Strategic planning research through fifty years of Long Range Planning: a bibliometric overview

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Abstract
Long Range Planning (LRP) is the first journal focused on strategic planning. It was created in 1968 by the Long Range Planning Society, and it celebrated its 50th anniversary in 2018. This event led to the presentation of a complete bibliometric study aimed at identifying the most significant results that occurred in the journal during this period. For this purpose, bibliometric data were collected from the Web of Science Core Collection database, and two bibliometric approaches were used to analyze the journal's publications: a performance analysis and a graphical mapping of the literature. The first of these uses a wide range of productivity and influence indicators that include the number of publications and citations, the h-index, and citations by paper, among others. The second approach uses the VOSviewer software to deliver a graphical view of the various intellectual connections within LRP. The results of both bibliometric approaches are consistent and confirm LRP as a leading journal in strategic planning and management, with increasing participation of authors and universities from countries around the world.

Introduction

Long Range Planning (LRP hereafter), established in 1968, is a pioneering journal in the field of strategic management. According to Stiles (2000), the name of the journal was chosen to coincide with the Long Range Planning Society, which emerged in Paris during 1964 as the vision of 12 British researchers concerned about an emerging issue at the time: long-term planning. LRP was successfully led during its first 32 years by Cofounder and Editor in Chief Bernard Taylor. Its subsequent editors, namely, Charles Baden-Fuller, James Robins, and Tomi Laamanen, maintained the mission of its founders. This mission is to help improve the understanding of strategic planning systems and continue to develop the various strategic practices used by the actors who contribute to the strategy of their countries, regions or organizations (Laamanen, 2017). During its 50 years in existence, LRP has covered different topics at the intersection of strategic management across diverse disciplines, publishing articles by the best academics and professionals (Stiles, 2000). This has enabled LRP to build a solid reputation and lead academic research in the

field of strategic management. LRP currently has an impact factor of 3.221 and is among the top 50 Management journals in the Social Science Citation Index.

LRP celebrated its 50th anniversary in 2017, and in honor of that, this document analyzes and shows the main trends that occurred during the journal's five decades. By doing so, we can identify some of the leading trends in strategic planning research. To do this, we use several techniques and bibliometric tools to analyze all of the literature of the journal quantitatively and qualitatively. Bibliometrics involves two main methods, performance analysis and a mapping of science (Cobo et al., 2011a; Noyons et al., 1999). Performance analysis aims to assess the impact of scientific production citations made by different scientific actors including countries, universities or individuals. Science mapping seeks to show the structural and dynamic aspects of scientific research. This approach enriches performance analysis by highlighting issues that have received the most attention from a scientific community. Given their complementarity, both approaches are often developed in combination to validate and enrich the results obtained (Cobo et al., 2011b). Therefore, this study shows the results of combining both approaches with the ultimate aim of identifying the most significant aspects of the various scientific actors who have contributed to the development of LRP since 1968.

Currently, it is quite common for scientific journals to celebrate their most significant anniversaries with important issues or special publications, such as reviews, special issues, or editorial notes. The bibliometric study of a journal is important because through its combined methods – performance analysis and scientific mapping – it is possible to capture general and historical results and retrospectively evaluate the scientific trends and actors that have most impacted the journal. Thus, some of the journals that have published these analyses include Information Sciences in celebration of its 50th anniversary (Merigó et al., 2018), European Journal of Marketing in recognition of its 50th anniversary (Martínez-López et al., 2018), International Journal of Intelligent Systems in its thirties (Merigó et al., 2017), Knowledge-Based Systems in its twenty-fifth year (Cobo et al., 2015), Journal of Product Innovation Management, and more recently, Journal of Knowledge Management in its twenty-first year (Gaviria-Marin et al., 2018). Finally, note that

many other journals have already developed a bibliometric description to celebrate a special anniversary (Merigó et al., 2018).

This document is organized as follows. Section 2 describes the methodological aspects of the work. Specifically, aspects relevant to the main approaches involved in bibliometrics are described. Section 3 presents the results of the performance analysis and science mapping of all literature published in the 50 years of LRP. Finally, Section 4 provides a brief description of the main findings and conclusions of the analysis.

1. Bibliometric methods

Bibliometrics is a technique that explores literature quantitatively using bibliographic references obtained from different reference databases. In this document, the Web of Science (WoS hereafter), belonging to Clarivate Analytics, is used to compile LRP references. The WoS gathers several reference databases, among which the Science Citation Index Expanded (SCIE), the Social Sciences Citation Index (SSCI) and the Emerging Sources Citation Index (ESCI), are included. WoS currently covers more than 18,000 high-impact journals, making it the world's leading reference database (Baier-Fuentes et al., 2019; Gaviria-Marin et al., 2019). Note, however, that there are several other reference databases, such as Scopus, Scielo, and EconLit, among others.

There are many techniques and methodologies that have been used to develop bibliometric analyses. Some studies indicate that bibliometric methodologies include a quantitative analysis of the literature, also known as performance analysis (Noyons et al., 1999). In recent years, science mapping has also been considered an important technique within bibliometrics (Cobo et al., 2011b). The aim of both approaches is to analyze bibliographic material and provide an overview of a set of documents that are limited to a particular field of research, or even, as in our case, to a journal. In order to analyze all the literature published in the journal thoroughly, this study develops both bibliometric approaches, i.e., a performance analysis and a science mapping of all LRP bibliographic records.

Performance analysis uses a series of bibliometric indicators, with the number of publications and the number of citations being the most popular. However, several other indicators that have recently been used provide a more representative and informative view of the data.

This has led to uncertainty as to which is the optimal indicator to best represent the information (Podsakoff et al., 2008). Therefore, in order to reduce that uncertainty, this study includes several indicators that are generally considered to be the most popular. Among them, we use the total number of documents, the paper citations and the h-index. The latter integrates the number of publications and the number of citations into a single measure (Hirsch, 2005). The h-index is an indicator of influence, which indicates the number h of studies of a total N, which have received at least h citations. Note that other indicators can be found in the literature, such as the g-index (Egghe, 2006) or the hg-index (Alonso et al., 2009). However, the methodology used in this study aims to measure the productivity and influence of all the scientific actors involved in LRP and to act in this sense as a valuable, informative resource to the readers of the journal. Other indicators used in performance analyses are citation thresholds that measure the number of documents that are above a specific number of citations and thus allow the journal's references to be ranked according to their level of influence. In addition, other more general indicators, such as university rankings and the number of documents per person, are shown, allowing a broader perspective of the research published in LRP.

Science mapping is an important bibliometric technique that is used to generate a representation of the intellectual connections of a dynamically changing scientific knowledge system (Small, 1999, 1997). In other words, it analyzes the structure of the relationships between all scientific actors interacting in a particular field of research (Cobo et al., 2011b). It is important to mention that the use of science mapping has been strengthened thanks to the development of software that allows the analysis of bibliographic information (Cobo et al., 2011b). Some of the most popular software used in the literature includes, for example, Bibexcel (Persson et al., 2009), CiteSpace II (Chen, 2006), IN-SPIRE (Wise, 1999), VantagePoint (Porter and Cunningham, 2005), and VOSviewer (van Eck and Waltman, 2010). In this study, we used VOSviewer software, which visualizes the results of analysis using indicators such as bibliographic coupling (Kessler, 1963), co-citation (Small, 1973), co-authorship (Glänzel, 2001; Peters and

van Raan, 1991), and co-words (Callon et al., 1983). Bibliographic coupling occurs when two documents cite the same third article. Co-citation measures the most cited documents and occurs when two documents receive a citation from the same third paper. Co-authorship measures the degree of co-authors among the most productive sources. Co-word analysis uses the most important keywords in documents and is used to study the conceptual structure of a field of research. Another interesting function that can be performed with this technique is a temporal analysis of the research field, allowing the analysis and observation of the evolution of the cognitive structure of a field (Noyons et al., 1999).

Finally, it is important to clarify that the results obtained from performance analysis and science mapping give a current but retrospective overview of the last 50 years of LRP. Therefore, it is logical to think that these results will change over time, especially for more recent publications that have yet to significantly improve their indicators.

2. Results

2.1. LRP Bibliometric performance analysis

2.1.1. Publication and citation structure of LRP

LRP published its first issue in September 1968. In the following years it continued to publish four issues per year, until 1974, when it began to publish six issues per year. Figure 1 shows the evolution and number of articles published in LRP.

It is observed from this figure that the average number of publications in LRP increased in 1974, although there was also an important decrease in the number of articles in 2000. It is important to highlight some years in which a large number of publications were produced. For example, the most articles were published in 1989, totalling 93. In contrast, 2012 saw the lowest number of articles published (17), second only to 1968. To analyze the number of publications and the citation structure of LRP, Table 1 shows the number of articles published in the journal annually as well as the total number of citations received by them.
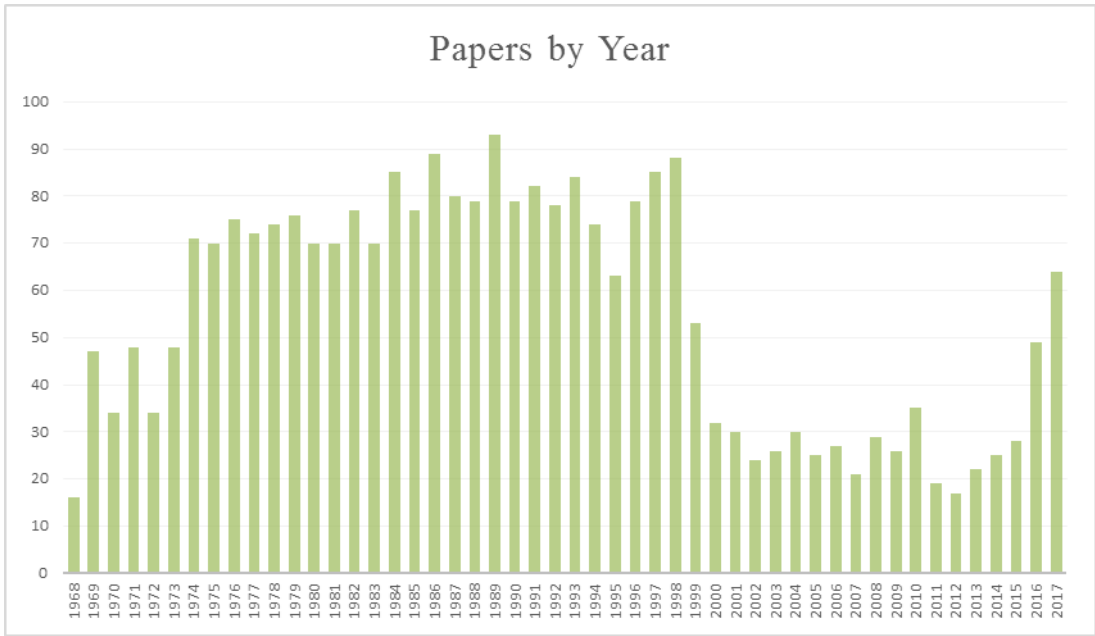
Figure 1 Annual number of papers published in LRP
Source: The authors

This table confirms what was previously described. Between 1974 and 1998, LRP averaged 78 articles per year. In the following years, its average number of published papers decreased to 27 articles per year. The journal's citation structure shows us quite interesting data. For example, 1998 is the year in which articles have accumulated the most citations. However, other years such as 1997 and 2002 have been equally important in terms of the accumulation of citations. Some of the most cited authors in these years are, for example, Edvinsson L., Gray ER., Balmer JMT., and Grant RM., among several others. Also note that 2010 is especially relevant, as several of the articles published during that year have been especially influential.

