



THE EMERGENCY OF BEHAVIORAL STUDIES IN STRATEGY

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Abstract

Study objective: This study aims to identify the emergence of new studies in the field of strategy, considering 12 years of publications in the Strategic Management Journal.

Methodology / approach: In the Web of Science database, we searched the journal “Strategic Management Journal”, in two periods, 2007 to 2012 and 2013 to 2018. We exclusively selected articles related to “Business” and “Management”. This search generated 1,100 articles for our database, with 376 articles from the first period and 724 articles from the second period. We use matching techniques in the analyses performed using Bibexcel and SPSS. At the same time, in Ucinet, we created the network diagram which supports the relationships between the identified factors and confirmatory analysis of the findings.

Originality / Relevance: Bibliometric studies are constantly seeking to analyze how the theoretical structure of theories is progressing, and in strategy, it has not been different. To verify how studies in strategy have evolved in theoretical terms, given their multidisciplinary, a comparative study of two distinct but subsequent periods offers a global view of where the studies are heading. We discovered new theoretical fronts in essence to behavioral studies that emerged in previous studies and are strengthened in new research.

Main results: The search identified 57 articles and six factors from 2007 to 2012 and 2013 to 2018 produced 22 articles and five factors. The results confirmed the evolution of studies in behavioral theories, especially regarding managers and their strategies as well as other findings, such as research related to environmental dynamics and competitive dynamics. We still have strong participation of studies with resource-based theory, transaction costs, and the emergence of new theories such as tournaments and behavioral strategy.

Theoretical / methodological contributions: Bibliometric searches can be examples of how to analyze references. In this sense, this study helps researchers have a parameter in similar studies, with pairing analysis and the combination of analysis of two subsequent periods. On the theoretical side, the findings give strength to previous research, validating established theories and showing emerging theories.

Social / management contributions: This research obtained results that confirm the multidisciplinary in strategy studies. Behavioral theories have emerged and strengthened in recent years. For management, we found that the surveys substantially analyze the strategic behavior of senior members in strategic decisions, such as in company acquisitions, in the formation of alliances, and how managers will perform when they are under contracts, differentiated remuneration, or in competition. For this reason, some theories emerged in the second period, such as tournament theory, not highlighted in previous bibliometric studies. Finally, a comparative summary of the factors found in the two periods helps managers in managerial perspectives on organizational strategies.

Keywords: Strategy. Strategic Management Journal. Bibliometric. Behavioral studies.

A EMERGÊNCIA DE ESTUDOS COMPORTAMENTAIS EM ESTRATÉGIA

Resumo

Objetivo do estudo: Este estudo tem como objetivo identificar a emergência de novas pesquisas no campo da estratégia, considerando as publicações no periódico Strategic Management Journal, num período de 12 anos.

Metodologia/abordagem: Na base de dados Web of Science, pesquisamos o periódico Strategic Management Journal, em dois períodos, 2007 a 2012 e 2013 a 2018. Selecionamos somente artigos relacionados a “business” e “management”. Esta busca gerou 1.100 artigos para nossa base de dados, sendo 376 artigos publicados no primeiro período e 724 artigos, no segundo período. Utilizamos técnicas de pareamento nas análises feitas nos softwares Bibexcel e no SPSS. Paralelamente, elaboramos o diagrama de rede, no software Ucinet, que suportam as relações entre os fatores encontrados e uma análise confirmatória dos achados.

Originalidade/Relevância: Estudos bibliométricos buscam, constantemente, analisar como anda a estrutura teórica das teorias e, no campo da estratégia, não tem sido diferente. Assim, há relevância em verificar como os estudos em estratégia têm evoluído em termos teóricos, dada a sua multidisciplinaridade, sendo que um estudo comparativo entre dois períodos distintos, mas subsequentes, caso deste trabalho, oferece uma visão global da direção futura dos estudos. Novas frentes teóricas foram encontradas, em essência, nos estudos comportamentais que emergiram em pesquisas anteriores e se fortalecem nas novas pesquisas.

Principais resultados: A pesquisa identificou 57 artigos publicados no período de 2007 a 2012 e seis fatores e, no período entre 2013 e 2018, foram 22 artigos e cinco fatores. Os resultados confirmaram a evolução de estudos em teorias comportamentais, principalmente, quanto aos dirigentes e suas estratégias. Houve outros achados, como pesquisas relacionadas à dinâmica ambiental e à dinâmica competitiva. Identificou-se, ainda, forte participação dos estudos com teorias baseadas em recursos, custos de transação e a emergência de novas teorias, como a dos torneios e estratégia comportamental.

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Contribuições teóricas/metodológicas: Pesquisas bibliométricas podem ser exemplos de como fazer análise de referências. Neste sentido, este estudo contribui para que pesquisadores tenham um parâmetro em estudos similares, com análise de pareamento e na combinação de análise de dois períodos subsequentes. Na vertente teórica, os achados dão robustez a pesquisas anteriores, validando teorias consagradas e mostrando teorias emergentes.

Contribuições sociais/para a gestão: Nesta pesquisa, obtivemos resultados que confirmam a multidisciplinaridade nos estudos em estratégia. Teorias comportamentais emergiram e se fortaleceram nos últimos anos. Para gestão, verificamos que as pesquisas analisam amplamente o comportamento estratégico dos membros do alto escalão em decisões estratégicas, como em aquisições de empresas, na formação de alianças, no desempenho dos gestores quando estão sob contratos, remunerações diferenciadas ou em competições. Por este motivo, algumas teorias emergiram no segundo período, como a teoria dos torneios, não destacadas em estudos bibliométricos anteriores. Por fim, um resumo comparativo dos fatores encontrados nos dois períodos auxilia gestores nas perspectivas gerenciais sobre estratégias organizacionais.

Palavras-chave: Estratégia. Strategic Management Journal. Bibliométrico. Estudos comportamentais.

LA EMERGENCIA DE ESTUDIOS DE COMPORTAMIENTO EN ESTRATEGIA

Resumen

Objetivo del estudio: Este estudio tiene como objetivo identificar el surgimiento de nuevos estudios en el campo de la estrategia, considerando publicaciones en el Strategic Management Journal, en un período de 12 años de publicaciones.

Metodología / enfoque: En la base de datos de Web of Science hicimos búsquedas en la revista “Strategic Management Journal”, en dos períodos, 2007 a 2012 y 2013 a 2018. Solo seleccionamos artículos y relacionados con “Business” e “Management”. Esta búsqueda generó 1100 artículos para nuestra base de datos, con 376 artículos para el primer período y 724 artículos para el segundo período. Utilizamos técnicas de bibliographic coupling en los análisis realizados en Bibexcel y SPSS. Y en paralelo, elaboramos el diagrama de red, en Ucinet, que sustenta las relaciones entre los factores encontrados y un análisis confirmatorio de los hallazgos.

Originalidad / Relevancia: Los estudios bibliométricos buscan constantemente analizar la estructura teórica de las teorías y en estrategia no ha sido diferente. Para comprobar cómo los estudios en estrategia han evolucionado en términos teóricos, dada su multidisciplinariedad, un estudio comparativo de dos períodos distintos, pero posteriores, ofrece una visión global de hacia dónde se dirigen los estudios. Se encontraron nuevos frentes teóricos, en esencia a los estudios conductuales que surgieron en estudios previos y se fortalecen en nuevas investigaciones.

Resultados principales: La búsqueda identificó 57 artículos de 2007 a 2012 y 6 factores y de 2013 a 2018 hubo 22 artículos y 5 factores. Los resultados confirmaron la evolución de los estudios en las teorías del comportamiento, especialmente en lo que respecta a los gerentes y sus estrategias. Y otros hallazgos, como la investigación relacionada con la dinámica ambiental y la dinámica competitiva. Seguimos teniendo una fuerte participación de estudios con teorías basadas en recursos, costos de transacción y el surgimiento de nuevas teorías como torneos y estrategia conductual.

Contribuciones teóricas / metodológicas: La investigación bibliométrica puede ser ejemplos de cómo analizar referencias. En este sentido, este estudio ayuda a los investigadores a tener un parámetro en estudios similares, con análisis de emparejamiento y la combinación de análisis de dos períodos posteriores. En el aspecto teórico, los hallazgos dan fuerza a investigaciones previas, validando teorías establecidas y mostrando teorías emergentes.

Contribuciones sociales / de gestión: Esta investigación obtuvo resultados que confirman la multidisciplinariedad en los estudios de estrategia. Las teorías del comportamiento han surgido y se han fortalecido en los últimos años. Para la gerencia, encontramos que las encuestas analizan mucho el comportamiento estratégico de los altos directivos en las decisiones estratégicas, como en las adquisiciones de empresas, en la formación de alianzas, y cómo se desempeñarán los gerentes cuando estén bajo contratos, remuneración diferenciada o en competencia. Por esta razón, algunas teorías surgieron en el segundo período, como la teoría de los torneos, no destacadas en estudios bibliométricos previos. Finalmente, un resumen comparativo de los factores encontrados en los dos períodos ayuda a los gerentes en las perspectivas gerenciales de las estrategias organizacionales.

Palabras clave: Estrategia. Strategic Management Journal. Bibliometría. Estudios del comportamiento.

1 Introduction

Despite advances in the research in strategic management, the field changed its name from business policy to strategic management in 1979 (Schendel & Hofer, 1979). Founded in 1980, the Strategic Management Journal became its leading journal. Since then, other areas, such as economics, sociology, marketing, finance, and psychology, influenced strategic management studies (Hambrick, 2004). Since that time, studies based on economics have predominated (Ramos-Rodriguez & Ruiz-Navarro, 2004; Ferreira, Fernandes & Ratten, 2016). It is common to observe strategies allied to the Resource-Based Theory - RBT (Peteraf, 1993; Wernerfelt, 1984; Barney, 1991).

This predominance of research in strategic management based on economics has been challenged and indicates the need for constant evaluation of the evolution of studies in strategy. The first challenge is integrating theory with real-world phenomena, generating coherent explanations (Hambrick, 2007; Helfat, 2007; Miller, 2007). Another challenge is to shift the excessive focus on strategy content, usually from the economic base. Studies should embrace the behavioral perspective of strategic management and better understand the strategy process (Hambrick, 2007). Finally, like all other fields of organizational studies, there is the need to test and expand the knowledge accumulated in a world with so many technological changes.

From the seminal bibliometric of Ramos-Rodriguez and Ruiz-Navarro (2004), we observe the evolution of studies in strategic management. For example, the evolution of theoretical approaches, such as the Dynamic Capabilities (Eisenhardt & Martin, 2000), extends the Resource-Based View of Barney (1991). Previous research conducted bibliometric studies to understand the basis of theoretical approaches and their future research agenda (Serra, Ferreira, Almeida, & Vanz, 2012). However, few studies have sought to understand the evolution of research themes in response to the challenges presented by Hambrick (2004, 2007), Helfat (2007), and Miller (2007).

To identify the behavior of studies in strategy, following the need for its evolution from these challenges, we proposed this bibliometric study. We searched the articles in the Web of Science database, searching for articles published in the Strategic Management Journal, recognized as the leading journal in the area, and used in many bibliometric studies on strategic management (Serra et al., 2012). We considered two distinct search periods, 2007 to 2012 and 2013 to 2018, which was a condition for us to compare the evolution of studies in the area. This search generated 1100 articles, 376 articles for the first period and 724 articles in the second period. We treated the data with Bibexcel and performed the factor analysis with SPSS. This process returned 57 articles in the first period, with six factors, and 22 articles from the second period, with five factors. We performed an additional analysis of centrality and network diagram, elaborated in Ucinet, which can better visualize the dispositions of the found factors and the centrality.

