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BEHAVIORAL AGENCY RESEARCH AND THEORY: A BIBLIOMETRIC ANALYSIS

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ABSTRACT
The behavior agency theory verifies the relationship between company executives, CEOs, and managers, their decision-making before the firm. The mechanisms of governance and the forms of remuneration come to carry out the monitoring by the internal members regarding the experience of the board of directors in order to avoid the undervaluation. This article aims to highlight the importance of agency behavior theory to firms that assign decision making to an agent and their behavior, which bring concerns commonly leading to recommendations on the planning of executive compensation plans. Through the bibliometric survey with an analysis of 107 articles, it was possible to verify that performance compensation according to agency theory is the most used mechanism in order to stimulate executives to make decisions for the growth and performance of companies. The theoretical and empirical contribution intended with these results is to foster future research in this topic because it understands that through a greater number of studies related to the behavior of the agent come to allow it to act strategically and to benefit the company, while this one develops projects to surround the improper behavior of the agent.

KEYWORDS: Behavioral agency; Corporate governance; Bibliometric.

INTRODUCTION
Behavioral agency institutional pressures and corporate responses. More broadly from the standpoint of corporate governance, corporate governance conditions, the CEO, top executives, managers, among others, can reinforce organizational resilience or substantial compliance with institutional demands (Berrone, Cruz, Gomez-Mejia and Larraza-Kintana, 2010). It can create a link between theory and practice, identifying the theoretical assumptions that served as the basis for the implementation of best practices, such as board behavior that identifies environmental conditions and board considerations (Miller-Millesen, 2003).

In this bibliometric study, we aim to better understand future gaps from the theory of behavioral agency. Generally, the models combine elements of internal corporate governance and their problems to explain the executive behavior of taking risks. Executive risk-taking varies between different forms of monitoring, and these can exhibit risk behaviors as well as risk-averse behaviors (Wiseman & Gomez-Mejia, 1998).

This study helps to better understand how agents can manage the risk inherent in their compensation package and the vulnerability of the agent to losses (Martin, Gomez-Mejia & Wiseman, 2013). The theory addressed better structure for theorizing executive pay, an improved theory of agent behavior, and an improved platform for making recommendations about executive pay plan planning (Pepper & Gore, 2015). The cognitive abilities of the individual, the intentionality of their actions and the recognition of the human and intellectual identity of the construction of a strategy to model human behavior and collective dynamics, allow the interaction between agents and monitoring mechanisms (Castañeda, 2009). In contrast, there is evidence that monitoring diminishes agents' preference for honesty, as revealed in their actual behavior. Monitored individuals were more likely to betray as compared to individuals who were not monitored (Laird & Bailey, 2016). Above all, the evidence confirms that taking risks is a combination of agency and behavioral agency perspectives (Baixauli-Soler, Belda-Ruiz & Sanchez-Marin, 2015).

The results of the study, a sample of 107 articles identified, show that surveys are addressing predominantly family businesses. Within these, the results of the studies answer questions about the remuneration of the CEO due to the risk assumed by that agent in the behavior as an executive, of taking risks. Above all, the search for answers to this research problem takes into account the demand for performance by companies. In this way, the results contribute to a better understanding of the state of art, which in most of the sociopolitical literature discussed above focuses on the behavior of the agents (CEO, senior management team, board members) rather than principles and their interests, would be the case with family members who try to preserve socio-emotional wealth. Family owners have an irrevocable bond with the company. This is also an easier target for community anger over inappropriate behaviors, especially at the local level (Berrone et al., 2010).

The next session will address the theory of behavioral agency. The next sections describe the methodological aspects, results, discussions, and conclusions of the study.

A review of Behavioral Agency studies

This work adopted a descriptive research approach through bibliometric analysis that provided an overview of the intellectual structure of the behavioral agency publications. In addition, the analysis led to the identification of significant structures and patterns in, for example, authorship, journals, research questions, theories and geographic sample and findings.

The first paper published on the subject was originated by Blair and Placone (1988), who sought to identify the existence of traditional behavior of preferential expenditure by mutual as opposed to associations in the savings and loan industry. They found evidence that the mutual form of organization is inherently prone to preferential spending behavior. It also confirmed that increasing concentration in a market does not generally encourage preference behavior over expenditure.

