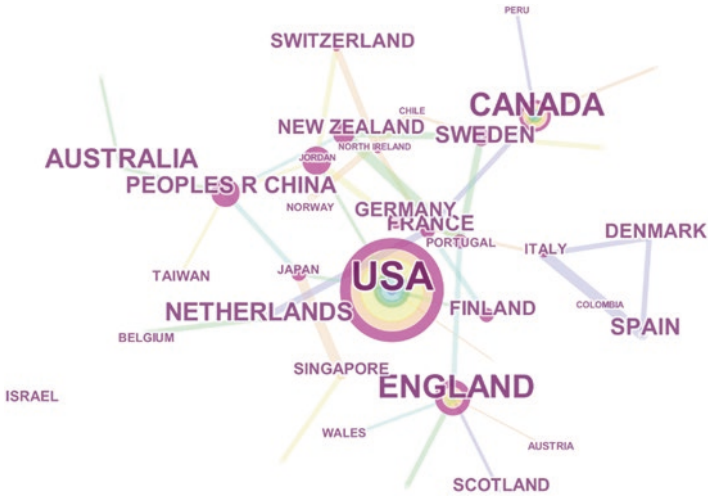


Fig. 3.3 The network of countries for organizational legitimacy: 2005–2009



Fig. 3.4 The network of countries for organizational legitimacy: 2010–2014

countries that generate the highest frequency of citations in this field. This core of countries is maintained over time. During the 2010–2014 period, Australia achieves a citation level similar to Canada, considered one of the countries with the greatest contribution increase in this field. Between 2005 and 2009, a substructure of

Table 3.1 Top 10 organizational legitimacy research distribution by country

Period	Rank	Country	Frequency >10	Rank	Country	Centrality >0.10
1995–1999	1	USA	36	1	USA	0.33
1995–1999	2	Canada	14	2	Canada	0.15
1995–1999	3	England	11	3	England	0.11
2000–2004	1	USA	77	1	USA	0.32
2000–2004	2	England	28	2	Canada	0.24
2000–2004	3	Canada	19	3	Australia	0.22
2000–2004	...	...	...	4	England	0.21
2005–2009	1	USA	185	1	P.R. China	0.80
2005–2009	2	Canada	67	2	Jordan	0.61
2005–2009	3	England	66	3	New Zealand	0.59
2005–2009	4	Australia	27	4	USA	0.41
2005–2009	5	Netherlands	25	5	France	0.38
2005–2009	6	P.R. China	20	6	Portugal	0.36
2005–2009	7	spain	17	7	England	0.31
2005–2009	8	Sweden	16	8	Japan	0.29
2005–2009	9	France	13	9	Finland	0.27
2005–2009	10	Germany	12	10	Sweden	0.24
2010–2014	1	USA	311	1	Switzerland	0.96
2010–2014	2	England	156	2	Italy	0.85
2010–2014	3	Australia	103	3	England	0.71
2010–2014	4	Canada	103	4	Finland	0.64
2010–2014	5	France	54	5	Wales	0.58
2010–2014	6	P.R. China	49	6	P.R. China	0.53
2010–2014	7	Netherlands	45	7	Netherlands	0.51
2010–2014	8	Spain	42	8	Belgium	0.49
2010–2014	9	Germany	35	9	Spain	0.43
2010–2014	10	Finland	27	10	Ireland	0.34

countries that generate citations in this area is observed. This substructure is maintained during the following period, which is formed by the Netherlands, China, Spain, France and Germany.

A more in-depth analysis of the nodes that make up the network of contributing countries to the field of organizational legitimacy enables to observe that some nodes have a purple ring (see Figs. 3.1, 3.2, 3.3 and 3.4). This shows the centrality of the node in the network. Thus, a greater thickness of the purple ring implies a greater centrality of the country. Betweenness centrality measures the degree to which a particular node, which refers to a cited article, is connected to other nodes in a network. Centrality is related to points of intellectual inflection. A very centralized node indicates that it connects many different links. The analysis of the inflection point enables to show the paradigmatic changes and the evolution of a specific discipline. In our case, it identifies those countries that have contributed to the evolution and better understanding of the field of organizational legitimacy.

Therefore, countries with high centrality are those that have acted as bridges connecting different research trends in our field of study. They reveal the intellectual transition of a field of study over time (Chen, 2004).

According to the theory of social networks, a centrality greater than 0.10 is considered high (Fang, 2015). During the first two periods under study, the countries with the greatest centrality were the USA, Canada, England and Australia, coinciding with the countries with the highest frequency of citations. However, the passage of time has led these countries to lose centrality to the benefit of new ones, whose research has enabled to connect papers in the field of organizational legitimacy (see Table 3.1). In the 2005–2009 period, China, Jordan and New Zealand stood out due to their centrality, whereas during the 2010–2014 period, Switzerland, Italy and England are the countries with the highest centrality. In this last period, countries such as the USA, Canada or Australia do not appear among the top 10 with the highest centrality.

Unlike the first two study periods, since 2005, countries such as Australia and Canada do not share lines of research in legitimacy with other countries, despite maintaining a high number of citations. For example, from 2005 to 2009 the lines of research of Australian researchers were fundamentally similar to those of researchers in China. The lines of researchers in Spain resembled mainly those of researchers of Colombia or Denmark. On the other hand, the lines of researchers of New Zealand had a relatively broader similarity with other countries, such as China, Germany, Jordan, New Ireland or Sweden. This suggests that research teams in countries like Canada are strong enough to carry out independent research or to generate systems with autonomous lines of research.

The evolution of a research field needs to be based on the accumulation of knowledge. At this point, it is possible to know the main clusters of countries in which similar lines of research are developed. Table 3.2 shows the evolution of the organizational legitimacy clusters by country. We can observe that during the 1995–1999 period, there were two groups of countries, formed by four and two countries, respectively, with similar lines of research of their members. The mean silhouette value is over 0.8. Generally speaking, the values of mean silhouette should be between 1 and 1. Values close to 1 mean that the cluster is consistent and similar in content terms. This indicates a high-quality cluster analysis of organizational legitimacy. One of the clusters formed in this period shows a mean silhouette equal to 1, indicating that the cluster is hardly representative, so it was removed from the results. The section title term by LLR shows the lines of research that make up the cluster.