2.1.2. Influential papers in LRP

LRP has published several documents that have led different lines of research in the field of strategic management. Therefore, these documents have been cited by a wide range of articles published in different Business and Management journals. In this sense, it is important to analyze the most cited articles in the journal. Table 2 presents the fifty most cited LRP articles.

The indicators presented are the year in which the article was published, total citations (TC) and the ratio of citations per year (C/Y).

Teece D.J. is the author who published the most cited article in LRP, with 1,290 citations. The early success of this article lies in its goal, which is to help understand the importance of business models and explore their connections to business strategy, innovation management, and economic theory. Another very influential article from LRP by Nonaka, Toyama and Konno has received 1,195 citations. This article helps to understand the dynamic process in which an organization creates, maintains, and exploits knowledge. An interesting aspect to highlight is the repeated appearance of some authors in this ranking, which coincide with two of the recently mentioned authors, namely, Teece and Nonaka, with two documents each. Finally, it is important to highlight the articles that have the ratio with the highest citations per year. In this context, we highlight the document published in 2010 by Teece, which receives approximately 161 citations per year.

Table 1 Annual citation structure of LRP

Year	TP	TC	>200	>150	>100	>50	>20	>10	>5	>1
1968	16	17	0	0	0	0	0	0	1	3
1969	47	51	0	0	0	0	0	1	3	11
1970	34	109	0	0	0	1	1	1	3	8
1971	48	42	0	0	0	0	0	1	1	7
1972	34	79	0	0	0	0	0	1	4	15
1973	48	72	0	0	0	0	0	1	3	14
1974	71	115	0	0	0	0	1	1	2	20
1975	70	200	0	0	0	1	2	6	7	18
1976	75	157	0	0	0	0	0	3	9	25
1977	72	236	0	0	0	1	1	4	13	30
1978	74	211	0	0	0	0	3	6	7	22
1979	76	241	0	0	0	0	3	7	11	31
1980	70	179	0	0	0	0	1	3	9	24
1981	70	286	0	0	0	2	3	6	12	28
1982	77	436	0	0	1	1	4	9	10	27
1983	70	320	0	0	0	0	3	9	15	34
1984	85	557	0	0	1	3	4	7	13	50
1985	77	399	0	0	0	1	4	11	23	42
1986	89	326	0	0	0	0	3	8	12	43
1987	80	879	1	2	2	4	7	11	22	47
1988	79	733	0	0	1	4	7	9	22	44
1989	93	488	0	0	0	1	2	11	19	59
1990	79	1028	0	0	1	4	11	19	31	56
1991	82	961	0	0	0	5	12	27	40	57
1992	78	840	0	0	1	1	10	19	32	55
1993	84	1078	0	0	0	4	16	29	40	67
1994	74	1218	0	0	0	7	15	30	41	61
1995	63	965	0	0	1	4	14	18	30	49
1996	79	1245	2	2	3	7	16	30	45	69
1997	85	1747	5	7	8	13	30	47	60	77
1998	88	2491	1	1	2	8	23	35	50	72
1999	53	748	0	0	0	1	9	20	33	43
2000	32	952	2	2	2	7	15	23	26	30
2001	30	1012	1	3	5	9	14	21	27	29
2002	24	1850	0	0	3	6	18	23	24	24
2003	26	1149	0	0	2	5	15	19	23	26
2004	30	1242	0	0	1	6	17	24	26	30
2005	25	1323	0	0	2	7	12	21	25	25
2006	27	1073	0	0	1	7	15	21	23	26
2007	21	953	0	0	1	4	10	14	19	20
2008	29	1036	0	0	0	2	15	22	27	29
2009	26	739	0	0	0	3	10	18	21	26
2010	35	928	8	11	14	18	29	32	35	35
2011	19	588	0	0	0	4	9	13	18	18
2012	17	334	0	2	2	3	5	10	13	17
2013	22	558	0	0	1	3	8	16	19	22
2014	25	481	0	0	0	1	7	11	17	25
2015	28	222	0	0	0	0	2	7	10	24
2016	49	276	0	0	0	1	1	1	6	27
2017	64	136	0	0	0	0	0	0	1	14
Total	2749	33306	20	30	55	159	407	686	983	1655
Percentage	100%		0.73%	1.09%	2.00%	5.78%	14.81%	24.95%	35.76%	60.20%

Abbreviations: TP and TC = Total papers and citations; ≥100, ≥50, ≥20, ≥10, ≥5, ≥1 = Number of papers with equal or more than 100, 50, 20, 10, 5 and 1 citations.

Source: The authors

2.1.3. The documents most frequently cited in LRP publications

Knowing the references most cited by documents published in LRP makes it possible to identify the most influential authors and documents among those who publish in LRP. Table 3 presents the 30 most cited documents in the journal's publications. Note that these documents may be of different types, which are distinguished in the table by an A or a B depending on whether it is an article or a book, respectively.

Table 2 The 50 most cited documents in LRP

R	Title	Author/s	Year	TC	C/Y
1	Business Models, Business Strategy and Innovation	Teece, DJ	2010	1290	161,25
2	SECI, ba and leadership: a unified model of dynamic knowledge creation	Nonaka, I; Toyama, R; Konno, N	2000	1195	66,39
3	Business Model Innovation: Opportunities and Barriers	Chesbrough, H	2010	699	87,38
4	Business Model Design: An Activity System Perspective	Zott, C; Amit, R	2010	564	70,50
5	From Strategy to Business Models and onto Tactics	Casadesus-Masanell, R; Ricart, JE	2010	424	53,00
6	Developing intellectual capital at Skandia	Edvinsson, L	1997	409	20,45
7	How corporate social responsibility pays off	Burke, L; Logsdon, JM	1996	400	19,05
8	Strategies for managing knowledge assets: the role of firm structure and industrial context	Teece, DJ	2000	369	20,50
9	Project success: A multidimensional strategic concept	Shenhar, AJ; Dvir, D; Levy, O; Maltz, AC	2001	362	21,30
10	Measuring your company's intellectual performance	Roos, G; Roos, J	1997	356	17,80
11	Business Model Evolution: In Search of Dynamic Consistency	Demil, B; Lecocq, X	2010	345	43,13
12	Business Models as Models	Baden-Fuller, C; Morgan, MS;	2010	312	39,00
13	The new marketing - Developing long-term interactive relationships	Gummesson, E	1987	305	10,17
14	Managing corporate image and corporate reputation	Gray, ER; Balmer, JMT	1998	282	14,84
15	Strategy as practice	Whittington, R	1996	280	13,33
16	SWOT analysis: It's time for a product recall	Hill, T; Westbrook, R	1997	274	13,70
17	Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance	Hair, JF., Jr.; Ringle, CM.; Sarstedt, M	2013	272	54,50
18	Building Social Business Models: Lessons from the Grameen Experience	Yunus, M; Moingeon, B; Lehmann-Ortega, L	2010	272	34,00
19	Business Models: A Discovery Driven Approach	McGrath, RG	2010	267	33,34
20	The Use of Partial Least Squares Structural Equation Modeling in Strategic Management Research: A Review of Past Practices and Recommendations for Future Applications	Hair, JF.; Sarstedt, M; Pieper, TM; Ringle, CM	2012	254	43,33
21	Hierarchical Latent Variable Models in PLS-SEM: Guidelines for Using Reflective-Formative Type Models	Becker, JM; Klein, K; Wetzels, M	2012	236	28,67
22	The knowledge based view of the firm: Implications for management practice	Grant, RM	1997	233	39,33
23	Understanding knowledge management	Demarest, M	1997	230	11,50
24	Sustainability in action: Identifying and measuring the key performance drivers	Epstein, MJ; Roy, MJ	2001	226	13,30
25	Business Model Innovation through Trial-and-Error Learning The Naturhouse Case	Sosna, M; Trevinyo-Rodriguez, RN; Velamuri, SR	2010	225	28,13
26	Integrating intellectual capital and knowledge management	Wiig, KM	1997	214	10,70
27	5 stages of growth in small business	Scott, M; Bruce, R	1987	209	6,97
28	Embedding Strategic Agility A Leadership Agenda for Accelerating Business Model Renewal	Doz, YL; Kosonen, M	2010	198	24,75
29	Success factors of strategic alliances in small and medium-sized enterprises - An empirical survey	Hoffmann, WH; Schlosser, R	2001	174	10,23
30	Business Models and Technological Innovation	Baden-Fuller, C; Haefliger, S	2013	172	34,40
31	Strategic Development of Business Models Implications of the Web 2.0 for Creating Value on the Internet	Wirtz, BW; Schilke, O; Ullrich, S	2010	171	21,38
32	Knowledge management: A strategic agenda	Quintas, P; Lefrere, P; Jones, G	1997	168	7,62
33	The tows matrix - A tool for situational analysis	Weihrich, H	1982	167	4,64
34	Making the most of your company's knowledge: A strategic framework	von Krogh, G; Nonaka, I; Aben, M	2001	162	9,60
35	Business-Model Innovation: General Purpose Technologies and their Implications for Industry Structure	Gambardella, A; McGahan, AM	2010	158	19,75
36	Core competence: What does it mean in practice?	Javidan, M	1998	157	8,26
37	Failing to learn and learning to fail (Intelligently): How great organizations put failure to work to innovate and improve	Cannon, MD; Edmondson, AC	2005	151	11,62
38	Building alliance capability: Management techniques for superior alliance performance	Draulans, J; deMan, AP; Volberda, HW	2003	150	10,00
39	Corporate-NGO Collaboration: Co-creating New Business Models for Developing Markets	Dahan, NM; Doh, JP; Oetzel, J; Yaziji, M	2010	149	18,63
40	Proactive corporate environmental strategies: Myths and misunderstandings	Aragon-Correa, JA; Rubio-Lopez, EA	2007	145	14,50
41	Strategic corporate social responsibility and value creation among large firms - Lessons from the Spanish experience	Husted, BW; Allen, DB	2007	142	12,90

42	Tacit knowledge and environmental management	Boiral, O	2002	142	8,88
43	Offshoring work: Business hype or the onset of fundamental transformation?	Lewin, AY; Peeters, C	2006	141	11,75
44	Complex Business Models: Managing Strategic Paradoxes Simultaneously	Smith, WK; Binns, A; Tushman, ML	2010	139	17,38
45	Identifying and using critical success factors	Leidecker, JK; Bruno, AV	1984	138	4,06
46	The management of innovation in project-based firms	Keegan, A; Turner, JR	2002	137	8,56
47	Managing strategic change - Strategy, culture and action	Johnson, G	1992	128	4,92
48	Creating the future: The use and misuse of scenarios	Godet, M; Roubelat, F	1996	126	5,72
49	Deciding on ISO 14001: Economics, institutions, and context	Bansal, P; Bogner, WC	2002	123	7,70
50	Strategic alliances - Choose your partners	Brouthers, KD; Brouthers, LE; Wilkinson, TJ	1995	120	5,22

Abbreviations: R = Rank; TC = Total citations; C/Y Cites per years.