The results reinforced previous studies regarding the importance of behavioral theories in strategic management (Serra et al., 2012; Ferreira, Fernandes, & Ratten, 2016). In the first period,

2007-2012, we found factors that stood out in other studies, such as transaction costs, acquisition of resources, innovation, and entrepreneurship, which shows their importance for strategic management. Some of them evolved into the second period, 2013-2018, and more relevantly, it was the case of dynamic capabilities, knowledge structure, and environmental dynamics. We found there is a concern in studying CEOs and company directors, whether about offsets and contracts (Wang, Zhao & Chen, 2017), reliability and governance styles (Cuypers, Ertug, Reuer, & Bensaou, 2017), and their behavior (Petrenko, Aime, Ridge, & Hill, 2016). The dynamics of corporate diversification related to resources and capabilities (Wu, 2013; Miller & Yang, 2016) also gained relevance. Our results for the first factor from the 2007-2012 period are similar to prior reviews. Finally, we identified the concern with environmental dynamics (D'Aveni, Dagnino, & Smith, 2010), whose objective is to verify the temporary competitive advantage, given the volatile and dynamic market, especially technological innovations.

This study contributes to different aspects. First, it shows how the theoretical field of strategy is behaving, confirming previous bibliometric studies (initiated by Ramos-Rodrigues' & Ruíz-Navarro, 2004). As a methodological proposal, it serves as a guide for future research with the same interest, such as researching the theoretical field of an area (Vicente, Rafael, Bussler, Joaquim Filho, & Nabarroto, 2020). Finally, it promotes a theoretical discussion on strategic management, indicating the maintenance of theoretical movements and others that evolved, converging with the interests of managers and decision-makers. The results, with the presentation and comparison of the factors found in the bibliographic coupling, which show the concern with social and management aspects, may suggest future research.

2 Literature review

Theories emerge from what happens in a particular field of research; strategic management is no different. From 1980-2000, Ramos-Rodriguez and Ruiz-Navarro (2004) researched the emergence of studies in strategy and how they evolved. The authors used the Strategic Management Journal-SMJ database. This study verifies that at the time that in strategic management, the predominant theory was the Theory of Organizations, with a significant representation of the work of Porter (1980), followed by the RBT (Rumelt, 1974; Peteraf & Salancik, 1978; Williamson, 1979; Barney, 1991) and the books are still frequently cited as references.

Subsequently, Nerur, Rasheed, and Natarajan (2008) used the intellectual basis in Ramos-Rodriguez and Ruiz-Navarro (2004) to analyze the co-citation of the mentioned articles. This work observed the authors' connections and complemented the work of Ramos-Rodriguez and Ruiz-Navarro (2004). The results showed that the theory of the firm (considering industrial organization - IO, transactions costs theory - TCT, resource-based theory - RBT) was predominant during seven years - 1980 to 1986. Then, agency theory and economic theories (industrial organization and transaction

costs) began to play an important role in strategic management. The field of studies is divided into four blocks: IO (Porter), strategic process (Mintzberg), TCT (Williamson), and resource dependence theory - RDT (Pfeffer), substantiating multi-disciplinarity is evident in strategic management. In 1980-2000, industrial organization predominantly oriented studies in strategic management, with strong tendencies towards resource theories, primarily in the firm approach (Barney, 1991) and with little expression in the approach to resources as capabilities.

New bibliometric studies emerged to understand how studies in strategy behaved. Serra et al. (2012) extended the research by Ramos-Rodriguez & Ruiz-Navarro (2004) by another seven years and observed trends in strategy studies at the beginning of the century. The question was to see whether the RBT strengthened in the following years. The study built two clusters; the first focused on TCT, and the second generically adopted as RBT. The results approved the evolution of RBT, with new aspects, the knowledge-based view (KBV), and the capability-based view, recognizing knowledge as a strategic resource and the emergence of dynamic capabilities (DC). Another finding in this study was in the field of TCT in two ways, firstly with RDT (Pfeffer & Salancik, 1978) and another in the approach of Granovetter (1985) with the concept of embeddedness, whose relationship between individuals is linked to social relationships and may reflect transaction costs. Finally, this study confirmed that RBT strengthened and new theories are emerging in the field of strategy, leaning towards new paths, considering knowledge, organizational learning, and innovation, pointing out that the concern was still in internal aspects of the organization.

Strategic management studies have been frequently researched in the SMJ journal, although new studies have sought to view these studies from other sources. In the case of the research performed by Pinto, Guerrazzi, Serra and Kniess (2016), they searched for these studies in Strategic Management Journal, Strategic Organization, Journal of Economics & Management Strategy, Long Range Planning, and Strategic Entrepreneurship Journal. The results showed the strengthening of RBT with the work of Barney (1991) and the new knowledge and learning aspects (Levinthal & March, 1993, Eisenhardt, 1989, Hambrick & Mason, 1984) and the inclusion of Capability (Teece, Pisano, & Shuen, 1997, Teece 2007 and Eisenhart & Martin, 2000). In this research, the authors highlighted the Agency Theory (Jensen & Meckling, 1976) and Institutional Isomorphism (DiMaggio & Powell, 1983), evidenced in the work of Vasconcelos and Cyrino (2000) and confirmed in the research by Pinto et al. (2016).

Further on, we have another work by Ferreira, Fernandes, and Ratten (2016), who conducted a search on the Web of Science with keywords: “strategic management” or “strategic decision”. They sought to identify studies on strategic management in the literature. This article reinforced that RBT, with the article by Barney (1991) being the most cited from 1970-2014. Teece, Pisano, and Shuen (1997) and Eisenhardt and Martin (2000) follow with the DC. They confirm the Strategic Management Journal as the most used journal for publications on strategy, which we corroborated. The findings of this study considered two different factors from previous studies: Strategic Entrepreneurship (Alvarez & Busentz, 2001), combining resources, capabilities, and entrepreneurship. Strategic Decision

processes in high-speed environments (Bourgeois III & Eisenhardt, 1988) consist of observing the volatility and rapid movements in the environment, given the evolution of technology. It also considers factors such as Strategic Knowledge (Bharadwaj, Bharadwaj, & Konsynski, 1999), Strategic Behavior (Amit & Zott, 2001), and Strategic Decision (Amason, 1996) aspects of studies in strategy that can promote new research in the area and its evolution.

These more recent studies follow on the investigation of theoretical bases as a co-citation study, not delving into the themes that have been focused on by researchers. This understanding is essential, as a field of study is socially constructed (Kuhn, 1962; Hagstrom, 1965), depending on established networks, but mainly on shared meaning (Cole, 1983; Astley, 1985).

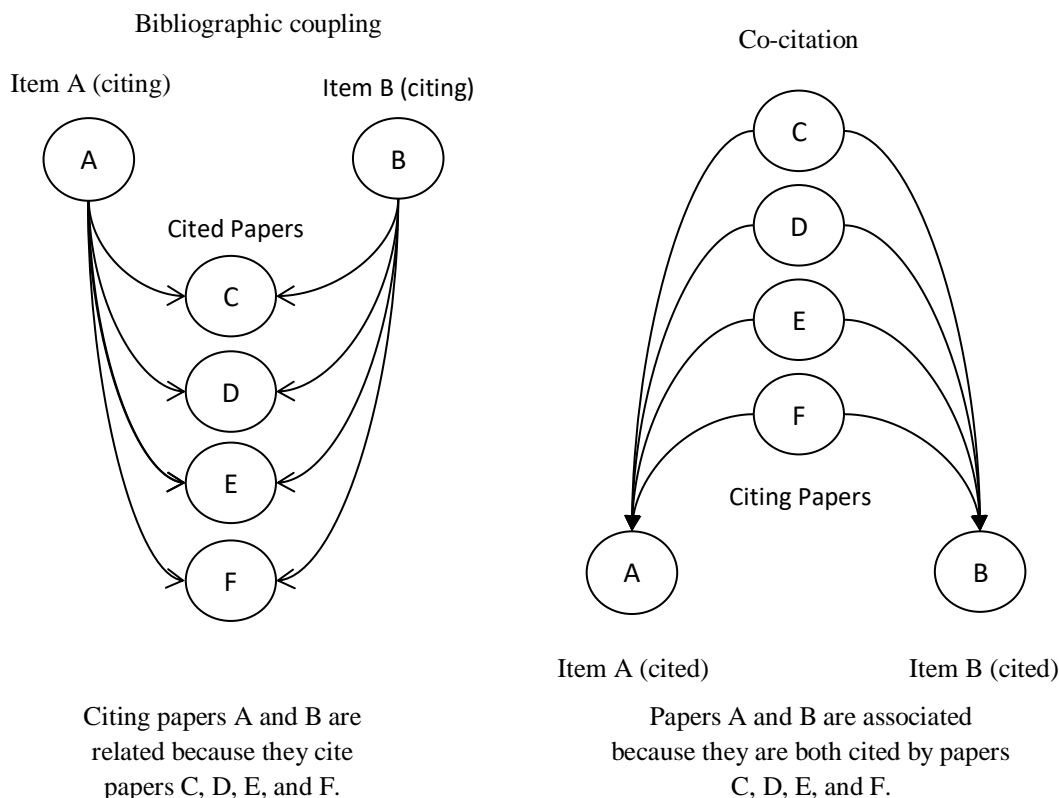
3 Methodological procedures

3.1 Method

Bibliometric studies quantify written communication and allow for the construction of structural images about a subject, a theoretical field, and the structure and dynamics of scientific fields (Pritchard, 1969; Zupic & Carter, 2015). This statistical technique allows us to verify the area of interest of researchers, whether to identify the intellectual structure (Vicente et al., 2020) or its evolution (Ferreira, Fernandes, & Ratten, 2016). The techniques used involve citing a document - cite important articles for the research; co-citation - pairs of articles highly cited by one or more documents (McCain, 1990); and bibliographic pairing - two or more articles cited by one or more common articles. Figure 1 presented by Garfield (2001) represents the techniques for analyzing bibliometric studies.

Figure 1

Bibliographic coupling and co-citation according to Garfield (2001)



Source: Garfield (2001, p.3).

Whether by co-citation or bibliographic coupling, bibliometric studies identify the pairing of cited articles (Guerrazzi, Serra, Marchiano, & Pinto, 2017). The cited articles are similar in the context used and have a relationship (Kessler, 1963). The greater the number of shared references, the higher the connection and strength between the articles (Zhao & Strotmann, 2008). The difference is regarding the object of study; when the desire is to verify the intellectual structure of a specific field, co-citation is the best technique. If the objective is to identify the evolution of this field, the bibliographic coupling is used (Vogel & Güttel, 2013; Grácio, 2016).

