

BIBLIOMETRIC STUDY ON COMPETITIVE STRATEGY FROM 1991 TO 2019 ON A NATIONAL ARTICLE BASE¹

ESTUDO BIBLIOMÉTRICO SOBRE ESTRATÉGIA COMPETITIVA NO PERÍODO DE 1991 ATÉ 2019 EM BASE NACIONAL DE ARTIGOS



Vitor Hugo Souza da Costa
Graduated from the Federal University of Uberlândia, Brasil
vitortle@gmail.com

Carlos Roberto Domingues
Adjunct professor at Federal University of Uberlândia, Brasil
carlos.domingues@ufu.br

ABSTRACT

Competitive strategy is, in general, positively welcomed by organizations, seen as the way to achieve operational and strategic goals and conquer objectives. For researchers, it stands as a rich and challenging field of study, where it is possible to study the application of strategy methods already conceptualized in traditional markets in new markets that arise with the advancement of technology, sociocultural, environmental, and political changes. This work aims to carry out a study on the scientific production on the topic of competitive strategy published in national journals. The research method adopted was bibliometric research, selected with the aim of better understanding the authors, content and context of the scientific publications described above. The carried-out search was guided by the term competitive strategy, from 1991 to October 2019, totaling a study of 28 years of scientific production, with 258 articles analyzed. The results obtained show that most studies have between 2 and 4 researchers and that there are two main study groups that publish consistently over the years. The other part of the researchers

1 Uma versão preliminar deste estudo foi apresentada no 33º ENANGRAD, disponível nos Anais do Evento em: <https://doity.com.br/anais/33enangrad/trabalho/252433>



(90%) published only once on the subject. It was observed that the study of the subject was quite relevant and growing since the first work published in 1991, but it became unknown as to the growth of future publications because it did not show growth in the last decade (from 2011 to 2019), especially in the last 2 years of research (2018 and 2019) when there was a decrease in the number of publications compared to the first years (from 2011 to 2017).

Keywords: *Bibliometrics; Competitive strategy; Strategic thought; Strategic management; SPELL.*

RESUMO

A estratégia competitiva é, de forma geral, positivamente acolhida pelas organizações, vista como sendo o caminho para se atingir metas operacionais, estratégicas e conquistar objetivos. Para os pesquisadores, ela se coloca como um rico e desafiador campo de estudo, onde é possível o estudo da aplicação de métodos de estratégia já conceituados em mercados tradicionais e em novos mercados que surgem com o avanço da tecnologia, por mudanças socioculturais, ambientais e políticas. Este trabalho tem por objetivo realizar um estudo sobre a produção científica do tema da estratégia competitiva publicada em periódicos nacionais. O método de pesquisa adotada foi a pesquisa bibliométrica, selecionado com o intuito de melhor compreender os autores, o conteúdo e o contexto das publicações científicas descritas acima. A busca realizada se orientou pelo termo "estratégia competitiva", no período de 1991 a outubro de 2019, totalizando estudo de 28 anos de produção científica, sendo analisados 258 artigos. Os resultados obtidos mostram que os estudos, em sua maioria, têm entre 2 e 4 pesquisadores e que existem dois grupos principais de estudo que publicam com constância ao longo dos anos. A outra parte dos pesquisadores (90%) publicaram apenas uma vez a respeito do tema. Observou-se que o estudo do tema foi bastante relevante e crescente desde o primeiro trabalho publicado em 1991, mas se tornou uma incógnita quanto ao crescimento de publicações futuras por não apresentar crescimento na última década (de 2011 a 2019), especialmente nos últimos 2 anos de pesquisa (2018 e 2019) quando existe um decréscimo no número de publicações comparado aos primeiros anos (de 2011 a 2017).

Palavras-chave: Bibliometria; Estratégia competitiva; Pensamento estratégico; Gestão estratégica; SPELL.

INTRODUCTION

It is logical to conclude the high value of strategy in all aspects of society, such as economy, health, public and private administration, security,



entertainment, government and education since it is a theme causing great impact on the organizations of the three sectors and their intersections: primary sector – public power in the spheres of cities, states and federal government; secondary sector: private companies with open or close capital; tertiary sector – foundations and non-profit organizations. And in the intersections of each sector: primary with secondary sector composed by public companies, autarchy; secondary with tertiary sector being composed by foundations and non-profit institutes created by private companies; and the intersection of the tertiary with the primary sector resulting in public foundations created by some policy or multiple spheres of the primary sector quoted previously. (Anastacio et al., 2018).

Among the several forms of analysis of scientific productions, the bibliometrics presents itself as a tool of understanding of several aspects, depending on the purpose of the author, the purpose of the research, the area of knowledge, among other variables. It provides us lenses with different depths, depending on the way which the researcher structures its work: from a macro lens, which means, a view on the general scenery, up to a micro vision, in a more specific view of the focal point. On the theme of competitive strategy, it started to be studied and published at the end of the 1950's decade in the field of studies yet to be called strategic planning by the authors Selznick (1957), Chandler (1962), Learned, Christensen, Andrews & Gulth (1965) and Ansoff (1965).

The importance of studying the general outlook on the subject is given by the fact that it becomes possible to explain its evolution throughout the years, on the way that researchers organize themselves in the publication of researches and how such researches are published in the journals (Passanezi & Contador, 2011). A search for bibliometric reviews or bibliographies on the competitive strategy focused on the Brazilian academic production was performed and no study of such nature was found. Some reviews studies were found, which dealt of specific themes related to the competitive strategy, as,



for example, Tavares, Negreti, Pigatto & Piggato (2017) on the resources and competitive advantages in agricultural business and Rossi & Mafud (2014) who performed a review on the *Resource-Advantage Theory*.

Therefore, the research question was formulated: what is the Brazilian academic production, specifically in the area of management, about competitive strategy? To answer such question, the purpose of this study is to analyze the scientific production published about the theme “competitive strategy” in Brazilian journals on the data base *Scientific Periodicals Electronic Library* (SPELL).

And with that, it is intended to contribute to the understanding of the overview of studies about the theme throughout the analyzed period, themes and sub-themes studied, as well as possibilities for future studies.

THEORETICAL REFERENCE

Despite the study of competitive strategies be relative recent, the upcoming of the strategic thought is not and has been linked to the military activities being part of the three aspects of war: operational, tactic and strategic. Strategy comes from the Greek term, *stratego*, which means “the art of the general” (Carvalho & Laurindo, 2000). The most referenced text as one of the first regarding the theme is from Sun Tzu, from the IV century BC called “The art of War” (Molinari, 2002). This work has influenced several authors regarding business way of thinking, including Michael Porter in the creation of the school of positioning (Carvalho & Laurindo, 2000).