The evolution of the concept of organizational legitimacy has led to the emergence of a greater number of contributing countries in this area, as well as the emergence of new lines of research. While in the beginning, the research area had two clusters of countries with similar research; during the 2009–2014 period, we found up to six clusters. However, clusters of countries are not maintained over time, showing that countries alternate their lines of research.

Table 3.2 Evolution of the organizational legitimacy clusters by country

Period	Cluster	Size	Silhouette	Title term by LLR	Members
1995–1999	0	4	0.835	Making sense (26.46, 1.0E-4); risk society (26.46, 1.0E-4); new franchisor mortality (19.45, 1.0E-4); institutional explanation (19.45, 1.0E-4); new firm survival (19.45, 1.0E-4)	USA; South Korea; Singapore; France;
1995–1999	1	4	1	Low representative	...
1995–1999	2	2	0.842	Organization theory (45.78, 1.0E-4); marketing action (10.92, 0.001); institutional environment (10.92, 0.001)	Canada; Netherlands;
2000–2004	0	6	0.925	Corporate greening (21.01, 1.0E-4); middle manager (17.44, 1.0E-4); new venture (7.22, 0.01); new organizational form (6.4, 0.05); institutional change (6, 0.05)	USA; France; P.R. China; Spain; South Korea; Sweden; Japan; India;
2000–2004	1	4	0.904	Middle manager (23.52, 1.0E-4); management modernizer (18.73, 1.0E-4); new venture (3.88, 0.05); organizing activities (3.88, 0.05)	England; Scotland; Wales; Greece;
2000–2004	2	2	0.747	Discourse analysis (9.71, 0.005); expatriate (9.71, 0.005); public administration (9.71, 0.005); new organizational form (0.29, 1.0); institutional change (0.27, 1.0)	Canada; Australia;
2005–2009	0	7	0.766	Collaborative management (81.61, 1.0E-4); general public interest (66.57, 1.0E-4); institutional theory perspective (59.08, 1.0E-4); private finance initiative (59.08, 1.0E-4); accounting standard (59.08, 1.0E-4)	Canada; Netherlands; France; Belgium; Peru; North Ireland; Turkey;
2005–2009	1	6	0.724	Isomorphic pressure (92.29, 1.0E-4); shielding idiosyncrasy (92.29, 1.0E-4); multinational enterprise (59.23, 1.0E-4);	Spain; Germany; Switzerland; Denmark; Italy; Jordan
2005–2009	2	6	0.896	Network view (57.09, 1.0E-4); socio-political behaviour (57.09, 1.0E-4); multinational retailer (50.65, 1.0E-4); unsuccessful internationalization attempt (50.65, 1.0E-4); social institution (44.23, 1.0E-4)	Sweden; New Zealand; Portugal; Norway; Chile; South Korea
2005–2009	3	6	0.582	Particularistic relationships in business group performance (61.22, 1.0E-4); institutional transition (61.22, 1.0E-4); collaborative management (38.82, 1.0E-4); eastern Europe (34.69, 1.0E-4); international business (34.69, 1.0E-4); institutional development (34.69, 1.0E-4)	USA; Finland; Singapore; Japan; Lithuania; India
2005–2009	4	5	0.940	Market-level information (60.62, 1.0E-4); exploratory analysis (60.62, 1.0E-4); competing technologies (60.62, 1.0E-4); local practice (51.19, 1.0E-4);	England; Scotland; Wales; Austria; Greece;

(continued)

Table 3.2 (continued)

Period	Cluster	Size	Silhouette	Title term by LLR	Members
2005–2009	5	4	0.853	CSR reporting (51.11, 1.0E-4); stakeholder influence strategy model (43.69, 1.0E-4); organizational change (21.67, 1.0E-4); presenting identity (21.67, 1.0E-4)	Australia; P.R. China; Taiwan; Slovenia;
2010–2014	0	12	0.878	Foreign affiliate performance (173.33, 1.0E-4); managing supplier-retailer relationship (166.4, 1.0E-4); New Zealand biotechnology (158.31, 1.0E-4); network dynamics (124.87, 1.0E-4)	USA; P.R. China; New Zealand; Taiwan; Singapore; South Africa; South Korea; U Arab Emirates; Japan; Russia; Kuwait; Qatar
2010–2014	1	10	0.947	New form (161.48, 1.0E-4); institutional theory perspective (156.07, 1.0E-4); religious discourse (150.66, 1.0E-4); organizational change (150.66, 1.0E-4); stakeholder perspective (150.66, 1.0E-4); relational perspective (145.26, 1.0E-4)	France; Spain; Finland; Turkey; Brazil; Portugal; Greece; Chile; Lebanon; Philippines;
2010–2014	2	9	0.844	Corporate governance (232.28, 1.0E-4); emerging economy (219.29, 1.0E-4); resource allocation (167.44, 1.0E-4); rhetorical resource (150.19, 1.0E-4)	England; Scotland; Wales; Malaysia; Pakistan; Iran; Mauritius; Argentina; Romania
2010–2014	3	8	0.846	South Africa (261.96, 1.0E-4); strategic commitment (261.96, 1.0E-4); emerging market (261.96, 1.0E-4); issue field (194.22, 1.0E-4); shareholder value (194.22, 1.0E-4)	Germany; Sweden; Denmark; Norway; Austria; Israel; India; Mexico;
2010–2014	4	8	0.808	Multinational industrial firm (231.87, 1.0E-4); transition environment (119.29, 1.0E-4); controversial industry policy (110.7, 1.0E-4); supply chain (93.56, 1.0E-4)	Netherlands; Switzerland; Italy; Belgium; Luxembourg; Lithuania; Cyprus; Ukraine;
2010–2014	5	7	0.885	Market governance system (154, 1.0E-4); high-performance human resource practice (150.71, 1.0E-4); strategic human resource management (150.71, 1.0E-4); societal institution (147.42, 1.0E-4); HRM practice (147.42, 1.0E-4)	Australia; Canada; Ireland; North Ireland; Kazakhstan; Indonesia; Jordan

