



BIBLIOMETRIC RESEARCH ON STRATEGY AS PRACTICE: EXPLORATORY RESULTS AND SOURCE COMPARISON

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Abstract

This paper aims at sketching an overview of the scientific production in the field of Strategy as Practice (SAP), recovering and expanding the bibliometric research presented in Maia and Alves Filho(2013), bringing in new aspects and replicating the study using Google Scholar. Concerning SAP, results signalize that: (1) SAP is still a young research field, with most of its publications after 2007; (2) Paula Jarzabkowsky and Richard Whittington are the most productive authors, although Google Scholar suggests a relevant author dispersion; (3) “Strategy” and “Practice” are the main research terms in Web of Science, while Google Scholar indicates relevant density of related terms; (4) both studies indicate that SAP production has not been published in classical journals, and there is important production in non-English publications and conferences. Concerning research sources: (1) size limits in Google Scholar make it impossible to calculate classic bibliometric indicators; (2) Google Scholar has generated a database with more than 30 times the results in Web of Science; (3) Google Scholar has generated a much more disperse and diverse base; (4) there are concerns in terms of using Scholar as a source of information: 15% of the documents do not present publication date while 27% do not present publication source.

Keywords: Strategy as Practice; Bibliometric Research; Strategy; Competitive Management.

1. INTRODUCTION

In recent years, European researchers initiated a movement called “Strategy as Practice” (SAP). In contrast to the prevailing currents of Business Strategy, the SAP movement seeks to bring different contributions of the sociological approach to research in strategy, considering them as something that companies do, rather than something they merely possess (Whittington, 2004). In its research framework, SAP seeks to analyze praxis, practices and strategy practitioners to build their empirical framework.

The SAP is a relatively new concept, of approximately 15 years, and it has a theoretical body in full development process for further consolidation. Unlike the classic works on strategy that exist for at least 40 years and which used the economic work previous to this period as the source.

Maia *et* Alves Filho (2013) have presented a summarized version of bibliometric research that explored the field of SAP using Thomson Reuters Web of Science as the source of information and VOSviewer software for simple clustering and graphical representation. The main results indicate that: (1) the SAP was a research field still quite “young” with its publications mainly after 2007; (2) the academic literature on the area was still very centralized in the two most influential authors, Paula Jarzabkowski and Richard Whittington, both from England; (3) their works were not being published in ‘classic’ business strategies journals, but in journals related to organizations and management and; (4) the keywords and search terms tended to group into two clusters: one related to the concept advancement and another related to empirical applications or particular aspects of the SAP approach.



The purpose of this article, therefore, is to sketch an overview of the scientific production in this new field of SAP, assessing issues such as major works, authors, publishing media, themes, institutions, related keywords, and more. From a condensed work previously published by Maia *et al* (2013), this article seeks to recover and explore more deeply the referred research, bringing new aspects and ways of interpretation, as well as similar bibliometric research performance using Google Scholar as an alternative source of information. For Van Der Wal *et al* Harzing (2007), Google Scholar is an alternative to other data sources, in that it offers wider coverage than the traditional ISI (now Thomson Reuters) and Scopus. In contrast to Aguillo (2011), universities and journals of minor importance may have over-representation in Google Scholar, compromising the quality of bibliometric analysis. In this sense, this paper recovers, expands and complements the cited 2013 work, expanding information and analysis, as well as comparing two alternative sources for the bibliometric research.

The article is structured as follows: initially rapid theoretical syntheses on the strategy as practice and its research elements are displayed. Then the bibliometric analyzes made based on Web of Science and Google Scholar are indicated. Finally, the conclusions of the working considerations and future research possibilities are indicated.

2. BIBLIOGRAPHICAL REFERENCE

According to the thinkers of SAP, traditional research in strategy shares the view that strategy is an abstract concept that companies simply have. Thus, the main studies on strategy are guided by ideas such as: the company X has diversification strategy, the company Y has a strategic planning process, and the company Z has change management processes, among others.

On the other hand, Johnson *et al* (2007) point out that the prospect of SAP takes strategy as something that people in organizations do. Thus, the strategy is understood as an activity and the understanding focus becomes the micro activities involved in the construction of the strategy. The authors cite as an example that a diversification strategy involves the issue of people doing things differently compared to other firms, and in a more expensive way to be imitated.

Thus, "Strategy as Practice is essentially concerned with the strategy as an activity of organizations; typically the interaction of people, rather than the strategy as property of the organizations. Thus, the focus is on two questions hitherto neglected: what the people involved in the strategic process actually do and how they influence the products of this process" (Johnson *et al.*, 2007).

From a methodological point of view, several articles have made the proposition of qualitative and quantitative research approaches to the SAP, suggesting forms of data analysis, interviews, and coding techniques, among others. From the perspective of the research frameworks, Whittington (2006) proposes a model consisting of three interrelated concepts: (1) praxis, (2) practices, and (3) practitioners (or professionals). As the author points out, the alliteration of the terms is deliberate, in order to highlight the interdependence and feedback between the concepts as outlined in Figure 1.

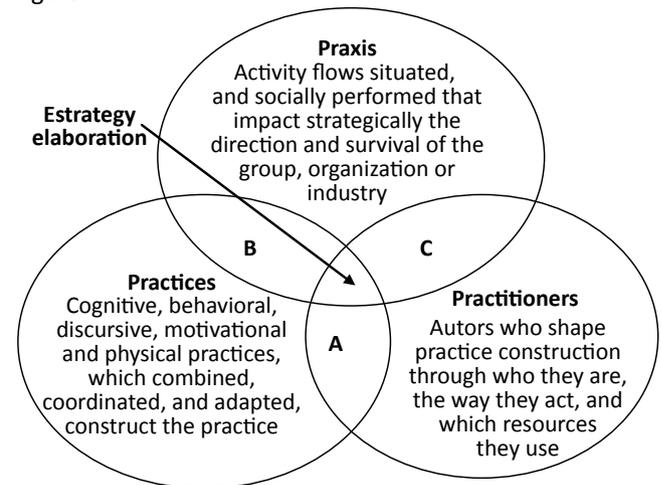


Figure 1. Praxis, Practices and Practitioners.

Source: Whittington (2006).

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

To Jarzabkowski *et al.* (2007), the practitioners are the actors, the ones who lay hold of practices to act and produce the praxis. They act according to the way they use the prevalent practices in their society, combining, coordinating and adapting them to their usage needs and as a deliberately (or not) engendered consequence by institutionalizing the new resulting practices.

In the context of the SAP, strategists are active actors in the social construction process of the strategy, thereby producing impacts on their performance and survival. The personal characteristics of the practitioners end up shaping the strategy by means of who they are, by which standard



perception of the outside world, by how they act, and by which practices they use.

For Reckwitz (2002) *apud* Whittington (2006), the practices relate to shared behavioral routines, including traditions, norms, and procedures to think, act, and use “things”, the latter in its broadest sense. From the point of view of the SAP, the practices include cognitive, behavioral, procedural, discursive, motivational, and physical “things”, as for example: SWOT matrices, Gantt charts, knowledge management approaches, among many others.

Johnson *et al.* (2007) highlight the underlying focus with institutionalized organizational practices in which people engage to execute their strategy activity. From this perspective, we have at least four examples:

- a) Procedures and institutionalized systems such as strategic planning;
- b) Tools, such as those commonly used in defining strategies;
- c) Norms or behaviors that follow scripts, as guided behaviors that occur in management meetings;
- d) Strategic Episodes such as board meetings, retreats for planning, etc.