Posteriorly, other books have also gained highlight, such as “The Prince” by Nicolau Machiavelli, published in the XVI century, with a political-strategic focus. The influence of such masterpiece has also reached the business literature, influencing the school of entrepreneurship, specially helping the role of the *Chief Executive Officer* (CEO) for the formulation and execution of the strategy (Carvalho & Laurindo, 2000).

As defined by Mintzberg, Ahlstrand & Lampel (2000), in the first chapter of the book *Safari of Strategy*, strategy is understood as being a pattern, a



behavior throughout time. Such pattern may be intended, deliberated, performed, not performed or emergent. Intended is the strategy which as idealized at the moment of its conception, meanwhile performed is the one which was established or executed. If the intended strategy was performed according to its conception, then it becomes a deliberated strategy, since it was executed according to plan. Nonetheless, if the intended strategy was not executed, then, it becomes a not performed strategy. And, if the strategy was not conceived in a given matter, but the situation converged to such strategy, then such strategy is called emergent (Mintzberg, Ahlstrand & Lampel, 2000; Avelar Junior & Forte, 2022).

In the work “The Concept of Strategy”, Nicolau (2001) begins the definition of the concept of strategy by arguing on the divergence of concepts among the numerous authors that study and points out that only one characteristic is common among the several definitions: the non-separation between the organization and its environment. Therefore, the strategic analysis is given not only by the analysis of the of its internal environment, but also taking into account the several elements which compose its surroundings, the external environment.

Among the several analysis in the work, Nicolau (2001) also argues about three common characteristics in the publications of the field of strategy, reunited in the work through the analysis of the main authors in the field, which are: the importance of strategic decisions for the success of the organizations; that strategies may be in the organizational level or at the level of specific activities; and that there is a difference between the planned strategies and the executed strategies.

According to Passanezi & Contador (2011) and Hirsch *et al.* (2022), the competitive strategy – the one inherent to the competition environment where the businesses organizations coexist – has evolved a lot since the 50's and 60's decades. In such period, the first studies in the field, up to that moment called strategic planning by the authors Selznick (1957), Chandler (1962), Learned,



Christensen, Andrews & Gulth (1965) and Ansoff (1965) were published. Still, according to Passanezi & Contador (2011), in the 70's decade, the field was led to the distinction between the strategic, the tactic and the operational planning, by definition of the business, the view and the organizational mission, still by the SWOT model (analysis of the strengths and weaknesses versus opportunities and threats) and by the BCG Matrix (*Boston Consulting Group*) and PIMS (*Profit Impact of Market Strategies*) (Passanezi & Contador, 2011).

The masterpieces *Leadership in Administration: A Sociological Interpretations* de Selznick (1957), *Strategy and Structure: Chapters in History of the Industrial Enterprise* by Chandler (1962) and *Business Policy: Test and Cases* by Learned, Christensen, Andrews & Gulth (1965) were defined by Mintzberg, Ahlstrand & Lampel (2000) as being the most influential vision of the so-called process of strategy formation, classified by the authors as the school of Design.

This school of strategy was worried with the formulation of strategy understood as conception (Mintzberg, Ahlstrand & Lampel, 2000). It suffered criticism by the informal characteristic in the strategic process and by giving more importance to the deliberated strategy. Such criticism was based on the fact that in some cases, it was necessary a certain degree of documentation to help executives to stick to the deliberated plan and also, executives may not have a more detailed knowledge about the situations (Mintzberg, Ahlstrand & Lampel, 2000).

For Mintzberg, Ahlstrand & Lampel (2000), Ansoff (1965) published the most influential book of strategy, called *Corporate Strategy*, from the line that would be defined as school of Planning. Such school understands strategy as a formal process (Mintzberg, Ahlstrand & Lampel, 2000), antagonist characteristic regarding the previously quoted school of design. This means that their authors believed not only in the formulation of the strategy, but also in the formulation as procedure, in the formal training of the executives in a highly qualified department. Igor Ansoff was one of the first authors to study the concept of competitive advantage, referring to it as being a position in a competitive



environment obtained through the adjustment of products to the market (Ansoff, 1965).

In the late 70's decade and through all the 80's decade, the field of competitive strategy received contributions by Michael Porter on competitive strategies, more specifically about their model of analysis of the sector, so-called Model of the Five Competitive Strengths (Lopes & Gimenes-minasse, 2021). And, further describing the concept of competitive advantage, in 1985, with the understanding that the position of each company in its segment of acting is an important element for the formulation of strategy, being an approach that analyzes the company under the influence of external aspects on the internal environment of the company (Bem, Azevedo & Lauriano, 2022; Hirsch *et al.*, 2022).

Such publications give Michael Porter a main role regarding competitive strategy (Fleury & Fleury, 2003), in which his initial studies focused more on the perspective of sectorial analysis. In that occasion, the term "competitive advantage" started to gain highlight in the area of strategy, being one of the main purposes of the research (Reed & Defillippi, 1990). Despite the difficulties in measuring and in interpretation (Arend, 2003; Rumelt, 2003), the concept of competitive advantage is understood as the main hypothesis to explain the superior performance of companies (Powell, 2001).

Rumelt (2003) identifies the crescent convergence of the theme of competitive advantage with the concept of value creation. The appearance of the competitive advantage comes fundamentally from the value created by the companies to its clients, which surpasses the company's cost of production (Porter, 1985). However, from the theoretical debate point of view, Brito & Brito (2012) state that neither the definition nor the delimitation of competitive advantage are a consensus, making the debate on the theme broad and with many definitions.

Another important point is that, despite being a fundamental part in the explanation of the heterogeneity among companies, usually, there is a



disconnection between the results of the competitive advantage and the heterogeneity of the performance. This occurs due to the lack of connection between the value and other aspects of strategy, such as resources, ability, industrial sector, activities and market power (Grahovac & Miller, 2009).

For Passanezi & Contador (2011), Michael Porter's vision on strategy more focused on external factors to the company to explain business competitiveness has fomented the discussion between the 80's and 90's decade. This resulted in visions of strategy that exposed other forms of seeing a company, as happened to Wernerfelt in 1984 by publishing internal factors of a company, the Resource Based View (RBV).

For Fleury & Fleury (2003), the definition of competitive strategies in the resource based view should take into consideration the strategic possibilities that may be operationalized and maintained through such resources. Understanding as resource everything that may be thought as weak or strength of a company (Wernerfelt, 1984). The development of the resource based view in a full theory happened through Jay Barney (1991), who explored and defined the notions around the type of resources within an organization and how to measure its value and impact on the creation and maintenance of the competitive advantages (Bem, Azevedo & Lauriano, 2022; Hirsch *et al.*, 2022).