Organizational Legitimacy Knowledge Structure by Institution

Figures 3.5, 3.6, 3.7 and 3.8 show the network of institutions that contributed to the study of organizational legitimacy from 1995 to 2014. During the 1995–1999 period, Emory Univ. and Victoria Univ. were the institutions that generated the highest frequency of citations (three citations) in the field of organizational legitimacy. The institution with the most frequent citations from 2000 to 2004 was Univ. Nottingham (7 citations), while the leader during the following two periods (2005–2009; 2010–2014) was Univ. of Alberta with 12 and 16 citations. Table 3.3 shows the ten institutions that produced the most frequent citations in the field of organizational legitimacy for each of the four study periods. No institution reaches the top 10 of contributing institutions during all study periods. Only two institutions are in the top 10 for three periods: Penn State Univ. and Erasmus Univ., while there are four universities in the top 10 for two periods: Univ. of Alberta, Harvard Univ., York Univ. and Warwick Univ. The universities that produced the highest frequency of citations in the field of organizational legitimacy are Penn State Univ., Erasmus Univ., Univ. of Alberta, Harvard Univ., York Univ. and Warwick University. These six universities are in the top 10 during 2005–2009 and 2010–2014 and form the core knowledge structure in the field of organizational legitimacy. Taking into account the period between 1995 and 2014, the university with the highest frequency of citations was Univ. of Alberta (Canada) followed by Penn State University (USA) and Erasmus University (the Netherlands), respectively.

