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Almost Two Decades After: A Bibliometric effort to Map Research on Strategy as Practice using two Data Sources

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Abstract

After 20 years of Richard Whittington´s seminal paper entitled "Strategy as Practice" (SAP), this paper aims to provide an overview of academic production inside the new research area of SAP, evaluating aspects such as main papers, authors, publication vehicles, themes, institutions, related keywords, among others. Concerning SAP, results indicate that: (1) SAP is still a young field, with most of the work being published after 2007; (2) Paula Jarzabkowsky and Richard Whittington are the most productive authors, although Google Scholar suggests there is significant author dispersion; (3) "Strategy" and "Practice" are the main research terms in Web of Science, while Google Scholar indicates a large density of related terms; (4) both studies indicate that SAP production has not been published in classic journals, and there is relevant production in non-English publications and conferences.Concerning bibliometricdata sources: (1) size limitations in Google Scholar make it impossible to calculate the classic bibliometric indicators; (2) Google Scholar generated a database with more than 30 times the results found in Web of Science; (3) Google Scholar generated a much more disperse and diverse base; (4) there are concerns in using Scholar as a source of information: 15% of the documents do not carry a publication date, while 27% do not indicate the publication source.

Keywords: Strategy as Practice; Bibliometric Research; Strategy; Competitive Management.
JEL Classification Code: L10

1. Introduction

Almost 20 years ago, European researchers have initiated a movement called "Strategy as Practice" (SAP). In contrast to the predominant trends in Business Strategy, the SAP movement seeks to make various contributions using a sociological approach to research on strategy, considering them as something that companies do, not as something they simply have (Whittington, 2004). In its research

framework, SAP aims to analyse the praxis, practices and practitioners of strategy to construct its empirical reference framework.

The paper published in 1996 by Professor Richard Whittington (University of Oxford, UK) entitled "Strategy as Practice" can be considered the departing point for such movement. Obviously, such piece of work was not the first one to study the practice of strategy, but drawing upon previous contributions on strategic thinking it proposed a research agenda focused on strategists and strategizing, and coined the term "Strategy as Practice" (SAP). (Whittington, 1996)

After such seminal work, several workshops were organized by the EGOS (European Group for Organizational Studies) in the following years, to further debate and explore such concept and the new research agenda it implied. In 2003, the Journal of Management Studies released a special issue on Strategy as Practice, marking another important milestone on the process of SAP development and consolidation.

Thus, SAP is still a recent concept, with its seminal work dating from almost 20 years ago and a second important milestone from about 10 years ago. Unlike the classic works on strategy, which date from at least 40 years ago and which used economic works far predating this as their source, research on SAP is still in a process under development and consolidation.

In Maia andAlvesFilho (2013) and Maia, Di Serio and AlvesFilho (2014), the authors presented summarized versions of bibliometric research that explored the SAP field. The main results indicate that: (1) SAP is still a relatively "young" field of research, with its publications dating mainly after 2007; (2) academic production on the area is fairly centred on two influential authors, Paula Jarzabkowski and Richard Whittington, both from England; (4) their work has not been published in "classic" business strategy journals, but rather in journals relating to organizations and management, and (3) the research keywords and terms tend to be grouped in two clusters: one related to the concept's progress and the other to empirical applications or particular aspects of the SAP approach.

The aim of this article is, after 20 years of Professor Whittington´s first paper, to provide an overview of academic production inside the new research area of SAP, evaluating aspects such as main papers, authors, publication vehicles, themes, institutions, related keywords, among others. Drawing upon both papers mentioned in the previous paragraph, this paper seeks to retrieve and investigate more deeply the above-mentioned research, contributing new aspects and ways of interpretation, undertaking bibliometric research using Thomson Reuters Web of Science (WoS) and Google Scholar (GS) assources of information. Harzing and Van Der Wal (2007) believe Google Scholar is an alternative to other data sources to the extent that it offers a broader coverage than the traditional WoS and Scopus. For Aguillo (2011), however, universities and journals of lesser importance could be overrepresented in Google Scholar, compromising the quality of the bibliometric analysis. For this reason, this work will retrieve, expand and complement the work originally presented in Maia and AlvesFilho (2013) and Maia, Di Serio and AlvesFilho (2014), aggregating newer information and analysis, as well as comparing both sources to bibliometric research.

This paper is therefore structured as follows: brief theoretical summaries are given on strategy as practice and its research elements. Bibliometric analyses using Thomson Reuters Web of Scienceand Google Scholar are then presented. Finally, the conclusions, work considerations and research possibilities are discussed.

2. Bibliographic Reference

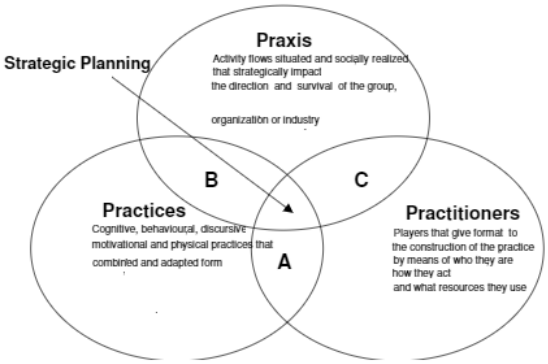
According to researchers of "Strategy as Practice" (SAP), traditional studies on strategy share the view that strategy is an abstract concept that companies simply have. Consequently, the main studies on strategy are based on ideas such as: company X has a diversification strategy, company Y has strategic planning processes, company Z has change management processes, etc.

On the other hand, Johnson et al (2007) emphasize that the SAP viewpoint assumes that strategy is something that people in organizations do. So strategy is understood as an activity and the focus of understanding becomes the micro-activities involved in the construction of a strategy. As an example of this, the authors mentionthat a diversification strategy involves people doing things differently from other companies, and in a way that is costly to imitate.

"Strategy as Practice is essentially concerned with strategy as an activity of organizations, typically the interaction of people, rather than strategy as a property of organizations. Our attention, therefore, focuses on two questions ignored so far: what people involved in the strategic process really do, and how they influence the products of this process" (Johnsonet al, 2007)".

In terms of methodology, various articles have proposed strategies of qualitative and quantitative research for SAP, suggesting ways for analysing data, interview codification techniques, among other points. From the point of view of research frameworks, Whittington (2006) proposes a model composed of three interrelated concepts: (1) praxis, (2) practices and (3) practitioners (or professionals). As the author emphasizes, the alliteration of the terms is intentional, so as to highlight the interdependence and feedback that exists between the concepts, as shown in Figure 1.

Figure 1: Praxis, Practices and Practitioners



Source: Whittington (2006).

According to Jarzabkowski et al (2007), praxis comprises the interconnection between the action and various physically dispersed individuals and groups, and the socially, politically and economically established institutions, in accordance with which the individuals act, and to the institutionalization of which they directly contribute. Seeking a definition for the concept of praxis in the context of research into strategy, Whittington (2002) presents it as real work performed by the strategy practitioners, in accordance with how they utilize, modify and replicate the strategy practices.

For Jarzabkowski et al (2007), practitioners are the players, those who use practices to act and produce the praxis. They act according to the manner in which they use the practices prevalent in their society, combining, coordinating and adapting them to their needs, and as a consequence, whether purposely or not, engendering and institutionalizing the resulting new practices.

From the point of view of studying SAP, strategists are active players in strategy's social construction process, thus having an impact on its performance and survival. The personal characteristics of the practitioners end up shaping the strategy, because of who they are, how they perceive the outside world, how they act and what practices they use.

For Reckwitz (2002) apud Whittington (2006), practices refer to shared behavioural routines, including traditions, norms and procedures used in thinking, acting and using "things", the latter in their broadest sense. In terms of SAP, practices comprise cognitive, behavioural, procedural, discursive, motivational and physical "things" such as SWOT matrixes, Gantt charts, Knowledge Management approaches, among various others.

Johnson et al (2007) emphasize the underlying focus in a broad context, with institutionalized organizational practices in which people are engaged in executing their strategy activity. In this context, we have at least four examples:

1. Institutionalized procedures and systems, such as strategic planning;
2. Tools, the focus of this work, such as those commonly used in defining strategies;
3. Norms or behaviours that follow scripts, such as characteristic behaviours occurring in management meetings;
4. Strategic episodes, such as board meetings, planning retreats, etc.

The next section will introduce the research method to be applied in the research here represented.

3. Research Method

As previously mentioned, bibliometric analysis will be applied to achieve the intended aim of this paper. Figueiredo (1977, apud Lima, 1986, p. 127) defines bibliometric research as "the statistical analysis of written communication process, the quantitative treatment (mathematical and statistical) of both the properties and the behaviour of the registered information". Thus, its main objectives are to shed light on the process of communication and evolution of a discipline by means of quantifying and analysing its several aspects, gathering and interpreting statistical data on the communication means (books, journals, etc) to show its historical evolution (Maia, 1973 apudVoese e Mello, 2012).

According to Pritchard (1969), bibliometric research can fulfil at least five distinct purposes: (1) to identify macro-trends and knowledge growth basis in a certain science area; (2) to evaluate the degree of dispersion and obsolescence in certain subjects; (3) to assess the impact of the publication of pieces of work, information and studies and its spread in the academic environment; (4) to quantify the degree of coverage of certain scientific journals and (5) to identify levels of productivity of authors and institutions. Hence, all these five purposes are extremely aligned to the aims of the work here presented.