3. RESEARCH METHOD

As previously mentioned, the bibliometric analysis will be employed to achieve the objective planned for this work. Figueiredo (1977 *apud* Lima, 1986, p. 127) defines Bibliometry as “the statistical analysis of the processes of written communication, quantitative treatment (mathematical and statistical) of the properties and the recorded information of behavior”. Thus, its main objectives are to clarify the processes of communication and evolution of a discipline, by quantifying and analyzing its various facets, gathering and interpreting statistical data on communication media (books, periodicals, etc.) to demonstrate progress and historical use (Maia, 1973 *apud* Voese *et Mello*, 2012).

According to Pritchard (1969), the bibliometric research can provide at least five distinct purposes: (1) identify major trends and knowledge growth standards in a particular scientific field; (2) to assess the degree of dispersion and obsolescence of certain subjects; (3) measure impact of posting jobs, studies and information and its dissemination in the academic environment; (4) quantify the breadth of coverage of certain journals and; (5) identify levels of producti-

city of authors and institutions. Thus, these purposes are extremely aligned to the objective of the work presented here.

Bibliometry is based on, at least, three separate laws on bibliometric distribution: (1) Law of Lotka, which aims to measure the productivity of the authors, identify research centers developed in a given area and recognize the strength of a particular scientific field; (2) Zipf’s Law, which measures the frequency of certain words in the texts, producing a list of terms within a discipline, according to its relevance. Thus, the concentration of words with high semantic content could be used as text indexing form, due to virtue its representativeness in the subject; (3) Bradford’s Law, which measures the productivity of periodic estimating their relevance within a particular area of knowledge - journals with more articles concerning some certain topics would form supposedly a set of vehicles with greater relevance to certain area (Vanti, 2002; Guedes *et Borschiver*, 2005).

Based on these laws, a sequence of steps was set for the execution of a bibliometric analysis of this study, as shown in Figure 2. The first step relates to the query itself, performed within a work indexing base (both the Web of Science and Google Scholar). The second deals with the application of proper filters, search words, publication types, time lapse, etc., for correct delimitation of the work sample to be studied. The third stage includes the descriptive and temporal analysis of the articles obtained in the sample, contextualizing scientific production (publications and citations) in time and identifying the main works in the area. The fourth step was grounded on Lotka’s Law to identify the authors, most relevant institutions and countries using rankings and co-citation maps. The next step analyzes where the subject has been published, based on the Bradford Law to identify the major journals, research areas, etc. The sixth stage uses the Zipf’s Law to analyze the main keywords in the index of the sample works, as well as key terms that can be identified in articles portraying concepts which are worked together and how they relate. Finally, the results of all these steps are jointly analyzed and the main findings of the research are produced.

For methodological framework purposes this research can be classified as descriptive, aiming to describe the characteristics of a particular phenomenon, by collecting data concerning its current state (Gay *et Diehl*, 1992). Regarding the problem approach, this research can be classified as agreed between qualitative and quantitative. To Bryman (1989), quantitative research involves the collection and structured form of data analysis to interpret parameters of interest for the investigation. The qualitative research, on the other hand, is characterized by focusing more the understanding of its measurement data and it is applied in cases where the wealth of de-

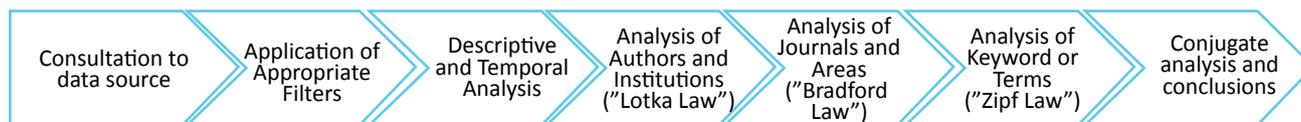


Figure 2. Methodological stages of the research.
 Source: Authors.

tails is more relevant than the quantitative information (Richardson, 1985).

4. BIBLIOMETRIC RESEARCH IN WEB OF SCIENCE

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

The process of searching for documents was performed using the keywords "strategy as practice" and "strategy-as-practice" and the Boolean operator "OR", in fields titles, descriptors and topics of the publications. From this result, the documents have been refined with the application of search criteria, according to Table 1.

Table 1. Filters with search criteria

Filters with search criteria	
Type	Articles or congress work or conference abstracts or book chapters, excluding book reviews
Knowledge areas	No restrictions
Time	No restrictions

Source: Authors.

From this search and refinement 72 publications were obtained. To analyze the data of the found documents, spreadsheets were used and the VOSViewer software (Van Eck et Waltman, 2010).

4.1 Descriptive analysis of citations and references

Based on the articles generated by the search, this section brings a number of descriptive parameters of the citations and references to articles. Figure 4 illustrates the year of publication of the articles, so as to contextualize knowledge production over time. As can be seen, the number of publications has increased over the last years, especially from 2007 forward, period that concentrates 92% of the publications, with an average of 9.4 publications per year. However, this statement must be placed in perspective, since the base Web of Science has more information on recent publications and there is a tendency for increasing the number of academic publications (Neely, 2005).

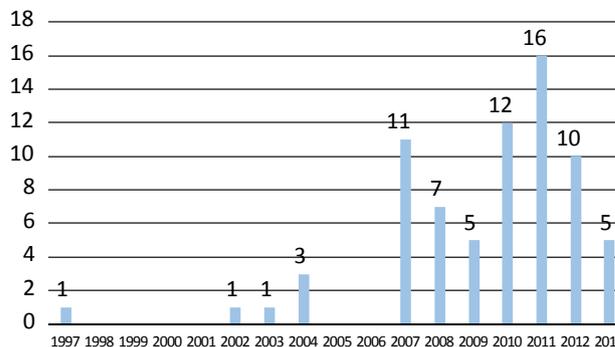


Figure 4. Number of publications per year.
 Source: Authors.

Complementarily, Figure 5 illustrates the amount of citations for the research articles along each year. From the observation it is possible to identify that most citations occurs in the period beginning in 2007, totaling 95% of the total citations and an average of 118 citations per year. Similarly to own publications, there is a greater tendency for research articles to be referenced in recent years.

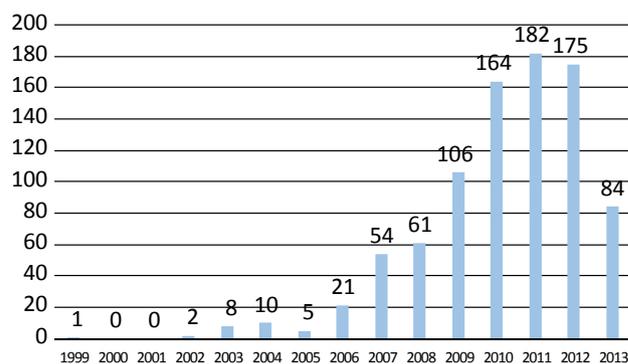


Figure 5. Number of citations to the articles of the sample per year.
 Source: Authors.