3.2 Data collection

The data collection procedure consisted of three steps. First, we identified the journal that most represented the field of study and strategy-related research. According to Ramos-Rodriguez and Ruiz Navarro (2004), as confirmed in more recent bibliometric articles (Serra et al., Pinto et al., 2016), the most used journal was the Strategic Management Journal (SMJ). Then, we chose the source for data collection. We considered the ISI Web of Science (WoS) database for this research, as it is a platform with access to a multi-disciplinary database. It returned with several metrics (quotes, h index, and other

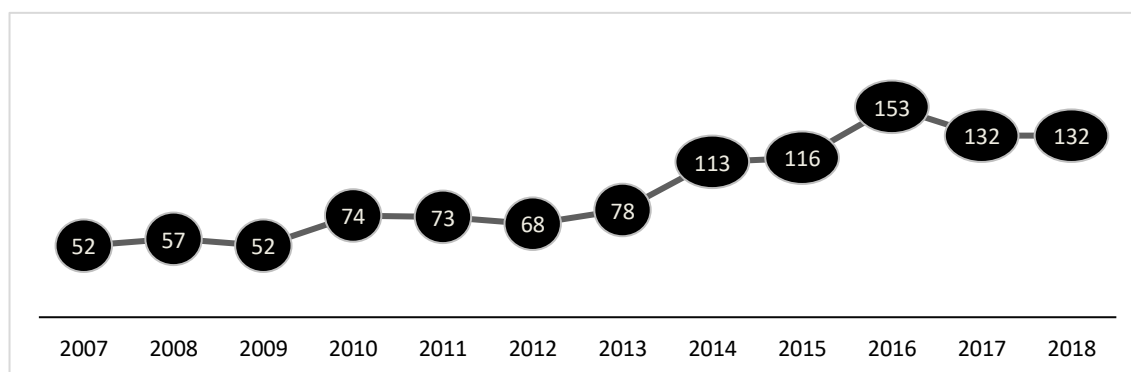
quantitative data), allied to being widely used in bibliometric studies (Azar & Brock, 2008; Ferreira, 2011; Shafique, 2013; Ferreira, Fernandes, & Ratten, 2016).

3.3 Research sample

We selected a sample of this research based on a search in the Web of Science database for articles published in the Strategic Management Journal. We only selected articles related to “Business” and “Management.” This research considered two periods of publications, 2007 to 2012 and 2013 to 2018. Therefore, two periods of six years of publications totaling 12 years of strategic management research. As a result, we obtained 1100 articles, with 376 articles from the first period and 724 articles from the second period.

Figure 2

Evolution of article publications per year



Source: Web of Science, sample data (2021).

Figure 2 displays the evolution of article publications per year. Publications grew over time, with small downward swings, in 2009 (52 articles) and 2012 (68 articles). The most significant number of publications per year occurred in 2016, with 153 articles. In the first period of publications analyzed, 2007-2012, the growth was very slight, going from 52 articles per year to 68 articles (an increase of 30.77%). In the second period analyzed, 2013-2018, the growth was more substantial, going from 78 to 132 articles published per year (an increase of 69.23%). In this sense, from the first year 2007 to 2018, we recorded a growth of 252%.

We present the descriptive data of the sample in Table 1. The first period 2007-2012, registered the number of 376 articles with 40,477 citations. In this period, the average of citations was 107.65, with an h-index of 114. In 2013-2018, 724 articles registered with 17,541 citations, 24.23 of average citations per item, and an h-index of 62. The data show that although the second period had a more significant number of articles published, the number of citations and the mean and h-index were smaller than the first period.

Table 1

Sample descriptive data

Title	Period		Description
	2007-2012	2013-2018	
Results found	376	724	Number of articles found
Sum of the number of citations	40477	17541	Total citations in sample
Average citations per item	107.65	24.23	Average number of articles in the sample
<i>h</i> -index	114	62	Defines the number of articles with citations equal to or greater than this number.

Fonte: *Web of Science*, sample data (2021).

3.4 Analysis procedures

This research aims to identify new studies in the field of strategy. For this, we use the bibliographic pairing technique. This technique is suitable for identifying current and future trends, reflected by paired citations, of documents that cite other documents (Vogel & Guttel, 2013). Meanwhile, co-citation is concerned with the cited documents (Cunha Filho, Herrero, Mello, & Vidal, 2019). Bibliographic pairing is used by scholars who wish to analyze the evolution of a theoretical field (Serra et al., 2012; Pinto et al., 2016; Vicente et al., 2020), the impact of a work (Cunha Filho et al., 2019), and future reflections on it.

Therefore, considering the existence of many studies on strategic management (the field is mature and co-citation studies reinforce the most cited authors and the intellectual structure of that theoretical field - Vogel & Guttel, 2013), using bibliographic pairing will allow mapping and identifying emerging fields of study (Grácio, 2018). To determine the components that would be part of the pairing analysis, we performed a factor analysis of the sample data in the SPSS software. We followed with the presentation of the results with statistical information and network relationships.

We performed the Exploratory Factor Analysis (EFA) in SPSS. This process aimed to reduce many articles into a smaller number of correlated articles (Quevedo-Silva, Santos, Brandão, & Vils, 2016). Initially, we produced a square co-citation co-occurrence matrix, with at least five citations, in Bibexcel. We followed the criteria established by Serra et al. (2018). This procedure resulted in condensing articles from 2007 to 2012, from 376 articles to a matrix with 83 articles. From 2013 to 2018, of the 724 initial articles, we obtained a matrix with 79 articles. This cut respects Lotka's Law (1926), or inverse square law, which considers that 5% of documents represent the field of study (Nath & Jackson, 1991).

We treated the square matrices in SPSS through the EFA, following criteria which defined the components that we will present in the results. We adopted the Kaiser (1960) Eigenvalues criterion to select the components, which consists of keeping the factors with values ≥ 1 , and the "elbow" method

(Cattell, 1966), where there is a sharp drop in the explained variance or correlation. We also use the Varimax oblique rotation that normalizes the Kaiser and maximizes the variation in the factor loading of the sample components. We determined that the document that must be part of a certain component must have a minimum load of 0.4, respecting the criteria of Serra et al. (2018) and the parameters used in bibliometric articles (McCain, 1990; Cunha Filho et al., 2019).

Finally, the procedures for exploratory factor analysis followed the exclusion parameters according to Quevedo-Silva et al. (2016). Considering these criteria, from the period 2007-2012, we obtained six components, excluding 26 articles that did not have the minimum load, resulting in 57 total articles for analysis. These articles explain 65.81% of the sample. In 2013-2018, we excluded 57 articles that did not have the minimum load, resulting in 22 articles for analysis that explain 68.95% of the sample.

Complementing the analysis procedures, we used the visualization of the Ucinet software network diagram. The distance and the nodes between them represent the link between the articles. The greater the connection, the greater the representativeness of the article, hence the centrality and prestige (Borgatti, Everett, & Freeman, 2002).







4. Results







4.1 2007-2012 bibliographic coupling analysis







The 376 articles in the ISI Web of Science database, with the keyword Strategic Management Journal, comprised the sample from 2007 to 2012. We ran the articles through Bibexcel and SPSS. After the necessary analysis, we generated a sample of 57 articles, with six factors. Table 2 presents the articles mentioned, the factor loadings of all components, and the predominant factor loadings that determined the six bibliographic coupling factors to be analyzed.







Table 2







Bibliographic coupling from 2007 to 2012 with all factor loads







Pappers		Component - Factor					
		 AB1	 AB2	 AB3	 AB4	 AB5	 AB6
aco105	Hess, A. M., & Rothaermel, F. T. (2011). When are assets complementary? Star scientists, strategic alliances, and innovation in the pharmaceutical industry. <i>Strategic Management Journal</i> , 32(8), 895-909.	.806	.320	.020	-.025	-.094	.061
aco351	Capaldo, A. (2007). Network structure and innovation: The leveraging of a dual network as a distinctive relational capability. <i>Strategic Management Journal</i> , 28(6), 585-608.	.795	-.051	.255	-.105	-.094	.043
aco228	Ahuja, G., Polidoro Jr, F., & Mitchell, W. (2009). Structural homophily or social asymmetry? The formation of alliances by poorly embedded firms. <i>Strategic Management Journal</i> , 30(9), 941-958.	.794	-.087	.345	-.109	-.057	.051
aco322	Rothaermel, F. T., & Boeker, W. (2008). Old technology meets new technology: Complementarities, similarities, and alliance formation. <i>Strategic Management Journal</i> , 29(1), 47-77.	.786	.080	.154	-.060	-.164	.110
aco179	Hoang, H. A., & Rothaermel, F. T. (2010). Leveraging internal and external experience: exploration, exploitation, and R&D project performance. <i>Strategic Management Journal</i> , 31(7), 734-758.	.773	.168	.049	-.047	-.133	.073
aco329	Wang, L., & Zajac, E. J. (2007). Alliance or acquisition? A dyadic perspective on interfirm resource combinations. <i>Strategic Management Journal</i> , 28(13), 1291-1317.	.756	.006	.420	-.129	-.062	.090
aco198	Yang, H., Lin, Z., & Lin, Y. (2010). A multilevel framework of firm boundaries: firm characteristics, dyadic differences, and network attributes. <i>Strategic Management Journal</i> , 31(3), 237-261.	.755	.121	.198	-.106	.052	.063
aco310	Tiwana, A. (2008). Do bridging ties complement strong ties? An empirical examination of alliance ambidexterity. <i>Strategic Management Journal</i> , 29(3), 251-272.	.753	.156	.011	-.074	-.095	.104
aco224	Gulati, R., Lavie, D., & Singh, H. (2009). The nature of partnering experience and the gains from alliances. <i>Strategic Management Journal</i> , 30(11), 1213-1233.	.746	-.086	.364	-.126	-.109	.070







Pappers		Component - Factor					
		 AB1	 AB2	 AB3	 AB4	 AB5	 AB6
aco345	Hoffmann, W. H. (2007). Strategies for managing a portfolio of alliances. <i>Strategic Management Journal</i> , 28(8), 827-856.	.729	.345	.122	-.041	-.122	.110
aco138	Jiang, L., Tan, J., & Thursby, M. (2011). Incumbent firm invention in emerging fields: evidence from the semiconductor industry. <i>Strategic Management Journal</i> , 32(1), 55-75.	.709	.160	-.182	.048	-.134	.066
aco227	Lin, Z., Yang, H., & Arya, B. (2009). Alliance partners and firm performance: resource complementarity and status association. <i>Strategic Management Journal</i> , 30(9), 921-940.	.699	.040	.376	-.074	.000	.110
aco196	Agarwal, R., Croson, R., & Mahoney, J. T. (2010). The role of incentives and communication in strategic alliances: An experimental investigation. <i>Strategic Management Journal</i> , 31(4), 413-437.	.697	-.032	.500	-.093	-.097	.050
aco137	Kumar, M. S. (2011). Are joint ventures positive sum games? The relative effects of cooperative and noncooperative behavior. <i>Strategic Management Journal</i> , 32(1), 32-54.	.692	-.129	.488	-.067	-.094	.025
aco232	Aggarwal, V. A., & Hsu, D. H. (2009). Modes of cooperative R&D commercialization by start-ups. <i>Strategic Management Journal</i> , 30(8), 835-864.	.682	.221	.248	-.047	-.128	.071
aco102	Mahmood, I. P., Zhu, H., & Zajac, E. J. (2011). Where can capabilities come from? Network ties and capability acquisition in business groups. <i>Strategic Management Journal</i> , 32(8), 820-848.	.659	.290	.123	-.077	-.069	.109
aco124	Cui, A. S., Calantone, R. J., & Griffith, D. A. (2011). Strategic change and termination of interfirm partnerships. <i>Strategic Management Journal</i> , 32(4), 402-423.	.643	.210	.455	-.004	-.047	.055
aco107	Aggarwal, V. A., Siggelkow, N., & Singh, H. (2011). Governing collaborative activity: interdependence and the impact of coordination and exploration. <i>Strategic Management Journal</i> , 32(7), 705-730.	.542	.240	.320	.006	-.077	.017
aco226	Lin, Z., Peng, M. W., Yang, H., & Sun, S. L. (2009). How do networks and learning drive M&As? An institutional	.487	.030	.416	-.254	.074	.194