Bibliometric research is grounded on at least three different laws concerning bibliometric distribution. Although this paper do not aims at reviewing such laws in detail, they can be summarized as (Vanti, 2002 andGuedes andBorschiver, 2005): (1) Lotka´s Law, that aims at assessing the productivity levels of authors, identifying research centres developed around an specific area and recognizing the solidity of a certain scientific field; (2) Zipf´s Law, that measures the frequency of certain words inside texts, thus producing a list of terms inside any discipline, according to their relevance – consequently, the concentration of words with high semantic content can be used as a text indexation strategy given its representativeness inside the theme domains; (3) Bradford´s Law, which assesses the productivity of journals thus estimating its relevance inside determined knowledge area – journals with a higher number of papers about a specific theme form, supposedly, a set of publication vehicles that are the most relevant to certain field.

Using the abovementioned laws, a step-by-step procedure was developed to carry out the bibliometric research in this paper, as presented in Figure 2. The first step refers to performing the search in a scientific indexation database (both Web of Science and Google Scholar). The second step concerns applying the corresponding search filters, like keywords, publication types, time period, etc, to better delimitate the sample of papers to be studied. The third steps encompasses the descriptive and temporal analysis of the papers found in the sample, contextualizing scientific production (publications and citations) in time and identifying the most relevant papers in the field. Fourth step is grounded on Lotka´s Law to identify the most relevant authors, institutions and countries, by means of rankings and co-citation maps. The next step analysis the places there the theme has been published, using Bradford´s Law to identify the main journals, research areas, and so on. The sixth step uses Zipf´s Law to analyse the main keywords used in the indexation of sample papers, as well as the main terms that could be identified in the papers, portraying which concepts are jointly dealt with and how they are

related. In the last step, the main results of all the previous steps are jointly analysed, and the main conclusions of the research are then produced.

Figure 2: Research methodological steps

Source: Prepared by the authors.

With the purpose of methodologically frame this research, this work can be considered descriptive, aiming to describe the characteristics of a certain phenomenon by means of gathering data about its current status (Gay and Diehl, 1992). Concerning the approach to the research problem, this piece of research uses a combined method of both qualitative and quantitative strategies. According to Bryman (1989), quantitative research involves the gathering and analysis of data in a structured manner, in order to interpret certain parameters that are particularly relevant to the investigation. On the other side, qualitative research is characterized by a greater focus on understanding data rather than measuring them, being used in cases where the richness of detail is more relevant than quantitative information (Richardson, 1985).

4. Bibliometric Research at the Thomson Reuters Web of Science

The data used in the first bibliometric analysis of this article were documents found in the Web of Science database published by Thomson Reuters.

The document search process was undertaken using the following keywords as the basis: “strategy as practice”; “strategy-as-practice”. The Boolean “OR” operator was used and these terms were researched in the publications’ titles, keywords and topics. Based on this result, the documents were refined into search criteria, as according to Table 3.

Table 3: Filters with search criteria

Filters with search criteria	
Type	Articles,conference studies, conference abstracts or book chapters, excluding book reviews.
Areas of knowledge	No restrictions
Time	No restrictions

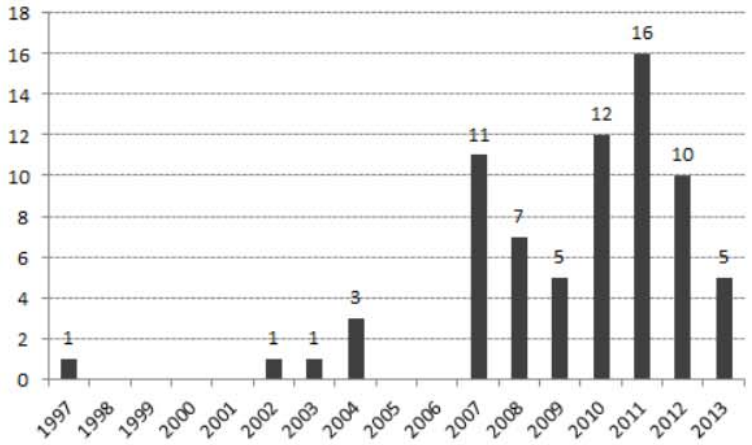
Source: prepared by the authors.

From this search and refining, 72 publications were obtained. Electronic spreadsheets and VOSViewer software were used for analysing the data from the documents found (Van Eck andWaltman, 2010),

4.1 Descriptive Analysis of Citations and References

Based on the articles generated by the above-mentioned search, this section sets out a series of descriptive parameters on the citations and references to the articles. Figure 4shows the articles’ year of publication, in such a way as to contextualize this knowledge production over time. As can be observed, the number of publications has increased in recent years, mainly from 2007 onwards, since this period concentrates 92% of all the publications, with an average 9.4 publications per year. This affirmation, however, should be put into perspective, since as Neely (2005) states, the Web of Science database contains more information on more recent publications and recently there has been an increasing trend in the number of academic publications.

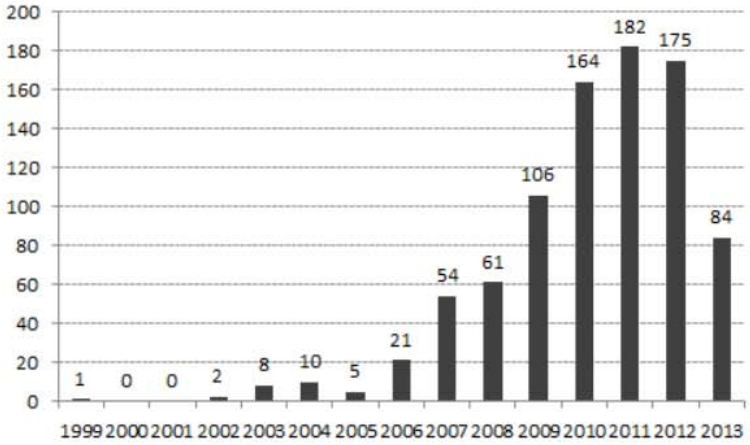
Figure 4: Number of publications per year



Source: Prepared by the authors.

Complementary to this, Figure 5shows the number of citations for research articles for each of the years. From this observation, we can see that the majority of citations occur in the period after 2007, totalling 95% of all the citations and with an average of 118 citations per year. Similar to the publications, there is a greater tendency for the research articles to be referenced in recent years.

Figure 5: Number of citations for the sample articles per year



Source: Prepared by the authors.

Seeking to provide greater detail, Table 6 presents the publications that show the greatest number of citations to the articles in the sample. It can be said that in practice the articles are proposals concerning the theory of this concept, setting out the foundations for structuring a body of literature on the subject. The articles by Richard Whittington and Paula Jarzabkowski tend to be purely conceptual, discussing the vision and reflecting on the subject, while the other studies contain some application or a more particular discussion within a component of the Strategy as Practice approach.

Table 6: Publications with the greatest number of citations to the sample

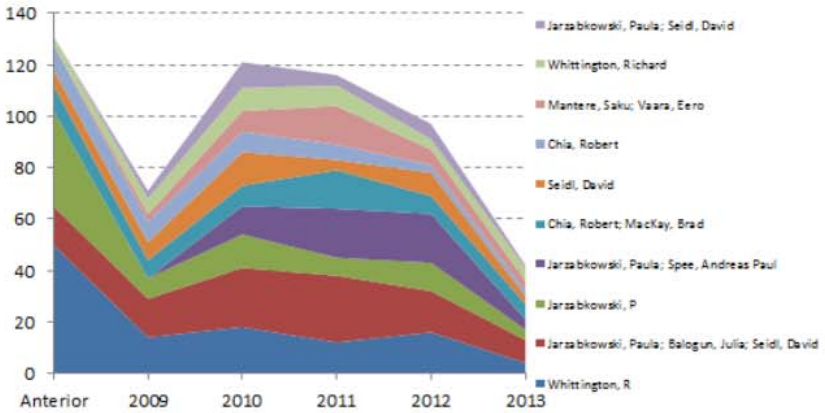
Ranking	No. Citations	Authors	Title	Publication
1	114	Whittington, R	Strategy as practice	LONG RANGE PLANNING Volume: 29 Issue: 5 Pages: 731-735 DOI: 10.1016/0024-6301(96)00068-4 Published: OCT 1996
2	104	Jarzabkowski, Paula; Balogun, Julia; Seidl, David	Strategizing: The challenges of a practice perspective	HUMAN RELATIONS Volume: 60 Issue: 1 Pages: 5-27 DOI: 10.1177/0018726707075703 Published: JAN 2007
3	80	Jarzabkowski, P	Strategic practices: An activity theory perspective on continuity and change	JOURNAL OF MANAGEMENT STUDIES Volume: 40 Issue: 1 Pages: 23-55 DOI: 10.1111/1467-6486.t01-1-00003 Published: JAN 2003
4	53	Jarzabkowski, Paula; Spee, Andreas Paul	Strategy-as-practice: A review and future directions for the field	INTERNATIONAL JOURNAL OF MANAGEMENT REVIEWS Volume: 11 Issue: 1 Pages: 69-95 DOI: 10.1111/j.1468-2370.2008.00250.x Published: MAR 2009
5	53	Chia, Robert; MacKay, Brad	Post-processual challenges for the emerging strategy-as-practice perspective: Discovering strategy in the logic of practice	HUMAN RELATIONS Volume: 60 Issue: 1 Pages: 217-242 DOI: 10.1177/0018726707075291 Published: JAN 2007
6	42	Seidl, David	General strategy concepts and the ecology of strategy discourses: A systemic-discursive perspective	ORGANIZATION STUDIES Volume: 28 Issue: 2 Pages: 197-218 DOI: 10.1177/0170840606067994 Published: FEB 2007
7	37	Chia, Robert	Strategy-as-practice: reflections on the research agenda	EUROPEAN MANAGEMENT REVIEW Volume: 1 Issue: 1 Pages: 29-34 DOI: 10.1057/palgrave.emr.1500012 Published: SPR 2004
8	36	Mantere, Saku; Vaara, Eero	On the problem of participation in strategy: A critical discursive perspective	ORGANIZATION SCIENCE Volume: 19 Issue: 2 Pages: 341-358 DOI: 10.1287/orsc.1070.0296 Published: MAR-APR 2008
9	35	Whittington, Richard	Strategy Practice and Strategy Process: Family differences and the sociological eye	ORGANIZATION STUDIES Volume: 28 Issue: 10 Pages: 1575-1586 DOI: 10.1177/0170840607081557 Published: OCT 2007
10	24	Jarzabkowski, Paula; Seidl, David	The Role of Meetings in the Social Practice of Strategy	ORGANIZATION STUDIES Volume: 29 Issue: 11 Pages: 1391-1426 DOI: 10.1177/0170840608096388 Published: NOV 2008

Source: Prepared by the authors

In analysing the mainjournals in which the articles in this research are cited, it was ascertained that these are generally centred on journals on Organizations (Organization Science and Human Relations) and Management (Journal of Management Studies, European Management Review, etc.). Unlike classic work on strategy published in journals such as the Harvard Business Review and Strategic Management Journal, the only journal close to the area portrayed here is Long Range Planning.