Source: The authors

Table 3   Top 30 most cited documents in LRP publications

Rank	Year	First author	Source Title	Vol.	Page	Type	TC	Co-cit
1	1980	Porter ME	Competitive Strategy			B	148	80
2	1985	Porter ME	Competitive Advantag			B	86	59
3	1991	Barney J	J Manage	V17	P99	A	73	71
4	1965	Ansoff HI	Corporate Strategy			B	59	32
5	1989	Eisenhardt KM	Acad Manage Rev	V14	P532	A	59	56
6	1982	Peters T	Search Of Excellence			B	57	31
7	1994	Hamel G	Competing Future			B	48	33
8	1982	Nelson RR	Evolutionary Theory			B	48	43
9	1990	Cohen WM	Admin Sci Quart	V35	P128	A	47	41
10	1997	Teece DJ	Strategic Manage J	V18	P509	A	47	44
11	1991	March JG	Organ Sci	V2	P71	A	46	45
12	1963	March JG	Behav Theory Firm			B	44	39
13	1984	Wernerfelt B	Strategic Manage J	V5	P171	A	41	40
14	1995	Nonaka I	Knowledge Creating C			B	36	32
15	1993	Levinthal DA	Strategic Manage J	V14	P95	A	33	30
16	2003	Podsakoff PM	J Appl Psychol	V88	P879	A	33	30
17	1967	Thompson J	Org Action			B	33	24
18	1959	Penrose ET	Theory Growth Firm			B	32	30
19	1992	Kogut B	Organ Sci	V3	P383	A	31	31
20	1970	Ackoff RL	Concept Corporate Pl			B	30	13
21	1990	Prahalad CK	Harvard Bus Rev	V68	P79	A	30	29
22	1962	Chandler AD	Strategy Structure C			B	29	20
23	2000	Eisenhardt KM	Strategic Manage J	V21	P1105	A	29	29
24	1994	Miles MB	Qualitative Data Ana			B	29	28
25	1994	Mintzberg H	Rise Fall Strategic			B	29	18
26	1975	Williamson OE	Markets Hierarchies			B	29	22
27	1978	Hofer C	Strategy Formulation			B	28	13
28	1992	Leonardbarton D	Strategic Manage J	V13	P111	A	28	27
29	1969	Steiner G	Top Management Plann			B	28	16
30	1962	Chandler A	Strategy structure			B	26	17

Abbreviations: Vol. = Volume; TC = Total citations; Co-cit = Co-citations; B = Book; A = Article.

Source: The authors

Porter is the most cited author among LRP publications. In fact, his books "Competitive Strategy" and "Competitive Advantage" occupy the top positions in this list. March, J.G. and Eisenhardt, K.M. are other authors that appear more than once in this list. Also interesting is that 60% of the documents most cited in LRP are books and not articles, unlike other journals.

2.1.4. Leading authors in LRP

LRP has published a large number of articles by authors from different countries. Several of them have led and influenced not only the field of strategic management but also the publications produced by LRP. In this regard, Table 4 presents a list of the 50 most productive authors in the journal. To obtain an overall picture of each author's results, Table 4 considers several bibliometric indicators including the number of articles (TP), number of citations (TC), h-index (H) and citations per article (TC/TP). Please also note that only the last/current affiliation of the corresponding author is included.

Table 4 Top 50 leading authors in LRP

R	Authors	Organization	Country	TP	TC	H	C/P	>100	>50	>10
1	Andrew Campbell	Ashridge Strat Manage Cent	UK	32	312	10	9,75	0	1	8
2	David E Hussey	Nottingham Trent U	UK	30	37	3	1,23	0	0	1
3	Michaek Goold	Ashridge Strat Manage Cent	UK	24	168	8	7	0	0	6
4	Bernard Taylor	U Reading	UK	20	131	7	6,55	0	0	5
5	Henk W. Volberda	Erasmus U	Nether	11	439	9	39,91	1	3	9
6	Carol Kennedy	Director Magazine	UK	11	41	4	3,73	0	0	3
7	Brian Burrows	Futures Associates	UK	10	14	2	1,4	0	0	0
8	William R. King	U Pittsburgh, Pennsylvania	USA	9	227	6	25,22	0	3	5
9	Philippe Lasserre	INSEAD Fontainebleau	France	9	92	4	10,22	0	1	2
10	Christopher J. Clarke	Henley Management College	UK	9	60	3	6,67	0	0	1
11	Harvey Kahalas	State U New York at Albany	USA	9	8	2	0,89	0	0	0
12	Charles Baden-Fuller	City U	UK	8	626	8	78,25	2	4	8
13	Frans AJ van den Bosch	Erasmus U	Nether	8	239	7	29,88	0	1	7
14	Alexander McKelvie	Syracuse U	USA	8	118	4	14,75	0	0	4
15	Merlin Stone	Kingston Polytech	UK	8	86	4	10,75	0	1	1
16	Roland Calori	Inst Rech l'Enterprise	France	8	36	3	4,5	0	0	1
17	André Van Dam	Bedford Construction Co	Argen	8	7	2	0,88	0	0	0
18	Sandra Vandermerwe	U Pretoria	S Africa	7	126	5	18	0	1	2
19	Loizos Heracleous	Warwick Business School	USA	7	116	4	16,57	0	1	3
20	D. Jan Eppink	Free U	Nether	7	69	4	9,86	0	0	1
21	Toyohiro Kono	Gakushuin U	Japan	7	46	5	6,57	0	0	2
22	Giorgio Petroni	Padua U	Italy	7	28	3	4	0	0	1
23	Richard Whittington	U Oxford	UK	6	426	4	71	1	3	3
24	Keith D. Brouthers	U East London	UK	6	232	6	38,67	1	2	4
25	Howard Thomas	Warwick Business School	USA	6	46	4	7,67	0	0	1
26	Sypros Makridakis	INSEAD Fontainebleau	France	6	25	3	4,17	0	0	0
27	Clark Holloway	U South Carolina	USA	6	20	3	3,33	0	0	0
28	Graham Turner	Nestlé S.A	Switz	6	4	1	0,67	0	0	0
29	Johan Roos	Imagination Lab Foundation	Switz	5	480	5	96	1	2	5
30	Bern W. Wirtz	German U Adm Sci Speyer	Germany	5	312	4	62,4	1	3	4
31	Georg von Krogh	ETH Zurich	Switz	5	290	4	58	1	2	4
32	Leif Melin	Jönköping U	Sweden	5	107	4	21,4	0	1	3
33	Ian Wilson	Wolf Enterprises	USA	5	89	5	17,8	0	0	2
34	Philip Stiles	U Cambridge	UK	5	79	4	15,8	0	0	2
35	Peter Lorange	Nestlé S.A	Switz	5	70	3	14	0	0	2
36	Peter H Grinyer	U St Andrews	UK	5	60	4	12	0	0	2
37	Sue Birley	Imperial College	UK	5	52	3	10,4	0	0	1
38	Mike Wright	Nottingham U	UK	5	41	3	8,2	0	0	2
39	Johan G. Wissema	Wissema Group	Nether	5	31	2	6,2	0	0	1
40	Richard B. Higgins	Northeastern U	USA	5	26	3	5,2	0	0	1
41	Tony Grundy	City U Business School	USA	5	20	3	4	0	0	0
42	Brian T. Houlden	Warwick Business School	USA	5	15	2	3	0	0	0
43	George F. Ray	National Inst Econ Social Res	UK	5	9	1	1,8	0	0	0
44	Roger W. Mills	Henley Management College	UK	5	5	1	1	0	0	0
45	Siegfried Höhn	Volkswagen AG	Germany	5	3	1	0,6	0	0	0
46	Robert M. Grant	Bocconi U	Italy	4	245	3	61.25	1	1	2
47	Keith W. Glaister	U Leeds	UK	4	112	4	28	0	1	3
48	Colin Eden	Strathclyde U	UK	4	110	4	27.5	0	1	2
49	Stephen Cummings	Victoria U Wellington	N Zealand	4	102	4	25.5	0	0	4
50	H. Igor Ansoff	US Int U in San Diego	USA	4	58	3	14,5	0	0	2

Abbreviations are available in Tables 1 and 2 except for: H = *h*-index; C/P = Cites per paper.

Source: The authors

Note that Andrew Campbell is the most productive author in the magazine with 32 papers and an h-index of 10. David Hussey follows with 30 papers. However, other authors have achieved remarkable indicators of productivity and influence. Such is the case of Charles Baden-

Fuller, who has 8 published papers and 626 citations. Note also that this author's h-index is 8. In other words, all of this author's papers have been cited at least 8 times. It is also interesting to note that this author has the highest level of citations per article. Finally, keep in mind that a significant proportion of the authors who publish in LRP are European, with a large presence of authors from the UK.

2.1.5. The most productive and influential institutions in LRP

Another issue similar to the previous point, which is interesting to analyze, is to identify the institutions that have published the most and that have a great influence on LRP. These institutions are, in general, those in which the authors collaborate and develop their research. Table 5 shows the 50 most productive and influential institutions of the journal's 50 years. This table considers different performance indicators including total papers (TP), total citations (TC), h-index (H) and the ratio of citations per papers (TC/TP). It also contains the number of papers per citation threshold of 100, 50 and 10. The Table also presents the current world ranking of these institutions according to the Academic Ranking of World Universities (ARWU) and the Quacquarelli Symonds World University Ranking (QS). The objective of using the last two indicators is to see the world ranking of the main universities publishing in LRP.