Pappers		Component - Factor					
		 AB1	 AB2	 AB3	 AB4	 AB5	 AB6
	comparison between China and the United States. <i>Strategic Management Journal</i> , 30(10), 1113-1132.						
aco223	Grahovac, J., & Miller, D. J. (2009). Competitive advantage and performance: the impact of value creation and costliness of imitation. <i>Strategic Management Journal</i> , 30(11), 1192-1212.	.070	.861	-.087	.099	-.095	.053
aco296	Newbert, S. L. (2008). Value, rareness, competitive advantage, and performance: a conceptual-level empirical investigation of the resource-based view of the firm. <i>Strategic Management Journal</i> , 29(7), 745-768.	.085	.856	-.075	.231	-.095	.072
aco211	Tang, Y. C., & Liou, F. M. (2010). Does firm performance reveal its own causes? The role of Bayesian inference. <i>Strategic Management Journal</i> , 31(1), 39-57.	.079	.782	-.122	.170	-.110	.076
aco268	Lee, G. K. (2008). Relevance of organizational capabilities and its dynamics: what to learn from entrants' product portfolios about the determinants of entry timing. <i>Strategic Management Journal</i> , 29(12), 1257-1280.	.283	.781	-.129	.134	-.121	.084
aco371	Stieglitz, N., & Heine, K. (2007). Innovations and the role of complementarities in a strategic theory of the firm. <i>Strategic Management Journal</i> , 28(1), 1-15.	.235	.776	-.139	.084	-.162	.080
aco156	Kunc, M. H., & Morecroft, J. D. (2010). Managerial decision making and firm performance under a resource-based paradigm. <i>Strategic Management Journal</i> , 31(11), 1164-1182.	.020	.735	-.158	.252	-.048	.160
aco140	Danneels, E. (2011). Trying to become a different type of company: Dynamic capability at Smith Corona. <i>Strategic Management Journal</i> , 32(1), 1-31.	.188	.716	-.125	.146	-.075	.060
aco267	Kumar, M. S. (2009). The relationship between product and international diversification: The effects of short-run constraints and endogeneity. <i>Strategic Management Journal</i> , 30(1), 99-116.	.349	.664	-.027	-.113	-.148	.152
aco219	Sirmon, D. G., & Hitt, M. A. (2009). Contingencies within dynamic managerial capabilities: Interdependent effects of resource investment and deployment on firm performance. <i>Strategic Management Journal</i> , 30(13), 1375-1394.	-.025	.657	-.031	.365	.164	.053

Pappers		Component - Factor					
		 AB1	 AB2	 AB3	 AB4	 AB5	 AB6
aco117	Parmigiani, A., & Holloway, S. S. (2011). Actions speak louder than modes: antecedents and implications of parent implementation capabilities on business unit performance. <i>Strategic Management Journal</i> , 32(5), 457-485.	.414	.563	.143	-.018	-.029	.094
aco338	Gong, Y., Shenkar, O., Luo, Y., & Nyaw, M. K. (2007). Do multiple parents help or hinder international joint venture performance? The mediating roles of contract completeness and partner cooperation. <i>Strategic Management Journal</i> , 28(10), 1021-1034.	.114	-.102	.870	-.087	-.020	.058
aco373	Luo, Y. (2007). Are joint venture partners more opportunistic in a more volatile environment? <i>Strategic Management Journal</i> , 28(1), 39-60.	.191	-.132	.801	-.087	-.053	.088
aco321	Luo, Y. (2008). Procedural fairness and interfirm cooperation in strategic alliances. <i>Strategic Management Journal</i> , 29(1), 27-46.	.278	-.133	.795	-.041	.003	.014
aco120	Lumineau, F., & Malhotra, D. (2011). Shadow of the contract: How contract structure shapes interfirm dispute resolution. <i>Strategic Management Journal</i> , 32(5), 532-555.	.274	-.124	.774	-.050	.011	.090
aco127	Xia, J. (2011). Mutual dependence, partner substitutability, and repeated partnership: the survival of cross-border alliances. <i>Strategic Management Journal</i> , 32(3), 229-253.	.376	-.159	.701	-.099	-.063	.057
aco332	Makino, S., Chan, C. M., Isobe, T., & Beamish, P. W. (2007). Intended and unintended termination of international joint ventures. <i>Strategic Management Journal</i> , 28(11), 1113-1132.	.313	-.146	.698	-.136	-.138	.115
aco300	Luo, Y. (2008). Structuring interorganizational cooperation: The role of economic integration in strategic alliances. <i>Strategic Management Journal</i> , 29(6), 617-637.	.343	-.163	.671	-.135	-.080	.102
aco247	Meyer, K. E., Wright, M., & Pruthi, S. (2009). Managing knowledge in foreign entry strategies: a resource-based analysis. <i>Strategic Management Journal</i> , 30(5), 557-574.	.219	.392	.474	-.204	-.143	.170
aco151	Chen, M. J., Lin, H. C., & Michel, J. G. (2010). Navigating in a hypercompetitive environment: The roles	-.160	.033	-.051	.860	.075	.062

Pappers		Component - Factor					
		 AB1	 AB2	 AB3	 AB4	 AB5	 AB6
	of action aggressiveness and TMT integration. <i>Strategic Management Journal</i> , 31(13), 1410-1430.						
aco153	Rindova, V., Ferrier, W. J., & Wiltbank, R. (2010). Value from gestalt: how sequences of competitive actions create advantage for firms in nascent markets. <i>Strategic Management Journal</i> , 31(13), 1474-1497.	-.116	.093	-.071	.859	.039	.032
aco154	Chen, E. L., Katila, R., McDonald, R., & Eisenhardt, K. M. (2010). Life in the fast lane: Origins of competitive interaction in new vs. established markets. <i>Strategic Management Journal</i> , 31(13), 1527-1547.	-.027	.138	-.102	.853	.016	.047
aco282	Boyd, J. L., & Bresser, R. K. (2008). Performance implications of delayed competitive responses: Evidence from the US retail industry. <i>Strategic Management Journal</i> , 29(10), 1077-1096.	-.074	.227	-.079	.795	-.003	.095
aco132	Marcel, J. J., Barr, P. S., & Duhaime, I. M. (2011). The influence of executive cognition on competitive dynamics. <i>Strategic Management Journal</i> , 32(2), 115-138.	-.183	-.050	-.138	.776	.091	.130
aco115	Ndofor, H. A., Sirmon, D. G., & He, X. (2011). Firm resources, competitive actions and performance: investigating a mediated model with evidence from the in-vitro diagnostics industry. <i>Strategic Management Journal</i> , 32(6), 640-657.	-.082	.323	-.093	.743	-.013	.102
aco149	D'Aveni, R. A., Dagnino, G. B., & Smith, K. G. (2010). The age of temporary advantage. <i>Strategic Management Journal</i> , 31(13), 1371-1385.	-.018	.463	-.126	.698	-.080	.101
aco150	Sirmon, D. G., Hitt, M. A., Arregle, J. L., & Campbell, J. T. (2010). The dynamic interplay of capability strengths and weaknesses: investigating the bases of temporary competitive advantage. <i>Strategic Management Journal</i> , 31(13), 1386-1409.	-.047	.517	-.085	.625	-.003	.058
aco230	Bodolica, V., & Spraggon, M. (2009). The implementation of special attributes of CEO compensation contracts around M&A transactions. <i>Strategic Management Journal</i> , 30(9), 985-1011.	-.017	-.066	-.030	-.080	.920	.028

Pappers		Component - Factor					
		 AB1	 AB2	 AB3	 AB4	 AB5	 AB6
aco305	Kroll, M., Walters, B. A., & Wright, P. (2008). Board vigilance, director experience, and corporate outcomes. <i>Strategic Management Journal</i> , 29(4), 363-382.	-.060	-.013	-.007	-.018	.844	.071
aco135	Deutsch, Y., Keil, T., & Laamanen, T. (2011). A dual agency view of board compensation: The joint effects of outside director and CEO stock options on firm risk. <i>Strategic Management Journal</i> , 32(2), 212-227.	-.115	-.084	-.044	-.088	.828	.053
aco167	Tuggle, C. S., Sirmon, D. G., Reutzel, C. R., & Bierman, L. (2010). Commanding board of director attention: investigating how organizational performance and CEO duality affect board members' attention to monitoring. <i>Strategic Management Journal</i> , 31(9), 946-968.	-.200	-.049	-.096	.286	.747	.114
aco164	Goranova, M., Dharwadkar, R., & Brandes, P. (2010). Owners on both sides of the deal: mergers and acquisitions and overlapping institutional ownership. <i>Strategic Management Journal</i> , 31(10), 1114-1135.	-.051	-.105	-.003	-.072	.731	.091
aco171	Wowak, A. J., & Hambrick, D. C. (2010). A model of person-pay interaction: how executives vary in their responses to compensation arrangements. <i>Strategic Management Journal</i> , 31(8), 803-821.	-.175	-.111	-.108	.090	.685	.074
aco1	Chng, D. H. M., Rodgers, M. S., Shih, E., & Song, X. B. (2012). When does incentive compensation motivate managerial behaviors? An experimental investigation of the fit between incentive compensation, executive core self-evaluation, and firm performance. <i>Strategic Management Journal</i> , 33(12), 1343-1362.	-.230	-.175	-.060	.167	.651	.060
aco54	Arora, A., & Nandkumar, A. (2012). Insecure advantage? Markets for technology and the value of resources for entrepreneurial ventures. <i>Strategic Management Journal</i> , 33(3), 231-251.	-.115	-.105	-.081	-.082	-.078	-.830
aco56	Benner, M. J., & Tripsas, M. (2012). The influence of prior industry affiliation on framing in nascent industries: The evolution of digital cameras. <i>Strategic Management Journal</i> , 33(3), 277-302.	-.121	-.126	-.106	-.088	-.082	-.736
aco55	Chen, P. L., Williams, C., & Agarwal, R. (2012). Growing pains: Pre-entry experience and the challenge of transition	-.129	-.117	-.086	-.093	-.085	-.670

Pappers		Component - Factor					
		 AB1	 AB2	 AB3	 AB4	 AB5	 AB6
	to incumbency. <i>Strategic Management Journal</i> , 33(3), 252-276.						
aco4	Carnahan, S., Agarwal, R., & Campbell, B. A. (2012). Heterogeneity in turnover: The effect of relative compensation dispersion of firms on the mobility and entrepreneurship of extreme performers. <i>Strategic Management Journal</i> , 33(12), 1411-1430.	-0.085	-0.065	-0.042	-0.057	-0.047	-.502
aco66	Campbell, B. A., Ganco, M., Franco, A. M., & Agarwal, R. (2012). Who leaves, where to, and why worry? Employee mobility, entrepreneurship and effects on source firm performance. <i>Strategic Management Journal</i> , 33(1), 65-87.	-.109	-.111	-.090	-.087	-.093	-.444

Source: Prepared by the authors, based on factor analysis in SPSS (2021).