Finally, the most recent article is from Evert, Sears, Martin and Payne (2018). The research is from the question of how family ownership and family involvement affect the probability of initial international entry of firms. It is found that family ownership and involvement reduce the likelihood of initial international entry. However, these act as interactive substitutes in relation to the probability of initial international entry.

METHODS

The quantitative study of the literature has received different terms in the literature. This is bibliometric. The coinage of the term "bibliometric" is often credited to Pritchard (1969, p. 348) as "the application of mathematical and statistical methods to books and other means of communication." A modern definition is given by Van Leeuwen (2004, p. 374) "the field of science that deals with the development and application of quantitative measures and indicators for science and technology, based on bibliographical information." The bibliometric term is used because of the greater body of literature available for its implementation, the use of academic databases and the provision of behavioral agency theory to be studied by the social sciences, rather than scientific literature.

This study sought to analyze the national and international scientific production on the subject of agency behavior. Although the two terms have some overlap of meaning, they are not necessarily synonymous. Defining which term will be used as a decision that Hood and Wilson (2001) leave for each researcher. Therefore, for the purpose of this research. The following two research terms were studied: "Behavioral agency" or "Behavior agency." These were included in the study derived from the reading of numerous articles, only articles that explicitly mentioned the two words were searched.

This research included two databases related to literature and social science, namely "Scopus" and "Web of Science". The survey included articles and review articles on the subjects and therefore examined every possible year. In summary, Table 1 presents the general characteristics of the bibliometric study and thus allows other researchers to replicate the study. When you entered the query for the search terms, a total of 161 bibliographic records were retrieved. Using Excel software, records were organized and selected according to the following filters: duplicate records, journal articles, search words in summary, title, keywords and references, and relevance to the subject of the study. Through these procedures, 107 relevant articles were selected.

Table 1. Characteristics of bibliometric study

Search words	"Behavioral agency" or "Behavior agency”
Development date	February 2018
Databases	Web of Science (WOS)
	Scopus
Search filter	1960-2018(feb) Scopus
	1986-2018(feb) WOS
	Only on title, abstract, keywords and references
	Only article and review

Source: Originated by the authors.

ANALYSIS AND FINDINGS

Bibliometric analysis began by describing the characteristics of the data set of 107 records and the related implications. There has been a clear upward trend in the number of publications in behavioral agency, as assessed by the number of articles published. A strong increase around 2011 was followed by a second outbreak in 2014, but more than 50% of articles were published in the last 3 years between 2015 and 2018(feb). The Figure 1 shows the historical evolution of the records of publications on behavioral agency. The years not presented in the illustration, did not record publications.

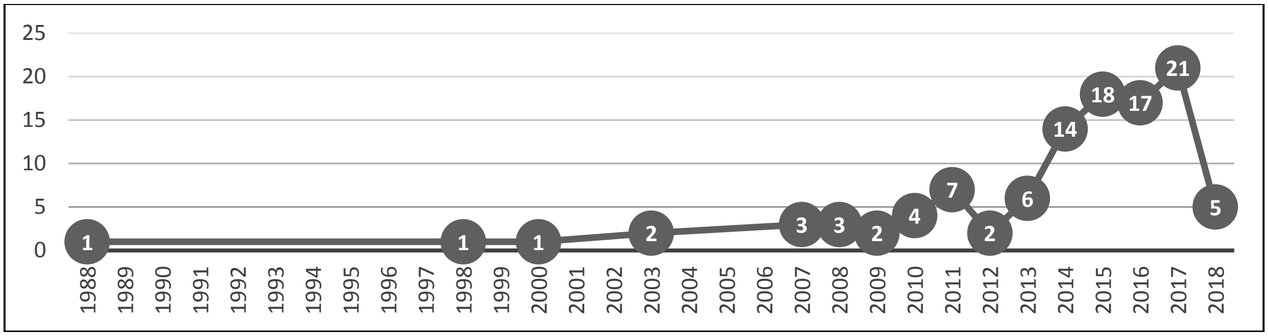

Figure 1. Research evolution
Source: Originated by the authors.