Figure 7 shows the citation frequency for each year for the articles most referenced in the database obtained. In general, it can be seen that each article is typically cited between 5 and 7 times per year, with the exception of some articles by Whittington and Jarzabkowsky that are cited between 12 and 15 times per year, on average.

Figure 7: Frequency of citations of the most referenced articles



Source: Prepared by the authors.

4.2 Descriptive Analysis of Authors and Institutions

Table 8 illustrates the main authors of studies obtained through bibliometric research. To some extent we can see a certain concentration of literary production on the subject, since just five authors are responsible for 50% of all publications. Paula Jarzabkowski (ten articles), Richard Whittington (five articles) and David Seidl (four) are the most prolific, accounting for almost 40% of the studies.

Table 8: Most prolific authors

Authors	No. Articles	%
Jarzabkowski P	10	21%
Whittington R	5	10%
Seidl D	4	8%
Chia R	3	6%
Balogun J	2	4%
Outros	24	50%

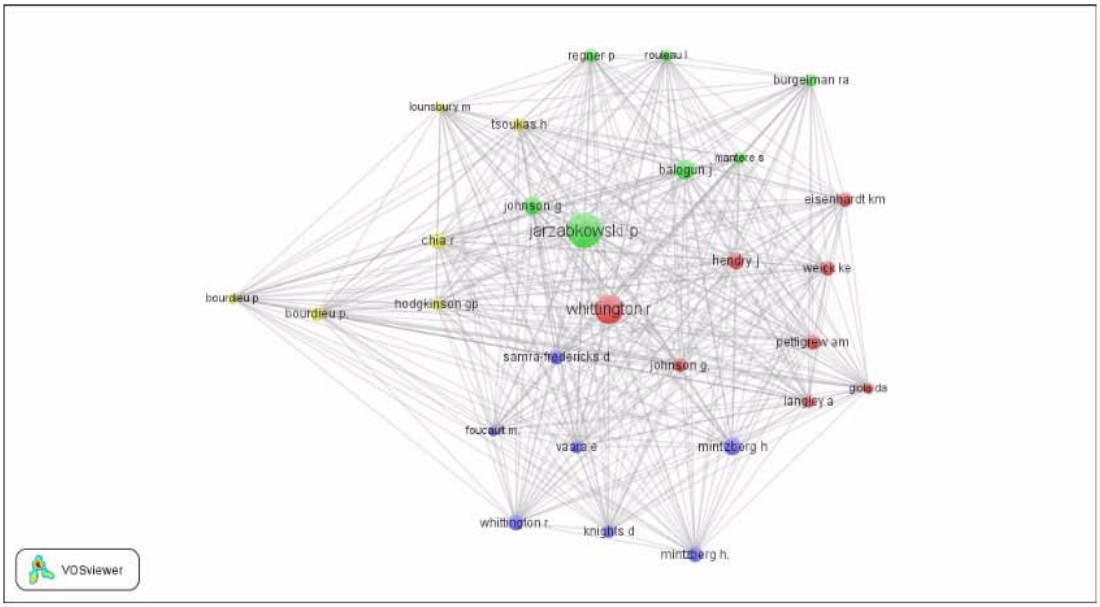
Source: Prepared by the authors.

VOSViewer software was used to construct a diagram of author co-citations, i.e., authors whose works are typically referenced together in articles on the subject, thus denoting a high degree of similarity between the themes that both authors approach.

Figure 9 shows this co-citation network, which generated four distinct clusters (green, red, yellow and purple). Although some nodes are repeated due to difficulties in the Web of Science's standardization process, there is one cluster with Paula Jarzabkowski as the main author, one with Richard Whittington as the most influential author and two "peripheral" clusterswith more classic researchers in strategy, such as Pierre Bourdieu and Henry Mintzberg.

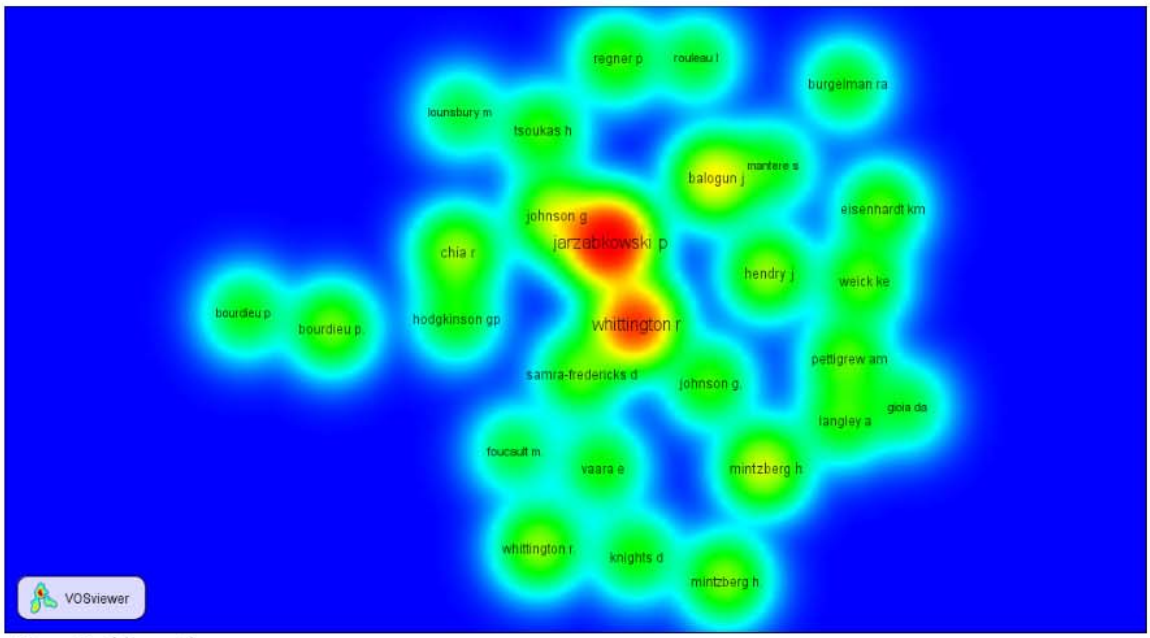
Figure 10 shows a density diagram of this co-citation network, the colours of which are similar to those in a thermal graph (red = most intense, blue = least intense). Similar to what has already been commented on, Whittington and Jarzabkowski feature as the most influential authors on the subject.

Figure 9: Author co-citation diagram



Source: Compiled by the authors.

Figure 10: Author density diagram



Source: Compiled by authors.

Tables 11 and 12, which were derived from the researchers' analysis, show the universities whose authors published the most articles on the subject, and their respective countries. Excluding St. Andrews University in Scotland, and Canada's University of Montreal, the remainder are located in England and together account for almost 40% of the production on the subject. If we also take Scotland into account, the United Kingdom accounts for almost half of the material published on the subject.

Obviously there is an extreme connection between the most prolific authors and the universities, given that Paula Jarzabkowskiby the time of publishing those articles was on the teaching staff of Aston University (in 2014 she is part of the teaching staff of City University London), and Richard Whittington on the staff at Oxford University.

Table 11: Most prolific institutions

Organization	No. Studies	%
Aston University	12	22%
University Of Oxford	5	9%
University Of St Andrews	5	9%
University Of Montreal	4	7%
University Of Warwick	4	7%
Others	25	45%

Source compiled by the authors.