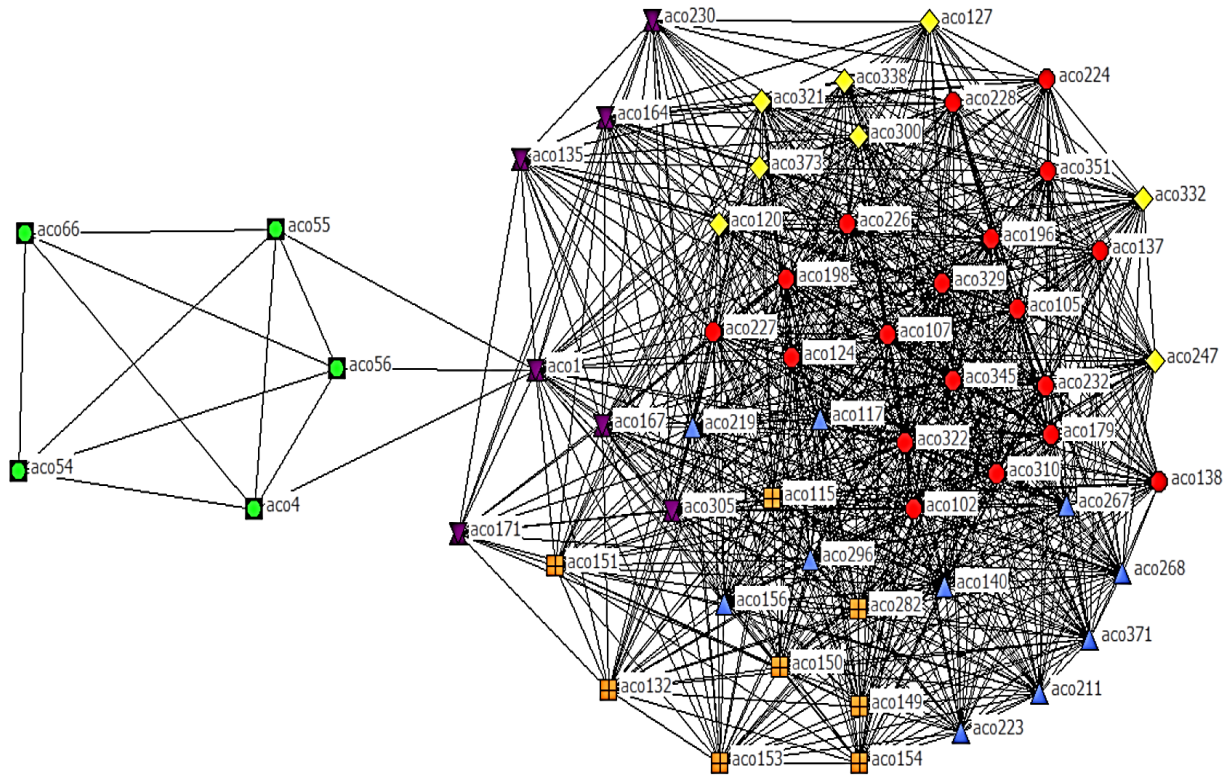
The six identified component factors explain 65.81% of the model, by the accumulated explained variance (Table 3). The factor analysis performed in the SPSS divided the articles considering the percentage with the highest explained variance. That is, the articles with the highest parity among them, in descending order. Thus, the bibliographic pairing (AB) consists of AB1 with 19 articles, AB2 with ten articles, AB3 with eight articles, AB4 with eight articles, AB5 with seven articles, and AB6 with five, totaling 57 articles. High-density values indicate that the articles interact with the articles of that factor (Hair, Black, Babin Anderson, & Tatham., 2006), presenting a thematic unit (Table 3).

The cohesion of factors AB1 to AB5 indicates an interaction between the articles of the factors. That is the themes are connected in some way. However, the negative factorial loads of some factors, in comparison, indicate perspectives that may conflict. The high cohesion in AB6 indicates that the articles in the factor do not interact with the articles of the others, in an independent perspective.

The relationships between the 57 articles are presented in the network diagram (Lenive & Kurzban, 2006), represented by Figure 3. We used the Ucinet software to draw it and show the centrality of each factor. The representation is made through lines, considered loops; the greater the link, the greater the thickness of the line connecting one document to another. The centrality is established by the greater number of links that the article has in that factor. Two groups were formed, one with five factors and the other with one factor.

Figure 3

Bibliographic coupling network 2007-2012









Note: The figure shows the degree (degree) of maximum centrality in the factor.

Source: Prepared by the authors based on factor analysis and Ucinet (2021).

Next, we highlight Table 3, where we present the analysis metrics of the component factors of the bibliographic pairing carried out in the SPSS and the articles that encompass the centrality in each factor. The articles mentioned above in centrality are found in Table 2.

Table 3

Analysis metrics of bibliographic matching components-factors, factors and centrality (2007-2012)

Bibliographic Coupling	Factor	Variable in centrality	Degree	nDegree	N ^{er} of articles	Density	Cohesion	% Explained variance	% Variance accumulated	KMO	Bartlett
AB1 	Learning and Knowledge Transfer	aco322	274,000	0.188	19	0.994	1.61	27.294	27.294		
AB2 	Competitive Advantage from Organizational Resources and Capabilities	aco117	268,000	0.184	10	1.000	1.59	17.263	44.557		
AB3 	Contracts and Transaction Costs	aco300	251,000	0.172	8	0.964	1.64	8.378	52.935		
AB4 	Competitive Dynamics and Dynamic Capabilities	aco149	222,000	0.152	8	1.000	1.93	6.097	59.032		
AB5 	Upper Echelon Theory and Performance	aco167	153,000	0.105	7	1.000	2.35	3.949	62.981		
AB6 	Capabilities and Resources in an Uncertain Environment	aco66	39,000	0.027	5	1.000	86.67	2.831	65.812		
Total					57					0.730	0.000

Source: Prepared by the authors, based on factor analysis in SPSS and Ucinet (2021).

Based on the results and readings to name the factors, AB1, AB2, AB3, and AB4 incorporate articles that contain studies related to capabilities, resources, learning, knowledge, transaction costs, and contracts. Factors AB5 and AB6, linked from aco1, seem to be emerging, indicating studies that seek to understand some behavioral aspects of the strategy.

4.1.1 Analysis of factors for the 2007/2012 period

Based on the factorial data and networks, we did not present the factors in order but according to the relationship between the themes. In other words, factors AB1, AB2, and AB4 are related to each other, as well as factors AB5 and AB6, and factor AB3 alone.

Learning and knowledge transfer (AB1)

Factor AB1 is represented by 19 articles from the sample of 57 articles. It is the factor with the most significant explained variance. The first analysis shows us that 12 articles address strategic alliances combined with other strategic behavior. For example, with learning, the literature assumes that alliances can suggest companies “learn” and that this learning is related to the type of experience (Hoang & Rothaermel, 2010). Gulati, Lavie and Singh (2009) argue that experiences acquired in previous alliances can create value for future alliances. Agarwal, Croson, and Mahoney (2010) suggest potential and perceived value creation in strategic alliances linked to the experience acquired with the process.

Social networks are widely recognized as a source of knowledge, facilitating intensive coordination and realizing collective ideas (Tiwana, 2008). Therefore, the level of strategic alliances and learning in social networks affect mergers and acquisitions in different institutional environments (Lin, Peng, Yang, & Sun, 2009, Yang, Lin & Lin, 2010). Strategic uncertainty (Hoffmann, 2007) is another element related to alliances. As exogenous uncertainty increases, alliances can evolve from adaptation to resource exploitation. Therefore, opportunities are related to external factors, or uncertainties that the company has about the environment (Hoffmann, 2007; Yang, Lin, & Lin, 2010).

Strategic alliances are linked to innovation. Hess and Rothaermel, 2011 explored combining resources for innovation, recruitment, and talent retention in the pharmaceutical industry. The company’s innovative capacity and how it can sustain its innovation is linked to the network structure (Capaldo, 2007) or how strong ties in alliances can be potential in integration and innovation perception (Tiwana, 2008). The innovation strategy needs to have strong ties with trusted partners and a dense network of cooperative relationships (Hoffmann, 2007).

There are other studies on innovation, such as the study by Jiang, Tan, and Thursby (2011), that investigated how incubator companies can generate incremental innovations in technologies. They also highlight that alliance partners’ diversity allows for monitoring the development of companies in

emerging fields, granting a competitive advantage based on innovative technological actions (Jiang, Tan, & Thursby, 2011).

In this factor, we find a group of articles related to governance and cooperation. As for governance, we highlight the study by Wang and Zajac (2007) that analyzed the governance structure in alliances and company acquisitions and how companies behave within these governance styles. The results showed that combined alliances have a stronger positive relationship with alliances than the option for acquisitions.

Cooperation in business strategies indicates the importance of a company's governance capacity and the choice in the portfolio of collaboration modes (Aggarwal Siggelkow, & Singh, 2011). For example, we have cooperative behavior in Joint Venture agreements, considering non-cooperation (private benefits) and cooperation (common benefits) to the detriment of a positive association that creates value for both parties (Kumar, 2011). Therefore, a competitive advantage is related to the firm's specific capabilities (Mahmood, Zhu, & Zajac, 201) and management of partners' resources (Cui, Calantone, & Griffith, 2011).

Competitive advantage from organizational resources and capabilities (AB2)

We found in this factor (AB2) 10 related articles. First, competitive advantage, performance, and value creation are treated to relate the resources that companies have or can acquire and obtain superior results from them. The research by Grahovac and Miller (2009) studied these factors related to innovative products or potential imitations within the parameters of the Resource-Based View theory (by Barney, 1991) and how they impact the competitive advantage and returns of companies.

Newbert (2008) researched the value, rarity, competitive advantage, and performance of companies. This study sequentially related what a company has and how it exploits resources and capabilities that are valuable and rare, how to achieve a competitive advantage; capabilities that are inimitable and non-replaceable sustain competitive advantage; the advantages obtained to allow for better performance in the short or long term — also, strands of RBT.

The studies by Lee (2008) and Stieglitz and Heine (2007) also observed issues of competitive advantage as an aspect of organizational capacity to make good use of available resources. The first looks at the high-speed market and the flexibility to change its capabilities, and the second uses innovation as a complementary asset to explain competitive advantage. Looking inside the company and these competitiveness strategies, Tang and Liou (2010) questioned whether sustainable competitive advantage generates superior sustainable performance. They proposed a theoretical framework on the vision of the company's dynamic capacity and financial results. Danneels (2011) developed a study that observed these issues empirically at the Smith Corona company, reinforcing the importance of changes in resources and dynamic capabilities. Previously, the study by Kumar

(2009) had already observed the strategies that lead to value creation for Joint Venture agreements, and how they can be linked to the company's endogenous resources, and how they are controlled.

Dynamic management capacity becomes a research line of interest to researchers. The ability to invest in resources, decisions, implementation decisions, and how managers make decisions about these resources, supports managing resources to pursue superior performance (Sirmon & Hitt, 2009). It is possible to notice the concern with perceiving management decision-making in two different ways, either to obtain resources to offer a competitive advantage or to obtain the resources needed to implement strategies, that is, to conceptualize and develop strategic resources (Kunc & Morecroft, 2010). In this dynamic, Parmigiani and Holloway (2011) studied why companies varied in performance and concluded that cross-border business implementation capabilities, supported by the chosen form of governance, determine the growth and quality of performance.

Competitive dynamics and dynamic capabilities (AB4)

Eight articles formed factor AB4. First, it is necessary to recognize two aspects of studies, hyper-competition and competitive dynamics. The fundamental difference between these is the ability to maintain lasting competitive advantages. Hyper competition is focused on intense and fast movements, therefore driven by temporary and aggressive advantages.