Mintzberg, Ahlstrand & Lampel (2000) classified the strategic through in ten groups of affinities, or strategy schools, as defined by the authors. Such ten schools are divided into two main groups: prescriptive and descriptive. The perspective schools are described as focused on the reach of a goal and based on instructive processes. Such schools prescribe how things should be. The schools participants in such group are: the school of design (strategy as a process of conception), planning (strategy as a formal process), positioning (strategy as an analytic process).

The second group of schools is the descriptive group. Such schools are characterized by the search of inspiration before deliberating the strategy. The schools of this second group describe how things are, for then formulating the



strategy. From such group, are the schools of entrepreneurship (strategy as a visionary process), cognitive (strategy as a mental process), learning (strategy as an emergent process), power (strategy as a negotiation process), cultural (strategy as a social process), environmental (strategy as a reactive process), configuration (strategy as a transformation process) (Mintzberg, Ahlstrand & Lampel, 2000).

In Brazil, there are several studies in the areas of Administration and Tourism that deal with issues related to the competitive strategy and its elements, see recent studies as the ones by Damacena, Brambilla & Correa (2021), which approaches the issue of value co-creation in country tourism, the research of Bem, Azevedo & Lauriano (2022) about the dimensions of the competitiveness with the advent of digital platforms; Hirsch *et al.* (2022) which focus on the competitive strategy focused on operations and the use of global efficiency of equipment; and Rodrigues & Wada (2022) which studied the hospitality in business related to management of stakeholders and of the crisis related to competitiveness.

METHODOLOGICAL PROCEDURES

In this study, the bibliometric research was chosen as a tool to understand the historical and current state of publication of scientific articles on the theme of competitive strategy, using as data sources the bibliography on the theme which is intended to be understood.

Through bibliometric, which is a technique of quantitative approach and statistics to measure the rates of production and dissemination of scientific knowledge (Araújo, 2006), it is possible to significantly reduce judgments of value by the fact that quantitative and statistics techniques are used. This way, the conclusions about the theme of research are supported by facts and data resulting from the previously mentioned techniques.

Bibliometric is grounded by three laws, the law of Lotka, the law of Bradford and the law of Zipf, in addition to the epidemic theory, quotation analysis and the analysis of the development of the study field (Araújo, 2006).



The three laws approach different aspects of scientific studies. The law of Lotka approaches the scientific production by the authors' point of view, the law of Bradford approaches the production by the point of view of journals and the last, the law of Zipf, approaches the production by the content point of view (word count).

The extraction of scientific sources on the theme of competitive strategy was through the national data base SPELL (<http://www.spell.org.br/>), which is a repository of articles published on national journals, many of them linked to post-graduation programs connected to the National Association of Administration Post-Graduation Programs (ANPAD), creator of the base SPELL. The filters criteria were: abstract having the term "competitive strategy", the type of document to be article and the area of knowledge to be Administration. The search was performed in September 2019, resulting in 258 articles found.

For the management of the references, the computer program Mendeley was used, in order to organize the data and insert additional information to the data of the articles extracted from the SPELL portal. For the data manipulation and creation of graphs and charts, the electronic spreadsheet of Microsoft Excel version Microsoft Office 365 was used. For the qualitative analysis of the data, a computer program was used from the category *Computer-assisted qualitative data analysis* (CAQDAS) called TI (AtlasTI, 2012).

The articles were inserted on Atlas.TI and the codification of concepts, categories or other expressions was performed through the system of self-codification, with the purpose of identifying methodological characteristics regarding the articles reunited such as purpose, approach, nature and research procedures, as also used by Calil *et al.* (2020) and Resende *et al.* (2021). For the creation of graphs with relationships between researchers, VOSviewer (Vosviewer, 2019) was used, as well as in Calil *et al.* (2020).



DATA ANALYSIS

From the data reunited, organized and distributed in several forms of visualization and using the method of counting the articles by year of publication, it is observed a growth trend since the first years of publication of the theme, shown in Figure 1.

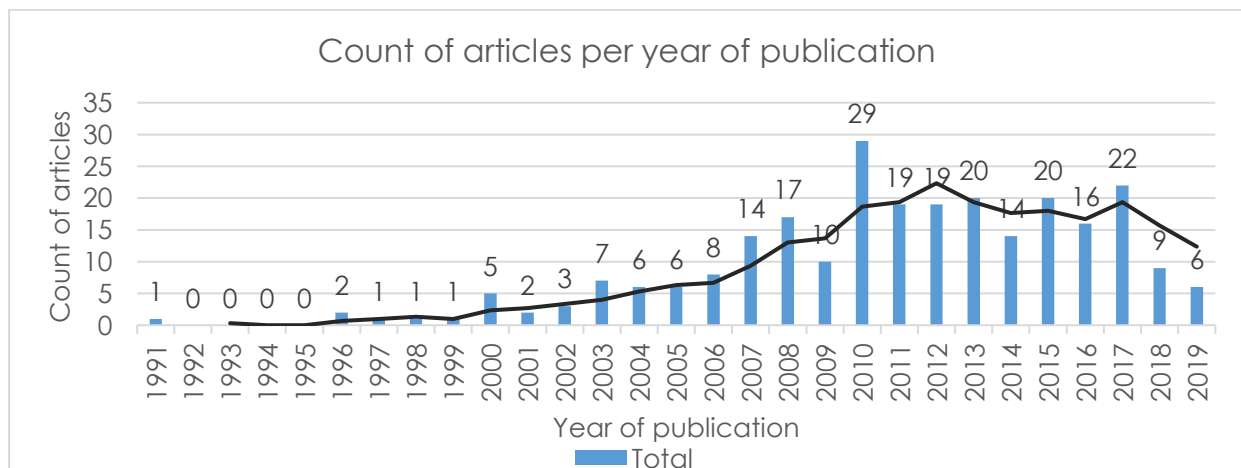


Figure 1 - Counting of articles by year of publication and mobile average in the period of 1991 to 2019

In the analysis of the frequencies of authors, 594 different authors were gathered (Table 1), from which 90% are found in the category of only one study published on the matter. It is interesting to notice that the law of Lotka explains such case, since few authors are responsible for several publications, meanwhile the majority of the authors has published only once.

Specifically, 118 authors belong to the group of 20% with more publications totaling 205 publications. This means that 20% of the authors are responsible for 79.5% of the articles of the area. These two facts corroborate for the law of Lotka to be validated for this field of study. A parcel of authors are also found in category of 2 studies published, representing nearly 8% of the total. The group of 3 published studies is the last that has more than one author in the group, resulting in 1.5%. The other three authors who were not classified in any of the previous groups are the only researchers in their own groups. These are the authors with 4, 9 and 12 publications resulting in 0.2%.