University of Warwick, Erasmus University Rotterdam and the University of Reading are the institutions leading productivity in LRP. However, the University of California at Berkeley is by far the journal's most influential institution. Other institutions that stand out in this line are the University of Pennsylvania and Harvard University, with more than one thousand citations each. It is important to point out that 40% of the universities on this list are from the UK. However, universities from the USA and European countries such as Netherlands, France, Denmark and Switzerland also appear. Institutions from other continental regions are rarely listed. It is also of note that many of the best universities have published in this journal. In fact, 21 of the 50 institutions appear among the top 100 universities in the world rankings. Nine of them, led by Harvard University and the University of Cambridge, are in the Top 20. From this perspective, LRP is a quite diverse and influential

journal in the field of strategic management.

It is also interesting to follow and analyze temporally the productivity of the institutions during the fifty years of LRP. Table 6 shows a temporal analysis of the 30 institutions that have contributed the most to the development and positioning of the journal.

During the first decade of its existence, it is clear that contributions to LRP were mainly concentrated in three institutions. Of these, the University of Bradford has maintained an important level of contribution. It is also noted that over the last three decades, Erasmus University Rotterdam has led journal productivity. Finally, it can be observed that he University of Warwick has maintained a strong presence during the last four decades, which has allowed it to lead productivity during LRP's fifty years.

2.1.6. The most productive and influential countries in LRP

LRP has published works from a large number of countries, making it an internationally diverse magazine. Table 7 presents the 50 most productive and influential LRP countries. Please note that the country refers to the country in which the authors worked at the time their manuscript was published. In this list, the countries are classified according to their productivity, although influence indicators are also shown in Table 5. In addition, productivity indicators and citations are incorporated for each million inhabitants of the country.

The results in Table 7 confirm an increase in the multinationality of LRP. It can be seen that more than 50 countries have managed to publish in the magazine. The UK leads in productivity, with more than 870 documents published. However, the USA is the most influential country, with more than 14,000 citations and an h-index of 58. It should be noted, however, that countries such as the Netherlands or Canada, with considerably fewer publications, obtain a high level of citations in LRP compared to other countries. The citation thresholds also show that the USA has published most of the journal's most influential articles. In terms of productivity per person, small countries such as San Marino and

Table 5 The most productive and influential institutions in LRP

R	Organization	Country	TP	TC	H	TC/TP	>100	>50	>10	ARWU	QS
1	U Warwick	UK	40	515	14	12,88	0	0	18	101-150	57
2	Erasmus U Rotterdam	Netherlands	38	865	16	22,76	2	5	20	73	147
3	U Reading	UK	37	407	12	11	0	2	14	201-300	188
4	Ashridge Strat Manag	UK	36	214	8	5,94	0	0	7	-	-
5	City U London	UK	34	865	14	25,44	2	4	15	-	343
6	U Bradford	UK	34	540	12	15,88	0	3	14	-	601-650
7	U Manchester	UK	29	174	7	6	0	0	7	38	34
8	London Business School	UK	27	445	9	16,48	1	1	6	-	308
9	Int Inst Manag Devel	Switzerland	25	823	10	32,92	2	3	10	-	-
10	U Cambridge	UK	24	388	12	16,17	0	1	13	3	5
11	Cranfield U	UK	23	416	9	18,09	1	2	9	-	-
12	INSEAD Business School	France	23	321	8	13,96	1	2	4	-	-
13	National U Singapore	Singapore	22	247	8	11,23	0	1	8	91	15
14	U Pennsylvania	USA	21	1299	12	61,86	3	5	13	17	19
15	Cardiff U	UK	21	301	10	14,33	0	2	8	99	137
16	Bocconi U	Italy	20	493	12	24,65	1	2	12	-	-
17	Harvard U	USA	18	1057	11	58,72	4	5	11	1	3
18	U Bath	UK	18	271	5	15,06	1	2	5	501-600	160
19	U Nottingham	UK	18	243	10	13,5	0	1	8	101-150	84
20	U Oxford	UK	17	598	10	35,18	1	4	10	7	6
21	U Pittsburgh	USA	17	282	8	16,59	0	3	6	68	142
22	Northeastern U	USA	17	126	6	7,41	0	0	4	201-300	346
23	Vrije U Amsterdam	Netherlands	16	371	10	23,19	1	2	5	101-150	218
24	Copenhagen Bus School	Denmark	16	330	7	20,63	0	2	10	601-700	-
25	Open U UK	UK	14	319	7	22,79	1	2	6	601-700	-
26	U St Gallen	Switzerland	14	236	8	16,86	0	0	8	-	372
27	Temple U	USA	14	184	9	13,14	0	0	6	301-400	651-700
28	Baruch College CUNY	USA	13	323	8	24,85	0	3	7	-	-
29	Lancaster U	UK	13	198	5	15,23	0	2	3	301-400	135
30	Virginia Polytech Inst St U	USA	13	104	5	8	0	1	3	301-400	367
31	Loughborough U	UK	13	71	4	5,46	0	0	1	601-700	234
32	U Strathclyde	UK	12	466	7	38,83	1	3	5	-	277
33	Columbia U	USA	12	299	4	24,92	1	1	4	8	18
34	Int Bus Machines (IBM)	USA	12	20	3	1,67	0	0	0	-	-
35	U California Berkeley	USA	11	2416	8	219,64	5	6	8	5	27
36	U Western Ontario	Canada	11	375	8	34,09	1	3	8	-	210
37	U Leeds	UK	11	352	8	32	0	3	8	101-150	101
38	Imperial College London	UK	11	230	5	20,91	0	1	5	27	8
39	U Birmingham	UK	11	92	5	8,36	0	0	3	101-150	84
40	U Innsbruck	Austria	11	70	3	6,36	0	0	2	151-200	286
41	U California Los Angeles	USA	10	223	5	22,3	1	1	5	12	33
42	Duke U	USA	10	218	5	21,8	1	1	2	26	21
43	Boston U	USA	10	158	7	15,8	0	0	6	80	81
44	U Hong Kong	PR China	10	126	4	12,6	0	1	3	101-150	26
45	Sri International	USA	10	71	5	7,1	0	0	2	-	-
46	U Illinois Urbana Champ	USA	10	56	4	5,6	0	0	2	37	69
47	BI Norwegian Bus Sch	Norway	9	424	5	47,11	1	1	5	-	-
48	Polytechnic U Milan	Italy	9	339	9	37.67	0	1	9	201-300	170
49	Ohio State University	USA	9	203	5	22.56	0	1	4	80	86
50	Aston U	UK	9	153	5	17	0	1	4	-	373

Abbreviations are available in Tables 1, 2 and 4 except for: ARWU = Academic Ranking of World Universities; QS = Quacquarelli Symonds University Ranking.

Source: The authors

Table 6   Temporal analysis of 30 most contributing institutions

	University	TP	TC		R	University	TP	TC
	1968-1978					**1999-2008**		
1	U Bradford	11	30		1	Erasmus U Rotterdam	16	621
2	U Manchester	9	10		2	U Warwick	12	323
3	Virginia Polytechnic Inst St U	9	4		3	City U London	9	272
	1979-1988				4	U Nottingham	8	179
1	Harbridge House Europe	16	5		5	Harvard U	7	502
2	U Reading	13	80		6	U Western Ontario	7	304
3	U Manchester	10	29		7	U Bradford	7	277
4	Loughborough U	9	20		8	U Pennsylvania	7	249
5	U Bath	8	149		9	Bocconi U	7	170
6	U Pittsburgh	7	154		10	U Cambridge	7	153
7	U Bradford	7	2		11	U Reading	6	180
8	U Minnesota Twin Cities	6	88		12	Cardiff U	6	121
9	Cranfield U	6	31			**2009-2017**		
10	Sri International	6	26		1	Erasmus U Rotterdam	13	130
11	U Warwick	6	24		2	City U London	12	496
	1989-1998				3	Bocconi U	12	316
1	Erasmus U Rotterdam	16	615		4	Copenhagen Business School	12	259
2	U Warwick	12	319		5	U Cambridge	10	176
3	City U London	9	272		6	U St Gallen	9	81
4	U Nottingham	8	177		7	U Oxford	9	50
5	Harvard U	7	492		8	U Pennsylvania	8	972
6	U Western Ontario	7	301		9	Esade Business School	8	137
7	U Bradford	7	274		10	Universitat Ramon Llull	8	137
8	U Pennsylvania	7	246		11	ETH Zurich	7	152
9	Bocconi U	7	169		12	U Warwick	7	46
10	U Cambridge	7	152		13	U Innsbruck	7	15
11	U Reading	6	177		14	U Reading	6	97
12	Cardiff U	6	120		15	Lancaster U	6	84

Abbreviations are available in the previous tables.   **Source:** The authors

Switzerland are the most productive. Similarly, the citation per person indicator again indicates that San Marino and Switzerland receive the best indicators. Other countries, such as the UK, the Netherlands and Norway, obtain outstanding results.

Table 8 shows the bibliometric indicators of LRP from a regional perspective. This table shows that European countries, led mainly by the UK, broadly dominate LRP productivity. European countries also obtain outstanding results in terms of influence, with indicators such as total citations or h-indexes higher than North America.

2.1.7. Actors who most cite LRP

Finally, in this performance analysis, we believe that it is valuable to identify the scientific actors who cite LRP publications most. Table 9 shows the authors, institutions, countries and journals that most frequently cite LRP.

From the table above, Henry W. Volberda is the most cited author of LRP publications. It

should also be noted that this author is one of the ten most productive LRP authors. Along the same lines, the University of Manchester is the institution that cites the journal most. It is followed by the University of Warwick and Erasmus University Rotterdam. Curiously enough, the USA is the country that has cited LRP's work the most. However, one must keep in mind that the journal's work has been cited by very diverse countries, confirming the journal's growing multinationality and influence. Note that a large number of LRP articles cite articles published in the same magazine. LRP is a pioneer journal in strategic management, and has become consolidated and quite influential during these five decades, so it is normal that it has a high level of self-citation. Finally, an important aspect that validates and reinforces LRP is that journals from different areas and disciplines have cited its articles.