Table 2 illustrates articles categorized by featured journals, with two or more publication appearances on Behavior Agency. There are six newspapers classified according to the criteria described, which are led by the Strategic Management Journal, which has eleven publications of the sample of this study, representing more than 10% of the total publications on the subject. The second with more publications is the Journal of Business Research, with eight publications and less than 8% of the total. As for the authors who publish most about Behavior Agency, the leader is Gomez-Mejia with 14 publications (Table 3). It is also identified that the second author with the highest number of publications is Wiseman, who owns half of the articles in the sample of this study. Another point worth mentioning is the sum of publications among the ten largest authors that publish is 55 papers, which corresponds to more than 51% of the total publications on the subject.

Table 2. The most published journals in the behavioral agency research domain

Publications	Journal
11	Strategic Management Journal
8	Journal of Business Research
6	Academy of Management Journal Journal of Management
5	Journal of Family Business Strategy Journal of Management Studies
4	Entrepreneurship Theory and Practice Journal of Product Innovation Management
3	Family Business Review Management Research - The Journal of the Iberoamerican Academy of Management Organization Science Review of Managerial Science

Note. With two or more apparitions.
Source: Originated by the authors.

Table 3. Top 10 most published authors in the behavioral agency research domain

Publications	Author
14	Gomez-Mejia, LR
7	Wiseman, R.M.
6	Martin, G
5	Cruz, C
4	Hoskisson, RE
4	Larraza-Kintana, M
4	Lim, ENK
4	Miller, D
4	Pennar, A.
3	Berrone, P

Source: Originated by the authors.

The results are more revealing of the theoretical, multidisciplinary diversity of the studies, with the number of appearances of theories. The most widely used theory was the Agency Theory, as shown in Table 4. It appeared in more than 25% of all studies. However, until the fourth most cited theory, there is not much difference in appearances, the second that appeared most was Theory of family firm (26), the third was the Behavioral agency model (24) and finally the Socio-Emotional Wealth (22). These four featured together appeared in more than 92% of the studies.

Table 4. The most cited theories in the behavioral agency research domain

#	Appearances	Theory
1	27	Agency Theory
2	26	Theory of Family Firm
3	24	Behavioral Agency Model
4	22	Socio-Emotional Wealth (SEW)
5	16	Behavioral Agency Theory
6	8	Family Business
7	7	Corporate Governance
8		Prospect Theory
9		Risk Taking
10	6	Executive compensation
11		Investment in R&D
12	5	Behavioral Decision Theory
13		Firm Risk Taking (firm, strategic, agent)
14		Upper Echelons Theory
15	4	Behavioral Theory of the Firm
16		R&D intensity
17	3	Board (configuration, control, perspective)
18		Financial Performance
19		Mergers and Acquisitions (M&A)
20		Top Management Team
21	2	Agency cost
22		Behavioral Agency Perspectives
23		CEO Power Perspective
24		CEO Succession
25		Decision-making and Behavior
26		Firm Performance
27		Institutional Theory
28		R&D Spending
29		Stewardship Theory
30		Transaction Cost Economics (TCE)

Note. With two or more apparitions.
Source: Originated by the authors.

Regarding the study classifications (Table 5), the most used approach was Empirical with 80.37%, a total of 86 articles that used data collected in the field or secondarily to elaborate the work on the behavioral agency.

Table 5. Classification of the study of articles

Type	Amount	%
Empirical	86	80.37
Theoretical	20	18.69
Experiment	1	0.93
SUM	**107**	**100**

Source: Originated by the authors.

The methodology used in the articles in the sample was also verified (Table 6), classifying in six variations: quantitative; theoretical essay; literature revision; case study; qualitative and quantitative. With more than 75% of the total sample, which represents 81 articles, the methodology of the quantitative type was the most used in the sample of one hundred and seven articles. Then the theoretical essay appears, with only 14 articles, representing a little more than 13% of the studies.

Table 6. Methodology used in articles

Type	Amount	%
Quantitative	81	75.70
Theoretical essay	14	13.08
Literature review	5	4.67
Case study	4	3.74
Quali-Quanti (QQ)	2	1.87
Experiment	1	0.93
SUM	**107**	**100**

Source: Originated by the authors.