Number of studies	Count of	% of
-------------------	----------	------



published	authors	the total
1	535	90,1%
2	47	7,9%
3	9	1,5%
4	1	0,2%
9	1	0,2%
13	1	0,2%
Total	594	100,0%

Table 1 – Number of studies published per author

Two authors are highlighted regarding the number of published studies, José Celso Contador, linked to Paulista University – UNIP and as guest in the group of research Optimization and Logistics of the Department of Production Engineering of the campus of Guaratinguetá at UNESP, when this research was performed. And José Luiz Contador, currently linked to the University Center Campo Limpo Paulista – UNIFACCAMP, and to the group of research on dynamics of micro and small companies.

Both presented higher number of studies published on the theme, 13 and 9 publications. For comparison purposes, the following author with more studies published has 4 publications. As to the aspects of links (connections among the authors), the two authors with more expressive numbers are not the same that the ones with most publications. The authors with the highest number of connections are José Celso Contador and Leonel Cezar Rodrigues, 14 and 10 connections being Leonel Cezar Rodrigues highlighted for developing 10 connections with only 3 publications (according to Table 2 – Number of publications, accumulated percentage by authors)

Authors	Number of publications	Number of Links	Partial % of the amount	Accumulated % of the amount
Contador, José Celso	13	14	1.91%	1.91%
Contador, José Luiz	9	8	1.32%	3.23%
Gimenez, Fernando A. P.	4	9	0.59%	3.81%
Rodrigues, Leonel Cezar	3	10	0.44%	4.25%
Milan, Gabriel Sperandio	3	7	0.44%	4.69%
Gonçalves, Carlos Alberto	3	6	0.44%	5.13%
Sausen, Jorge Oneide	3	6	0.44%	5.57%
Bazanini, Roberto	3	5	0.44%	6.01%
Marcon, Rosilene	3	5	0.44%	6.45%
Ito, Nobuiuki Costa	3	4	0.44%	6.89%
Zilber, Moisés Ari	3	4	0.44%	7.33%
Brito, Luiz Artur Ledur	3	2	0.44%	7.77%



Table 2 – Number of publications, accumulated percentage by author

Price (1976) was one of the responsible for approving the law of Lotka, one of the essential tools of bibliometrics, and one of the conclusions was that 30% of the literature is produced by less than 10% of the authors, having an average of 3.5 documents per author and, at last, 60% of the authors produced only one document (Araújo, 2006). This study shows such trend of production concentration in a small portion of the total of authors on the theme, however, with different numbers and percentages: an average of 1.2 documents per author was found, 30% of the documents (204 documents) were produced by 20% of the authors and 90% of the authors (535 authors) published only one document.

The analysis of the distribution of the published studies by journals pointed out that the articles related to Competitive Strategy were published in a total of 67 journals. By analyzing the complete panorama, it is verified that half of the 258 articles are found in 16 journals, described in Table 3. This means that 50% of the articles are grouped in only 24% of the total of journals that published articles on the theme. The law of Bradford points out the trend of having such type of concentration in certain journals of such theme and suggests that such journals should be prioritized in the search for studies.

Journal	Count of articles	% of the total	Cumulative %
Journal of Contemporary Administration	12	4.7%	4.7%
Iberia-American Journal of Strategy	11	4.3%	8.9%
Administration Journal	10	3.9%	12.8%
Administration Science Journal	9	3.5%	16.3%
Management Journal	9	3.5%	19.8%
Future Studies Research Journal: Trends and Strategies	8	3.1%	22.9%
REAd. Electronic Journal of Administration	8	3.1%	26.0%
Reach Journal	8	3.1%	29.1%
Administration Journal of SMFU	8	3.1%	32.2%
Business Journal	8	3.1%	35.3%
GESTÃO.Org – Electronic Journal of Organizational Management	7	2.7%	38.0%
Innovation and Management Review	7	2.7%	40.7%
Journal of Administration of Unimep	7	2.7%	43.4%
Administration Journal of Mackenzie	7	2.7%	46.1%
BASE – Administration and Accountability Journal from UNISINOS	6	2.3%	48.4%
Journal of Organization in Context	6	2.3%	50.8%



Table 3 – Sixteen journals that embrace half of the articles

By analyzing the distribution of articles published in the three most relevant journals, the Journal of Administration, the Iberia-American Journal of Strategy and the Journal of Contemporary Administration (Figure 2), we observed that the Journal of Administration had publications in nearly the whole analyzed period, meanwhile the Journal of Contemporary Administration published articles regarding the theme in the beginning and at the end of the analyzed period and the Iberia-American Journal of Strategy published articles only at the end of this period, from 2010 to 2019, and still, it is highlighted that this is the period when most articles on the theme were published.

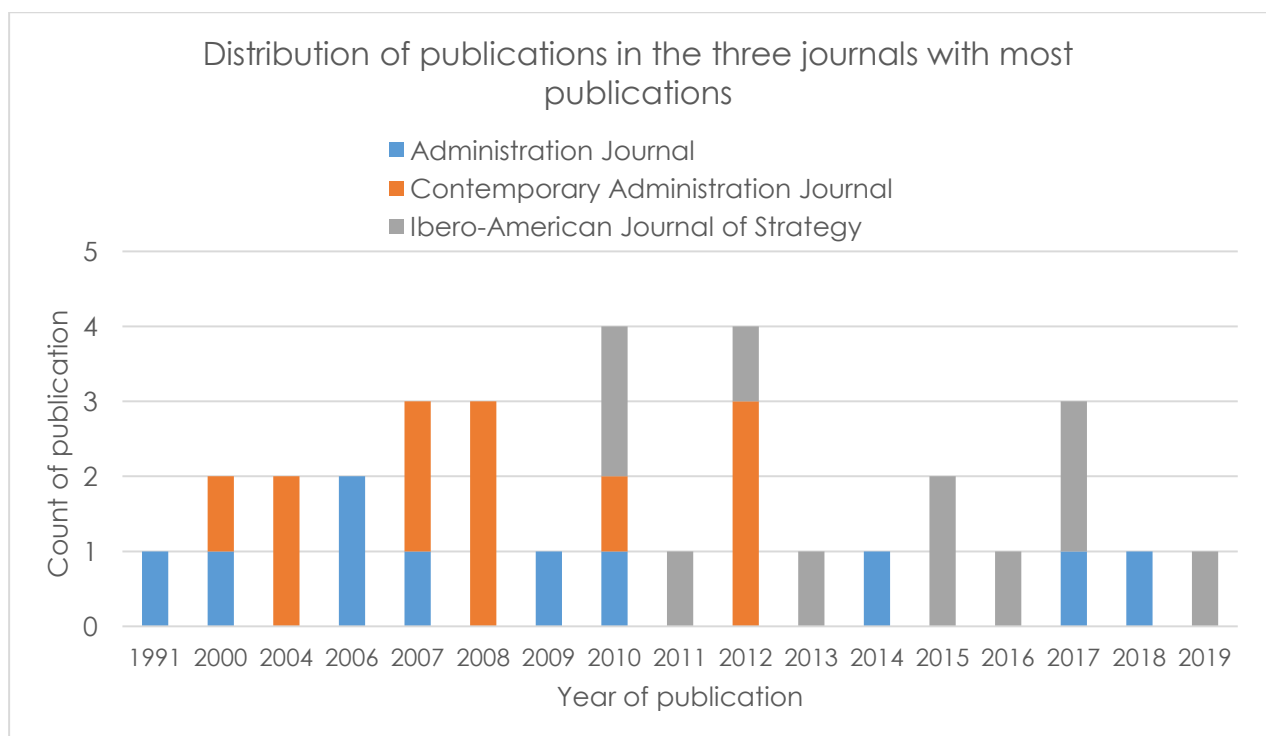
**Figure 2** – Distribution of the publication in the three main journals