Table 7 The most productive and influential countries in LRP

R	Country	TP	TC	H	TC/TP	>100	>50	>10	Population	TP/POP	TC/POP
1	UK	873	9.123	46	10,45	9	39	210	65640000	13,30	138,99
2	USA	754	14.916	58	19,78	29	68	237	324118787	2,33	46,02
3	Netherlands	125	2.538	25	20,3	7	14	48	16979729	7,36	149,47
4	Canada	107	2.062	22	19,27	5	15	37	36286378	2,95	56,83
5	Switzerland	89	1.664	22	18,7	2	7	35	8379477	10,62	198,58
6	France	78	1.472	15	18,87	5	7	21	64668129	1,21	22,76
7	Germany	68	1.513	21	22,25	4	9	29	80682351	0,84	18,75
8	Italy	61	1.005	17	16,48	1	4	24	59801004	1,02	16,81
9	Japan	50	1.464	11	29,28	1	2	11	126323715	0,40	11,59
10	Australia	49	563	12	11,49	0	4	12	24309330	2,02	23,16
11	PR China	45	621	13	13,8	1	2	9	1382323332	0,03	0,45
12	India	44	159	6	3,61	0	0	5	1326801576	0,03	0,12
13	Belgium	34	511	12	15,03	1	3	13	11371928	2,99	44,94
14	Singapore	32	347	12	10,84	0	1	12	5696506	5,62	60,91
15	Spain	31	1.435	11	46,29	4	5	13	46064604	0,67	31,15
16	Austria	26	452	9	17,38	1	2	7	8747000	2,97	51,67
17	Sweden	25	534	7	21,36	1	3	5	9851852	2,54	54,20
18	Denmark	24	411	11	17,13	0	2	11	5690750	4,22	72,22
19	New Zealand	22	193	9	8,77	0	0	6	4565185	4,82	42,28
20	Norway	19	539	9	28,37	1	2	9	5271958	3,60	102,24
21	South Korea	19	129	7	6,79	0	0	2	50503933	0,38	2,55
22	South Africa	18	304	6	16,89	1	2	2	54978907	0,33	5,53
23	Israel	17	584	7	34,35	1	3	6	8192463	2,08	71,29
24	Ireland	17	172	7	10,12	0	1	5	4713993	3,61	36,49
25	Finland	14	377	8	26,93	1	1	8	5523904	2,53	68,25
26	Greece	9	194	7	21,56	0	1	5	10919459	0,82	17,77
27	Taiwan	9	103	5	11,44	0	0	3	23395600	0,38	4,40
28	Portugal	7	77	5	11	0	0	3	10304434	0,68	7,47
29	Brazil	7	65	3	9,29	0	0	2	209567920	0,03	0,31
30	Mexico	5	407	4	81,4	2	3	3	128632004	0,04	3,16
31	Slovenia	4	104	3	26	0	1	3	2065000	1,94	50,36
32	Cyprus	4	59	4	14,75	0	0	3	1170000	3,42	50,43
33	Thailand	3	22	2	7,33	0	0	1	68860000	0,04	0,32
34	Nigeria	3	7	2	2,33	0	0	0	186000000	0,02	0,04
35	Bangladesh	2	236	2	118	1	1	1	162910864	0,01	1,45
36	Tanzania	2	6	1	3	0	0	0	55570000	0,04	0,11
37	Hungary	2	3	1	1,5	0	0	0	9818000	0,20	0,31
38	Russia	2	1	1	0,5	0	0	0	143439832	0,01	0,01
39	Serbia	2	0	0	0	0	0	0	7057000	0,28	0,00
40	Chile	1	32	1	32	0	0	1	18131850	0,06	1,76
41	San Marino	1	27	1	27	0	0	1	33203	30,12	813,18
42	Iceland	1	2	1	2	0	0	0	334252	2,99	5,98
43	Lebanon	1	2	1	2	0	0	0	6007000	0,17	0,33
44	Colombia	1	1	1	1	0	0	0	48654392	0,02	0,02
45	Egypt	1	1	1	1	0	0	0	95690000	0,01	0,01
46	Rhodesia	1	1	1	1	0	0	0	6930000	0,14	0,14
47	Saudi Arabia	1	1	1	1	0	0	0	32157974	0,03	0,03
48	Argentina	1	0	0	0	0	0	0	43847277	0,02	0,00
49	Czech Republic	1	0	0	0	0	0	0	10560000	0,09	0,00
50	Libya	1	0	0	0	0	0	0	6293000	0,16	0,00

Abbreviations are available in the previous tables except for: TP/POP = Total publications per million inhabitants; TC/POP = Total citations per million inhabitants; Population is in thousands.

Source: The authors

Table 8   Publications classified by continents

R	SUPRAREGIONS	TP	TC	H	TC/TP	POPULATION	TP/POP	TC/POP
1	Europe	1,514	22,164	240	14.64	667,539,921	2.27	33.20
2	North America	861	16,978	80	19.72	360,405,165	2.39	47.11
3	Asia	228	3,749	72	16.44	3,203,612,963	0.07	1.17
4	Oceania	71	756	21	10.65	28,874,515	2.46	26.18
5	Africa	26	319	11	12.27	405,461,907	0.06	0.79
6	Latin America	15	529	7	35.27	18,131,850	0.83	29.18

Abbreviations are available in the previous tables.

Source: The authors

Table 9   Citing articles of LRP: Authors, universities, countries and journals

R	Author	TP	University	TP	Country	TP	Journal	TP
1	Volberda HW	47	U Manchester	228	USA	4275	Long Range Planning	772
2	Buckley PJ	34	U Warwick	218	UK	3720	Industrial Marketing Manag	266
3	Wright M	32	Erasmus U Rotterdam	210	Australia	1150	Tech Forecast Social Change	254
4	Van Den Bosch F	31	U Cambridge	194	Spain	1059	J Business Research	245
5	Das TK	28	Cranfield U	186	Germany	1046	J Business Ethics	231
6	Lee S	28	Copenhagen Bus Sch	179	Netherlands	1003	Strategic Management Journal	228
7	Carmeli A	27	Aalto U	178	Canada	950	J Cleaner Production	216
8	Hitt MA	24	U North Carolina	157	PR China	840	Int J Technology Management	200
9	Boiral O	23	U St Gallen	152	Italy	786	J Management Studies	198
10	Jarzabkowski P	22	U Leeds	146	Taiwan	688	Management Decision	192
11	King WR	22	U Nottingham	143	France	634	Int J Oper Prod Management	190
12	Kodama M	22	National U Singapore	142	Finland	629	Technovation	167
13	Liu Y	22	Cardiff U	132	Sweden	582	Int J Production Economics	166
14	Matthyssens P	22	U Strathclyde	127	Switzerland	458	R D Management	144
15	Cunha MPE	21	Tilburg U	125	Denmark	439	Int J Project Management	135
16	Elbanna S	21	Lappeenranta U Tech	110	South Korea	351	J Knowledge Management	127
17	Gassmann O	21	Polytech U Milan	110	Belgium	306	Int Business Review	123
18	Jabbour CJC	21	Delft U Techn	108	India	301	Service industries Journal	122
19	Kumar V	21	U Oxford	106	Norway	289	J Product Innov Management	118
20	Lederer AL	20	U Bath	104	Brazil	277	British J Management	112
21	Lichtenthaler U	20	BI Norwegian Bus Sch	103	New Zealand	265	Int J Production Research	110
22	Lin CH	20	Loughborough U	99	Portugal	244	Indust Management Data Syst	109
23	Sarstedt M	20	U Sheffield	97	Malaysia	232	J World Business	108
24	Depablos PO	19	Vrije U Amsterdam	97	Singapore	227	J Int Business Studies	105
25	Teo TSH	19	ETH Zurich	96	Turkey	226	Expert Systems with Applic	99
26	Lee H	18	Hong Kong Poly U	96	Austria	218	Techn Analysis Strat Manag	99
27	Park Y	18	U Birmingham	96	Japan	184	European J Marketing	98
28	Ringle CM	18	U Queensland	96	South Africa	176	Futures	97
29	Ritala P	18	City U London	95	Iran	165	Organization Studies	97
30	Westhead P	18	Lancaster U	95	Greece	164	Research Policy	96
31	Duysters G	17	U NSW Sydney	95	Israel	159	J Management	94
32	Henseler J	17	U Twente	93	Ireland	156	Omega Int J Manag Sci	90
33	Kraus S	17	Arizona State U	92	Slovenia	109	Total Quality Manag Bus Excel	90
34	Sadler-Smith E	17	U Groningen	92	Poland	97	Int J Management Reviews	89
35	Von Krogh G	17	Aarhus U	91	Mexico	86	Sustainability	88
36	Beamish PW	16	Aston U	90	UAE	86	Eur J Oper Res	87
37	Bessant J	16	Bocconi U	90	Thailand	73	Knowledge Manag Res Pract	86
38	Greenley GE	16	RMIT Melbourne	89	Russia	64	Organization Science	85
39	Grover V	16	U Reading	89	Chile	57	IEEE Trans Eng Manag	80
40	Heracleous L	16	U Montreal	88	Saudi Arabia	53	Int J Human Resource Manag	80

Abbreviations are available in the previous tables.

Source: The authors

2.2. Science mapping of LRP

As mentioned above, science mapping or bibliometric mapping has become an important methodology in the field of bibliometrics (Cobo et al., 2015; van Eck and Waltman, 2010). This methodology attempts to show a spatial representation of the relationships between the different scientific actors in a field of knowledge that is dynamically changing (Small, 1997). In short, science mapping shows the structural and dynamic aspects of scientific research (Börner et al., 2003; Cobo et al., 2011b) and can be used as a complementary approach to bibliometric performance indicators (Cobo et al., 2012). Therefore, in order to obtain a more complete and complementary image of the results previously shown, this section presents science mapping of the main actors who publish in LRP. This analysis is performed using VOSviewer software, which visualizes bibliographic material through bibliographic coupling (Kessler, 1963) and analysis of citations and co-citations (Small, 1973). Bibliographic coupling analyzes documents cited (Cobo et al., 2011b) and occurs when two documents published in a journal cite the same third document. In the figure, the two documents are connected, but not the third, unless it also has a significant degree of bibliographic linkage by means of other documents. Therefore, for the purposes of this research, bibliographic coupling represents the highest productivity in LRP and shows how this research is connected to others (Merigó et al., 2016). Shared citations or co-citations study cited documents and occur when two documents receive a citation for a third document that has been published. The figure shows the two documents that have been cited by the article published in the journal, but not the latter. In this way, co-citation shows the research most cited in LRP and its connections (Merigó et al., 2017). Finally, the analysis of citations represents the sum of the citations that one scientific actor gives to another, and vice versa.

To carry out science mapping, the co-citation indicator of the most cited journals in LRP was analyzed first. Keep in mind that in this case, co-citation occurs when two documents published in different journals receive a citation from the same third document from another journal. Figure 2 presents the results with a threshold of 20 documents and the 100 strongest co-citation connections.