Seeking to bring more detail, Table 6 contains the publications with the greatest number of citations of the sample articles. It can be stated that the articles are proposed concerning the concept of the theory of SAP, laying the foundation for structuring a body of literature which addresses the issue. The articles of Richard Whittington and Paula Jarzabkowski tend to be purely conceptual, discussing the vision and making reflections on the subject,



while the other works bring some application or a more specific discussion within a component of the approach Strategy-as-practice.

By analyzing the major journals in which the articles of this research are mentioned, it is considered that they are generally centered on journals on organizations (Organization Science and Human Relations) and under management (Journal of Management Studies, European Management Review, etc.). It is noteworthy that, unlike classical works in strategy that publish in journals such as Harvard

Business Review and Strategic Management Journal, the only closest periodic of the area portrayed here is the Long Range Planning.

Figure 7 provides the citation frequency of the most referenced articles of the base for each year. In general, it can be seen that each article is typically mentioned between 5 and 7 times every year. The exceptions are some articles of Whittington and Jarzabkowski, which are cited between 12 and 15 times a year on average.

Table 6. Publications with higher number of citations on display

Ranking	N 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.t011-00003 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: Authors.

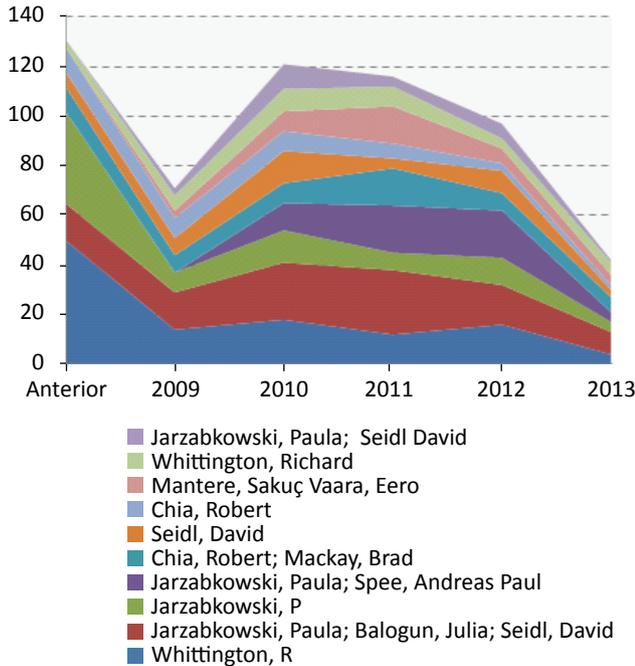


Figure 7. Citation Frequency of the most referenced articles
 Source: Authors.

4.2 Descriptive analysis of authors and institutions

Table 8 illustrates the main authors of the papers obtained via bibliometric research. It may be noted, to some extent, certain concentration of literature on the subject, since only five authors concentrate 50% of all publications. Paula Jarzabkowski (n=10), Richard Whittington (n=5) and David Seidl (n=4) are the most profitable, accounting for almost 40% of the publications.

Table 8. More productive authors

Authors	N Works	%
Jarzabkowski P	10	21%
Whittington R	5	10%
Seidl D	4	8%
Chia R	3	6%
Balogun J	2	4%
Outher	24	50%

Source: Authors.

The VOSViewer software was employed to construct a co-citation diagram of authors, i.e. authors whose work is typically referred to collectively within the articles of the field, thus showing proximity between the topics addressed by them.

Figure 9 shows this co-citation network, which generated four distinct clusters (green, red, yellow and purple). Although some knots are repeated due to difficulties in standardizing the Web of Science, one can observe a cluster with Paula Jarzabkowski as the lead author, one with Richard Whittington as the most influential researcher, and two “peripheral” clusters with the most classic researchers in terms of strategy as Pierre Bourdieu and Henry Mintzberg.

Figure 10 shows a density diagram of this co-citation network, whose colors are similar to a thermal chart (red = more intense; and blue = less intense). Similar to what has already been commented, Whittington and Jarzabkowski appear as the most influential in the field.

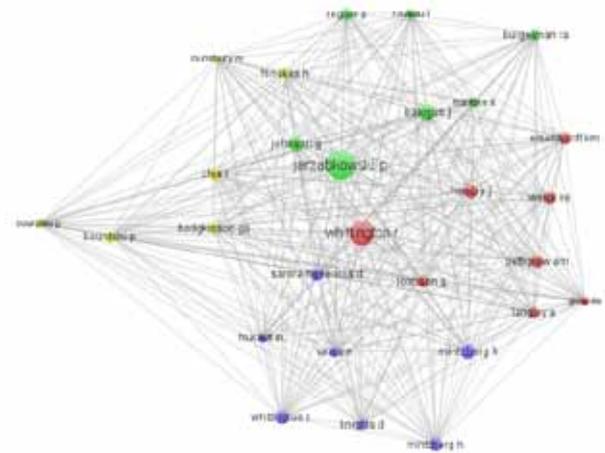


Figure 9. Authors quote diagram
 Source: Authors.

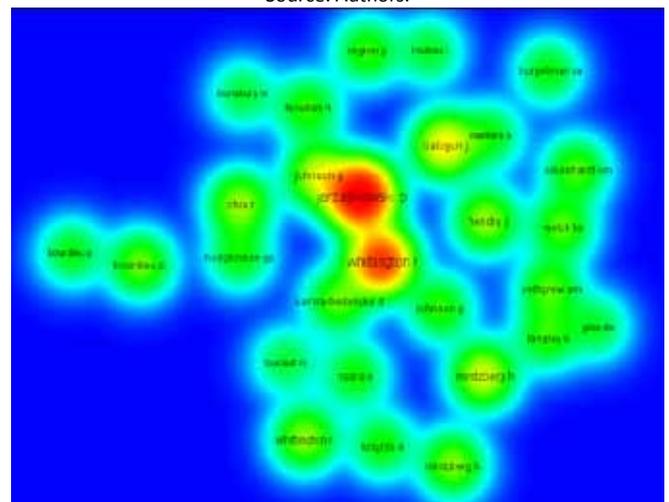


Figure 10. Authors density diagram.
 Source: Authors.

Derived from the analysis of researchers, Tables 11 and 12 present universities whose authors published more on the subject and the respective country in which they are based. Excluding the University of St. Andrews located in Scotland and the University of Montreal located in Canada,



the others are located in England and, together, account for almost 40% of the production on the subject. If you also consider Scotland, the United Kingdom accounts for nearly half of the publications.

There is obviously extreme link between the most productive authors and universities, as Paula Jarzabkowski at the time of publication, belonged to the teaching staff of Aston (in 2014 she integrates the teaching staff of City University London), and Richard Whittington to Oxford.

Table 11. The most productive institutions

Organization	No. Works	%
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: Authors.

Table 12. The most profitable countries

Countries	No. Works	%
Inglaterra	29	34%
Canadá	8	9%
Escócia	8	9%
Austrália	6	7%
Finlândia	6	7%
Outros	28	33%

Source: Authors.

The VOSViewer software was also used to build a relationship diagram between institutions, which indicates which universities are referenced in the works of other universities. For a more representative graph the filter with a minimum of two joint references and clusters with a minimum of three items was applied.