While competitive dynamics are related to the business's competitive advantage, strong positions, and flaws in the interpretation of the environment, in essence, rivalry and competitive behavior prove to be volatile as in hyper-competition (Chen, Lin, & Michel, 2010). Studies show the concern to observe how managers behave in these two competitiveness scenarios. Chen, Lin and Michel (2010) identified that top management must be present in hypercompetitive environments to make strategic decisions linked to the dynamism of competitiveness. Furthermore, it questions the integration of managers, the social behavior, and aggressiveness of the company's action to the detriment of competitive behavior.

Investigating ambiguous, dynamic, and hypercompetitive environments generate new perspectives on the behavior of companies about their rivals. Different strategies for different markets, the relationship between performance, and subsequent competitive moves will depend on the type of market (Chen, Katila, McDonald, & Eisenhardt, 2010). Likewise, Rindova, Ferrier, and Wiltbank (2010) investigated how ambiguous environments can generate competitive actions against the Gestalt framework (simplicity, predictability, grouping, and motive) in the psychological area. They found support for the argument that sequences of actions provide companies with competitive activities. Environments with more ambiguity are more susceptible to relational aspects of Gestalt, providing more value to the company.

Studies show that a company's quick strategic response gives it a superior view of the market better than slower ones. The advantages of being first or second in strategic response are discussed in

the study by Boud and Bresser (2008) regarding company performance. The authors suggest that rapid response exerts a curvilinear relationship on company performance.

Marcel, Barr and Duhaime (2011) propose the expansion of studies on competitive dynamics. Essentially, they studied information processing and questioned whether managerial cognition or executives' cognitive structure can quickly examine a market movement. The results showed that the direct interpretations of the executives affect the type of specific competitive retaliation that their companies insert. Therefore, the strategic cognitive framework is labeled and represents a particular type of action by the executive and the likely kind of action and speed of retaliation for the attack. Extending the existing relationships, the resources allow for competitive actions and leverage the companies' superior performance.

However, there is a question of how these resources affect performance; in this aspect, competitive dynamics (actions) can integrate resources and create a competitive advantage for companies (Ndofor, Sirmon, & He, 2011). The study by D'Aveni, Dagnino and Smith (2010) questioned the strategy, considering the existence of competitive advantage as if it did not exist sustainably. The dynamic competitive environment, the accelerated pace, responses contrary to rivals, and endogenous and exogenous competencies are destructive and can make sustainable competitive advantage impossible. However, the authors suggest that dynamic capabilities and organizational flexibility can be sources of sustainable competitive advantages.

Dynamic capabilities are sustainable over time; conversely, there are temporary advantages for various reasons, for example, technological changes and globalization (D'Aveni, Dagnino, & Smith, 2010). Companies' capabilities and resources can be strengths or weaknesses; in part, the weaknesses are neglected. The environment and companies' influence are drivers of competitive advantages and are related to positive or negative effects on company performance (Sirmon, Ditt, Arregle & Campbell, 2010).

Contracts and transaction costs (AB3)

This factor (AB3) consists of eight articles. The predominance of issues addressed in the articles is in cooperation, based on parts by contracts, which generate transaction costs, which are positive or negative depending on how they were treated. Gong Shenkar, Luo, and Nyaw (2007) determined these relationships by studying 224 Joint Venture agreements. Analyzing these relationships, they concluded that the number of partner countries is negatively related to the integrity of the partner's risk and cooperation contract, but that they are positively associated with the performance of the Joint Venture.

However, they realized a mediated effect on the entirety of the contract and the partner's collaboration. Confirming this statement, Luo (2007) concluded that agreements with opportunistic partners occur in emerging economies, given the volatility and instability of the environment. Luo

(2008) continues to research contracts and agreements linked to cooperation, suggesting that there should be procedural fairness via justice so that contracts equalize results and performances.

Therefore, procedural fairness is seen as a source of trust and commitment between the parties. The subject “contracts” govern this factor. The concern with structuring a contract that minimizes conflicts, particularities, and details affect the type of approach to conflict resolution and is moderated by the degree of coordination required in the relationship. As such, they influence the transaction costs of the process (Lumineau & Malhotra, 2011). Mutual dependence on resources suggests the survival of cross-border alliances, with mutual trade between the country of origin and the host country (Xia, 2011). The initial formation affects the impact of the survival of the agreements and their longevity (Makino, Chan, Isobe, & Beamish, 2007).

Another study by Luo in 2008 dealt with the interdependence among alliance members. How much a member’s resource can be allied to the other member’s value chain, and how can this process influence the exit of a member from the alliance and its loss. This relationship is mediated by other factors, including interparty trust, joint governance, and procedural fairness. These contract and alliance processes reinforce the concern with financial aspects and transaction costs.

The study by Meyer, Wright and Pruthi (2009) shows how market entry modes can be managed by processes evaluating resources, against the Resource-Based View and Transaction Costs theories, ways to obtain and sustain competitive advantages. They highlight the characteristics of hyper-competition and competitive dynamics that encourage innovative actions to improve performance.

Upper echelon theory and performance (AB5)

This factor (AB5) lists seven articles that address managerial behavior and performance. The primary analysis element in this factor is the CEO, considering compensation contracts, executive experience, monitoring, and the boards of directors. We started this factor with an investigative study on CEO compensation contracts in company mergers and acquisitions (Bodolica & Spraggon, 2009).

Contracts are higher when there are agency problems. In some cases, related to poor companies, the board of directors can implement more process control mechanisms and avoid opportunistic behavior by executives (Bodolica & Spraggon, 2009). Similarly, Deustsch, Keil and Laamanen’s (2011) study examined how executive compensation schemes influence decision-making within the company.

Wowak and Hambrick (2010) investigated how executive characteristics and incentives influence decision-making and company performance. When researching executive characteristics and situational factors, Chng, Rodgers, Shih, and Song (2012) measured compensation and performance. They proposed that executive self-assessment and company performance will make the compensation process effective and motivate executive behavior.

We also see how boards with experienced directors can better control and guide processes. There are assumptions that boards with members rich in experience are associated with acquisitions of better companies (Krol, Wlaters, & Wright, 2008).

There is a study that investigated board members and their attention to monitoring. The interests of the CEO and board members are shown in duality, individual interest, and monitoring that ensures the interests of shareholders (Tuggle, Sirmon, Reutzler & Bierman (2010)). We also have the study by Goranova, Dharwadkar & Brandes (2010), who looked at monitoring mergers and acquisitions processes and how executives can benefit, specifically when owners overlap, giving the agreement more advantages than shareholders.

Decision on capabilities and resources in an uncertain environment (AB6)

There are five articles related to the AB6 factor. The article by Chng, Rodgers, Shih and Song (2012), from the previous factor, is linked to the articles in this factor. Although the article works with High-Echelon Theory, the connection takes place through the strategic decisions of executives in environments of uncertainty.

The articles in this factor address capabilities and resources in an uncertain environment. First is the importance of resources for the performance of companies, how resources and environment are related, taking advantage of internal resources, or acquiring in the market. The option to replace the internal resource reduces the company's ability to increase its competitive advantage at a lower cost regarding technology. They investigate the ability to associate resources that complement each other and improve its performance (Arora & Nandkumar, 2012).

Uncertainties govern the technological environment. Through this is how companies behave, in terms of their experience and sharing, regarding imitating the competitor's behavior, and how they acquire experiences, in essence about the company's entry into this sector highly governed by uncertainties (Benner & Tripsas, 2012). The results show the impact of memberships before market entry and how companies were likely to introduce competitor features before their products and how these benefits learning.

Chen, Williams, and Agarwal (2012) argued about the pain of growth, referring to the company's dynamic capacity to act in the market with new businesses. Adoptions of entrepreneurial activity through diversification sustain better performance than those entering new businesses and joining a single activity for a target company. Another characteristic of this factor is the concern with employees with good performance, entrepreneurial activity, and companies' impact when they lose this employee. Companies are allocating resources to keep these employees and keep them with differentiated compensation: a relevant concern and the entrepreneurial initiative of employees that may generate competitors for the company.






Campbell, Franco, and Agarwal (2012) also studied the characteristics of entrepreneurial employees, salary, and performance of the source company. They reported that employees with higher salaries tend not to leave and start new ventures. They emphasize that companies must promote compensation packages that minimize the risk of the entrepreneurial employee investing in new businesses that generate lower performance for the source company.

4.2 Matching analysis for the 2013-2018 period






The sample for the 2013 period consisted of 724 articles found in the ISI Web of Science database, with the keyword Strategic Management Journal. We processed the articles through Bibexcel and SPSS, resulting in a final sample of 22 articles and five factors. Table 4 presents the articles, the predominant factor loadings, and the other factor loadings of all articles in the sample, and the five highlighted factors.

Table 4

2013-2018 matching analysis with all factor loadings

Pappers		Component - Factor				
		 B1	 B2	 B3	 B4	 B5
aco482	Helfat, C. E., & Peteraf, M. A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. <i>Strategic Management Journal</i> , 36(6), 831-850.	.832	-.017	.043	.008	.002
aco203	Aggarwal, V. A., Posen, H. E., & Workiewicz, M. (2017). Adaptive capacity to technological change: A microfoundational approach. <i>Strategic Management Journal</i> , 38(6), 1212-1231.	.823	-.065	.324	-.083	-.084
aco365	Karna, A., Richter, A., & Riesenkampff, E. (2016). Revisiting the role of the environment in the capabilities–financial performance relationship: A meta-analysis. <i>Strategic Management Journal</i> , 37(6), 1154-1173.	.805	-.041	.027	-.117	.241
aco280	Wang, H., Zhao, S., & He, J. (2016). Increase in takeover protection and firm knowledge accumulation strategy. <i>Strategic Management Journal</i> , 37(12), 2393-2412.	.620	-.057	.303	.132	-.077
aco179	Wang, H., Zhao, S., & Chen, G. (2017). Firm-specific knowledge assets and employment arrangements: Evidence from CEO compensation design and CEO dismissal. <i>Strategic Management Journal</i> , 38(9), 1875-1894.	.581	-.045	.298	.292	-.062
aco566	Koh, P. S., Qian, C., & Wang, H. (2014). Firm litigation risk and the insurance value of corporate social performance. <i>Strategic Management Journal</i> , 35(10), 1464-1482.	-.051	.922	-.074	-.011	-.021