Table 4 presents the 10 journals which present the sum of the ordered citations, from higher to the lower numbers. It is expected that journals with higher number of publications tend to be the ones with higher number of citations. However, some journals are highlighted regarding the citations by number of published studies as the Journal of Administration of Companies and the Brazilian Journal of Business Management.



Such journals present a higher relation of citations by publication than the absolute sum of citations. And having an elevated number of published studies, the Journal of Contemporary Administration also presents an elevated number of citations.

Journal	Sum of citations	Published studies	Citations by published studies
Journal of Administration of Companies	136	3	45.3
Journal of Contemporary Administration	133	12	11.1
REAd. Electronic Journal of Administration	35	8	4.4
Iberia-American Journal of Strategy	31	11	2.8
Journal of Administration of Mackenzie	28	7	4.0
Journal of Administration	25	10	2.5
Brazilian Journal of Business Management	18	3	6.0
Journal of Administration of SMFU	18	8	2.3
Journal of Administration Science	18	9	2.0
Electronic Journal of Strategy & Business	13	4	3.3

Table 4 – The ten most cited journals in the research

Regarding the analysis of authorship and co-authorship as shown in Figure 3, four categories of co-authorship were found. The groups in red are the ones that have at least one author with more than four studies published, the groups in green are the ones with at least one author with up to three published articles, the groups in blue are the ones that have at least one author with up to two documents and groups in gray are the ones that all the authors have only one article published on the theme. From this, it is observed that there are two groups with more than four articles published, once centered by José Celso Contador, with thirteen and another centered by Fernando Antônio Prado Gimenez, with four articles published.



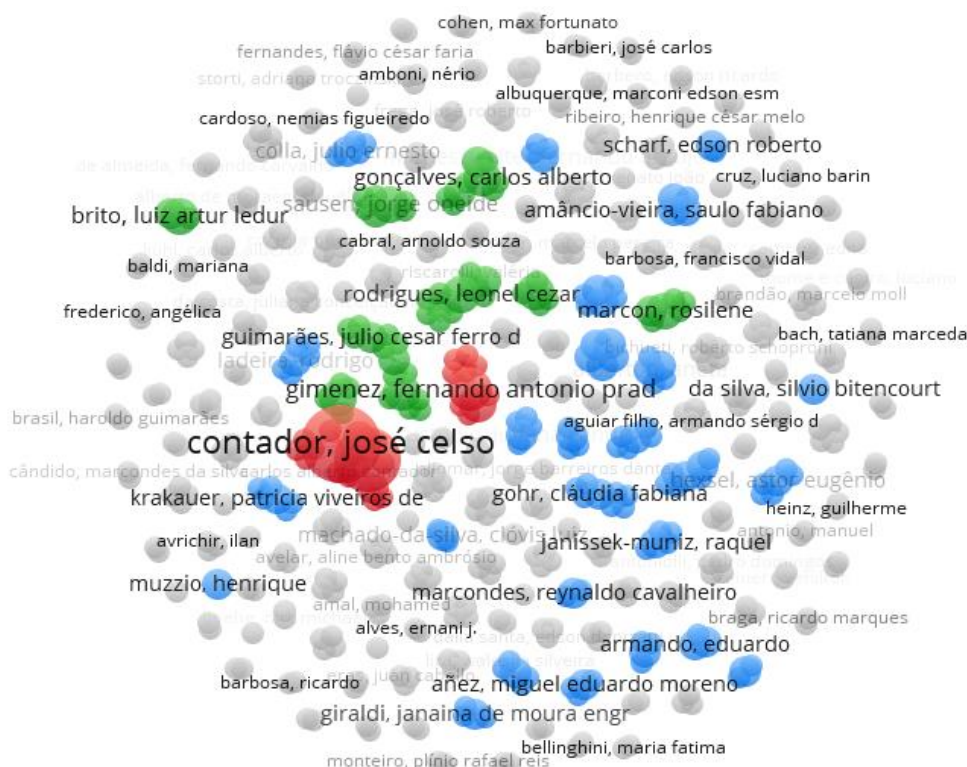


Figure 2 - Partnership grouping of research

It is worth mentioning that, even not being the main center of the group to whose it belongs, the group centered by José Celso Contador, José Luiz Contador also presents an expressive number of publications within the theme, with 9 publications.

It is possible to identify, in Table 5, how the co-authorship studies are distributed in the field of competitive strategy. During the entire analyzed period, the majority of the authors performed studies with 1 to 3 connections of partnerships, which means, between 2, 3 or 4 researchers (26.9%, 26.3% and 26.1%, respectively). The authors who performed studies with 4 connections of partnerships in publications resulted in 11.3% being the last significant parcel of the analysis. The sum of authors of 1 to 4 connections in publications partnerships results in 90.6% of the total. There are still 4.4% who did not perform connections, which means, who published by themselves, the author with more connections, 14 at total, resulting in 0.2%.