Figure 13 shows the net with 3 distinct clusters (green, red and purple). One can observe a cluster with the University of Aston as its main exponent, another with the University of Oxford and Warwick and a third with Canadian universities: Montreal and HEC Montreal. Figure 14, in turn, presents the network density diagram, in which it is realized that the Aston University stands out as a major influence, signaling a greater proximity to the Oxford University than to the University of Warwick, as Figure 11 could suggest. This fact reaffirms the centrality of the SAP according to Jarzabkowski Paula and Richard Whittington.

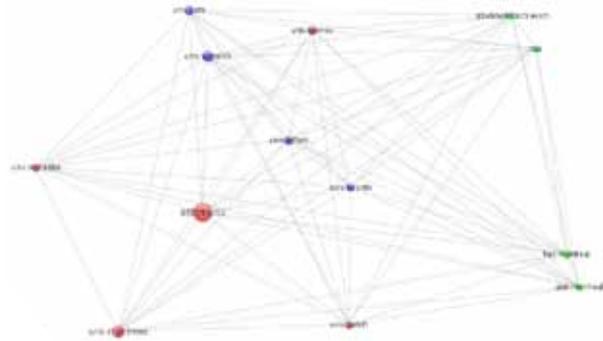


Figure 13. University relationship diagram
Source: Authors.

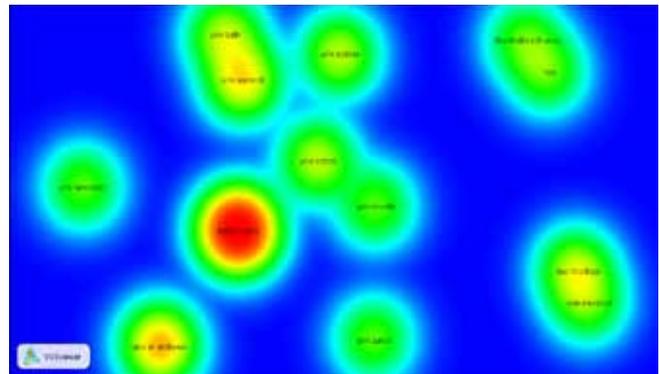


Figure 14. University relationship density diagram
Source: Authors.

4.3 Analysis of references, journals and areas

Figure 15 shows the analysis of the co-citations of the references brought in the bibliographical research. This analysis seeks to identify the number of times two papers are cited simultaneously in the same article, showing thematic proximity between authors and research networks.

In order to extract more meaningful results, 15 was established as the minimum number of references to articles. Three distinct clusters were produced; (1) red, centered on several works of Paula Jarzabkowski with conceptual themes and the implementation of strategy as a practical approach; (2) purple, with early work on the subject, such as Whittington (1996) and; (3) green, with more recent conceptual work on the theory of SAP, bringing articles of Whittington, Johnson, Chia and Jarzabkowski, among others.

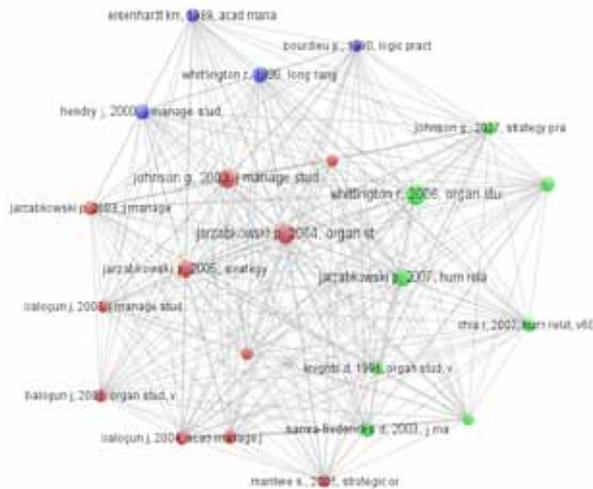


Figure 15. Citations diagram (minimum 15 references)
 Source: Authors.

Figure 16 brings a density diagram of such a network, and Johnson (2003), Jarzabkowski (2004, 2007) and Whittington (2006) bring the most present references in the co-citation network.

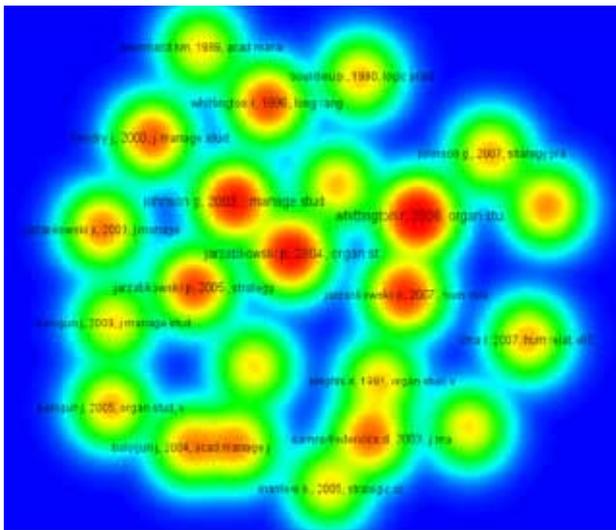


Figure 16. Citations Diagram (minimum 15 references)
 Source: Authors.

Table 17 presents the journals in which the articles most referenced by the work of the research were published. The five most cited journals embody 77% of publications. Among these, the journals related to the organizational area (Organization Studies, Organization Science and Human Relations) account for approximately 25% and the management journals (Journal of Management Studies and European Management Review) account for nearly 10%.

Table 17. Most cited journals

Countries	No. Works	%
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: Authors.

Figure 18 shows the co-citation diagram of journals, 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 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 the Long Range Planning.

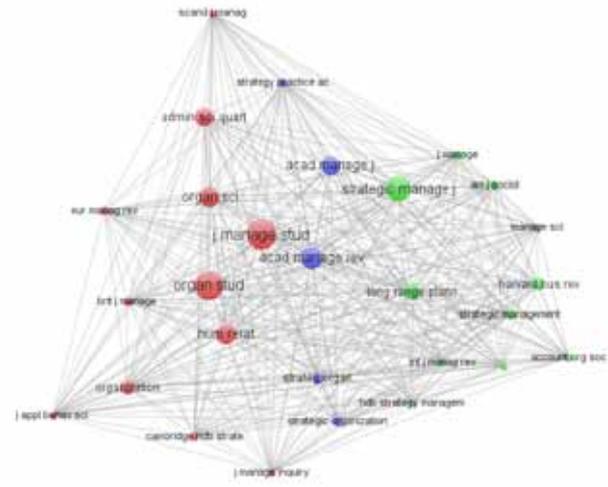


Figure 18. Periodic citation diagram
 Source: Authors.

The density diagram in Figure 19 shows the Journal of Management Studies, the Strategic Management Journal and Organization Studies as the most frequent journals in the co-citation chart.

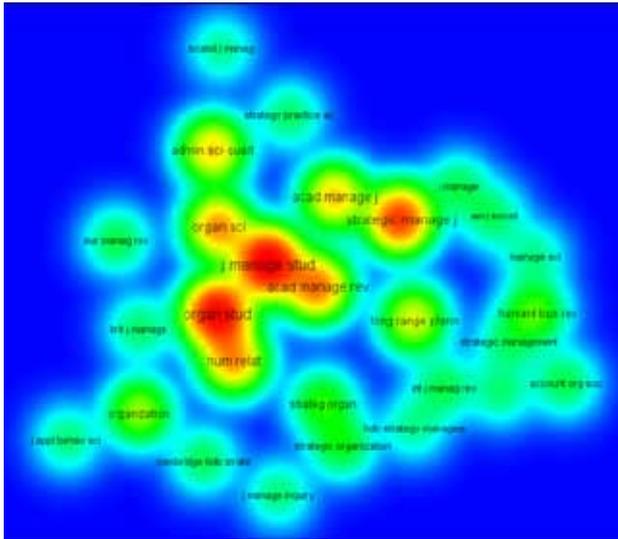


Figure 19. Periodic density diagram
Source: Authors.