When analyzing the geographic sample of the empirical articles (86), 80.37% of the total sample, 27 individual countries were identified (Figure 2). Still, three articles used a global sample, involving all countries. The classification presented is by number of appearances in the articles, thus, especially the great appearance of articles that used the US as a sample (47). No other country accompanies such a large quantity. Right behind comes Spain (12) and then Germany and Italy with the same amount (7). Therefore, here we begin the demonstrations of gaps for future research, especially in this section, those countries that have little or no research.

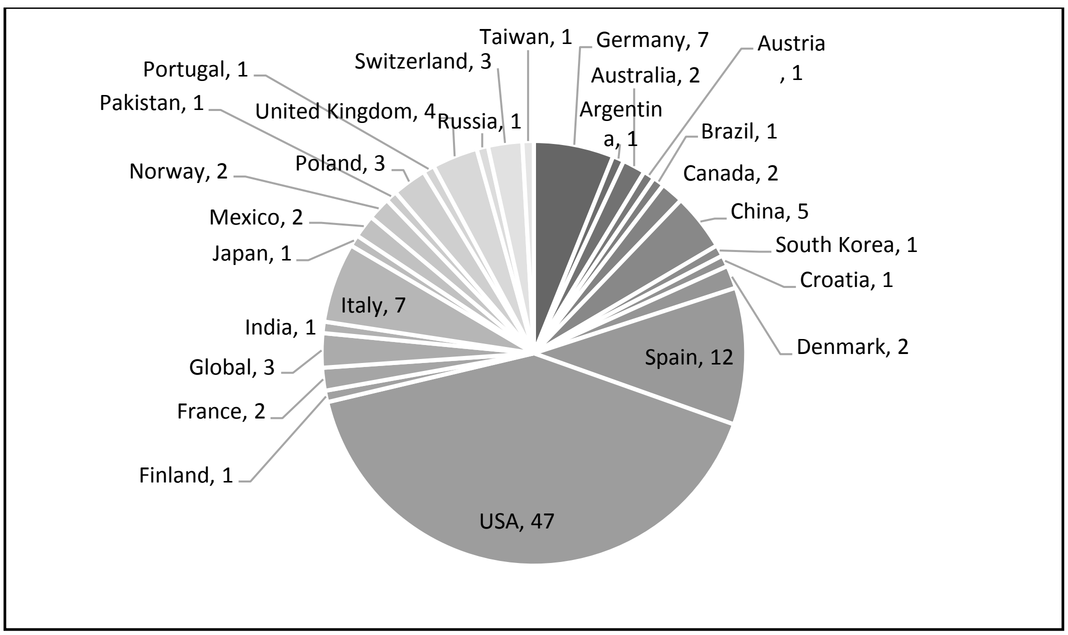

Figure 2. Geographic sample
Source: Originated by the authors.

Table 7 identifies the 30 most influential or most cited articles in our sample. Also, we present the research question and the research gaps for each article presented. An analysis of citations to identify the roles that had the greatest impact on the field, as assessed by the frequency of citations (Tahai & Meyer, 1999). The seminal work of Wiseman and Gomez-Mejia (1998) - The Managerial Risk Management Behavior Model - with his thoughts on internal corporate governance with problems framing to explain the risks of executive behavior is the most cited (454 citations). A series of articles discusses in the context of family businesses, non-family businesses and also the comparison and measurement of results before the two (Berrone, Cruz, Gomez-Mejia and Larraza-Kintana, 2010; Chrisman and Patel, 2012; Le Breton-Miller, Miller and Lester, 2011, Patel and Chrisman, 2014, Kotlar, De Massis, Frattini, Bianchi and Fang, 2013, Leitterstorf and Rau, 2014). We can also observe a significant number of studies on the role of the CEO as being at risk and the concern of companies to compensate the agency for the agency problem and especially for performance (Miller, Le Bretton-Miller, Minichilli, Corbetta, Pittino, 2014).