Number of connections	Count of co-authorship	% of total
0	26	4.4%
1	160	26.9%
2	156	26.3%
3	155	26.1%
4	67	11.3%
5	14	2.4%
6	8	1.3%
7	4	0.7%
8	1	0.2%
9	1	0.2%
10	1	0.2%
14	1	0.2%
Total Geral	594	100,0%

Table 1- Number of connections by count of co-authorship and percentage of the total

By applying the law of Zipf in the keywords, we observed that the most used words were strategy (52 mentions), followed by the terms competitive advantage (46 mentions) and competitive strategy (18 mentions). In order to understand the data in a grouped form, the groups of words were divided in 3. For the cutting point, it was decided the tenth part of the highest frequency rounded up, which means, 52 divided by 10. This way, the first group will be all keyword higher or equal to 6. For the second group it was used the cutting point of the tenth part of the following word to the cutting point of the previous group rounded up, which means, 6 divided by 10. Thus, the second group will be composed by the words with lower frequency than 6 e higher than 1. The third group will be composed by the words with frequency equal to 1. Overall, we had 12 words in the first group, representing 20% of the total frequency.

Such group of words may be interpreted as having essential terms in the publication of scientific studies in case the author aims at visibility. These are the terms that the researcher uses to broad the reach of one' research. The keywords of this group are held in Table 6. The second group has 90 words and represents 22% of the total frequencies. Such group may be understood as the group the researcher uses to explain the specificity of one's work or to



complement the use of the keyword from the first group. The last group is the group called rustle. It represents 57% of the total of occurrences and has 565 keywords.

Most quoted keywords	Frequency
Strategy	52
Competitive advantage	46
Competitive strategy	18
Competitiveness	17
Innovation	15
Competitive intelligence	9
Vision based on resources	9
Business strategy	8
Communication	7
Knowledge management	7
Marketing	7
Performance	6

Table 2 - Group with higher frequency of keywords

After the codifications of all articles in the software Atlas TI, it was highlighted that the majority of the articles (69%) published regarding competitive strategy present a qualitative approach. The quantitative studies formed 18% of the total and the remaining 13% used a mixed approach (quantitative and qualitative). From the 45 studies in the qualitative approach, 32 (71% of the qualitative group) were published in the last 10 years of research (Figure 3 – Approach of research by year of publication). This data highlights that the type of research purely qualitative has increased only in the last 5 years (from 2015 to 2019). However, in the last year of research from the current data cut, it is possible to identify a downfall in the number of qualitative articles, not being able to predict, in the short term, any type of future trend. However, given 3 decades the research, the last decade presented an increase trend, then, the issue on the next decade is raised. A suggestion of research is to keep up with the next years of publication to identify whether the qualitative researches really will maintain an increase trend.

The mixed type of research presented prevalence between the half of the second decade and half of the third (2006 up to 2014), presenting in such period 82% of the publications with the use of such combined approach. The quantitative approach presented relative consistency if compared to the



number of publications per year, keeping increases and downfalls once there were also increases and downfalls in the number of publications per year.

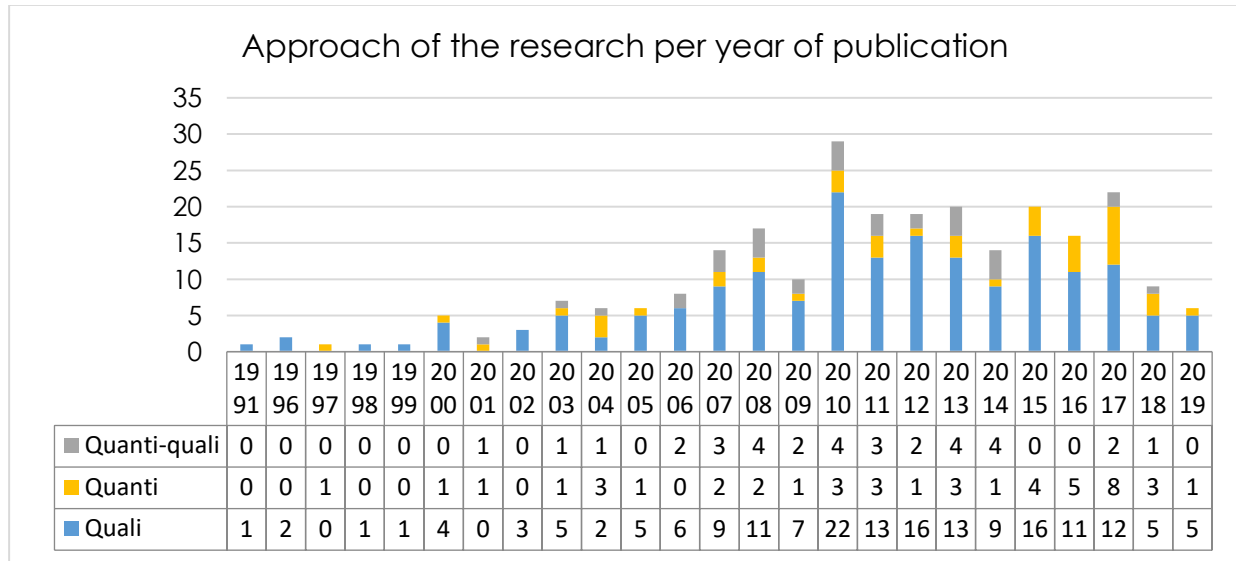


Figure 3 - Approach of the research per year of publication

As to the procedures of the research, 16% of the articles used 1 procedure, 31% used 2 procedures, 29% used 3 procedures, 18% used 4 procedures and only 6% used 5 procedures in the research.

In Figure 4 – Procedures of the Research Used, it is shown that the most used procedure (25% of the articles) is the research survey type, followed by research field (21%), followed by the case study (20%) and by bibliographic research (16%). This result shows that the field of competitive study is interested in searching information directly with the group of interest (decision making or those affected by the taken decisions, institutions, organizations) based on theoretically and observations already previously performed (Gerhardt & Silveira, 2009).