Note in Figure 2 that management journals such as the Strategic Management Journal, Academy of Management Journal and Academy of Management Review are very influential in LRP. This makes sense given the importance of these journals in the field of strategic management. Additionally, note that LRP dominates the central part of the graph, as it is very influential in its own articles. These results should not be surprising given that they are frequent in the analysis of co-citations of journals. One explanation for this is that authors often cite articles from the same source. It is also evident that LRP has a strong connection with journals in many areas but especially with Business and Management journals. Note that journals from other areas of business, such as marketing, are also frequently cited and clustered together. This denotes the interest of the different areas of business in the field of strategic management, and also highlights the breadth of topics published and cited in LRP.

To observe how citations evolve over time, Figures 3, 4 and 5 present a temporal analysis of co-citations of journals from the last three decades.

Note that in the last three decades, LRP appears quite influenced by itself. However, there is also a strong connection to and influence from several management journals mentioned above. All these journals are leaders in the field of strategic management and therefore logically influence LRP's publications. It is also interesting to note the appearance of many other journals in the last decade. One explanation is that in the 1980s, there were not as many journals, and fewer articles were published than today, so the map of the decade 1988-1997 is less dense than that of the decade 2008-2017. The emergence of the Internet has also had a great impact on this phenomenon. Specifically, the digitalization of knowledge has made it easier for researchers to access different editorial platforms and articles in general.

To summarize these results, Table 10 presents a global report of the 30 most cited journals in LRP as well as a temporal analysis of the last three decades.
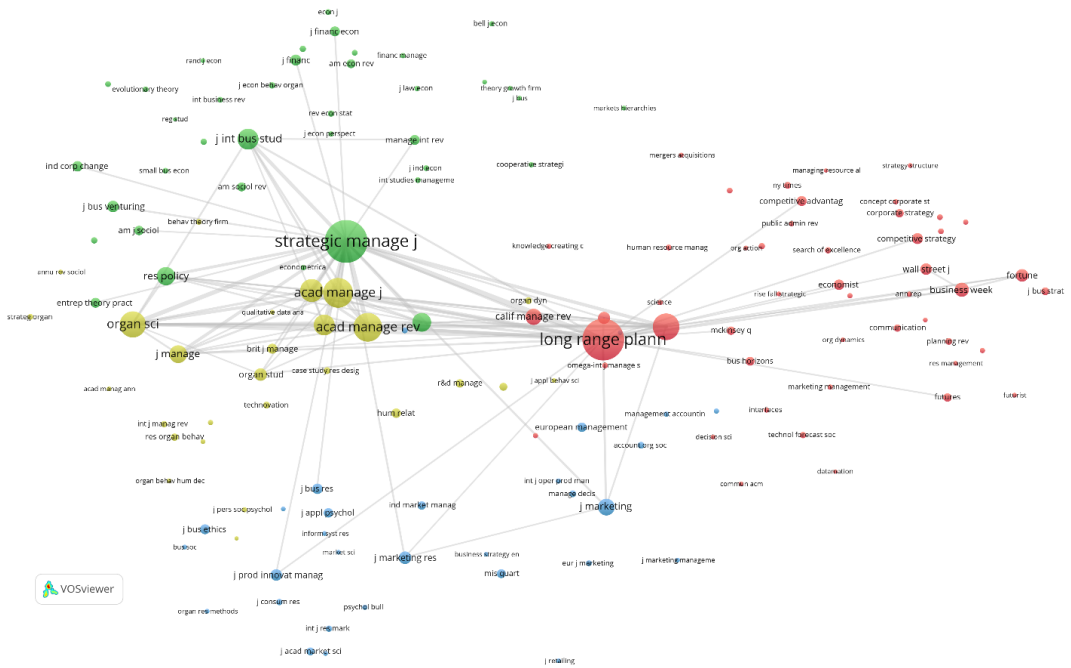
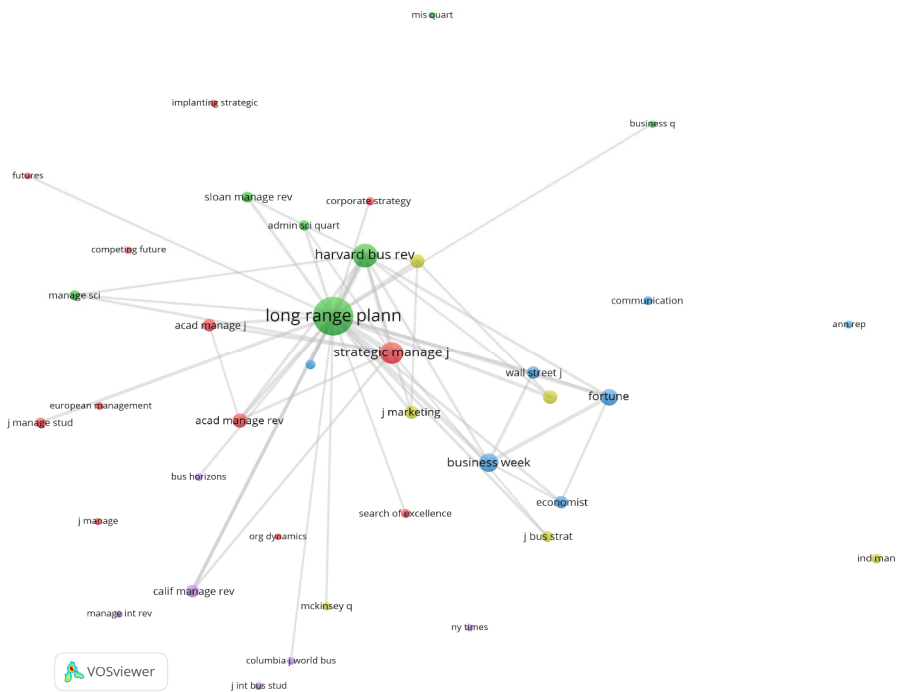**Figure 2** Co-citation of journals in LRP
Source: The authors

Figure 3 Co-citation of journals in LRP: 1988-1997
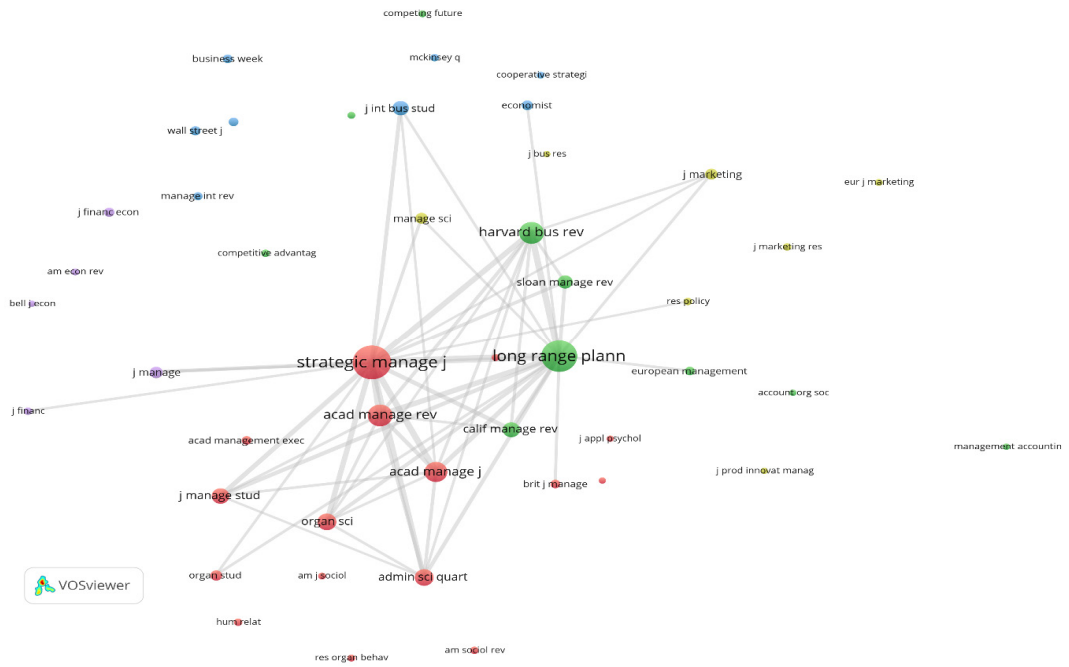**Source:** The authors

Figure 4 Co-citation of journals in LRP: 1998-2007
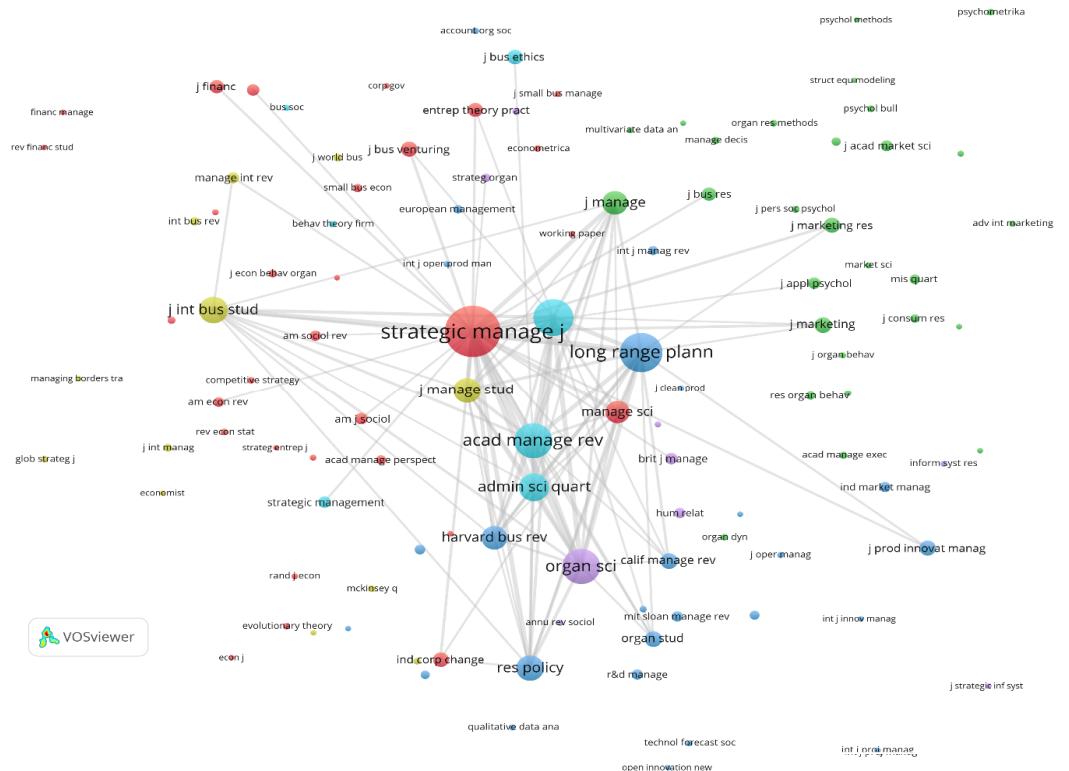**Source:** The authors