To end this section, Tables 20 and 21 show the distribution of jobs by Web of Science category and research area. As expected, almost 80% of works fall into the Management and Business categories. Regarding the research area, 76% refers to Business Economics and 12% to other Social Sciences topics.

Table 20. Distribution by Web of Science Category

Web of Science Category	No Works	%
Management	63	60%
Business	18	17%
Social Sciences Interdisciplinary	9	9%
Planning Development	3	3%
Behavioral Sciences	2	2%
Others	10	10%

Source: Authors.

Table 21. Distribution by Research Area

Research Area	No Works	%
Business Economics	65	76%
Social Sciences Other Topics	10	12%
Public Administration	5	6%
Arts Humanities Other Topics	2	2%
Behavioral Sciences	2	2%
Others	2	2%

Source: Authors.

4.4 Analysis of terms and descriptors

Figure 22 brings the frequency of descriptors in the articles obtained through this bibliometric research.

The first important point to stress is that the software is not able to normalize/standardize the keywords according to the concept they represent. It suffices to note that the terms *Strategy as Practice* and *Strategy-as-Practice* are understood differently. As these words clearly represent the same theme, they would become the most used keywords, with 25 citations, as it would be expected by the very limit of the search.

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

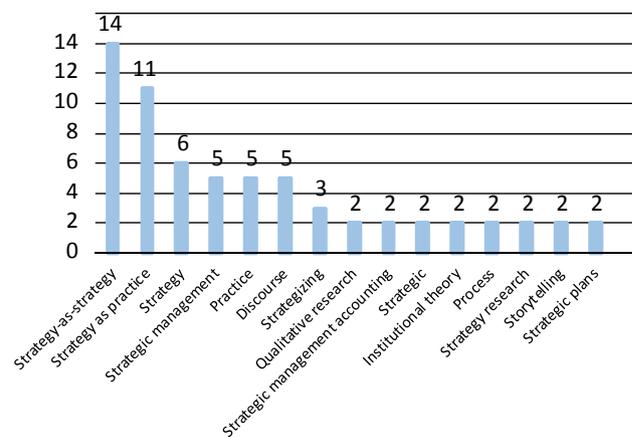


Figure 22. Frequency of descriptors
Source: Authors.

By using the VOSViewer term identification function, which seeks for terms in the title and in the summary of articles, the term relationship diagram, shown in Figure 23, was built. This activity seeks to somehow mitigate the fact that the keywords are usually inserted as the desire of authors and can somehow skew an analysis that is purely based on such words.

In any way, aligned to what has been shown in Figure 20, Practice and Strategy are the most frequently cited terms. In this same diagram two distinct clusters can be viewed: (1) red, which apparently handles more conceptual issues on the SAP, and (2) green, which is more related to implementation research and application of the concept.

Figure 24 shows the density of the diagram terms obtained and confirms that Strategy and Practice are the most present terms.

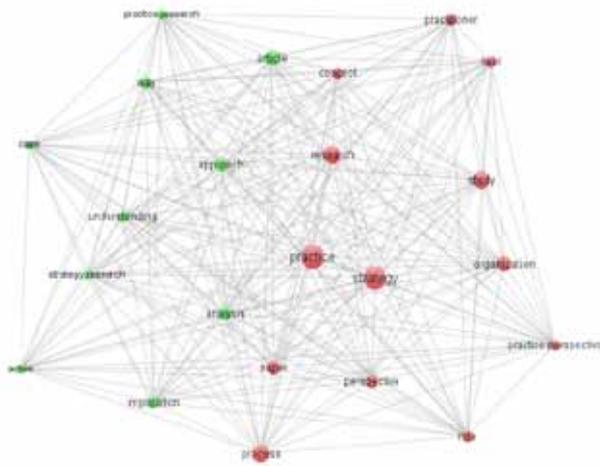


Figure 23. Term relationship diagram
 Source: Authors.

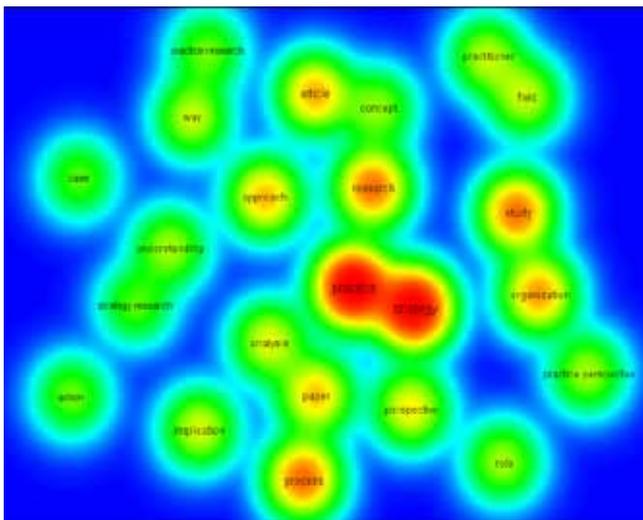


Figure 24. Diagram of terms of density
 Source: Authors.

5. BIBLIOMETRIC RESEARCH IN GOOGLE SCHOLAR WITH THE AID OF PUBLISH OR PERISH

Data for the bibliometric analysis in this article are the documents retrieved in the Google Scholar database, which could be obtained and extracted with the assistance of the Publish or Perish software (Harzig, 2007).

The process of searching for documents was executed based on the same keywords of the previous query, “strategy as practice” and “strategy-as-practice” and the Boolean operator “OR”.

Because of the limitations of the maximum results of Google Scholar (1000 results), the research had to be divided into several publishing periods, which were subsequently consolidated.

From this process, 2,372 results were obtained, including 360 without date of preparation. Similarly to the work done with the Web of Science, spreadsheets and VOSViewer software (Van Eck et Waltman, 2010) were used in the analyzes.

5.1 Descriptive analysis of citations and references

Figure 25 illustrates the year of publication of the articles, and similar to what was identified in the research with the Web of Science, the number of publications increased over time, mainly from 2007. Regardless of the 360 publications without date records, 89% of publications occurred after this year, with an average of 256 publications per year. In this case, the exception of Neely (2005) is more and more applied, as there is growing trend in terms of the incorporation of work on this basis in recent years, reflecting Google’s own growth and development for search engines.

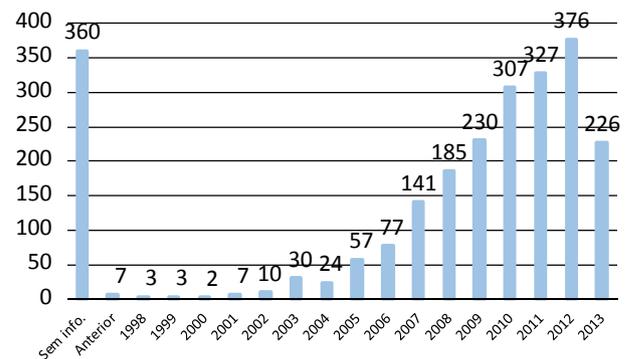


Figure 25. Number of publications per year.
 Source: Authors.