Table 12: Most prolific countries

Countries	No. Studies	%
England	29	34%
Canada	8	9%
Scotland	8	9%
Australia	6	7%
Finland	6	7%
Others	28	33%

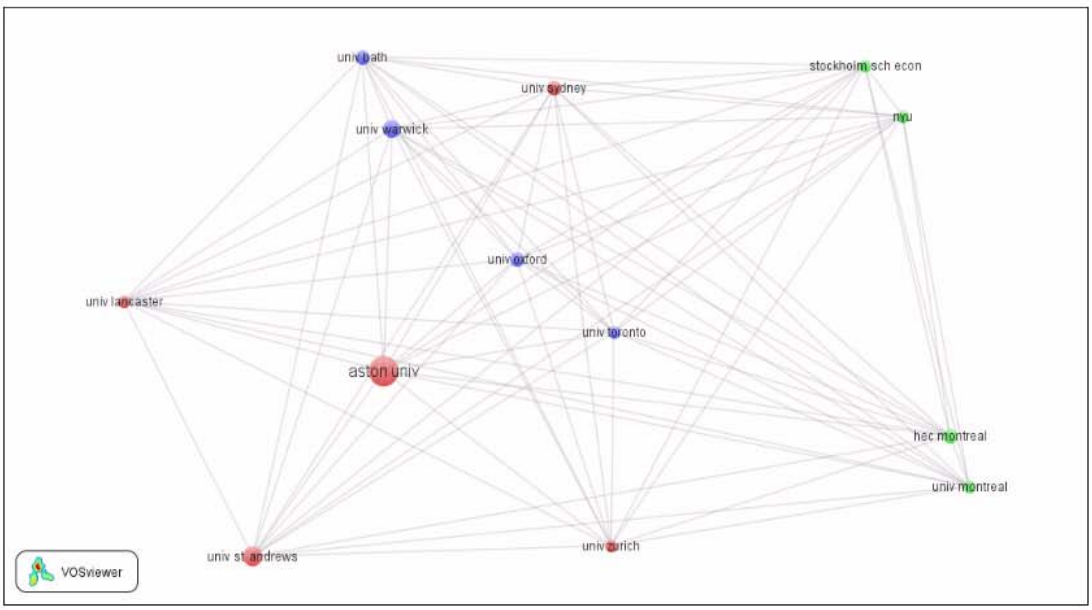
Source: Compiled by the authors.

Again, the VOSViewer software was used to construct a diagram of relationship between the institutions, i.e., which universities are referenced in the studies of the other universities. To obtain a more representative graph, a filter of a minimum two references together and clusters of a minimum three items was applied.

Figure 13 shows this network, which generated three distinct clusters (green, red and purple). We can see a cluster with the University of Aston as its main exponent, another with Oxford University and Warwick University and a third with the Canadian universities of Montreal and HEC Montreal.

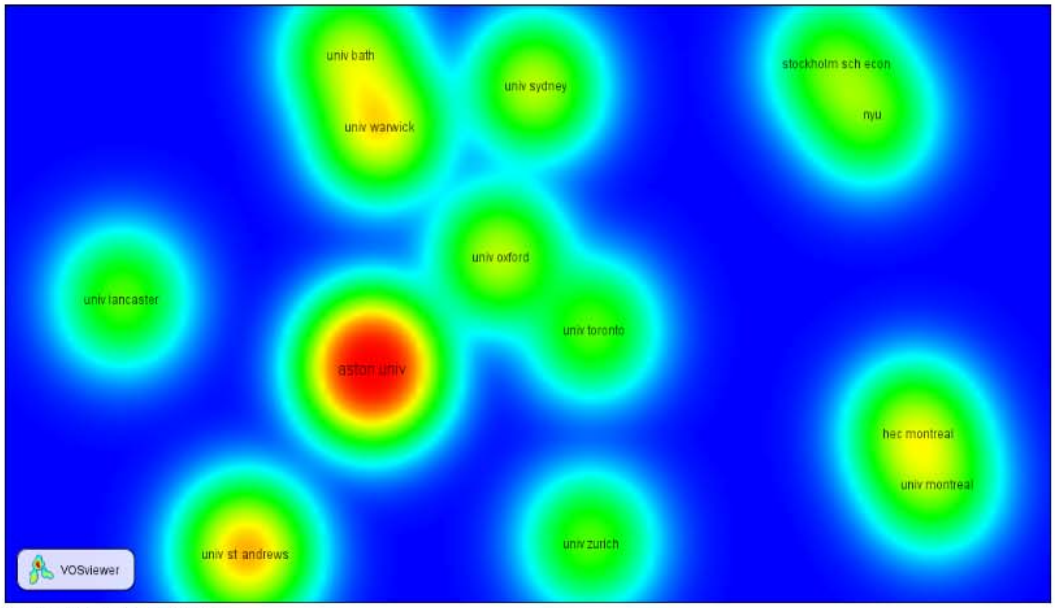
Figure 14 shows a densitydiagram of this network, with in this case Aston University standing out as the major influence, signalling a greater proximity with Oxford University than with Warwick University, as Figure 11 might suggest. Again, this fact corroborates to what extent SAP is centred on works produced by Paula Jarzabkowski and Richard Whittington.

Figure 13: Diagram of relationship between universities



Source: Compiled by the authors.

Figure 14: Density diagram of the relationship between universities



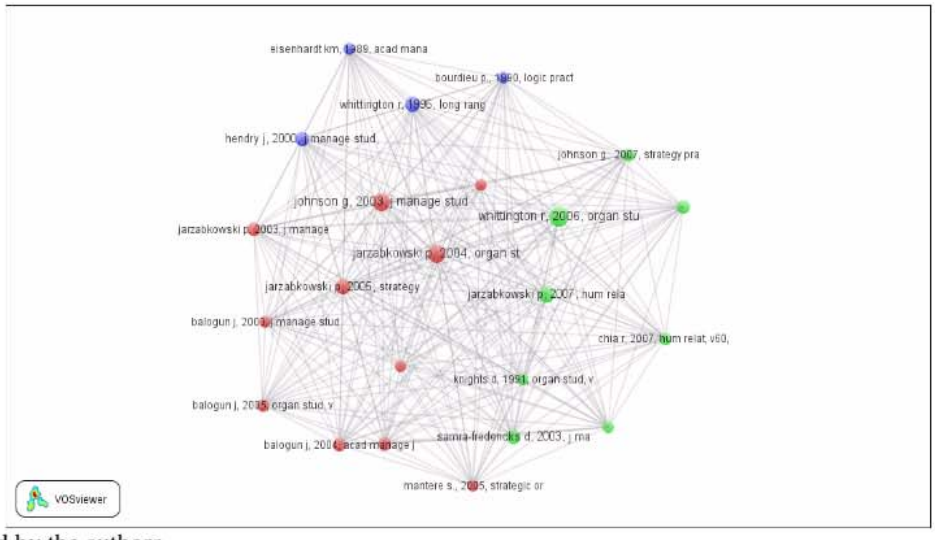
Source: Compiled by the authors.

4.3 Analysis of References, Journals and Subject Areas

Figure 15 shows the analysis of co-citations of the references resulting from the bibliographic research. This analysis seeks to identify the number of times that two works are cited simultaneously in the same article, denoting proximity of subject matter between authors and research networks.

In order to extract more meaning from the results, the minimum number of references to the articles was set at 15. Three distinct clusters were produced; (1) Red, centred on various works by Paula Jarzabkowski with conceptual themes and application of the Strategy as Practice approach; (2) Purple, with initial works on the subject, like that of Whittington 1996, and (3) Green, with more recent conceptual works on the subject of SAP, with articles by Whittington, Johnson, Chia and Jarzabkowski, among others.

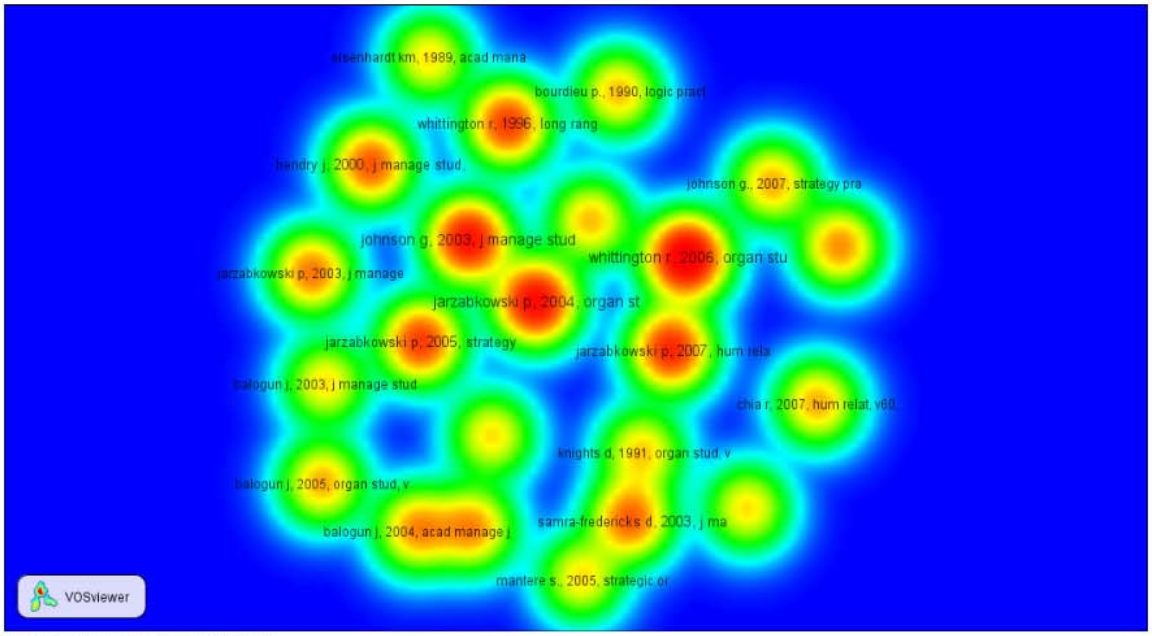
Figure 15: Diagram of Co-citations (a minimum of 15 references)



Source: Complied by the authors.

Figure 16 shows a density diagram of this network, with Johnson 2003, Jarzabkowski 2004, Jarzabkowski 2007 and Whittington 2006 as the most common references in the co-citation network.

Figure 16: Diagram of Co-citations (a minimum of 15 references)



Source: Compiled by the authors.