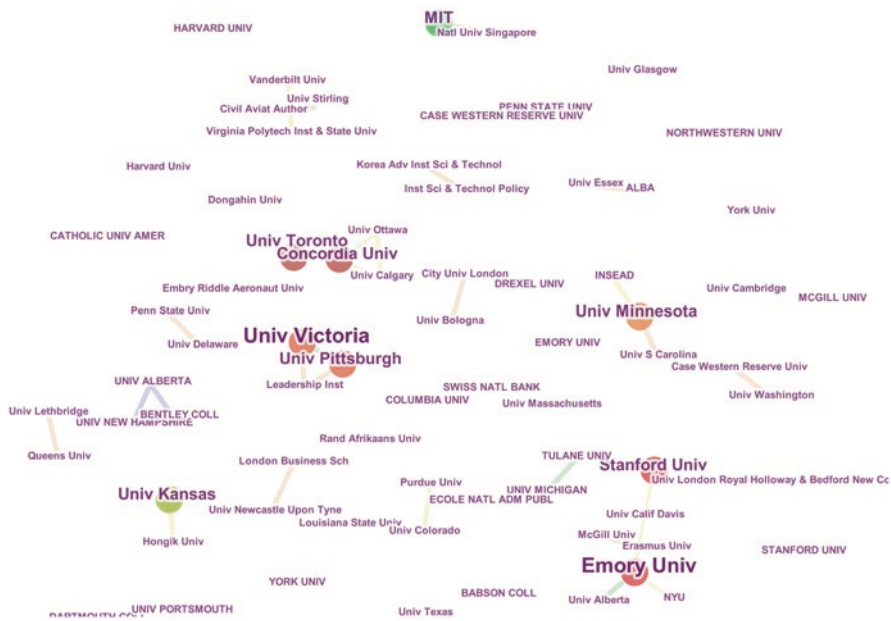


Fig. 3.5 The network of institutions for organizational legitimacy: 1995–1999



Fig. 3.6 The network of institutions for organizational legitimacy: 2000–2004

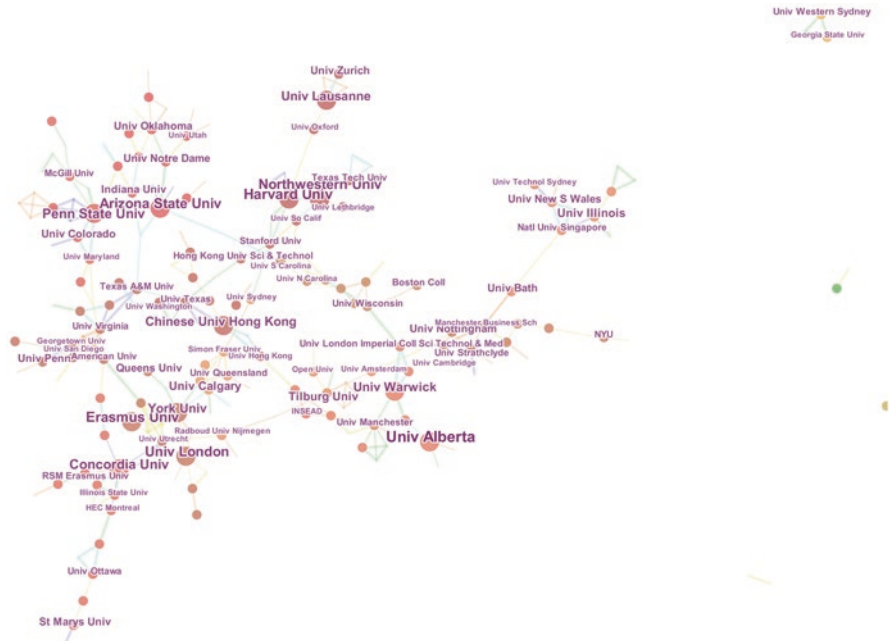


Fig. 3.7 The network of institutions for organizational legitimacy: 2005–2009

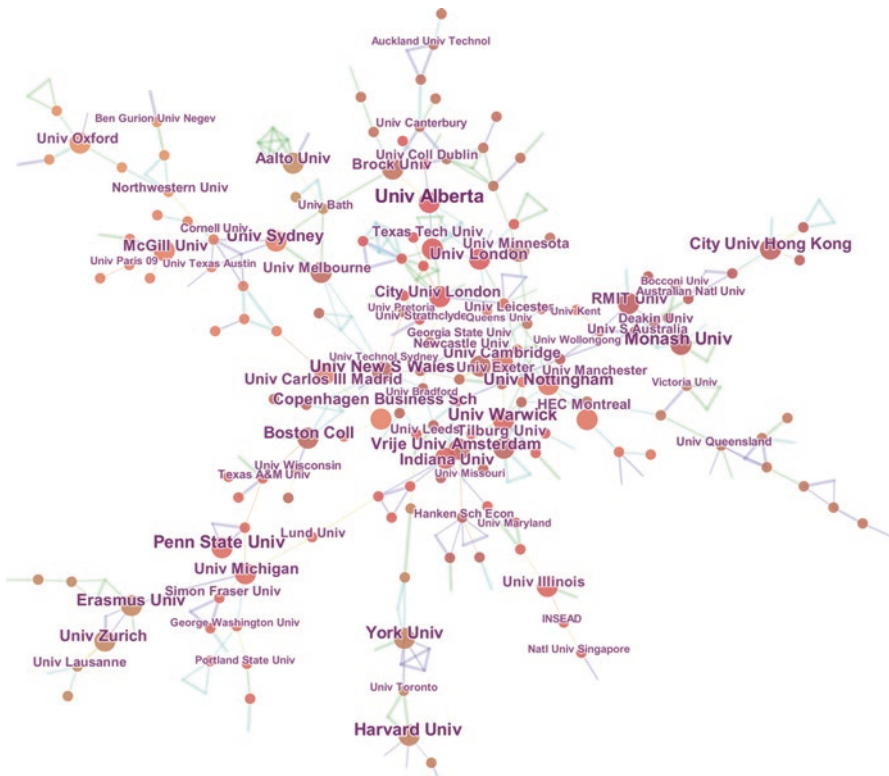


Fig. 3.8 The network of institutions for organizational legitimacy: 2010–2014

Table 3.3 Top 10 organizational legitimacy research distribution by institution

Period	Institution	Frequency >1	Cluster ID
1995–1999	Emory Univ	3	0
1995–1999	Univ Victoria	3	2
1995–1999	Univ Minnesota	2	4
1995–1999	Stanford Univ	2	0
1995–1999	MIT	2	20
1995–1999	Univ Kansas	2	11
1995–1999	Univ Toronto	2	1
1995–1999	Concordia Univ	2	1
1995–1999	Univ Pittsburgh	2	2
2000–2004	Univ Nottingham	7	2
2000–2004	Northwestern Univ	5	1
2000–2004	Case Western Reserve Univ	5	0
2000–2004	Univ Western Ontario	4	8
2000–2004	Univ Colorado	4	4
2000–2004	Univ Cambridge	4	2

(continued)

Table 3.3 (continued)

Period	Institution	Frequency >1	Cluster ID
2000–2004	Simon Fraser Univ	4	2
2000–2004	Penn State Univ.	4	0
2000–2004	Erasmus Univ	4	7
2000–2004	Emory Univ	4	1
2005–2009	Univ. of Alberta	12	6
2005–2009	Harvard Univ	10	1
2005–2009	Erasmus Univ	9	7
2005–2009	Univ London	9	7
2005–2009	Northwestern Univ	9	1
2005–2009	Arizona State Univ	9	0
2005–2009	Concordia Univ	8	4
2005–2009	Penn State Univ.	8	2
2005–2009	York Univ	7	7
2005–2009	Warwick Univ.	7	6
2010–2014	Univ. of Alberta	16	0
2010–2014	Penn State Univ.	13	4
2010–2014	Monash Univ	13	1
2010–2014	Harvard Univ	13	11
2010–2014	Warwick Univ.	12	2
2010–2014	York Univ	12	11
2010–2014	Univ New S Wales	12	5
2010–2014	Boston Coll	11	5
2010–2014	Vrije Univ Amsterdam	11	3
2010–2014	Erasmus Univ	11	13

Centrality >0.10 for each institution

A more detailed analysis of the centrality of each institution will enable to identify the inflection points that involve changes in the field of organizational legitimacy, more specifically, those institutions that have acted as bridges, connecting different research trends. However, no institution shows a centrality higher than 0.10. Therefore, it is not possible to claim the existence of institutions that play a critical role, which the research network structure on organizational legitimacy depends on.

Table 3.4 shows the evolution of the organizational legitimacy clusters by institutions. We can observe that during the 1995–1999 period, those institutions where organizational legitimacy was studied followed different lines of research. However, during the 2000–2004 period, the existence of institutions with similar lines of research can be observed. Thus, in this period we find up to 4 broad lines of research grouped into clusters between 12 and 7 institutions (mean silhouette >0.8 and <1). The evolution of the research field led to the emergence of new lines of research, as observed during 2005–2009, where we found 13 clusters with mean silhouette >0.8 and <1 and during 2010–2014, with 14 clusters with mean silhouette >0.8 and <1. The cluster size also increases with time. The section title term by LLR shows the lines of research that make up the cluster.