Figure 26 shows the number of citations of research articles along each year. Of the total of 32,474 citations, most seem to also occur in the period beginning in 2007, totaling 73% of the total citations and an average of 3,307 citations per year. We should highlight the peak of citations in 2008, with 7,836 citations. Similarly to publications themselves, there is a greater tendency for research articles to be referenced in recent years.

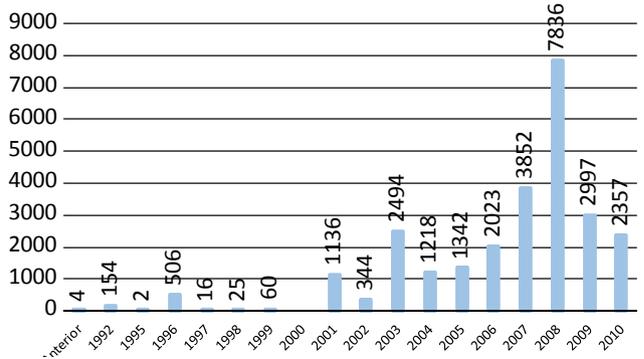


Figure 26. Number of citations to the articles of the sample per year.
 Source: Authors.



Table 27 presents the publications that mostly mentioned articles of the sample. Emphasis is given to the first two works that deal with more general books on strategy. The others, similarly to what happens with the search at the base of Web of Science, deal with seminal articles on the concept of SAP, published mostly by Richard Whittington and Paula Jarzabkowski.

Table 27. Publications with the higher number of citations on display

Ranking	N 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: Authors.

Unlike research the Web of Science, the listing of the most cited articles in Google Scholar brings a number of books (1, 2, 3, 8 and 10), some even cataloged by Google Books itself. Journals Organization Studies, Long Range Planning, and Human Relations are cited analogously to another study.

5.2 Descriptive analysis of authors and institutions

Table 28 illustrates the main authors of the papers obtained via Google Scholar. Although the leading names on top of the list remained, P. Jarzabkowski, D. Seidl, R. Whittington and J. Balogun, they account for a much smaller amount of publications (1.38%, 0.68%, 0.88 and 0.54%, respectively). It is worth noting that the twenty most profitable authors fail to amount to 10% of the publications displayed in the search result.

Table 28. More fruitful authors

Authors	No. Works	%
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%
Outros	3906	91,60%

Source: Authors.

5.3 Analysis of references, journals and areas

Table 29 presents the journals and publishing locations in which the articles that were more referenced by the work of the research were published. First, it is noteworthy



thy that approximately 44% of survey works did not specify their journals or publishing sites. The periodicals Organization Studies, Journal of Management Studies and Long Range Planning are the three main journals, but with low representation (3%, 2% and 2%, respectively). Some "local" magazines published in languages other than English, such as the *Revue Française de Gestion* and *Revista de Administração da USP* (USP's management Journal) should be highlighted. Moreover, in the reference there are sites of organisms that are typically congress organizers (ANPAD, AOM, etc).

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%
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%
Administration Journal ...	10	1%
Industrial Marketing Management	10	1%
anpad.org.br	10	1%
Others	1448	100%

Source: Authors.

Table 30 presents the main editors of the work resulting from the research. Again, approximately 45% of the universe does not have the identification of the editors. As a result, Google Books appears with 20% indicating that a good portion of the sample seems to be composed of books. Soon after, large corporations that are publishers of scientific journals, such as Emerald, Elsevier, Willey, Taylor & Francis, Springer and Scielo in Brazil appear.

Table 30: Main editors

Editor	No. Works	%
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: Authors.

Table 31 presents the types of documents obtained in the research. It is observed that for nearly 58% of the sample there was no document type specification; 25% were in PDF (Portable Document File), which in practice refers to the electronic form of the document, not exactly its publication categorization. Still, 11% were citations and 4% were books.

Table 31. Document Types

Document Types	No. Works	%
Não Especificado	1369	58%
PDF	600	25%
Citação	259	11%
Livro	85	4%
HTML	50	2%
DOC	9	0%

Source: Authors.

5.4 Analysis of terms and descriptors

As implemented in research with the Web of Science, the terminology relationship diagram was built (Figure 32). Different from what there was in the previous survey, Strategy and Practice are not very cited terms. Of the algorithms of the VOSViewer software, four groupings emerged: (1) yellow, apparently linked to more "soft" themes of the practice strategy, such as Leadership, Organizational Change, and Future; (2) violet, apparently linked to the person and the implementation of strategy, bringing terms such as Strategist, Manager, Implementation, and Action; (3) red, which seems to deal mostly with issues related to process and concept of strategy, such as Strategic Process, Strategic Practice, Social Practice, and Strategic Management; and (4) Green,



which deals with topics such as knowledge, use and sense of practice.

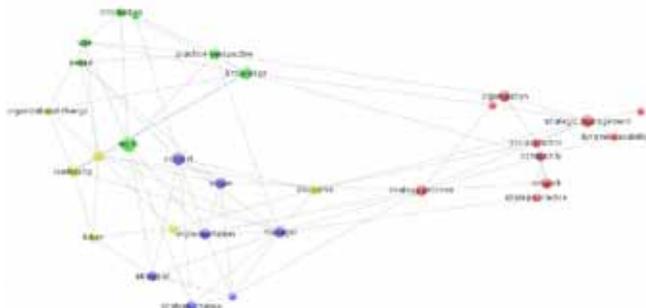


Figure 32. Term relationship diagram
Source: Authors.

Corroborating the fact that the Strategy and Practice terms are not so central to the survey conducted by Google Scholar, the density diagram (Figure 33) identifies a number of higher density spots (red), around several different topics such as use, knowledge, leadership, work, social practice, among others.

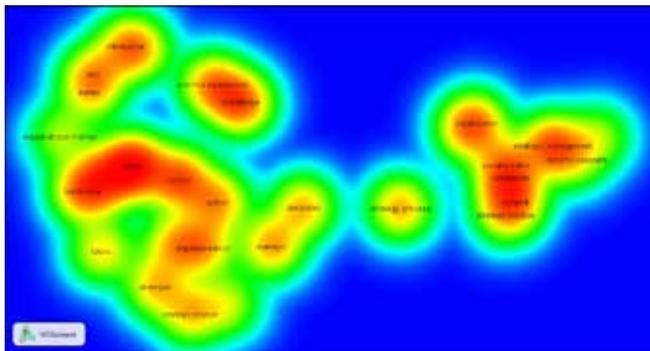


Figure 33. Diagram of terms of density
Source: Authors.

6. COMBINED ANALYZES

This section seeks to cross-examine the main issues identified in the bibliometric research in the Web of Science and Google Scholar bases. To that extent, some of the analyzes and conclusions of Maia *et* Alves Filho (2013) are also retrieved here, deepening and complementing them with the details brought in this work.

First, SAP is a quite “young” research field, whose seminal work dates from 1996 (Whittington, 1996) and most of the publications date from 2007. The classic research strategy, in turn, date from the decade 1970, and they use classical literature references from even older economy.