Table 17 shows the journals in which the articles most referenced in the research works were published. The five most cited journals account for 77% of the publications, with journals of a more Organizational nature (Organization Studies, Organization Science and Human Relations) account for approximately 25% and those of Management (Journal of Management Studies and European Management Review) for around 10%.

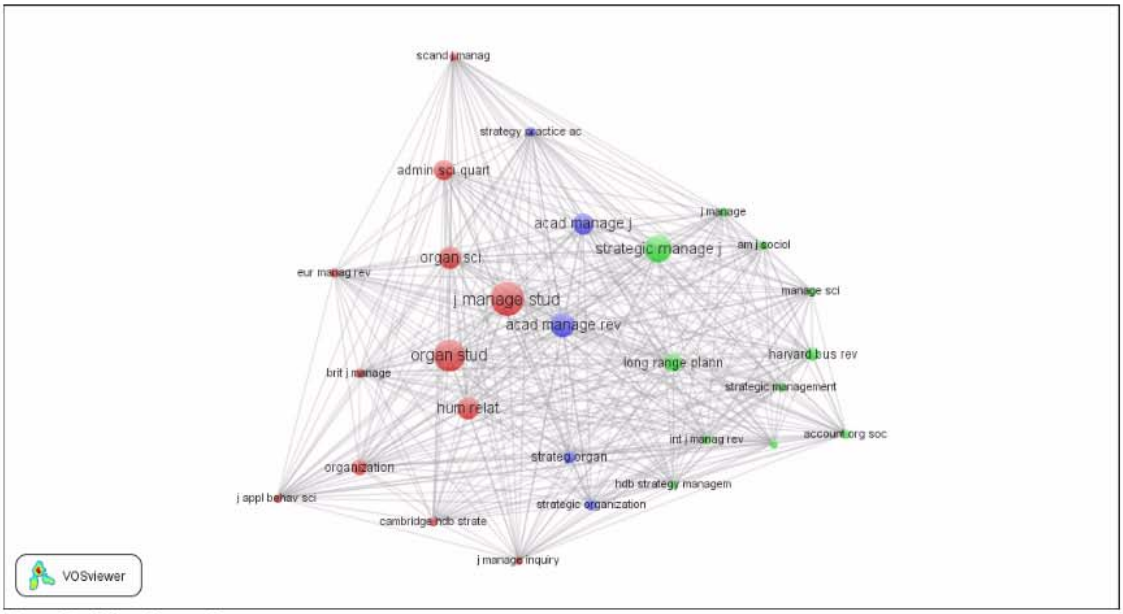
Table 17: Most cited journals

Countries	No. Articles	%
Human Relations	8	11%
Organization Studies	8	11%
Journal of Management Studies	4	6%
European Management Review	3	4%
Organization Science	3	4%
Others	46	64%

Source: Compiled by the authors.

In Figure 18, a journalco-citation diagramwas constructed, illustrating which journals are typically referenced together. Three clusters were obtained: (1) Purple, with classic Management journals such as the Academy of Management; (2) Red with the Organization journals (Organization Science, Organization Studies and Human Relations) but also with the Journal of Management Studies; and (3) Green, with classic Strategy journals, such as the Strategic Management Journal, the Harvard Business Review and Long Range Planning.

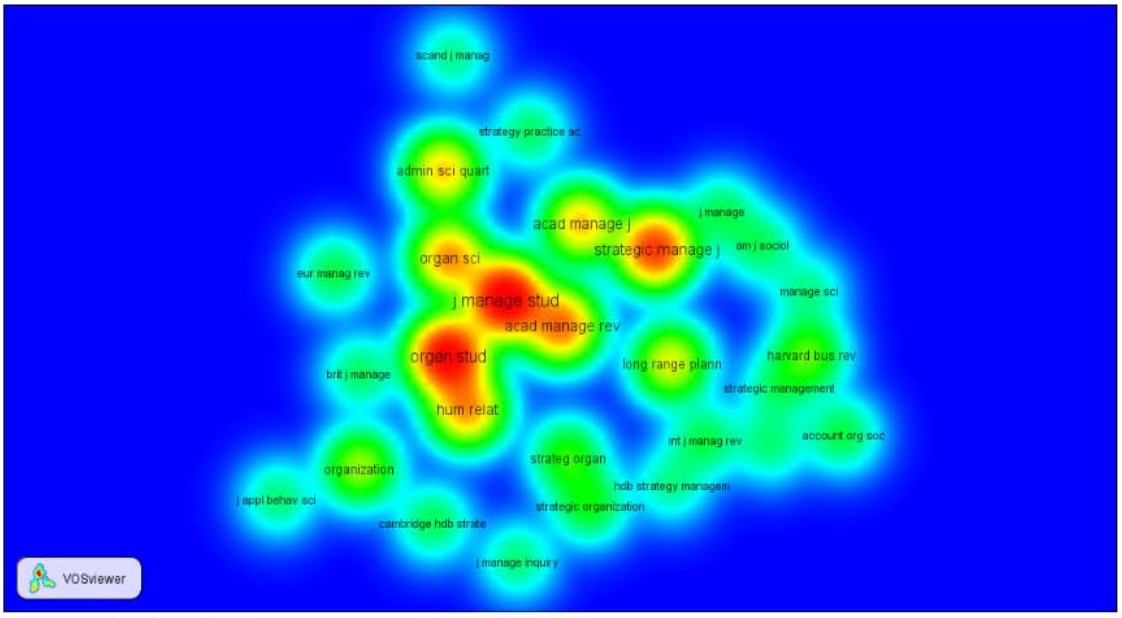
Figure 18: Periodical co-citation diagram



Source: Compiled by the authors.

Figure 19 shows a density diagram, with the Journal of Management Studies, the Strategic Management Journal and Organization Studies being those with the greatest frequency in the co-citation graph.

Figure 19: Periodical density diagram



Source: Compiled by the authors.

To finalize this section, Tables 20 and 21 show the distribution of the articles by Web of Science category and by Research Area. As regards category, as expected, almost 80% of the articles were published within the categories of Management and Business. In terms of research area, 76% referred to Business Economics and 12% to Other Social Science Topics.

Table 20: Distribution by Web of Science category

Web of Science Category	**No. Studies**	%
Management	63	60%
Business	18	17%
Social Sciences Interdisciplinary	9	9%
Planning Development	3	3%
Behavioural Sciences	2	2%
Others	10	10%

Source: Compiled by the authors.

Table 21: Distribution by Research Area

Research area	**No. ofstudies**	%
Business Economics	65	76%
Social Sciences Other Topics	10	12%
Public Administration	5	6%
Arts Humanities Other Topics	2	2%
Behavioural Sciences	2	2%
Others	2	2%

Source: Compiled by the authors.

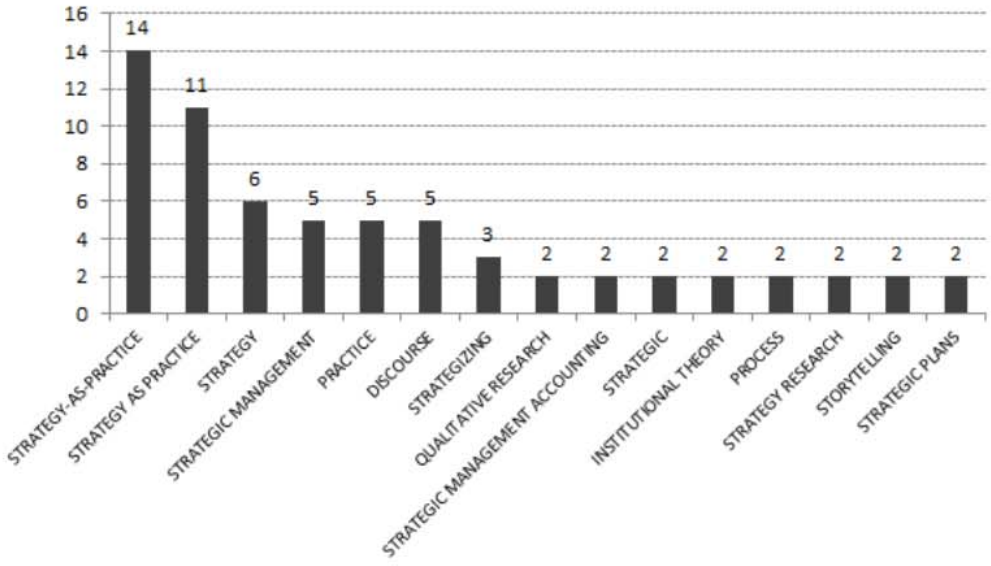
4.4 Analyses of Terms and Keywords

Figure 22 shows the frequency of keywords in the articles obtained by way of this bibliometric research.

An important first point to highlight is that the software is not able to normalize/standardize the keywords according to the concept they represent, it being sufficient to observe the words Strategy as Practice, Strategy-as-Practice. Since these words clearly represent the same theme, they would be the most common keyword, with 25 citations, as one would expect from the delimitation of the research.

The other keywords present (1) different concepts related to strategy, such as Strategy, Strategy Management, Strategy Research and Strategic Plans or (2) specific elements of Strategy as Practice, such as Discourse, Practice, and Storytelling.