Table 3.4 Evolution of the organizational legitimacy clusters by institution

Period	Cluster	Size	Silhouette	Title term by LLR	Members
1995–1999	...	...	1	Low representative	...
2000–2004	0	12	0,882	Social construction (88.99, 1.0E-4); new product development (74.39, 1.0E-4); high technology venture (74.39, 1.0E-4); empirical analysis (74.39, 1.0E-4); dynamic capabilities (74.39, 1.0E-4)	Univ Wisconsin; Univ Michigan; Univ Connecticut; Univ Cincinnati; Syracuse Univ; Simmons Grad Sch Management; Penn State Univ.; Lehigh Univ; James Madison Univ; Drexel Univ; Case Western Reserve Univ; Boisi Ctr for Relig and Amer Publ Life
2000–2004	1	11	0,954	Hometown ideology (86.9, 1.0E-4); institutional semiotics (86.9, 1.0E-4); Walmart flyer (86.9, 1.0E-4); institutionalizing identity (54.24, 1.0E-4); symbolic isomorphism (54.24, 1.0E-4)	Texas A&M Univ; Queens Univ; Northwestern Univ; New Sch Univ; Michigan State Univ; McGill Univ; Harvard Univ; Georgia State Univ; Emory Univ; Cornell Univ; Wilfrid Laurier Univ;
2000–2004	2	9	0,955	Corporate environmental disclosure (112.11, 1.0E-4); contrasting managements perception (112.11, 1.0E-4); management modernizer (72.71, 1.0E-4); long march (72.71, 1.0E-4); emerging field (59.81, 1.0E-4)	Univ St Andrews; Univ Nottingham; Univ Melbourne; Univ Leicester; Univ Cambridge; Univ Bath; UQAM; Simon Fraser Univ; Concordia Univ
2000–2004	3	8	1	Low representative	...
2000–2004	4	7	0,981	Entrepreneurship research (124.38, 1.0E-4); stakeholder approach (36.53, 1.0E-4); organizational identity (24.75, 1.0E-4)	Wake Forest Univ; Utah State Univ; Univ Oklahoma; Univ Massachusetts; Dartmouth Coll; Univ Colorado; Suffolk Univ; Babson Coll
2005–2009	0	21	0,958	Lockup period (172.45, 1.0E-4); initial public offering (172.45, 1.0E-4); maintaining institutional control (168.1, 1.0E-4); international joint venture (137.67, 1.0E-4)	Univ Alabama; Singapore Management Univ; Kansas State Univ; Arizona State Univ; Univ Utah; Univ Oklahoma; Univ Notre Dame; Indiana Univ; Washington State Univ; Univ Waterloo; Univ Missouri; Strategyn Inc.; Peking Univ; N Carolina State Univ; Louisiana Tech Univ; Indian Inst Management Calcutta; IESE Business Sch; Garvin Sch of Int Management; Florida Atlantic Univ; EM Lyon; CEIBS; ALBA Grad Business Sch

(continued)

Table 3.4 (continued)

Period	Cluster	Size	Silhouette	Title term by LLR	Members
2005–2009	1	20	0,984	Outdoor recreation (217.98, 1.0E-4); managing natural location (217.98, 1.0E-4); consulting firm (172.88, 1.0E-4); organizational social capital (172.88, 1.0E-4)	Harvard Univ; Univ So Calif; Univ Lausanne; Univ Zurich; Univ Lethbridge; Texas Tech Univ; Stanford Univ; Northwestern Univ; Western Michigan Univ; W Texas A&M Univ; Univ Ulster; Univ Strasbourg; Univ Oxford; Univ Adelaide; Texas So Univ; Monash Univ; IMD; IBM Corp; Emory Univ; Calif State Univ Northridge
2005–2009	2	18	0,965	Few good women (230.46, 1.0E-4); industrial research (230.46, 1.0E-4); recent increase (201.87, 1.0E-4); managerial discretion (201.87, 1.0E-4); institutional theory (201.87, 1.0E-4);	Rutgers State Univ; Penn State Univ.; Univ Maryland; Univ Colorado; Univ Victoria; Univ Tsukuba; Univ Melbourne; Univ Massachusetts; Univ Denver; New Jersey Inst Technol; McGill Univ; Lehigh Univ; Jackson Leadership Syst Inc.; Dartmouth Coll; Cornell Univ; Calif State Univ Fullerton; Aston Univ
2005–2009	3	18	0,925	Geographic scope (161.59, 1.0E-4); insider ownership (161.59, 1.0E-4); institutional persistence (147.61, 1.0E-4); cognitive underpinning (147.61, 1.0E-4)	Natl Sun Yat Sen Univ; Chinese Univ Hong Kong; Univ Texas; Univ Texas Dallas; Univ Texas Arlington; Univ Hong Kong; Hong Kong Univ Sci and Technol; Univ Wyoming; Univ Washington; Univ Dayton; Texas Christian Univ; San Francisco State Univ; Ohio State Univ; McMaster Univ; Kobe Univ; Indiana Univ Penn; Duke Univ; Australian Grad Sch Management
2005–2009	4	17	0,860	Measurement selection via (179.85, 1.0E-4); ownership-efficiency relationship (179.85, 1.0E-4); Canadian business school (132.97, 1.0E-4); research note (127.13, 1.0E-4); corporate charitable contribution (115.47, 1.0E-4)	St Marys Univ; Univ Ghent; Univ Delaware; Illinois State Univ; HEC Montreal; Concordia Univ; Univ Quebec; Univ Ottawa; Univ Cent Florida; RSM Erasmus Univ; HEC Sch Management; Vlerick Leuven Ghent Management Sch; St Francis Xavier Univ; Laurentian Univ; GAN Assurances; Brigham Young Univ Hawaii; Acadia Univ
2005–2009	5	16	0,973	Stakeholder responsibility (252.76, 1.0E-4); private security companies (252.76, 1.0E-4); organizational identity characteristics (113.7, 1.0E-4); negative evaluation (113.7, 1.0E-4); organizational response (113.7, 1.0E-4);	Univ Virginia; Univ Penn; Villanova Univ; Univ San Diego; Univ Montana; Texas A&M Univ; Georgetown Univ; American Univ; Univ St Thomas; Univ Richmond; Univ Penn Wharton; Univ Oregon; Seinajoki Univ Appl Sci; San Diego State Univ; SUNY Binghamton; Cheung Kong Grad Sch Business