Figure 5 Co-citation of journals in LRP: 2008-2017
Source: The authors

Table 10 Co-citation of journals in LRP: Global and temporal analysis

R	Global Journal	Cit	CLS	1988-1997 Journal	Cit	CLS	1998-2007 Journal	Cit	CLS	2008-2017 Journal	Cit	CLS
1	Strategic Manage J	2602	2179.62	Long Range Plann	602	394.46	Strategic Manage J	587	465.27	Strategic Manage J	1778	1489.17
2	Long Range Plann	2477	1897.4	Harvard Bus Rev	228	187.72	Long Range Plann	516	399.53	Long Range Plann	1027	856.88
3	Acad Manage J	1245	1136.04	Strategic Manage J	211	173.16	Acad Manage Rev	241	219.6	Acad Manage J	926	843.9
4	Acad Manage Rev	1187	1095.84	Business Week	134	111.57	Harvard Bus Rev	241	211.69	Acad Manage Rev	832	764.96
5	Harvard Bus Rev	1002	893.29	Fortune	114	100.59	Acad Manage J	213	188.42	Organ Sci	818	743.99
6	Organ Sci	978	892.4	Acad Manage Rev	82	75.31	Admin Sci Quart	147	135.3	Admin Sci Quart	527	499.02
7	Admin Sci Quart	751	708.9	J Marketing	69	58.71	Organ Sci	147	133.81	J Int Bus Stud	480	407.7
8	J Manage Stud	616	584.5	Calif Manage Rev	67	60.76	J Manage Stud	128	117.3	Res Policy	435	390.1
9	J Int Bus Stud	614	524.46	Wall Street J	65	56.38	Calif Manage Rev	120	112.27	J Manage Stud	431	409.51
10	Manage Sci	516	485.3	Economist	64	49.65	J Int Bus Stud	107	86.17	J Manage	371	356.56
11	Res Policy	481	430.39	Acad Manage J	63	58.66	Sloan Manage Rev	90	85.57	Harvard Bus Rev	370	351.22
12	J Manage	464	447.84	Sloan Manage Rev	48	45.83	J Manage	70	68.61	Manage Sci	349	333.16
13	J Marketing	404	356.57	J Bus Strat	47	43.96	J Marketing	63	54.21	J Marketing	176	167.19
14	Calif Manage Rev	378	359.62	Admin Sci Quart	45	43.44	Manage Sci	60	57.43	Organ Stud	168	161.97
15	Business Week	294	239.51	Manage Sci	45	42.45	Organ Stud	54	53.12	Calif Manage Rev	167	160.61
16	Organ Stud	234	227.07	J Manage Stud	44	39.68	Economist	48	42.45	J Bus Venturing	160	147.71
17	Fortune	226	200.87	Planning Rev	40	35.89	J Financ Econ	44	34.1	J Marketing Res	160	154.22
18	J Marketing Res	220	208.76	McKinsey Q	28	21.9	Wall Street J	44	38.87	J Prod Innovat Manag	152	140.97
19	Sloan Manage Rev	218	211	Bus Horizons	27	24.67	Acad Management Exec	42	40.87	J Bus Ethics	144	102.48
20	Wall Street J	192	157.83	European Management	27	22.82	Brit J Manage	42	40.48	Ind Corp Change	140	135.95
21	J Prod Innovat Manag	190	173.03	J Int Bus Stud	26	24.37	Business Week	42	29.85	Entrep Theory Pract	135	126.29
22	J Bus Venturing	184	171.18	Columbia J World Bus	25	21.8	European Management	42	39.97	J Financ	123	112.32
23	J Financ	170	152.63	J Manage	23	22.48	Fortune	39	34.05	J Bus Res	119	116.86
24	Economist	156	129.48	NY Times	22	21	Manage Int Rev	33	30.64	Brit J Manage	97	94.5
25	J Bus Res	156	153.06	Business Q	21	15.55	Hum Relat	32	30.01	J Appl Psychol	95	92.73
26	Ind Corp Change	152	147.84	Manage Int Rev	21	19.03	J Financ	32	27.03	Am J Sociol	91	88.97
27	J Bus Ethics	151	108.06	MIS Q	21	15.42	J Marketing Res	31	26.81	J Financ Econ	89	82.91
28	J Financ Econ	146	133.13	Futures	20	15.09	McKinsey Q	31	28.26	J Acad Market Sci	87	84.52
29	Brit J Manage	142	138.17	Org Dynamics	20	17.45	Res Policy	29	26.42	Manage Int Rev	86	83.52
30	Entrep Theory Pract	142	132.67	J Gen Manage	19	18.25	Am Sociol Rev	28	27.27	Hum Relat	73	71.42

Source: The authors

Abbreviations: R = Rank; Cit = Citations; CLS = Citation link strength.

The results confirm what was stated in the previous figures and show a strong influence of management magazines on LRP. It is also important to highlight the influence of journals from different areas of business and management. A particularly striking case is the growing influence of the Journal of International Business Studies on LRP. Note that this is much easier to observe from the previous figures, where JIBS appears to be heavily influencing LRP in the last decade, 2008-2017.

Another interesting issue to analyze is the co-citation of authors. These are the authors most cited in LRP and the different connections they have with other researchers. Figure 6 presents the co-citation of authors with a threshold of 50 documents and the 100 strongest co-citation connections.

The figures clearly show that Porter is the center of the main nucleus and is therefore one of the most cited authors among LRP publications. It is also evident that other authors have received quite a few citations and are therefore at the center of some of the figure's subcores. Such is the case of Mintzberg, Eisenhardt, Hamel, and Teece, among others. Note that several of these authors appear in the list of documents most cited by LRP publications, and therefore, the results obtained in the performance analysis and science mapping are consistent.

Another key aspect to analyze is the bibliographic coupling of the universities that publish in LRP. Remember that bibliographic coupling occurs when two documents from different universities cite the same third document from another university. Note that the two connected universities appear on the map, but not the third cited university, unless you also have a significant degree of bibliographic linkage through other documents (Merigó et al., 2017). In short, the map depicted in Figure 7 presents the most bibliographically coupled universities that publish in LRP.

The major universities are consistent with Table 5. However, universities in the same country are often grouped together and have strong connections. For example, in Figure 7, English universities such as Cambridge University, London Business School, and University of Birmingham, among others, tend to be grouped together.

Related to the above, the bibliographic coupling of the countries that publish frequently in LRP was analyzed. Bear in mind that this analysis was carried out with the country of origin of the universities that publish in the journals and not with the nationality of the authors, which can be very diverse. Figure 8 shows the results with a threshold of five documents and the fifty most representative bibliographical connections.

Note that the United Kingdom and the USA are the main nucleus of Figure 8. It is common in these types of figures to observe countries on the same continent close to each other. Such is the case of the European countries that are grouped in the left sector of the Figure. In the case of the USA and the United Kingdom, one factor that could explain their centrality and proximity is their linguistic closeness.

Finally, we analyze the most commonly used keywords by authors who publish in LRP. Note that the focus of the co-occurrence of keywords is on the list of keywords provided by the author. The graphical visualization of these words is a network graph. The size of the circles, which represent a keyword, are larger according to the relevance of this word in LRP. The network connections of these words are used to identify the most closely linked keywords. Figure 9 presents the results considering a threshold of 2 occurrences and the 100 most frequent co-occurrences.

At first glance, it is possible to observe that the subject matter of the articles published during these 50 years of LRP has been varied. However, some concepts stand out notably in the figure, such as business performance, innovation, strategy, competitive advantage and management. Obviously there are other keywords that represent the breadth of topics that have been published in LRP and still have much potential in the journal. It is therefore expected that LRP will continue to promote research on these topics in order to further explain the different business phenomena related to strategic planning.
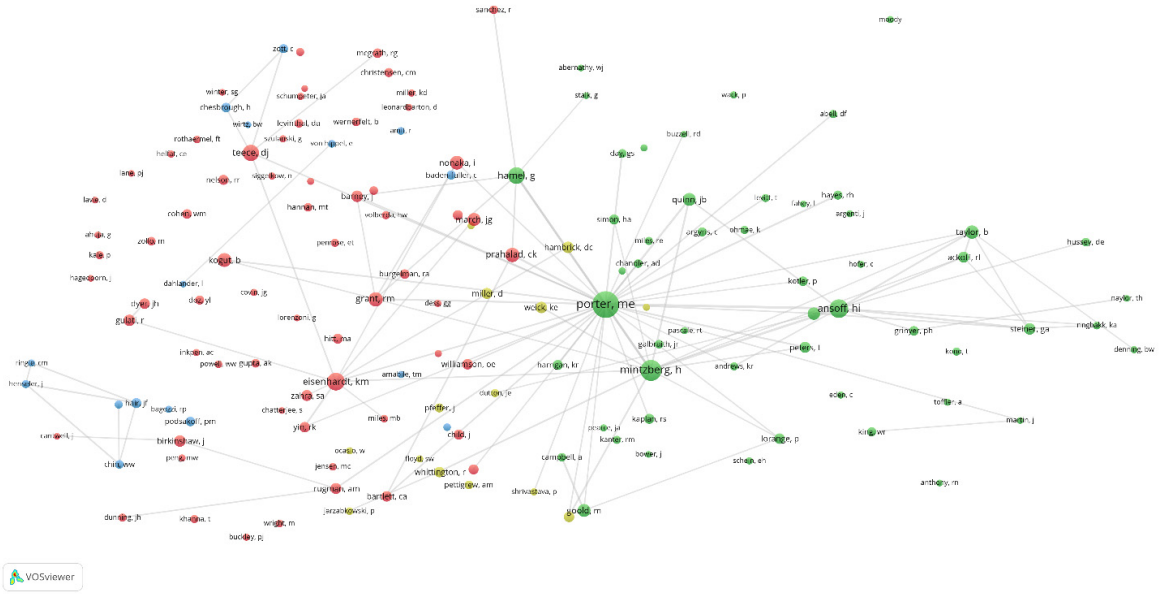
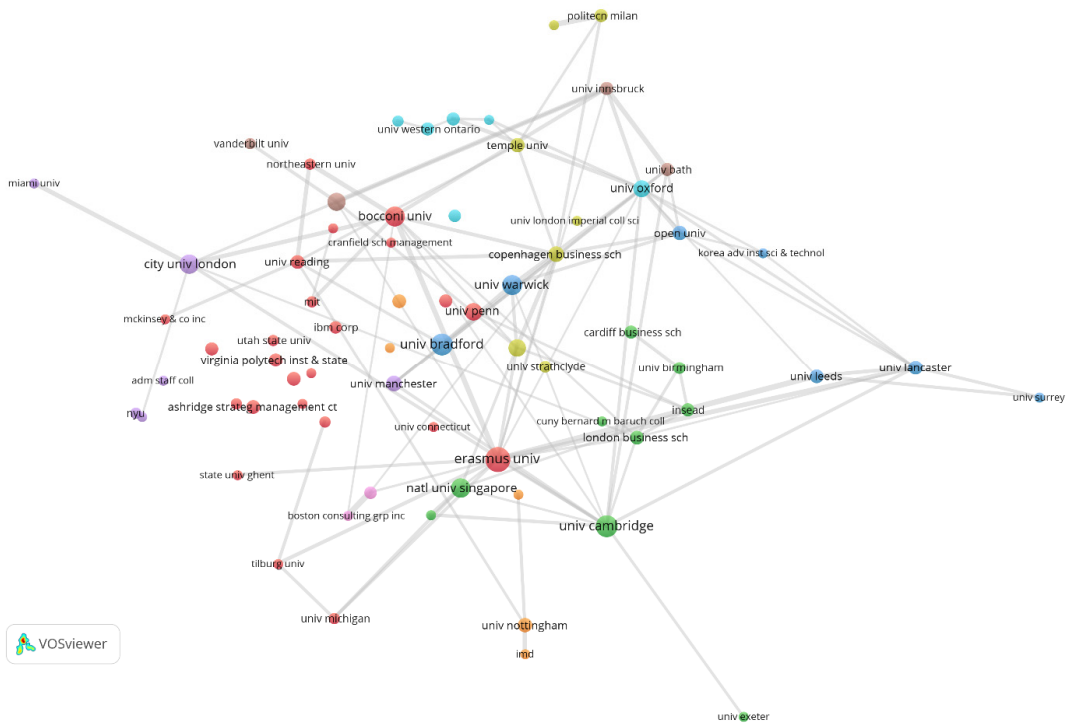**Figure 6** Co-citation of authors cited in LRP
Source: The authors