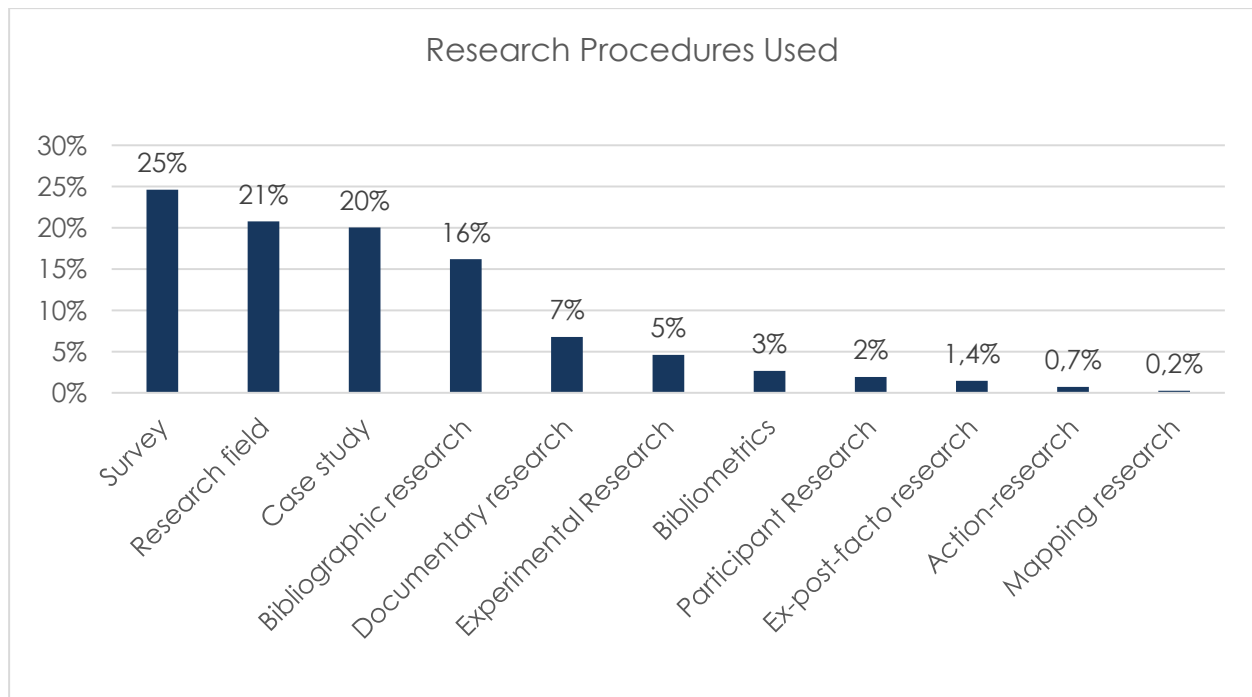


Figure 4 - Research Procedures Used

CONCLUSION

Knowing the importance of the theme competitive strategy, it was observed the need of performing a bibliometric research, having as premise the application of quantitative and statistical techniques and the use of software for the data analysis such as Atlas.TI, VosViewer and Excel with the purpose of analyzing the scientific production on the theme since the first published study, in September 1991, until October 2019 in the data base SPELL, totaling 258 studied articles.

From such analysis, it was possible to identify characteristics regarding the authors and co-authors and journals which published on the theme, as well as the content of the studies, such as keywords, methodological procedures, approaches and research procedures.

Therefore, it is observed that in the first two decades of scientific production in the field of competitive strategy, which means, from 1991 up to 2010, this field of research has shown to be promising as to the growth of the amount of knowledge production. However, in the last decade (2011 up to 2019), uncertainty was presented as to the trend in the increase in publications

in the field, presenting consistency in the first 7 years and downfall in the last 2 years of the research (from 2017 to 2018 and from 2018 to 2019). In 28 years of research, this was the first occurrence of downfall in the number of publications for 2 consecutive years.

Another fact is that from 594 researchers (authors and co-authors), only 10% presented more than one article published on the theme. This represents fifty-nine researchers in absolute number. The parcel of researchers with more than 2 articles published is of only 2%, 12 researchers in absolute number. Still on the researchers, it is possible to state that the law of Lotka is appropriate as to the scenery of the competitive strategy, after all, 20% of the authors are responsible for the production of 80% of the published studies. It is also possible to state that, still in a moderate way, the law of Bradford is applied in such scenery, since 50% of the articles are included in 24% of the journals. As to the law of Zipf, it was possible to conclude that the most used keywords are the ones responsible for making the study more visible in the search mechanisms and that the second group of the most used words are the ones responsible for complementing the primary keyword or highlighting the line of research of the strategy.

Regarding the co-authorship, 88% of the articles have more than one researcher. This means that researchers choose to publish in pairs or in groups. The justification for this is probably due to the search for productivity in the academic field and to the exchanges and supplementation of knowledge that such partnership provides. The data analysis showed that José Celso Contador and José Luiz Contador have shown to be references themselves in the volume of publications, contributing to a big job in the area of research (13 and 9 articles, respectively_ and a high number of connections with other researchers (20 and 14 distinct connections, respectively). Despite having two center figures that are part of one research group, the negative fact is that only one active research nucleus is studying the theme. The consequences of having only one active nucleus is that, regardless of how broad the group aims



at researching, the size of the group does not allow diffusion and depth in the research and of several aspects in the field of competitive strategy. This implies in a contradiction if we consider the importance that the field has to the corporate environment.

Thus, it is contributed to the understanding of how the national academic production has been on competitive strategies and relevant information that characterize such production, helping the interested researchers on the theme, to identify main authors and their groups, studied sub-themes, as well as journals which have been highlighted with their publications.

As a limitation of the study, the difficulty in detailing the sub-themes present in the studies was observed, as well as their specific contributions. In face of this, it is suggested as indication to new studies the execution of other types of reviews such as a systematic review of the literature, which aims at summarizing the findings and contributions to the theme, as well as an integrative review of literature, which will allow a more critical vision on the different types of discussion of the theme throughout the time in the Brazilian academy.

REFERENCES

Ansoff, I. (1965). *Corporate strategy*. New York: McGraw-Hill.

Ansoff, I. (1991). (2006). *A nova estratégia empresarial*. São Paulo: Atlas.

Araújo, C. A. Bibliometria: evolução história e questões atuais. *Em Questão*, 12 (1), 11-32, jan./jun.

Arend, R. J. (2003). Revisiting the logical and research considerations of competitive advantage. *Strategic Management Journal*, 24(3), 279-284. DOI: <https://doi.org/10.1002/smj.285>

ATLAS.ti. ATLAS.ti 7.5.7. ATLAS.ti GmbH, Berlin, 2012. 1 Programa de Computador.