2005–2009	6	16	0,930	Theoretical triangulation (269.61, 1.0E-4); extending institutional analysis (269.61, 1.0E-4); network view (159.3, 1.0E-4); socio-political behaviour (159.3, 1.0E-4)	Warwick Univ.; Univ London Imperial Coll Sci Technol and Med; Univ of Alberta; Stockholm Sch Econ; Kingston Univ; Uppsala Univ; Univ Manchester; Univ Cardiff Wales; Keio Univ; Victoria Univ Wellington; Staffordshire Univ; Natl Inst Nanotechnol; Middle E Tech Univ; Inje Univ; ISCTE Escola Gestao; INSEAD
2005–2009	7	16	0,940	Corporate social responsibility (249.73, 1.0E-4); international context (190.81, 1.0E-4); resource-based advantage (190.81, 1.0E-4); green narrative (112.86, 1.0E-4); employee representation (102.53, 1.0E-4); strategic alliance (92.21, 1.0E-4)	Univ Utrecht; Virginia Tech; Erasmus Univ; York Univ; Univ Houston; Queens Univ; Int Solut Grp; Univ Trier; Univ Texas El Paso; Univ St Gallen; Univ London; Univ Gloucestershire; Univ Fed Armed Forces; Univ China; Mem Univ Newfoundland; Brown Univ
2005–2009	8	14	0,946	Postcrisis communication (239.74, 1.0E-4); postcrisis discourse (239.74, 1.0E-4); ecological interdependence (85.39, 1.0E-4); unstable identities (85.39, 1.0E-4); organizational ecology (78.77, 1.0E-4)	Univ New S Wales; Univ Illinois; Univ Bath; Natl Univ Singapore; Univ Technol Sydney; N Dakota State Univ; Wayne State Univ; Univ Wollongong; Univ W England; Univ Chicago; Univ Arkansas; Fed Reserve Bank Atlanta; Cleveland State Univ; BILD
2005–2009	9	13	0,946	Exit rate (142.53, 1.0E-4); film producer organization (142.53, 1.0E-4); network ties (142.53, 1.0E-4); long-term incentive pay decision (124.54, 1.0E-4); UK remuneration committee (124.54, 1.0E-4); executive pay (124.54, 1.0E-4)	Univ Strathclyde; Univ Nottingham; NYU; Manchester Business Sch; Manchester Metropolitan Univ; Univ Sheffield; Univ Durham; Univ Cent Lancashire; Univ Cambridge; Univ Bologna; Seattle Univ; City Univ London; Bournemouth Univ
2005–2009	10	12	0,892	Knowledge spillover (219.22, 1.0E-4); Basel II (101.64, 1.0E-4); poor countries (101.64, 1.0E-4); political economy (101.64, 1.0E-4); reflective cycle (87.97, 1.0E-4); design knowledge development (87.97, 1.0E-4)	Open Univ; Tilburg Univ; Radboud Univ Nijmegen; ZEW; Ctr European Econ Res; Van de Geijin Partners; Univ Hamburg; Univ Amsterdam; Kings Coll London; Int Monetary Fund; Eindhoven Univ Technol; Deutsch Bundesbank; Cap Gemini

(continued)

Table 3.4 (continued)

Period	Cluster	Size	Silhouette	Title term by LLR	Members
2005–2009	11	12	0,932	Accounting information expenditure (172.52, 1.0E-4); occupational dirty work (105.53, 1.0E-4); integrating social identity (105.53, 1.0E-4); identity dynamics (105.53, 1.0E-4); system justification perspective (105.53, 1.0E-4)	Univ Wisconsin; Univ N Carolina; Boston Coll; Univ No Colorado; Wright State Univ; Michigan State Univ; Utah State Univ; Univ S Carolina; Univ Memphis; Univ Cincinnati; Univ Arizona; Simmons Coll
2005–2009	12	9	0,932	Social norm (86.51, 1.0E-4); Internet-based case (86.51, 1.0E-4); governance paradox (86.51, 1.0E-4); technological turbulence (86.51, 1.0E-4)	Univ Queensland; Univ Toronto; Univ Calgary; Simon Fraser Univ; Univ Sydney; Univ Manitoba; Univ Exeter; Real Estate Dev Inst; Dalhousie Univ
2010–2014	0	30	0,958	Corporate governance (443.87, 1.0E-4); strategic commitment (303.57, 1.0E-4); foreign IPO capital market choice (286.57, 1.0E-4); emerging market (285.69, 1.0E-4); corporate reputation (248.37, 1.0E-4)	Univ. of Alberta; Univ London; City Univ London; Texas Tech Univ; Univ Coll Dublin; Univ Strathclyde; Univ Texas Arlington; Bangor Univ; Ramon Llull Univ; Vienna Univ Econ and Business; San Diego State Univ; Bournemouth Univ; Univ Stirling; Univ Dallas; Nielsen Co; BSH Bosch and Siemens Hausgeraete GmbH; Brigham Young Univ; Vienna Univ Econ Business; Dublin City Univ; Louisiana State Univ; IPADE; Aberystwyth Univ; No Illinois Univ; Univ Ballarat; Aston Univ; Edinburgh Napier Univ; Mississippi State Univ; Univ Cape Town; IIM Bangalore; Univ Glasgow
2010–2014	1	23	0,963	Established firm (368.94, 1.0E-4); entrepreneurial orientation (358.45, 1.0E-4); new venture (271.37, 1.0E-4); product innovation (266.17, 1.0E-4); project management approach (266.17, 1.0E-4)	Monash Univ; City Univ Hong Kong; RMIT Univ; Univ S Australia; Deakin Univ; Australian Natl Univ; Bocconi Univ; Univ Wollongong; Shanghai Jiao Tong Univ; Bond Univ; China Univ Min and Technol; Univ Western Sydney; Harbin Inst Technol; Victoria Univ Wellington; Nanjing Univ; Xi An Jiao Tong Univ; Willamette Univ; Hong Kong Univ Sci and Technol; Univ New Mexico; CQ Univ; Univ Jember; Swinburne Univ Technol; Univ Adelaide