Pappers		Component - Factor				
		B1	B2	B3	B4	B5
aco534	Henisz, W. J., Dorobantu, S., & Nartey, L. J. (2014). Spinning gold: The financial returns to stakeholder engagement. <i>Strategic Management Journal</i> , 35(12), 1727-1748.	-.057	.906	-.064	-.024	-.054
aco395	Petrenko, O. V., Aime, F., Ridge, J., & Hill, A. (2016). Corporate social responsibility or CEO narcissism? CSR motivations and organizational performance. <i>Strategic Management Journal</i> , 37(2), 262-279.	-.008	.898	-.078	.064	-.041
aco402	Kang, J. (2016). Labor market evaluation versus legacy conservation: What factors determine retiring CEOs' decisions about long-term investment? <i>Strategic Management Journal</i> , 37(2), 389-405.	-.065	.812	-.164	.275	.062
aco658	Wu, B. (2013). Opportunity costs, industry dynamics, and corporate diversification: Evidence from the cardiovascular medical device industry, 1976–2004. <i>Strategic Management Journal</i> , 34(11), 1265-1287.	.151	-.087	.843	-.040	-.102
aco296	Miller, D. J., & Yang, H. S. (2016). The dynamics of diversification: Market entry and exit by public and private firms. <i>Strategic Management Journal</i> , 37(11), 2323-2345.	.177	-.094	.835	.003	-.099
aco458	Hashai, N. (2015). Within-industry diversification and firm performance—An S-shaped hypothesis. <i>Strategic Management Journal</i> , 36(9), 1378-1400.	.150	-.082	.796	-.036	-.101
aco676	Zahavi, T., & Lavie, D. (2013). Intra-industry diversification and firm performance. <i>Strategic Management Journal</i> , 34(8), 978-998.	.103	-.084	.770	-.010	-.071
aco434	Seo, J., Gamache, D. L., Devers, C. E., & Carpenter, M. A. (2015). The role of CEO relative standing in acquisition behavior and CEO pay.. <i>Strategic Management Journal</i> , 36(12), 1877-1894.	.042	.017	.013	.904	-.017
aco346	Shi, W., Connelly, B. L., & Sanders, W. G. (2016). Buying bad behavior: Tournament incentives and securities class action lawsuits. <i>Strategic Management Journal</i> , 37(7), 1354-1378.	.039	.000	.014	.811	-.025
aco506	Ridge, J. W., Aime, F., & White, M. A. (2015). When much more of a difference makes a difference: Social comparison and tournaments in the CEO's top team. <i>Strategic Management Journal</i> , 36(4), 618-636.	.049	.068	-.012	.775	-.018
aco652	Lim, E. N., & Mccann, B. T. (2013). The influence of relative values of outside director stock options on firm strategic risk from a multiagent perspective. <i>Strategic Management Journal</i> , 34(13), 1568-1590.	.023	.135	-.076	.728	.019

Pappers		Component - Factor				
		 B1	 B2	 B3	 B4	 B5
aco567	Poppo, L., & Zhou, K. Z. (2014). Managing contracts for fairness in buyer–supplier exchanges. <i>Strategic Management Journal</i> , 35(10), 1508-1527.	-.034	-.018	-.092	-.006	.832
aco522	Schilke, O., & Cook, K. S. (2015). Sources of alliance partner trustworthiness: Integrating calculative and relational perspectives. <i>Strategic Management Journal</i> , 36(2), 276-297.	.174	-.058	-.121	-.108	.797
aco228	Cuypers, I. R., Ertug, G., Reuer, J. J., & Bensaou, B. (2017). Board representation in international joint ventures. <i>Strategic Management Journal</i> , 38(4), 920-938.	-.047	.024	-.040	.164	.738
aco380	Poppo, L., Zhou, K. Z., & Li, J. J. (2016). When can you trust “trust”? Calculative trust, relational trust, and supplier performance. <i>Strategic Management Journal</i> , 37(4), 724-741.	-.053	-.012	-.101	-.093	.719

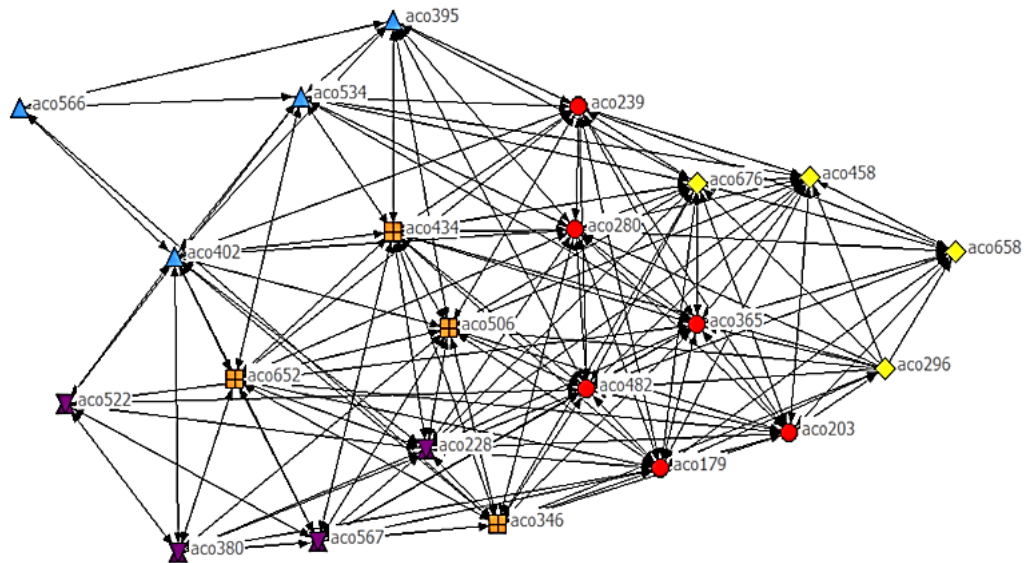
Source: Prepared by the authors, based on factor analysis in SPSS (2021).

The five factors found explain 68.95% of the model, confirmed by the accumulated variance (Table 5). The explained variance is found in the factor analysis performed in SPSS, and this means that articles with more significant explained variance have greater parity between them. The result is sorted in descending order. High density represents how much the articles interact on that factor, the higher the integration. Cohesion means how much the articles are related in the group of articles (Hair et al., 2006). Within these criteria, we obtained bibliographic pairings (B) and obtained the following result: B1 has six articles, followed by B2, B3, B4, and B5 with four articles each, totaling 22 articles. Table 5 summarizes this information.

The network diagram illustrates the relationship between the 22 articles analyzed in this period. To elaborate, we use the Ucinet software; we can also show the strongest relationships or the strongest nodes that determine each factor in the diagram. The greater the relationship between the articles, the greater the line density. A group with five factors was formed, and each group presented an article that has a greater connection with the others, thus establishing the centrality of that factor (Levine & Kurzban, 2006). This information is consolidated in Figure 4.

Figure 4

Pairing network for the period 2013-2018








Note: The figure shows the degree (degree) of maximum centrality in the factor.

Source: Prepared by the authors based on factor analysis and Ucinet (2021).

In Table 5 we present, the articles that stood out in the centrality of each factor. The articles mentioned above in centrality are found in table 4.

Table 5

Metrics of analysis of the components-factors of bibliographic pairing, factors and centrality (2013-2018)

Bibliographic Coupling	Factor	Variable in centrality	Degree	nDegree	N ^{er} of articles	Density	Cohesion	% Explained variance	% Variance accumulated	KMO	Bartlett
B1 	Dynamic Capabilities, Knowledge Structure, Environmental Dynamism	aco179	82.000	0.170	6	1.000	1.68	22.128	22.128		
B2 	Upper Echelon Theory and Corporate Social Responsibility	aco395	48.000	0.099	4	1.000	2.88	15.572	37.700		
B3 	Enterprise Diversification related to Features and Capabilities	aco296	70.000	0.145	4	0.750	1.54	12.724	50.425		
B 4 	Upper Echelon and CEO Compensation	aco346	57.000	0.118	4	1.000	1.76	11.048	61.473		
B5 	Trust and Governance	aco228	35.000	0.072	4	1.000	2.57	7.474	68.947		
Total					22					0.762	0.000

Source: Prepared by the authors, based on factor analysis in SPSS and Ucinet (2021).

4.2.1 Analysis of factors for the period 2013/2018

Again, we do not present the factors in order, but in how they communicate with each other and the previous period. Factors B1 and B3 communicate and continue the surveys of factors AB1, AB2, and AB4 from the last period. Factor B5 continues with factor AB3 from the previous period. Factors B3 and B4 mainly correlate to factor AB5.

Dynamic capabilities, knowledge structure, and environmental dynamism (B1)

Six related articles express this factor (B1). The first relationship discussed links competitive advantage and opportunity exploitation. Managers form beliefs of opportunities for strategic action. The attention model identifies radical and incremental opportunities and explores ways of intentional engagement that enhance and explore strategic actions (Shepherd, McMullen, & Ocasio, 2017). This includes verifying the link between managerial cognitive ability and the micro-bases of dynamic ability (Helfat & Peteraf, 2015). This study reveals the importance of individual cognitive abilities over managerial capacity and how this can impact the performance and differential of companies.

Aggarwal, Posen, and Wriewiz (2017) highlight adaptive capacity and learning, considering interdependence and ambiguity. Routines, constancy, effectiveness, and organizational memorial, simultaneously with the company's ability to adapt to changes, lead the company to strategic commitments and different forms of change. The company's capacity and performance are related to and dependent on environmental conditions (Karna, Richter & Riesenkauff, 2016). Stable or changing environments require analysis of common, dynamic, and financial resources (environmental dynamism). For Karna, Richter and Riesenkauff, (2016), dynamic resources are superior to common ones.

In this factor, we found other types of studies, such as how companies face acquisition threats and how they affect the structure of knowledge. Managers choose to adopt company-specific knowledge accumulation strategies. Nonetheless, implementing this type of resource can be influenced by the ownership of managers and the need to align managerial interests with those of shareholders (Wang, Zhao, & He, 2016). Some of the same authors conducted a study on incentives for CEOs to stay and make investments with long-term perspectives. These specific knowledge assets involve the CEO's compensation projects or his dismissal as a company-specific knowledge source (Wang, Zhao, & He, 2017).

Enterprise diversification related to features and capabilities (B3)

The four articles that represent this factor (B3) fundamentally deal with corporate diversification based on resources. However, in a broader view, the company is a bundle of productive resources and is influenced by the capabilities to manage them (Wu, 2013). This is a

balance between available resources and capabilities in pursuing superior performance (Zahavi & Lavie, 2013; Hashai, 2015; Miller & Yang, 2016).

Market opportunities can be one of the alternatives where to apply resources, such as diversifying into new markets or mature markets (Wu, 2013), within the industry itself (Hashai, 2015), or intra-industry (Zahavi & Lavie, 2013). Going further, the company's management can assess the costs of these market opportunities, its teams' capabilities in generating products, and management's attention in maximizing resources (Wu, 2013). Therefore, corporate diversification is a process of redistributing resources, associated with companies' capabilities and how much they can diversify (Wu, 2013).

Companies may have more experience in innovation and be more likely to diversify. Likewise, if they have a relative demand maturity in current markets, they will be more likely to diversify. Diversifications are associated with a drop in performance in the current market and inversely are associated with an increase in performance at the corporate level (Wu, 2013). Either way, new businesses can be vital for companies to develop new capabilities. For managers who make decisions, this is crucial for how to enter new markets as a strategic issue and not just an allocation of resources (Miller & Yang, 2016). One strategy issue is entering a new market with human resources similar to your existing business and leaving with different human resources and confirming that business diversification leads companies to learn and develop new capabilities (Miller & Yang, 2016).

Diversification can also be within the industry itself, with new products. The opportunity to expand the product portfolio is a management concern, as costs and coordination can impact the company's performance. Hashai (2015) highlighted in his study the diversification and performance of the firm in the lens of adjustment costs and coordination costs. According to the author, there is a differentiation regarding the levels of diversification within the company; when the levels are lower, the coordination costs are insignificant and the adjustment costs are higher. At lower levels, coordination and adjustment costs are moderate, and the results are positive for the company's performance. The extensive diversification increases coordination and adjustment costs and starts to harm the company's performance. Finally, the greater the diversification rate, the more negative the company's performance will be. Likewise, Zahavi and Lavile (2013) studied diversification and performance, concluding that the article by Hashai (2015) complemented this study, and both reached the same conclusions regarding diversification and performance. Therefore, the allocation and application of resources in intra-industry products can negatively impact the performance of companies.