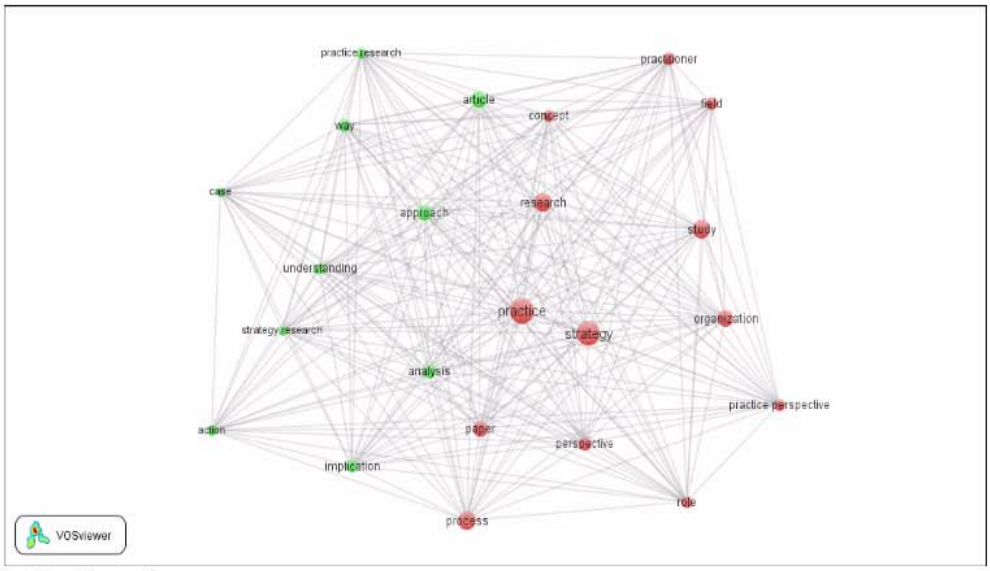
Figure 22: Frequency of keywords



Source: Compiled by the authors.

Using VOSViewer's 'identification of terms' function, which seeks terms in both the title and in the abstract, a diagram of the relationship of terms was constructed, as shown in Figure 23. In line with what was shown in Figure 22, Practice and Strategy are the terms most frequently cited. Two distinct clusters can be obtained in the same diagram: (1) Red, which apparently deals with more conceptual terms in SAP, and (2) Green, which apparently is more closely related to studies on concept implementation and application.

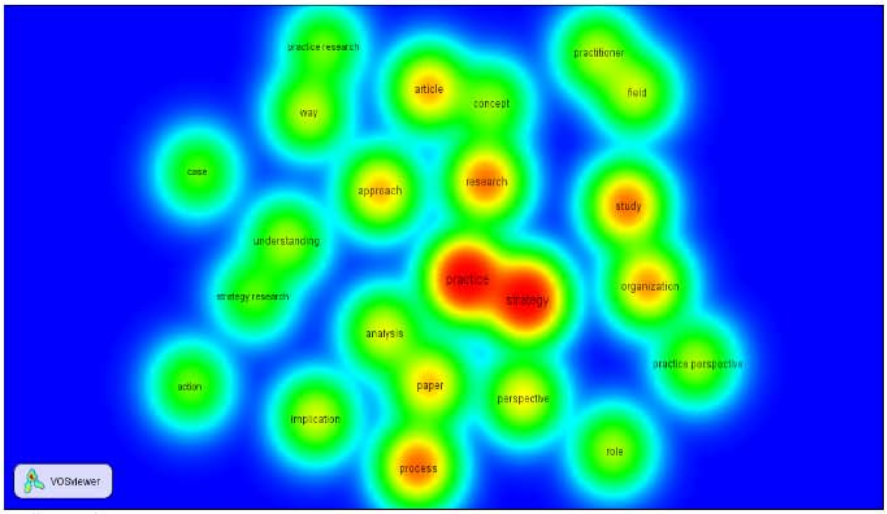
Figure 23: Diagram of the relationship of terms



Source: Compiled by the authors.

Figure 24 shows the density diagram of terms obtained. As is to be expected, Strategy and Practice are the most common.

Figure 24: Density diagram of terms



Source: Compiled by the authors.

5. Bibliometric Research on Google Scholar with the supportof Publish or Perish

The data used in this section's bibliometric analysis were the documents retrieved from the Google Scholar database, which were obtained and extracted with the support of the Publish or Perish application (Harzig, 2007).

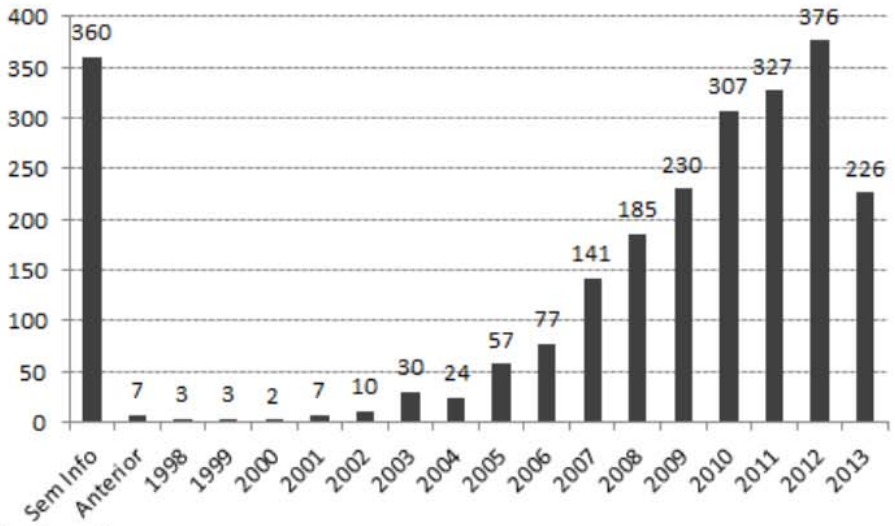
The document search process was carried out based on the same keywords as the previous consultation: "strategy as practice"; "strategy-as-practice", using the Boolean operator, "OR".

Due to the limitations of the maximum results of Google Scholar (1000 results), the study had to be divided into various periods according to year of publication, so that these could subsequently be consolidated. From this process 2372 results were obtained, with 360 of these having no information as to date of publication. Similar to the work carried out with the Web of Science, electronic spreadsheets and the software VOSViewer application (Van Eck andWaltman, 2010) were used in the analyses.

5.1 Descriptive Analysis of Citations and References

Figure 25 illustrates the articles' years of publication and, similar to what was identified with the Web of Science research, the number of publications increased mainly from 2007 onwards. Disregarding the 360 publications with no recorded date, 89% of the publications occurred after this year, with an average of 256 publications per year. In this case Neely's reservation (2005) is applicable, due to the increasing tendency to include studies in this database over the last few years, as a reflection of Google's own growth and the development of search engines.

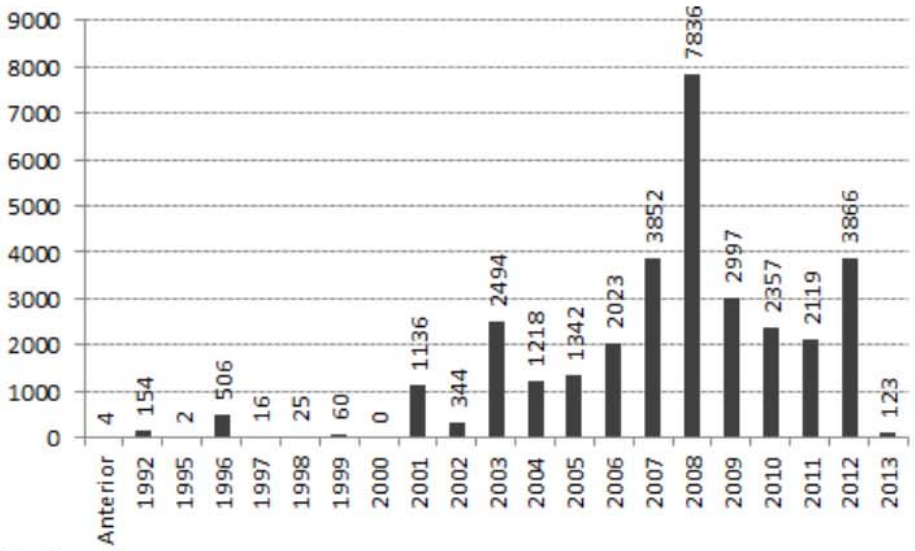
Figure 25: Number of publications per year



Source: Compiled by the authors.

Figure 26 illustrates the number of citations for the research articles in each year. Of a total 32,474 citations, most of them also seem to occur in the period that started in 2007, with 73% of all citations and an average of 3307 citations per year. The highlight is the peak reached in 2008, with 7836 citations. Similar to the publications themselves, there is a greater tendency for the research articles to have been referenced in recent years.

Figure 26: Number of sample article citations by year.



Source: Compiled by the authors.

Table 27 shows publications with the highest number of sample article citations. The highlight is the first two works, which deal with more general books on strategy. The others, similar to what occurs with the database research in the Thomson Reuters Web of Science, are seminal articles on the SAP concept, mostly published by Richard Whittington and Paula Jarzabkowski.

Table 27: Publications with the greatest number of sample citations

Ranking	No. Citations	Authors	Title	Source
1	4607	G Johnson, K Scholes, R Whittington	Exploring corporate strategy: Text and cases	Pearson Education; 2008.
2	3272	M Easterby-Smith, R Thorpe, P Jackson	Management research	Sage Publications;2012.
3	1047	R Whittington	What Is Strategy----And Does It Matter	books.google.com;2001.
4	688	R Whittington	Completing the practice turn in strategy research	Organization studies; oss.sagepub.com;2006.
5	686	G Johnson, L Melin…	Guest Editors' Introduction	Journal of management …; Wiley Online Library;2003.
6	506	R Whittington	Strategy as practice	Long range planning; Elsevier;1996.
7	465	P Jarzabkowski	Strategy as practice: recursiveness, adaptation, and practices-in-use	Organization studies; oss.sagepub.com;2004.
8	429	P Jarzabkowski	Strategy as practice: An activity based approach	books.google.com;2005.
9	421	P Jarzabkowski, J Balogun, D Seidl	Strategizing: The challenges of a practice perspective	Human relations; hum.sagepub.com;2007.
10	408	M Easterby-Smith, MA Lyles	Handbook of organizational learning and knowledge management	books.google.com;2011.