Table 7. Most cited documents in Behavioral Agency

#	Reference	# cit.	Research question	Research gaps
1	Wiseman e Gomez-Mejia (1998)	454	How does one give a model of executive risk-taking behavioral agency by combining elements of internal corporate governance with problem framing to explain executive risk-taking behavior?	Extensions and refinements provide a stimulus to extend corporate governance research and more broadly agency-based governance visions.
2	Berrone, Cruz, Gomez-Mejia e Larraza-Kintana (2010)	313	Compares the environmental performance of family and nonfamily public corporations	Look at the response of households controlled by households to more refined institutional pressures. Property configurations that restrict or promote socio-emotional and wealth-oriented goals; the probability of divergence may depend on the type of shareholders.
3	Chrisman e Patel (2012)	205	Family firms usually invest less in R&D than nonfamily firms?	The performance gap between family-owned companies led by founders, as opposed to successors, caused by differences in their capabilities and caused by differences in their goals. Variables as intentions of transgenerational control combined with the variables of the solitary-founder, family founder and family business.
4	Li e Tang (2010)	165	The impact of CEO hubris on firm risk taking and the moderating effect of managerial discretion on this relationship in the Chinese context?	Future research in different contexts based on deep contextualization and cross-cultural studies. Attempts to develop direct measures of subjective perceptions of CEOs about the company's risk decisions. The relationship of an executive's job demand, with the CEO's arrogance and the company's risk taking.
5	Miller-Millesen (2003)	123	What is the behavior of the board, non-profit, what structural attributes and specific processes?	Examine the degree to which non-profit boards perform qualitatively different functions as they mature or develop; The degree to which each theory actually explains the behavior of the nonprofit council; The implications of institutional pressures to conform; The practical implications of the theory-based model presented in this review.
6	Arthurs, Hoskisson, Busenitz e	109	The ties between investment banks and institutional investors may be more salient for investment banks than the	Address survivability with respect to governance and changes in board composition over time.

	Johnson (2008)		shorter-term agency relationship with a focal firm to market its IPO and thus may lead to increased underpricing?	
7	Le Breton-Miller, Miller e Lester (2011)	97	Family business owners and managers will act as farsighted stewards of their companies, investing generously in the business to enhance value for all stakeholders or the major family owners, in catering to family self-interest, will underinvest in the firm, avoid risk, and extract resources?	Examine the conduct implications of different governance arrangements, extend to the realm of smaller family businesses as the intimate and personal nature of such companies may make them ideal venues for stewardship.
8	Devers, McNamara, Wiseman e Arrfelt (2008)	88	When equity-based compensation elements will increase or decrease executive risk propensity and, in turn, strategic risk taking?	Control for factors that can moderate CEO influence on company strategy. Examine whether restricted stock affects CEO risk behavior differently. Explore how other board actions interact with share-based compensation to influence CEO risk behaviors.
9	Vos, Yeh, Carter e Tagg (2007)	86	The SME financial behavior demonstrates substantial financial contentment, or ‘happiness’?	Future SME researchers should consider their underlying research paradigm, increasing owner involvement. Testing the presumption of reality connected with happiness as a byproduct.
10	Larraza-Kintana, Wiseman, Gomez-Mejia e Welbourne (2007)	76	What is the influence of various forms of risk bearing created within the compensation contract on perceived risk taking?	Replicate our findings with methods for collecting data, since we can see that people may have a limited ability to remember past events.
11	Pukall e Calabro (2014)	60	What is the integrative theoretical model, the concept of socioemotional wealth with the revised model of Uppsala?	How the overall degree of SEW endowment and the individual dimensions of this cumulative endowment influence the process of family firm internationalization. How do different family ownership structures influence the overall degree of SEW endowment and its influence on the process of family firm internationalization?
12	Almeida, Campello e Weisbach (2011)	55	In imperfect capital markets, factors related to a firm's ability to smooth investment financing over time are relevant to capital budget decisions?	Examine the liquidity of the assets used in investments by firms undergoing large changes in leverage. Quantify the magnitude of investment distortions inside firms for economic growth and welfare.
13	Patel e Chrisman (2014)	54	The behavioral agency model suggests family firms invest less in R&D than nonfamily firms to protect their socioemotional wealth. But how family firms make R&D investments?	Look for the differences in socio-emotional wealth between family businesses and the resulting impact on risk. Consider the use of scale-based measures to directly assess the socio-emotional wealth and strategic intentions of family businesses.
14	Sanders e Carpenter (2003)	54	How stock repurchase programs are used to help top managers appease shareholders?	What extent is the signal relayed through a stock repurchase announcement a reliable indicator of future cash flow improvement or overall success? Do firms routinely reap above-average returns from their executed open market repurchases? Examine whether there are ways to distinguish signals?
15	Gomez-Mejua, Cruz e Imperatore (2014)	46	What drives discretion in financial reporting in firms in which there is no separation between ownership and control and in which managerial discretion is limited by the presence of a controlling owner?	Examine whether family owners are more or less likely to manipulate earnings or provide additional information if they are particularly concerned about the maintenance of social ties and/or assuring a positive legacy for the family. Explore how changes in relevance of control maintenance and image preservation as main reference points of the firm affect the financial reporting decisions of family