Trust and governance (B5)

This last factor represented by four articles essentially addresses organizational reliability and governance. The regulatory aspects will imply greater control of the process and performance in exchanges. Procedural justice partially mediates the effect of contractual complexity, while distributive justice partially mediates the impact of contractual recurrence in promoting financial performance (Poppo & Zhou, 2014). Schilke and Cook (2015) studied reliability in the alliance partner, on two sides, in the calculative perspective (represented by contractual safeguards) and in the relational perspective (on social foundations).

Poppo, Zhou, and Li (2016) return to the question of reliability in two aspects, calculated trust, based on a reward structure, and relational trust, based on past behavior characterized by a shared identity. This study breaks it down to trust relationships and supplier performance. Cuypers, Ertug, Ruer and Bensaou (2017) studied the level of governance in Joint Venture processes. Where the Joint Venture board has foreign partners and this relationship links to equity contribution. The characteristics of the Joint Venture and the host country affect the internal and external roles of the board.

Upper Echelon Theory and corporate social responsibility (B2)

The group of four articles associated with this factor (B2) is related to corporate social responsibility. Social performance risk management enhances company value. Good social practices, financial health, operating or not in socially contested environments, can represent insurance in litigation cases. In other words, there is value in the company's social performance and a possible guarantee when it is brought to litigation (Koh, Qian, & Wang, 2014). The study by Petrenko, Aime, Ridge and Hill (2016) raises the issue of corporate social responsibility or the interest of the narcissistic CEO. The results show that the narcissistic CEO can reflect a reduction in performance in corporate social responsibility. However, they can improve and reinforce the CEO's image and the levels and profiles of organizational social responsibility.

Another way of looking at organizational social responsibility is proposed by Kang (2016) and examines the CEO's behavior towards his retirement and how he makes strategic decisions. To measure, the author used corporate social responsibility as a parameter. Finally, Henisz, Dorobantu and Nartey (2014) examine the financial return for stakeholder engagement. Stakeholder support enhances the company's financial valuation, keeping asset valuation under control.

Senior Management Theory and CEO compensation (B4)

The four articles related to factor B4 involve the remuneration of CEOs first, the relationship between the CEO's role in company acquisition behaviors and their compensation.

The study covers the low-paid CEOs (relatively negative) and the well-paid (relatively positive). It shows that the low paid will choose to reduce risk in acquisition negotiations, aiming for increases in their remuneration, therefore is a relationship of opportunism (Seo, Gamache, Devers, & Carpenter, 2015).

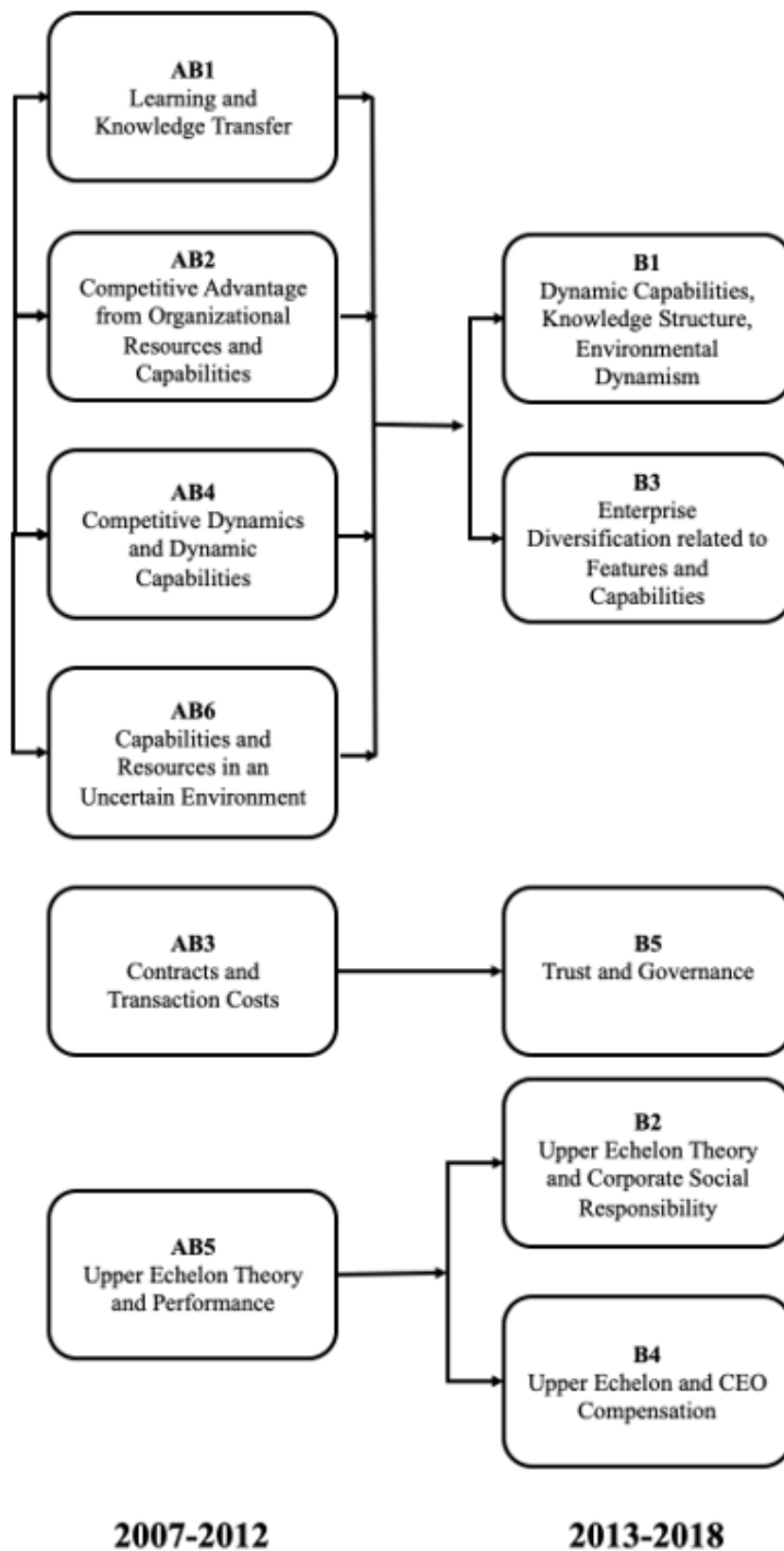
This factor developed the theory of tournaments; this theory assumes that salary levels related to executive positions, which are generally high, encourage the better performance of lower levels of employees to achieve it. For this reason, employees compete for promotions. A job and salary ranking encourages competition (Ridge, Aime, & Shite, 2015; Shi, Connelly, & Sanders, 2016). Finally, Lim and McCann (2016) also studied the remuneration of CEOs linked to the company's risk decision-making. The results suggested that positive wages have a positive effect on risk-taking.

5 Discussion

This research aimed to identify the emergence of new studies in the field of strategic management. We used bibliometric matching techniques in two periods, 2007-2012 and 2013-2018. We reviewed 12 years of publications in the most relevant journal in the area, the Strategic Management Journal. We consolidate the findings in Figure 5. The factors in the period 2007-2012 we named AB (from 1 to 6), and the factors found in the period from 2013 to 2018 we named B (from 1 to 5).

Figure 5

Comparison between the factors found in the 2007-2012 and 2013-2018 periods



Source: Prepared by the authors based on research findings (2021).

The history of studies in strategic management is aligned with environmental issues, sometimes because of the need for exogenous strategies, sometimes for endogenous strategies, or both. We observe the growth of perspectives in strategic management, such as behavioral aspects and action and decision in an environment of uncertainty (Ferreira, Fernandes, & Ratten, 2016). The results indicate an answer not only for the need to understand phenomena related to the real world (Hambrick, 2007; Helfat, 2007; Miller, 2007), but also for the increase of works that are concerned with the strategy process, including a more behavioral perspective (Hambrick, 2007; Augier, Fang, & Rindova, 2018).

We emphasize that the results show that in the first period, 2007-2012, a set of works related to research related to RBT, as verified by other colleagues in their studies (Serra et al., 2012). This research focused on using and developing resources and capabilities for appropriating value and in a dynamic environment but also related to knowledge, learning, and complementarity from collaborative strategies. In the second period of analysis, 2013-2018, the research related to capabilities seeks to understand adaptation in a dynamic environment and diversification based on environmental opportunities. In a way, this evolution is consistent with the search for the revitalization of RBT, in the quest to understand the path and development of capabilities and the orchestration of resources (Barney, Ketchen, & Wright, 2011).

Studies related to contracts and transaction costs presented in the 2007-2012 period explored aspects of trust and governance traditionally appointed to complement TCT. The most recent studies seek to work on criticisms of TCT, seeking to understand the aspects of trust and cooperation in conditions of uncertainty, which can be managed by the governance structure (Martins, Serra, Leite, Ferreira, & Li, 2010).

The emergence of studies related to behavioral aspects is mainly represented by works associated with the high-level theory (Hambrick & Mason, 1984), both in the 2007-2012 and the 2013-2018 period. It also includes aspects related to the entrepreneurial mode of action under uncertainty. The emergence of these studies responds to the need for answers to the phenomena (Hambrick, 2007) and mainly to the search for understanding the strategy process (Augier, Fang, & Rindova, 2018). The incorporation of the behavioral aspects of the strategy (Crossland & Hambrick, 2018) also seeks to respond to criticisms and challenges, for example, from the micro-foundations about resources and capabilities (Barney, Ketchen, & Wright, 2011), or aspects related to the managerial hubris and opportunism (Martins et al., 2010).

6 Final considerations

By analyzing articles published in the Strategic Management Journal in 12 years, we reached the objective of this study, which was to investigate the emergence of new studies in the field of strategic management. We analyzed the articles and identified characteristics inherent to

two analysis periods, 2007-2012 and 2013-2018. The results indicate that current research in strategy has continued to seek to respond to the criticisms and gaps of dominant theories, RBT (Barney, Ketchen & Wright, 2011), and TCT (Martins et al., 2010). The challenge of researching phenomena, and a procedural approach to strategy, as opposed to content, has intensified studies of behavioral strategy (Hambrick & Crossland, 2018).

It also identified new directions for strategy, in short, a tendency to securitize concepts into “dynamics”, such as competitive dynamics, environmental dynamics, and behavioral dynamics. It reflects the contextualization of companies, which are involved in very dynamic environments, the result of technological evolutions that are in themselves very dynamic.

Some contributions can be highlighted regarding this study. First, as the methodology, serving as a basis for further studies that want to identify how the theory of interest can behave in future moments. Second, since it promoted a discussion of studies in the field of strategy, observing theories and themes have evolved. Finally, the results show social and management aspects, which may suggest future research on the themes.

6.1 Study limitations and future studies

The implications of a bibliometric study are to select parameters for analysis. The choice of a single period - Strategic Management Journal, even being the most prominent journal in studies on strategic management, limits the research and may not cover other studies that would otherwise be interesting. The choice of the most co-cited articles in the bibliometric study is also a limitation, as the selection of articles guides the results. However, we emphasize that the matching methodology in bibliometrics has been widely used and has external validity in its results.

Proposals for future studies contemplate expanding the research to more journals that can use strategy as a proxy. Another suggestion would be to deepen the studies on each period factor, to investigate the relationships and connections of the two periods surveyed, relating antecedents, predictors, and consequences. A study covering the entire period could also have different effects from those found in this research. Finally, we propose in-depth studies of the themes that stood out in this research, whether in behavioral strategy or in the arrangements that we are observing evolution: environmental dynamics, competitive dynamics, and behavioral strategy.

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