Source: Compiled by the authors

Unlike the WoS research, the list of the most cited articles in Google Scholar contains a series of books (1, 2, 3, 8 and 10), some even catalogued by Google Books itself. The journals Organization Studies, Long Range Planning, and Human Relations are cited in a similar way as in the other research.

5.2 Descriptive Analysis of Authors and Institutions

Table 28 shows the main authors of the pieces of work obtained by consulting Google Scholar. Although the main names at the top of the list remain the same, such as P. Jarzabkowski, D. Seidl; R. Whittington and J. Balogun, they account for far fewer publications (1.38%; 0.68%; 0.88% and 0.54% respectively). It is worth noting that the twenty most prolific authors do not amount to even 10% of the publications shown in the study.

Table 28: Most prolific authors

Authors	No. studies	%
P Jarzabkowski	59	1.38%
D Seidl	29	0.68%
R Whittington	28	0.66%
J Balogun	23	0.54%
E Vaara	20	0.47%
A Langley	19	0.45%
L Rouleau	19	0.45%
S Mantere	18	0.42%
C Carter	15	0.35%
L Melin	15	0.35%
S Paroutis	14	0.33%
R Chia	13	0.30%
Mj Avenier	12	0.28%
M Hällgren	11	0.26%
M Kornberger	11	0.26%
S Clegg	11	0.26%
S Bulgacov	11	0.26%
S Kaplan	10	0.23%
V Ambrosini	10	0.23%
Ap Carrieri	10	0.23%
Others	3,906	91.6%

Source: Compiled by the authors.

5.3 Analysis of References, Journals and Subject Areas

Table 29 shows the journals in which the articles most referenced by the research studies were published and their places of publication. Firstly, it should be noted that approximately 44% of the research pieces of work do not specify their journals or places of publication. The journals Organization Studies, Journal of Management Studies and Long Range Planning are the three main journals, but are not representative at all (3%; 2% and 2% respectively). The highlights are some "local" journals published in languages other than English, such as the Revue Française de Gestion (French) and the Revista de Administração da USP (Portuguese). Furthermore, in the reference the sites of groupsthat typically organize conferences (ANPAD, AOM, etc) also appear.

Table 29: Most cited journals

Source	No. Works	%
Not specified	633	44%
Organization studies	49	3%
Journal of Management Studies	28	2%
Long range planning	26	2%
International Journal of …	22	2%

Source	No. Works	%
Human relations	18	1%
Revue française de gestion	17	1%
Scandinavian Journal of Management	17	1%
Strategic organization	14	1%
Organization Science	13	1%
ead.fea.usp.br	'13	1%
Organization	12	1%
European Management Journal	12	1%
proceedings.aom.org	10	1%
Journal of management …	10	1%
Revista de Administração …	10	1%
Industrial Marketing Management	10	1%
anpad.org.br	10	1%
Others	,448	100%

Source: Compiled by the authors.

Table 30 shows the main publishers of the works resulting from the research. Again, around 45% of the total did not specify the identity of the editors. Google Books appears with 20%, indicating that a large part of the sample seems to be composed of books. Following on are large corporate publishers of scientific journals, such as Emerald, Elsevier, Willey, Taylor& Francis, Springer and Scielo in Brazil.

Table 30: Main Publishers

Publisher	No. Studies	%
Not Specified	387	16%
books.google.com	174	7%
emeraldinsight.com	142	6%
Elsevier	123	5%
Wiley Online Library	115	5%
Taylor & Francis	79	3%
Springer	66	3%
Scielo Brasil	53	2%
oss.sagepub.com	51	2%
papers.ssrn.com	40	2%
Others	1142	48%

Source: Compiled by the authors.

Table 31 shows the types of documents obtained in the research. Around 58% of the sample did not specify exactly what type was referenced; 25% was in PDF (Portable Document File), which in practice refers to the type of electronic document and not exactly to its publication category. In addition, 11% were citations and 4% were books.

Table 31: Types of document

Type of Document	No. Works	%
Not specified	1369	58%
PDF	600	25%
Citation	259	11%
Book	85	4%
HTML	50	2%
DOC	9	0%

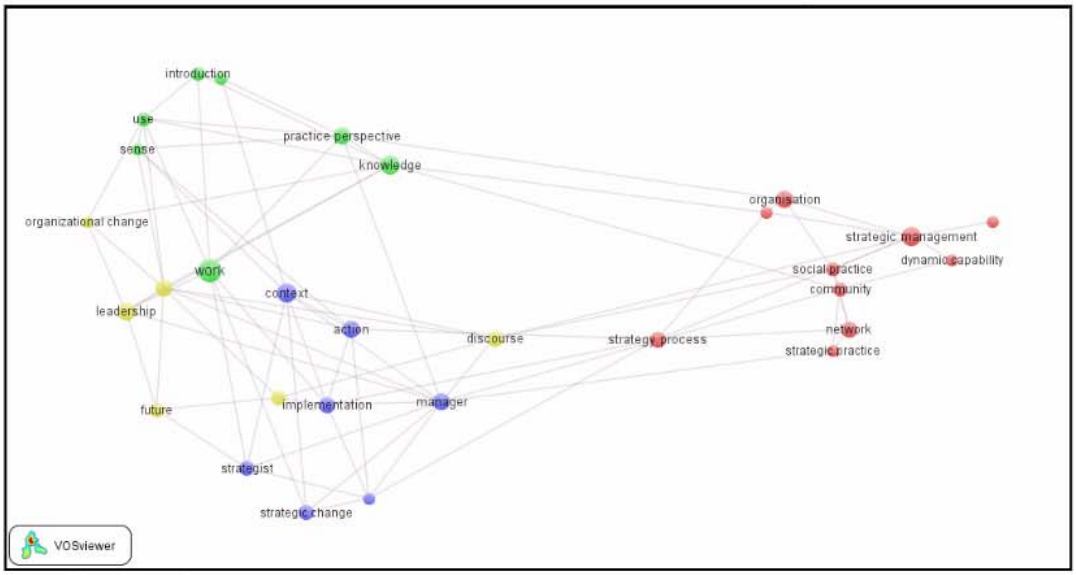
Source: Compiled by the authors.

5.4 Analysis of Terms and Keywords

Similar to what was done in the research with the Web of Science, a relationshipdiagram of the terms in Figure 32 was constructed. Unlike what was found in the previousresearch, Strategy and Practice are

not terms, the citation of which is very much greater. From the VOSViewer algorithmsfour groupings emerged: (1) Yellow, which is apparently linked to "softer" themes of strategy practice, like Leadership, Organizational Change, Future; (2) Violet, apparently linked to people and strategy implementation, using terms like Strategist, Manager, Implementation, Action; (3) Red, which seems to deal more with themes of strategy process and concept, like Strategic Process, Social Practice, Strategic Management; and (4) Green, which deals with themes like knowledge, use and sense of the practice.

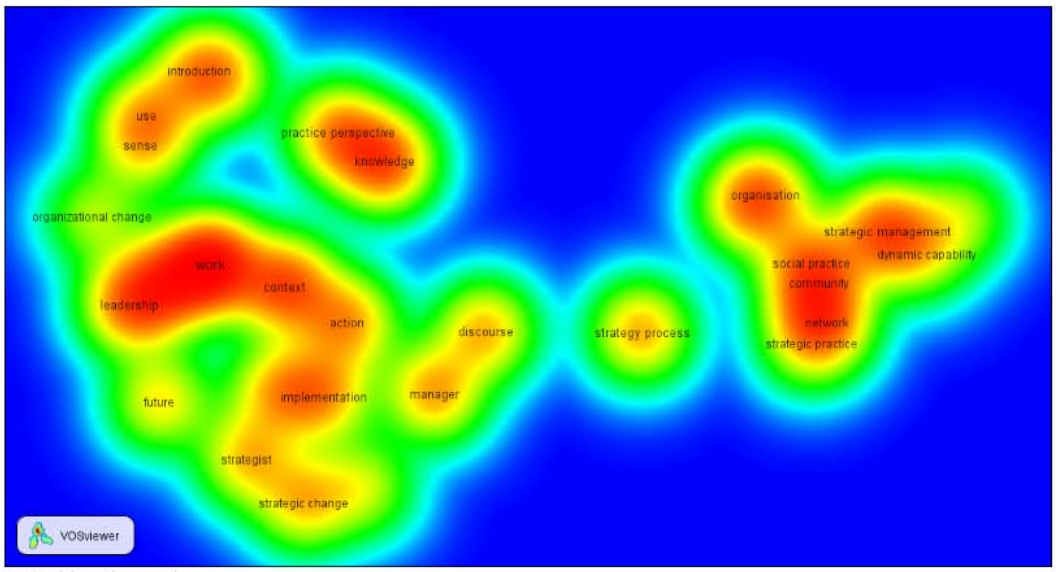
Figure 32: Relationship diagram of terms



Source: compiled by the authors.

Corroborating the fact that the terms Strategy and Practice are not so central in the survey in Google Scholar, the density diagram in Figure 33 identifies a series of focuses of greater density(red), around various different themes, like use, knowledge, leadership, work, socialpractice and others.