At this point, there are two issues that arise from bibliometrical analyzes from both sources. One refers to the

growth of a theoretical framework based on publications after 2007, both in the Web of Science (92%) and Google Scholar (89%). In addition, the fact of being “young” somehow implies that there is still a significant amount of research in preparation and development process, but which has not yet reached maturity to be published in traditional periodicals indexed in WoS. It is noteworthy that 44% of Google Scholar works did not have a source of publication and 58% of the studies did not specify exactly the type of document (article, book, citation), etc.

Second, the academic literature on the area is still quite centralized in the two most influential authors, Paula Jarzabkowski before the University of Aston, now belonging to City of London University, both located in England, and Richard Whittington, University of Oxford in Britain. In research based on Web of Science, two clusters of authors were formed centralized in these characters, while two other clusters bring more “classic” authors in strategy.

Search results based on Google Scholar directionally also have similarities. Paula Jarzabkowski is the 1st and Richard Whittington, the 3rd most prolific authors, but with a very distinctive concentration between the two bases: the Web of Science, 21% and 10% of the publications in this order; Google Scholar, 1.38% and 0.66% respectively. There is also a small reversal in the ranking of authors, as David Seidl ranks second in the ranking of Google Scholar, but the third in Web of Science.

In addition, Paula Jarzabkowski and Richard Whittington are the main authors present in both rankings of the ten most cited publications, with the difference that Google Scholar also includes books written by these authors.

Third, when analyzing keywords or search terms in SAP, we observe different behaviors from the results of the bases. Web of Science results seem to be more “expected” because they identify two distinct groups: (1) topics related to advancement in the concepts of SAP as a cohesive body, and (2) empirical applications of its concepts as well as specific aspects within the SAP. Thus, even by the great amount of works specifically focused on the concept of SAP itself, it can be inferred that the theoretical framework of the theme is still in process of production and consolidation.

Unlike the centrality of Strategy and Practice terms present in the first study (including denoted by the density diagram), the study carried out in Google Scholar presents a number of other dense and related centers (Figure 33). Terms such as leadership, context, practice perspective, social practice, strategic management, etc. are shown in a relevant manner, suggesting that this research of this base brings a wider range of issues related to the focus of the analysis.



Finally, both studies converge on the fact as the work on SAP does not seem to be published in “classic” business strategies journals, such as the Strategic Management Journal, Harvard Business Review and the Academy of Management. By the study based on the Web of Science, 25% of publications occurred in journals related to organizations (Organization Studies, Organization Science and Human Relations) and 10% in management journals (Journal of Management Studies and European Management Review). The research based on Google Scholar shows the preponderance of similar magazines (although in much less significant percentage), but it brings together several other magazines that may not be widely circulated because they are in non-English language (Revue Française de Gestion and Revista de Administração da USP), and other congress organizations such as the ANPAD, AOM, etc.

Thus, SAP effectively appears as an “alternative” theoretical current to the classical strategy lines, including its publication channels, both for not having “typical” strategy magazines as the main vehicle, as for the relevance of publications in local journals. In addition, the survey by Google Scholar also indicates significant share of conference materials, somehow also suggesting that the body of knowledge is still under construction, and it has been partially discussed and presented at conferences for later final disclosure in journals.

7. FINAL CONSIDERATIONS

The objective of this work is to sketch an overview of the scientific production in the new field of SAP, recovering and exploring more deeply the bibliometric research on SAP, briefly presented by Maia *et* Alves Filho (2013), bringing new aspects and ways of interpretation, as well as a similar survey using Google Scholar as a source of information.

The amounts and dimensions of information obtained in each case was significantly different, starting by the number of documents in each sample: 72 for Web of Science and 2,372 to Google Scholar (information extracted through the Publish or Perish software - Harzig, 2007).

Combining both sources, the analyzes presented in the previous section indicate at least four major findings: (1) the SAP is a young research field, with most publications after 2007 and, according to the suggested by Google Scholar, maybe it is still in process of development and maturation, since many jobs have not yet been formally published in journals; (2) Paula Jarzabkowski and Richard Whittington are the most fruitful authors of this theme, although Google Scholar research has suggested a large dispersion of authors, as both totaled just over 2% of the publications; (3) although “Strategy” and “Practice” are the key terms obtained in the search in the Web of Science, with a number of peripherals terms, the research on Google Scholar indicates high density of related terms, such

as Leadership, Context, Social Practice, etc. and; (4) both studies show that the production of this body of knowledge has not been published in classic strategy journals, but in journals related to organizational studies, organizational sciences, etc.; moreover, there seems to be relevant production in non-English language journals and congresses.

The present results also allow making simple comparisons between Web of Science and Google Scholar as databases for bibliometric research. Table 34 presents some of these indicators, which will be explored in the following paragraphs.

First, among the indicators that can be generated in the Scholar, the classic bibliometric research is not covered, such as the indexes h and g (for reference on indexes, look at Franceschet, 2010). This occurred because Google Scholar limits the maximum number of results to 1,000, forcing a complete research to be divided into subgroups of results, thus compromising the generation of such indices.

Second, it was clear that Google Scholar has produced an extremely broad base of results (articles and consequently citations), more than 30 times higher than that obtained with the Web of Science. This fact confirms the stated by Harzig *et* Van Der Wal (2007) that Google Scholar provides a wider coverage of traditional databases; and exceeds the values identified by Franceschet (2010), in a bibliometric work in Computational Sciences, that Google could generate between five or six times more results than the Web of Science.

Although it was expected that the amount of Google Scholar results were higher than the Web of Science, this proportionality also emphasizes that much of the research on SAP is still “sub-published”, and it is developed in congress articles, open jobs available on the internet, which have not yet reached maturity for publication in journals indexed by Web of Science.

Third, regardless of the number of results, it is clear that Google Scholar is able to generate a much more dispersed and diverse base. While the top five authors in Web of Science are responsible for almost 50% of works, in Google Scholar these authors produce only 4% of them. In the case of sources, the numbers are smaller but similarly distinct: the five largest sources publish 36% of the results via Web of Science, while in Google Scholar that number is only 10%.

Fourth, Aguillo’s (2011) concerns regarding the quality and relevance of the results obtained via Google Scholar also seem to find some support in this work. From the data obtained by this base, 360 documents (15% of the total) have no publishing date display and 633 (27%) have no indication of its source, preventing thereby the evaluation of the reliability and quality of the publishing vehicle.

**Table 34:** Comparison of indicators between WS and GS

Source	Articles	Citations	% Publications TOP5 authors	% Publications TOP5 sources	Undated articles	Articles without source
ISI Web of Science	72	873	49%	36%	0	0
Google Scholar	2.372	32.474	4%	10%	360	633
% GS/WoS	3.194%	3.620%	-92%	-72%		

Source: Authors.

In more qualitative aspects, Google Scholar seems to take advantage over the Web of Science with regard to ease of access, since any computer with Internet can access the former, while the latter requires at least an institutional subscription. However, not all typical bibliometric analyzes can be performed with the results of the base of the Scholar: You cannot, for example, perform analysis in terms of co-citation or keyword frequency as the base does not allow the export of this information.

By comparing the strengths and weaknesses of each tool, this study supports the proposition Bakkalbasi *et al* (2006), that the different databases end up being complementary in bibliometric studies. Each with different approaches and breadth of features versus depth ultimately contributes to these information retrieval strategies that generally seek to build an overview of the theoretical framework of a given subject.