2010–2014	2	23	0,941	Web technologies (454.25, 1.0E-4); financial indicator (308.29, 1.0E-4); process model (225.49, 1.0E-4); multinational corporation (179.11, 1.0E-4); emerging economy (165.04, 1.0E-4)	Warwick Univ.; Indiana Univ; Univ Illinois; Georgia State Univ; Natl Univ Singapore; Univ Missouri; INSEAD; Univ Maryland; Rice Univ; Jonkoping Int Business Sch; Wilfrid Laurier Univ; Univ Georgia; Syracuse Univ; Univ E Anglia; Singapore Management Univ; N Carolina State Univ; Univ Essex; Brunel Univ; Univ Kansas; Univ Hull; United Arab Emirates Univ; Claremont Mckenna Coll; Fundacao Getulio Vargas
2010–2014	3	22	0,944	Organizational action (287.39, 1.0E-4); recursive perspective (287.39, 1.0E-4); global organizational restructuring (281.69, 1.0E-4); rhetorical perspective (281.69, 1.0E-4)	Vrije Univ Amsterdam; Tilburg Univ; Univ Leeds; Hanken Sch Econ; Univ Bradford; Radboud Univ Nijmegen; Mid Sweden Univ; Univ Liverpool; Univ Amsterdam; EMLYON Business Sch; IESEG Sch Management LEM CNRS; Univ Sains Malaysia; Bergamo Univ; Payame Noor Univ; European Univ Inst Florence; Univ Lugano; Euromed Management Toulon; Ecol Management Lyon; EM Lyon Business Sch; Dalarna Univ; Vrije Univ; Helsinki Sch Econ
2010–2014	4	21	0,926	Strategic alliance (384.71, 1.0E-4); new venture growth (354.89, 1.0E-4); enterprise systems software industry (278.1, 1.0E-4); crowded market (278.1, 1.0E-4); exploring cultural misfit (265.61, 1.0E-4)	Penn State Univ.; Univ Michigan; Lund Univ; Simon Fraser Univ; Texas A&M Univ; Portland State Univ; George Washington Univ; Oklahoma State Univ; Michigan State Univ; Univ S Carolina; Bilkent Univ; Univ New Hampshire; Univ Connecticut; Amer Univ Kuwait; Ball State Univ; Univ Calif Davis; Univ Louisville; Emory Univ; Univ Tennessee Knoxville; Baylor Univ; Univ Texas San Antonio
2010–2014	5	21	0,873	International accountability standard (484.6, 1.0E-4); prologue stability (392.12, 1.0E-4); global economy (369.1, 1.0E-4); knowledge production (208.95, 1.0E-4); consulting team (208.95, 1.0E-4); sustainability report (157.85, 1.0E-4)	Univ New S Wales; Boston Coll; Univ Exeter; Univ Melbourne; Newcastle Univ; Univ Wisconsin; Univ Pretoria; Univ Technol Sydney; European Business Sch; Chapman Univ; Strathclyde Business Sch; Suffolk Univ; Massey Univ; Purdue Univ; QUT Business Sch; Leuphana Univ Luneburg; Warwick Business Sch; Western New England Univ; Australian Sch Business; Curtin Univ; Univ Erlangen Nurnberg

(continued)

Table 3.4 (continued)

Period	Cluster	Size	Silhouette	Title term by LLR	Members
2010–2014	6	20	0,886	Network picture (644.3, 1.0E-4); industrial marketing research (319, 1.0E-4); consultancy output (207.14, 1.0E-4); accounting technologies (207.14, 1.0E-4)	Univ Nottingham; Univ Cambridge; HEC Montreal; Univ Leicester; Queens Univ; Univ Kent; Nottingham Trent Univ; Univ Sheffield; Univ London Imperial Coll Sci Technol and Med; Copenhagen Sch Econ and Business Adm; MINES ParisTech; Univ Western Australia; So Cross Univ; Swansea Univ; Kingston Univ; Univ Plymouth; WU Vienna Univ Econ and Business; Aspire Fdn; Natl Univ Ireland; Dingwall Enterprises
2010–2014	7	20	0,932	Employment system (292.24, 1.0E-4); national adoption (184.78, 1.0E-4); task environment perspective (179.15, 1.0E-4); managing supplier-retailer relationship (179.15, 1.0E-4); international accounting standard (175.89, 1.0E-4)	Brook Univ; Univ Minnesota; Univ Canterbury; Auckland Univ Technol; Yonsei Univ; Florida Atlantic Univ; Northeastern Univ; Univ S Florida; Stockholm Sch Econ; Univ Penn; Univ Auckland; Lincoln Univ; Old Dominion Univ; McMaster Univ; Nankai Univ; Thunderbird Sch Global Management; Univ Int Business and Econ; Qatar Univ; China Europe Int Business Sch; Univ Nottingham Business Sch China
2010–2014	8	20	0,86	Director power (389.84, 1.0E-4); rising tension (389.84, 1.0E-4); common law world (389.84, 1.0E-4); choosing product (302.95, 1.0E-4); new marketing myopia (243.75, 1.0E-4)	Univ Sydney; Copenhagen Business Sch; Univ Carlos III Madrid; McGill Univ; Cornell Univ; Univ Paris 09; Univ Texas Austin; CUNY; Univ Virginia; Rutgers State Univ; Griffith Univ; Duke Univ; Univ Waterloo; Univ Arkansas; Univ Toulouse; IESE Business Sch; Univ So Calif; Babson Coll; Catholic Univ Portugal; Sydney Law Sch
2010–2014	9	18	0,962	Foreign affiliate performance (297.1, 1.0E-4); subnational region matter (297.1, 1.0E-4); large unlisted companies (243.14, 1.0E-4); international financial reporting standard (243.14, 1.0E-4)	Univ Manchester; Univ Queensland; Victoria Univ; La Trobe Univ; Chinese Univ Hong Kong; Univ Birmingham; Florida State Univ; Univ Hong Kong; World Bank; Texas Christian Univ; Keio Univ; Univ Padua; Univ Oregon; Univ Minho; Polytech Inst Viana do Castelo; Natl Chiao Tung Univ; Georgetown Univ; Queensland Univ Technol