Figure 33: Density diagram of terms



Source: compiled by the authors.

6. Combined Analyses

This section will seek to carry out a cross analysis of the main subjects identified in the bibliometric research, both based on Thomson Reuters Web of Science and Google Scholar. Some of the analyses and conclusions of Maia andAlvesFilho (2013)and Maia, Di Serio and AlvesFilho (2014), were also recovered in this process and they were gone into in greater depth and complemented with the greater detail presented in this work.

Firstly, SAPis a field of research that is still fairly "young". Unlike classic research into strategy, which dates from at least 40 years ago, and uses references from classic publications on economics from long before that, SAPtakes its publications mainly from after 2007,and from a seminal work by Whittington in 1996.

On this particular point there are two aspects that arise from the bibliometric analysis of both sources. One in fact refers to the growthin a theoretical body of work based on publications after 2007, both in the WoS (92% of the publications came after2007) and in Google Scholar (89%). Moreover, the fact of being "young" in some way implies that there is still a lot of research"on-going", being produced and worked on, and that has not yet reached a sufficient point of maturity for it to be published in traditional journals that are indexed in WoS itself. Of the worksin Google Scholar, 44% did not present a publication source and 58% of the work did not specify exactly what type of document (paper, book, citation), etc.

Secondly, academic production about the area is still very centralized on the two most influential authors, Paula Jarzabkowskinow from City University London (previously fromAston University)in England, and Richard Whittington from OxfordUniversity, also in England. In the research based on the Web of Science, two clusters of authors were formed and primarily centralized on these individuals, while two other clusters contained more "classic" authors on strategy.

The results of the research based on Google Scholar also move towards similar results. Paula Jarzabkowski is the first and Richard Whittington the third most prolific author, but with a very differentconcentration from the one presented in the previous study. While in the case of the Web of Science the former accounts for 21% of the publications and the latter, 10%, in the case of Google Scholar they have just 1.38% and 0.66% respectively. There is also a small inversion in the order of the authors, given that David Seidl moves into 2nd position in the Google Scholar ranking, compared with the 3rd place he occupied in the Web of Science.

Paula Jarzabkowski and Richard Whittington are also the main authors in both the rankings of the most citedpublications; with the difference that Google Scholar also includes books written by these authors.

Thirdly, when analyzing keywords and research terms in SAP, we observe different behaviorsbetween the researchin Web of Science and Google Scholar. The Web of Science results seem to be more "expected", since two different groups are identified: (1) themes related to the advance in SAP concepts as a cohesive body, and (2) empirical applications of their concepts and also of specific aspects within SAP. So, because of the large amount of work that specifically focuses on the concept of SAP itself, it can be inferred that the theoretical body of work on the theme is still in the process of being produced and consolidated.

Unlike the centrality of the terms Strategy and Practice in this study (denoted also by the density diagram), the Google Scholar study presents a series of other, also dense and related poles, as shown in Figure 32. Terms like leadership, context, practice perspective, social practice, strategic management, etc.appear in a relevant way, suggesting that research in Google Scholar has a wider range of themes related to thefocus of the analysis.

Finally, both studies seem to converge on the fact that the work on SAP does not seem to be getting published in the "classic" corporate strategy journals, like Strategic Management Journal, Harvard Business Review or the Academy of Management. From the study based on Web of Science, 25% of the publications occurred in journals relating to organizations (Organization Studies, Organization Scienceand Human Relations) and 10% in management journals (Journal of Management Studies and European Management Review). The research based on Google Scholar directionally

presents a preponderance of similar journals (although in much less expressive percentages), but adds various other journals that are perhaps not as widely divulged because they are not in English (Revue Française de Gestion and USP's Revista de Administração [Journal of Administration]), as well as other organizations and conferences, like ANPAD, AOM, etc.

SAP, therefore, effectively shows itself to be a theoretical current that is an "alternative" to the classic lines of strategy, even in its publication channels, both because its main space are the "typical" strategy journals, and because of the relevance of publications in local journals. Furthermore, the Google Scholar survey also indicates the significant participation of material for congresses, in some way suggesting that the body of knowledge is still under construction, being discussed and partially presented in conferences for subsequent finalpublication in journals.

6. Final Remarks

The objective of this work was,after 20 years of Professor Whittington´s first paper, to provide an overview of academic production inside the new research area of SAP – recovering and exploring bibliometric research into SAP presented in summarized fashion in Maia andAlvesFilho (2013) and Maia, Di Serio and AlvesFilho (2014), bringing new aspects and ways of interpreting it.

The amount and dimensions of the information obtained in each case was significantly different, beginning with the number of documents in each sample: 72 for Web of Science and 2372 for Google Scholar (informationextracted using Publish or Perish– Harzig, 2007 software).

Combining both origins, the analyses presented in the previous section indicate at least four main findings: (1) SAP is a young field of research, with most of the publications coming after 2007 and, from what is suggested by Google Scholar, one that is perhaps still undergoing a development and maturing process, since a lot of the work has not yet been formally published in journals; (2) Paula Jarzabkowski and Richard Whittington are the most prolific authors on this theme, although research in Google Scholar suggested a great dispersion of authors, given that both total a little over 2% of the publications; (3) although "Strategy" and "Practice" are the main terms obtained in the research in Web of Science, with a series of peripheral terms, the research in Google Scholar indicates a great density of related terms, like Leadership, Context, Social Practice, etc. and (4) both studies indicate that the production of this body of knowledge has not been published in classic journals on strategy, but in journals related to organizational studies. Furthermore, there seems to be relevant production in journals in a language other than English and in conferences.

The results of this work also allow for the preparation of simple comparisons between Web of Science and Google Scholar, as databases for bibliometric research. Table 34shows some of these indicators, which will be explored in thefollowingparagraphs.

Firstly, the indicators that could be generated do not include classic bibliometric research indicators, like h-index, g-index and others (for reference on indices, consult Franceschet, 2010). This occurred because Google Scholar limits the maximum number of results to 1000, meaning that full research needs to be divided into result sub-groups, thus compromising the generation of such indices.

Second, it was well known that Google Scholar generated a very much broader base of results (papers and,consequently, citations), producing a result that was more than 30 times bigger than the one obtained with Web of Science. This fact corroborates what was stated by Harzig and Van Der Wal (2007) that Google Scholar offers a broader cover of traditional databases.

Although it was expected that the number of results from Google Scholar would be greater than Web of Science, this proportionality also underlines the fact that much of the research in SAP is still "under-published", and is being developed in papers at congresses that is openly available on the Internet, but which has not yet reached maturity for publication in journals indexed by WoS. As an example, Franceschet (2010) in a bibliometric work on Computer Sciences identified that GScould generate between 5 or 6 times more results than WoS – much lower than the more than 30 times of this work.

Third, regardless of the number of results it is well known that Google Scholar manages to generate a much more disperse and diverse database. While the five main authors in WoS were responsible for almost 50% of the work, in GSthey produced just 4% of it. In the case of sources, the numbers are equally different: the 5 biggest sources published36% of the results obtained via WoS, while in GS this number was only 10%.

Fourth, the concerns of Aguillo (2011) relating to the quality and importance of theresults obtained via Google Scholar also seem to find some support in this work. Of the data obtained via Google Scholar, 360 documents (15% of the total) had no indication of the publication date and 633 (27%) had no indication of their source, which meant it was impossible to assess the trustworthiness and quality of the publication vehicle.

Table34: Comparison of Indicators between WoS and GS

Source	Papers	Citations	% Publications TOP5 authors	% Publications TOP5 Sources	Undated papers	Papers with no source
ISI Web of Science	72	873	49%	36%	0	0
Google Scholar	2372	32,474	4%	10%	360	633
% GS/WoS	3194%	3620%	-92%	-72%		

Source: compiled by the authors.

In more qualitative aspects, GS seems to have the advantage over Web of Science regarding ease of access, because any computer with an Internet connection can access the database, while WoS requires at least an institutional subscription. However, not all typical bibliometric analyses can be carriedout with the results of the GS database: it is not possible, forinstance, to analyse the co-citation or frequency of keywords, since GS does not provide this information.

Counterbalancing the strengths and weaknesses of each of the tools, this study corroborates the proposition put forward by Bakkalbasi et al (2006), that the different databases end up being complementary in bibliometric studies. Each has different approaches and characteristics of breadth versus depth and this ends up contributing to these document research strategies, which generally seek to construct a panorama of the theoretical body of work of a particular subject.

Concluding, it is worth a final remark about the relevance itself of bibliometric research like the one presented in this paper. As Mugnaini (2006) highlights, the importance of bibliometric studies derives from the need to evaluate the productivity and quality of research of several academic actors, detecting behavioural patterns in its scientific production. Such models and patters provide a relevant support to the understanding of how scientific knowledge is diffused and incorporated into such several actors, allowing for the quantification of scientific production and identifying areas of academic excellence (Ravelli et al 2009, Carvalho, 2005 andFillipo, 2002).Taking this into consideration, the relevance of bibliometric studies lies in characterizations that emphasize breadth to some expense of depth, creating “big research pictures” that make the academic community capable of developing further work on the gaps and research opportunities that had been previously identified by such studies. Besides its own relevance, one can understand that bibliometric studies have a facilitating role to the contribution and relevance of the work derived from them.

Finally, even working with two different sources, the proposed results must be taken as directional, given that bibliometric studies have some relevant limitations, namely: the limitation of the research base chosen (WoSandGS), which does not represent all the scientific production of the area; and the possibility of errors in the standardization of the fields researched (e.g.. keywords, authors, etc.), which might lead to partially incorrect conclusions.

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