Avelar Junior, O. V., & Forte, S. H. A. C. (2022). Integrando capacidades dinâmicas, estratégia como prática e ambidestria organizacional com efeito na vantagem competitiva. *Perspectivas em Gestão*



- & *Conhecimento*, 12(2), 2-19. DOI: <https://dx.doi.org/10.22478/ufpb.2236-417X.2022v12n2.60116>.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17 (1), 99–120, Mar. DOI: <https://doi.org/10.1177/014920639101700108>
- Bem, A. A. G., Azevedo, A. C., & Lauriano, N. G. (2022). Dimensões de competitividade na era das plataformas digitais. *Revista Ibero-Americana de Estratégia*, 21(1), 1-29. DOI: <https://doi.org/10.5585/riae.v21i1.21475>.
- Brito, R. P., & Brito, L. A. L. (2012). Vantagem competitiva e sua relação com o desempenho – uma abordagem baseada em valor. *Revista de Administração Contemporânea*, 16 (3), 360-380.
- Calil, M. R., Bueno, J. M., Domingues, C. R., & Borges, J. F. (2020). Revisão Bibliométrica sobre Fusão e Aquisição de Empresas no Brasil. *Revista Ibero-Americana de Estratégia*, 19(4), 76-99. DOI: <http://dx.doi.org/10.5585/riae.v19i4.16310>.
- Carvalho, M. M., & Laurindo, F.J.B. (2000). *Estratégia competitiva: dos conceitos à implementação*. São Paulo: Editora Atlas SA.
- Chandler, A. D. (1962). *Strategy and structure: chapters in history of the industrial enterprise*. Cambridge, MA: MIT Press.
- Damacena, C., Brambilla, F. R., & Correa, A. L. B. (2021). Cocriação de valor como estratégia na geração de valor no setor do turismo rural: um estudo aplicado ao contexto da olivicultura. *Turismo em Análise*, 32(2), 249-271. DOI: <http://dx.doi.org/10.11606/issn.1984-4867.v32i2p249-271>
- Feder, A. BibTeX: Your BibTeX resource. [S. l.], (2006). Recuperado em: <http://www.bibtex.org/>.
- Fleury, A. C. C., & Fleury, M. T. L. (2003). Estratégias competitivas e competências essenciais: perspectivas para a internacionalização da indústria no Brasil. *Gestão & Produção*, 10 (2), 129–144, Ago. DOI: <https://doi.org/10.1590/S0104-530X2003000200002>.
- Gerhardt, T. E., & Silveira, D. T. (2009). *Métodos de pesquisa*. Plageder.
- Grahovac, J., & Miller, D. J. (2009). Competitive advantage and performance: the impact of value creation and costliness of imitation. *Strategic Management Journal*, 30(11), 1192-1212. DOI: <https://doi.org/10.1002/smj.778>.
- Hirsch, M. A., Alievi, R. M., Bortolaso, I. V., Pimenta, M. L., & Silva, C. H. P. (2022). Estratégia de operações: utilização da eficiência global de equipamentos



- como estratégia competitiva. *Revista Organizações em Contexto*, 18(35), 245-268. DOI: <https://doi.org/10.15603/1982-8756/roc.v18n35p245-268>.
- Learned, E. P., Christensen, C. R., Andrews, K. R., & Gulth, W. D. (1965). *Business policy: test and cases*. Homewood: Irwin, 1965.
- Lopes, M. S., & Gimenes-minasse, M. H. G. (2021). Criatividade & competitividade: uma análise do processo criativo de chefs brasileiros contemporâneos. *Rosa dos Ventos - Turismo e Hospitalidade*, 13(4), 1088-1107. DOI: <https://doi.org/10.18226/21789061.v13i4p1107>.
- Mintzberg, H., Ahlstrand, B., & Lampel, J. (2000). *Safári de estratégia: um roteiro pela selva do planejamento estratégico*. São Paulo: Bookman.
- Molinari, A. J. (2002). Uma analogia entre o gerenciamento e a arte da guerra. *Revista Ibero-Americana de Estratégia*, 1 (1), p. 41-46. DOI: <https://doi.org/10.15728/bbr.2019.16.5.1>.
- Nicolau, I. (2001). *O conceito de estratégia*. Instituto para o Desenvolvimento da Gestão Empresarial.
- Passanezi, P. M. S., & Contador, J. C. (2011). Metodologia de campos e armas da competição aplicada ao estudo da competitividade de concessionárias chevrolet. *Revista de negócios*, 16 (2), 65, 22 ago. DOI: <http://dx.doi.org/10.7867/1980-4431.2011v16n2p65-85>.
- Price, D. S. (1976). *O desenvolvimento da ciência: análise histórica, filosófica, sociológica e econômica*. Rio de Janeiro: Livros Técnicos e Científicos.
- Porter, M. E. (1979). How competitive forces shape strategy. *Harvard Business Review*, p. 137-145, Nov./Dec.
- Porter, M. E. (1980). *Competitive strategy*. New York: Free Press.
- Porter, M. E. (1985). *Competitive advantage*. New York: Free Press.
- Powell, T. C. (2001). Competitive advantage: logical and philosophical considerations. *Strategic Management Journal*, 22(9), 875-888. DOI: <https://doi.org/10.1002/smj.173>.
- Reed, R., & Defillipi, R. J. (1990). Causal ambiguity, barriers to imitation, and sustainable competitive advantage. *Academy of Management Review*, 15(1), 88-102. DOI: <https://doi.org/10.5465/amr.1990.4308277>.
- Resende, T. C., Souza, W. J., Emmendoerfer, M. L., & Ferreira, M. A. M. (2021). Policy evaluation: systematic review about a pay-for performance programme in Public Health in Brazil. *Revista de Ciências da Administração*, 23(59), 63-77. DOI: <https://doi.org/10.5007/2175-8077.2021.e71543>.



- Rodrigues, V. B., & Wada, E. K. (2022). A hospitalidade nos negócios como moderadora nas relações com os stakeholders na gestão de crise e na retomada da competitividade. *Marketing & Tourism Review*, 8(2), 1-47. DOI: <https://doi.org/10.29149/mtr.v8i2.7398>
- Rossi, R. M., & Mafud, M. D. (2014). Resource-Advantage Theory: uma revisão da literatura. *Revista Pensamento Contemporâneo em Administração*, 8(2), 35-54.
- Rumelt, R. P. (2003). *What in the world is competitive advantage?* [Policy Working Paper 2003-105]. Harry & Elsa Kunin professor of Business & Society the Anderson School at UCLA.
- Selznick, P. (1957). *Leadership in administration: a sociological interpretation*. Evanston: Row, Peterson.
- Tavares, B. O., Negreti, A. D. S., Pigatto, G. A. S., & Pigatto, G. (2017). Recursos e Vantagens Competitivas no Agronegócio: Revisão Bibliográfica Sistemática da VBR. *Revista Eletrônica de Estratégia & Negócios*, 10(1), 40-76. DOI: [10.19177/reen.v10e1201740-76](https://doi.org/10.19177/reen.v10e1201740-76).
- Van Eck, N. J., & Waltman, L. (2019). VOSViewer. Visualizing Scientific Landscapes 2019. 1 Programa de Computador.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5 (2), 171–180, Apr. DOI: <https://doi.org/10.1002/smj.4250050207>.