Finally, it is worth mentioning a comment on the relevance of bibliometric studies such as this. As highlighted by Mugnaini (2006), the importance of bibliometric studies derives from the need to evaluate the productivity and the quality of research of various academic actors, identifying role models and patterns in their scientific production. These models and standards help understanding how scientific knowledge is diffused and how it is incorporated between these various authors, allowing the quantification of the production and the identification of areas of academic excellence (Ravelli *et al* 2009 Carvalho, 2005 and Filippo, 2002). Precisely for this reason, the importance of bibliometric studies lies in characterizations that privilege some extent to the detriment of depth, creating large panoramas of research that allow further work focused on the various gaps and research opportunities identified by such studies. Besides its relevance, it is understood that bibliometric studies have a "facilitating" character in terms of the contribution and relevance of the works derived from them.

Yet, even working with two different sources, this study should be taken as directional, since bibliometric studies typically have some important limitations, such as: limitation regarding the chosen research bases (WoS and Google Scholar), which does not represent the entire scientific production of the area; possibilities of errors in terms of the standardization of the surveyed field (e.g. keywords, author, etc.), which may lead to partially incorrect conclusions.

REFERENCES

- Aguillo, I. F. (2012), "Is Google Scholar useful for bibliometrics? A webometric analysis", *Scientometrics*, Vol. 91, No. 2, pp. 343-351.
- Bakkalbasi, N. *et al.* (2006), "Three options for citation tracking: Google Scholar, Scopus and Web of Science", *Biomedical Digital Libraries*, Vol. 3, No. 1, p. 7, 2006.
- Bryman, A. (1989), *Research methods and organization studies*, Unwin Hyman, London, UK.
- Carvalho, L. F. (2005), *Bibliometria e saúde coletiva: análise dos periódicos Cadernos de Saúde Pública e Revista de Saúde Pública*, Dissertação de Mestrado em Saúde Pública, Escola Nacional de Saúde Pública Sérgio Arouca, Rio de Janeiro, RJ.
- Filippo, D. F. M. T. (2002), "Bibliometria: importancia de los indicadores bibliométricos", em Albornoz M. (Ed.), *El estado de la ciencia: principales indicadores de ciencia y tecnología Iberoamericanos/ interamericanos*. Artes Gráfica Integradas, Buenos Aires, AR.
- Franceschet, M. (2010), "A comparison of bibliometric indicators for computer science scholars and journals on Web of Science and Google Scholar", *Scientometrics*, Vol. 83, No. 1, pp. 243-258.
- Gay, L. R., Diehl, P. L. (1992), *Research Methods for Business and Management*, Macmillan Publishing, London, UK.
- Guedes, V. L. S. *et Borschiver, S.* (2005), "Bibliometria: Uma Ferramenta Estatística Para a Gestão da Informação e do Conhecimento, em Sistemas de Informação, de Comunicação e de Avaliação Científica e Tecnológica", trabalho apresentado no VI CINFORM - Encontro Nacional da Ciência da Informação, Salvador, BA, 2005.
- Harzing, A. W. (2007), "Publish or Perish", disponível em: <http://www.harzing.com/pop.htm> (Acesso em 09 de Dezembro de 2015).
- Harzing, A. W. *et Van Der Wal, R.* (2007), "Google Scholar: the democratization of citation analysis", *Ethics in science and environmental politics*, Vol. 8, No. 1, pp. 61-73.
- Jarzabkowski, P. (2004), "Strategy as practice: recursiveness, adaptation and practices-in-use", *Organization Studies*, Vol. 25, No. 4. pp. 529-560.



- Jarzabkowski, P., Balogun, J., Seidl, D. (2007), "Strategizing: The challenges of a practice perspective", *Human Relations*, Vol.60, No .1, pp. 5-27.
- Johnson, G., Langley, A., Melin, L., Whittington, R. (2007), *Strategy as Practice: Research directions and resources*. Cambridge University Press, Cambridge, UK.
- Johnson, G., Melin, L., Whittington, R. (2003), "Micro Strategy and Strategizing: towards an activity-based view", *Journal of Management Studies*, Vol. 40, No. 1, pp. 3-22.
- Lima, R. C. M. (1986), "Estudo bibliométrico: análise de citações no periódico "Scientometrics"", *Ciência da Informação*, No. 13, pp.57-88.
- Maia, J. L., Alves Filho, A. G. (2013), "Uma tentativa de exploração e mapeamento da literatura sobre a estratégia-como-prática: uma análise bibliométrica", artigo apresentado no XX SIMPEP 2013: Simpósio de Engenharia de Produção, Bauru, SP, 4-6 de Novembro, 2013.
- Mugnani, R. (2006), *Caminhos para adequação da avaliação da produção científica brasileira: impacto nacional versus internacional*, Tese de Doutorado em Cultura e Informação, Universidade de São Paulo, São Paulo, SP.
- Neely, A. (2005), "The Evolution of Performance Measurement Research", *International Journal of Operations & Production Management*, Vol.25, No. 12, pp. 1264-1277.
- Pritchard, A. (1969), "Statistical bibliorgraphy or bibliometrics?" *Journal of Documentation*, Vol. 25, No. 4, pp. 348-349
- Ravelli, A. P. X., Fernandes, G. C. M., Barbosa, S. F. F., Simão, E. Meirelles, B. H. S. "A produção do conhecimento em enfermagem e envelhecimento: estudo bibliométrico", *Texto & Contexto Enfermagem*, Vol. 18, No. 3, pp. 506- 512.
- Richardson, R. J. (1985), *Pesquisa Social: métodos e técnicas*. Saraiva, São Paulo, SP.
- Van Eck N. J., Waltman, L. (2010), "Software survey: VOSviewer, a computer program for bibliometric mapping", *Scientometrics*, Vol. 84, No. 2, pp. 523-538.
- Vanti, N. (2002), "Da Bibliometria à Webometria: uma exploração conceitual dos mecanismos utilizados para medir o registro da informação e a difusão do conhecimento", *Ciência da Informação*, Vol. 31, No. 2, pp. 152-162.
- Voese, S. B. et Mello, R. J. G. (2013), "Análise bibliométrica sobre gestão estratégica de custos no congresso brasileiro de custos: aplicação da lei de lotka", *Revista Capital Científico – Eletrônica*, Vol. 11, No. 1, disponível em: <http://www.spell.org.br/documentos/ver/33063/analise-bibliometrica-sobre-gestao-estrategica-de-custos-no-congresso-brasileiro-de-custos--aplicacao-da-lei-de-lotka> (Acesso em 09 de Janeiro de 2016).
- Whittington, R. (2006), "Completing the practice turn in strategy research", *Organization Studies*, Vol. 27, No. 5, pp. 613-634.
- Whittington, R. (2004), "Estratégia após o modernismo: recuperando a prática", *Revista de Administração de Empresas*, Vol. 44, No. 4, pp. 44-53.
- Whittington, R. (2002), "The work of strategizing and organizing: for a practice perspective", *Strategic Organization*, Vol. 1, No. 1, pp. 119-127.
- Whittington, R. (2002), "Practice perspectives on strategy: unifying and developing a field", *Academy of Management Annual Meeting Proceedings*, C1-C6.