Figure 7 Bibliographic coupling of institutions publishing in LRP
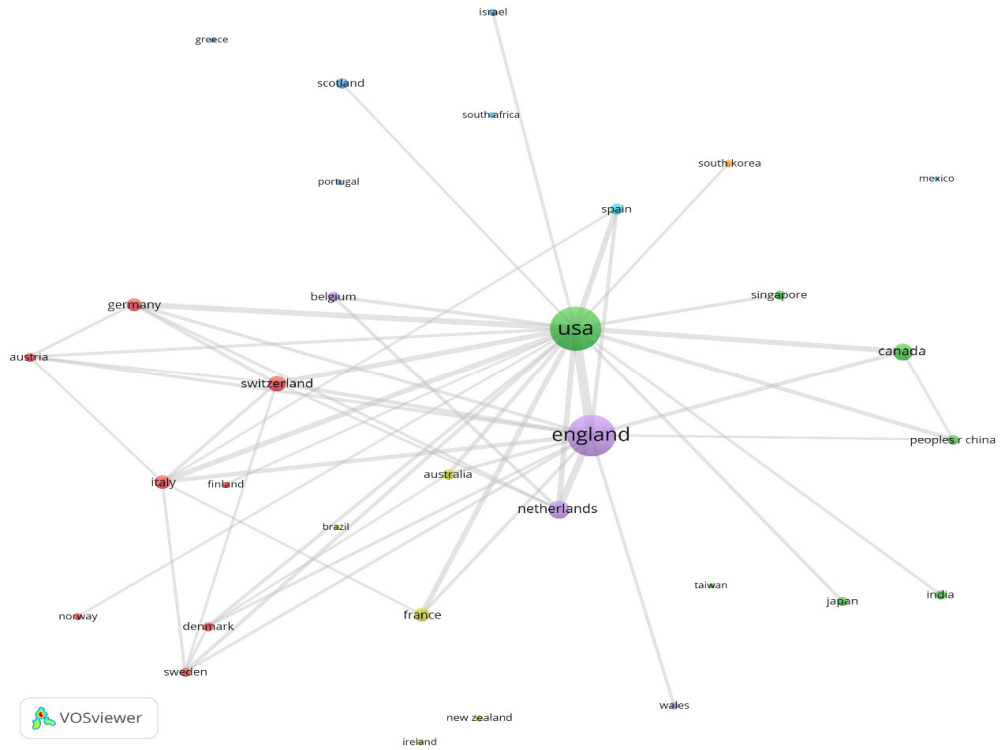**Source:** The authors

Figure 8 Bibliographic coupling of countries publishing in LRP
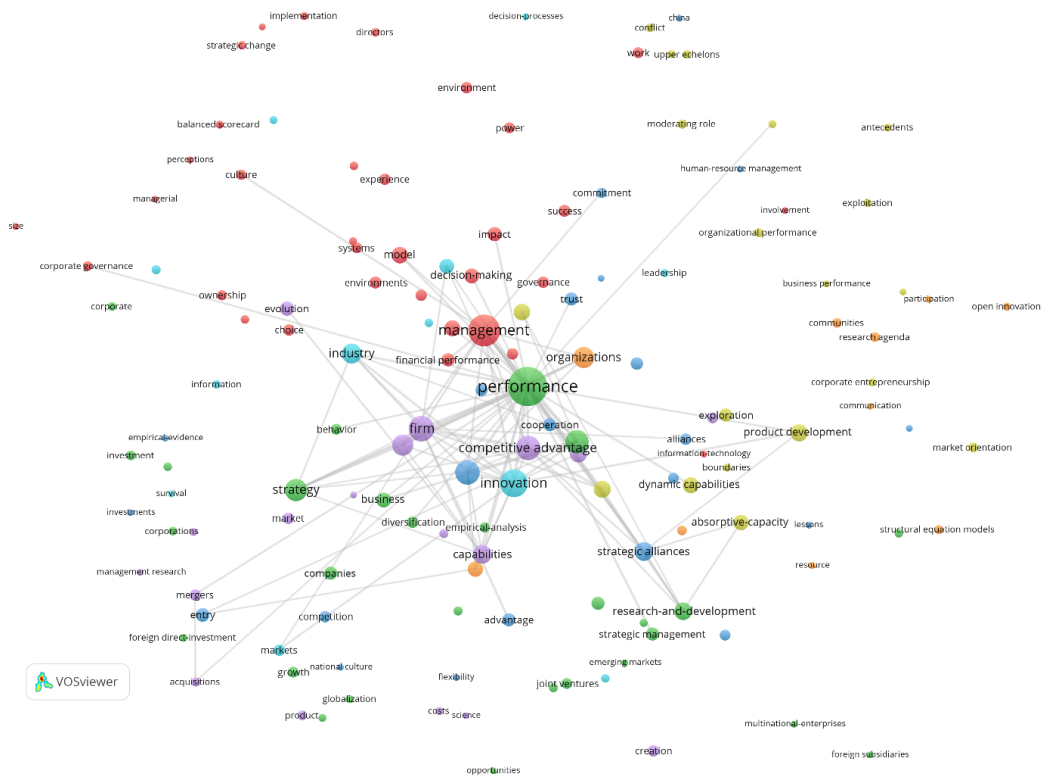**Source:** The authors

Figure 9 Co-occurrence of keywords (Keyword Plus) in LRP
Source: The authors

Conclusion

In recent decades, strategic planning has attracted considerable interest among researchers around the world and today continues to challenge them to understand both economic and corporate planning as well as large-scale projects (Laamanen, 2017). In this context, LRP is an important source of knowledge for researchers around the world who wish to understand strategic planning. In its 50 years and as the first strategy journal (Laamanen, 2017), LRP has played an important role in contributing relevant knowledge related to strategic planning. To celebrate this important anniversary, this paper seeks to provide a complete bibliometric analysis to identify the most significant results that occurred in the journal during its five decades. For this, the bibliometrics presented involve performance analysis and science mapping from all the research published in LRP between September 1968 and August 2018. The data were obtained from the Core Collection of the Web of Science database. The results confirm that LRP is one of the leading journals in the field of strategic planning and management.

The results of the performance analysis show that LRP has published documents from more than 50 countries around the world, with the UK leading in productivity of LRP publications. This makes sense because it is home to the journal's most productive and influential authors and universities. Another fact that explains this trend is that LRP originated in the UK. The USA is the journal's most influential country with the most citations, although in terms of productivity, it lags far behind the UK. It is important to mention that although LRP publications are concentrated in the UK and the USA, many other countries have published in the journal, confirming the global reach of the journal to which Laamanen's study (2017) refers.

As an important part of bibliometric analysis and to complement the results of the performance analysis, this paper developed a science mapping of all LRP publications. For this purpose, VOSviewer software was used. The results were consistent with those obtained in the performance analysis. However, one of the advantages of science mapping is to observe the connections between the variables in the journal's publications. Along these lines, it is evident that LRP publishes documents with a wide range of topics that are used to explain management and strategic

planning. It is also possible to observe that the journal is strongly connected to Management journals such as Strategic Management Journal, Academy of Management Review, Journal of Management Studies, Organization Science, and Managerial Science, among others. From the science mapping, it is also evident that universities in the same country, as well as nearby countries, are strongly connected in LRP publications.

This article provides the main bibliometric results occurring in the 50 years of LRP. However, it is important to take into account some limitations. First, the dynamics of science imply that results can change with time, and therefore, condition the different variables analyzed in this study. Second, the data were obtained from the Core Collection of the Web of Science database, so the limitations of this database were transferred to this study. One of them is, for example, the complete counting system, in which documents signed by multiple authors or affiliations tend to have more importance in the analysis compared to those documents that appear with only one author. The science mapping done with VOSviewer was used to neutralize this limitation, since it uses a fractional counting system. The similarity and consistency between the results obtained from the performance analysis and the science mapping allow us to conclude that there is no significant deviation between the two counting methods. Third, the breadth of themes and disciplines in LRP has been highlighted. Therefore, some themes may receive more attention than others regardless of their relevance. Although researchers must take these limitations into account, this document identifies the most significant results in the 50 years of LRP's life, and its usefulness lies in the information presented in a comprehensive manner and considering different perspectives so that each reader understands the data according to his or her interests and priorities. **SM**

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