2010–2014	10	15	1	Low representative	...
2010–2014	11	15	0,978	Fair trade (415.7, 1.0E-4); research agenda (288.48, 1.0E-4); elite actor (176.42, 1.0E-4); emerging position (176.42, 1.0E-4); institutional work (152.88, 1.0E-4); financial crisis (139.4, 1.0E-4)	Harvard Univ; York Univ; Univ Toronto; Univ Windsor; Univ Massachusetts; Univ Pacific; Univ Manitoba; TransFair Canada; Massachusetts Gen Hosp; Columbia Business Sch; Equiterre; Canadian Students Fair Trade Network; Univ Ontario; Peking Univ; Univ Witten/Herdecke
2010–2014	12	14	0,988	Cell hype (328.65, 1.0E-4); resource accumulation (197.35, 1.0E-4); strategic response (165.73, 1.0E-4); international business research (159.08, 1.0E-4)	Univ Oxford; Northwestern Univ; Ben-Gurion Univ Negev; Univ Twente; Natl Tsing Hua Univ; Univ Chicago; Stanford Univ; Holinger Int Consultants GmbH; Natl Taiwan Univ Sci and Technol; Harris Manchester Coll; Tel Aviv Univ; Eawag; Univ Lancaster; Mt. Assoc Community Econ Dev
2010–2014	13	13	0,942	Contingency fit (290.83, 1.0E-4); organization-environment relationship (290.83, 1.0E-4); online gambling (186.1, 1.0E-4); norm-conforming behaviour (158.33, 1.0E-4); firm reputation (158.33, 1.0E-4)	Erasmus Univ; Univ Zurich; Univ Lausanne; Queens Univ Belfast; Univ St Gallen; Cardiff Univ; Miguel Hernandez Univ; Fed Univ Minas Gerais; HEC Sch Management; CIIT Ctr Hlth Res; Univ Constance; Open Univ Netherlands; INSCOPE Res Innovat
2010–2014	14	10	1	Low representative	...
2010–2014	15	9	0,984	Assembling charisma (132.44, 1.0E-4); retail luxury strategy (132.44, 1.0E-4); cross-cultural perspective (95.62, 1.0E-4); international management research (95.62, 1.0E-4); economic performance (35.46, 1.0E-4)	Aalto Univ; Univ Bath; Univ So Denmark; Univ Paris 01; EU DG JRC IPTS; San Jose State Univ; Impetu Solut; ZHAW Zurich Univ Appl Sci; Ctr Strateg Studies and Management CGEE

3.4 Discussions and Conclusions

This paper is useful to reveal the structure formed by the countries and institutions that contribute to research on organizational legitimacy. The development and evolution of organizational legitimacy as a field of study over four different periods was shown by a bibliometric study.

The first study period was between 1995 and 1999. It was the beginning of the period of research on organization legitimacy, in which the basis of this field of research is provided through studies by Suchman (1995) or Scott (1995). During this period, there were few countries and institutions that opted for this field of research. This suggests that the discipline was not appealing for most researchers at that time. Some of the countries and institutions that contributed most in the beginning were the USA, Canada and England, as well as Emory Univ. or Univ. Victoria. The lines of research in organizational legitimacy were scarce, and at the same time, they were hardly shared between institutions. The great reference, acting as a broker in the dissemination of this knowledge, was the USA.

During the 2000–2004 period, the USA, Canada and England are still the countries that contribute with more citations. With regard to institutions, contributions increase and new actors appear in the production of citations. Dissemination is fundamentally through the USA, Canada and England, in addition to Australia. The lines of research experience a considerable increase, being possible to recognize up to four large research groups at institutional level: corporate environmental disclosure, entrepreneurship research, institutionalizing identity and high-technology venture.

There was a great increase in contributions in this field during the 2005–2009 period. The number of countries with a citation frequency greater than ten is tripled, and the average frequency of institutions with the most citations doubles. The countries with the most citations are the USA, Canada and England. While in the institutional field, the leading institutions are relatively recent in organizational legitimacy studies (Univ. of Alberta, Harvard Univ.). Regarding the key of dissemination, it ceases to be exclusive of a few countries. In this period, the number of countries that act as a knowledge link triples. In addition, many of the countries that generate more citations are not among the countries that contribute to greater dissemination and understanding of organizational legitimacy (e.g. Canada, Australia, the Netherlands or Spain). There are nine more lines of research compared to the previous period, related to institutional theory, ecology theory, initial public offering or corporate social responsibility.

Finally, during 2010–2014, in addition to continuing increase of contributions in the area, the structure of contributing countries and institutions starts to stabilize. Nine of the top 10 countries with the highest frequency of citations during 2005–2009 repeat in the top 10 of the 2010–2014 ranking. Similarly, six of the top ten institutions with the most frequent citations also repeat from 2010 to 2014: Univ. of Alberta; Penn State Univ.; Harvard Univ.; Warwick Univ. York Univ. and Erasmus Univ. In this period, knowledge generation poles in organizational legitimacy start to be established. However, in terms of dissemination, there are still countries with

a large capacity for generating citations, which are not among the countries that contribute to greater dissemination and understanding of organizational legitimacy (e.g. the USA, Canada, Australia). As for the lines of research that emerged in this period, there are 14 lines, one more than the previous period.

The analysis of these four periods has been useful to understand better the countries and institutions that contribute to research in the field of organizational legitimacy, as well as the evolution and dissemination of this field of research. This study provides a comprehensive review of contributors to the discipline of organizational legitimacy, different schools and lines of research, as well as a starting point for future researchers to continue building a sound theoretical basis.

The results of this research have several limitations. On the one hand, although one of the best-known scientific databases (Web of Science) was used for the study, there are, however, numerous publications in the field of organizational legitimacy that are not found in this database. Future research could complete these results by combining the data from several information bases, such as Scopus. On the other hand, research in English has been analysed, so countries and institutions whose mother tongue is English can benefit from the review of citations. Another limitation is that the results of the bibliometric analysis depend on the thresholds defined in the methodology used. In this study, although we varied the thresholds widely without observing significant changes in the network structures, the final results partly depended on technical decisions that we had to make.

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