				principals. Examine the different financial reporting implications of managerial entrenchment between family and non-family firms.
16	Martin, Gomez-Mejia e Wiseman (2013)	46	The anticipation of prospective wealth attenuates the negative effect of accumulated current equity wealth upon CEO strategic risk taking?	Look for measures that directly capture risk management strategies beyond the availability of hedging with put options. Examine the behavioral effects of different hedging strategies.
17	Kotlar, De Massis, Frattini, Bianchi e Fang (2013)	44	How the involvement of a controlling family affects decisions in technology and innovation management and specifically external technology acquisition?	Taking a cross-country perspective. Measure family goals and further extend the understanding of the link between family involvement and family goals consistently with a more heterogeneous view of family firms.
18	Wu e Tu (2007)	41	What the relationship between CEO stock option pay and a firm's R&D spending?	Compare whether the findings of this study are applicable to innovation output. Examine how CEO option pay and other governance structures interact with each other to influence the R&D investment.
19	Block, Miller, Jaskiewicz e Spiegel (2013)	37	What the economic and technological importance of innovations in family and founder firms?	Search for a period after 2003. Research the degree of science harvesting by family and founder firms.
20	Miller, Le Breton-Miller, Minichilli, Corbetta, Pittino (2014)	33	Which the conditions of ownership and leadership that promote superior performance among non-family CEOs of family firms?	Replicate the findings in other countries and firm types, and to show additional institutional or cultural conditions that affect the relationship between governance structures and performance in family firms. Investigate owners' and leaders' motivations and talents in greater depth to discern just how family involvement shapes financial and non-financial performance.
21	Blair e Placone (1988)	32	What is the result of tests for the existence of traditional expense-preference behavior by mutual as opposed to stock savings & loan associations?	Identify the source of the highest personnel costs estimated for smaller stock associations. Find out if there are relatively high-priced staff in these offices or if the offices have better carpets and furniture (expense preference).
22	Villena, Gomez-Mejia e Revilla (2009)	29	What human resource factors that induce supply chain executives (SCEs) to make decisions that foster or hinder supply chain integration?	Analyze the extent to which Supply Chain Executives, unlike other senior executives, can influence their firms' stock prices. Examining the conditions when bilateral dependence, power imbalance, and information asymmetries among supply chain partners increase the Supply Chain Executives risk bearing. Future research might develop multiple-item scales.
23	Capezio, Shields, O'Donnell (2011)	26	Is the board's structural independence and the application of results-based incentive plans by boards to be important border conditions for the performance of the CEO's compensation performance?	Address a broader range of performance criteria: results-based and behavioral; financial and non-financial; based on multiple stakeholders, as well as focused on the shareholder.
24	Lim, Lubatkin e Wiseman (2010)	26	Under what specific conditions of ownership are family-owned privately owned businesses more likely to be involved in risks?	A more complete theoretical model may necessitate the consideration of environmental and individual factors.
25	Carney, Van Essen, Gedajlovic e Heugens (2015)	23	What are the strategic choices and performance results of privately held family businesses?	Apply theories that are alert to the moderating effects of institutional contexts and the mediating effects of strategic differences among family firms functioning at different stages of their organizational life cycle.

26	Kraiczy, Hack e Kellermanns (2015)	22	How does the organizational context of family businesses interact with the CEO's risk-taking propensity to affect the innovative capacity of the new product portfolio?	Apply the analysis to different industry sectors and geographic regions. Use longitudinal research drawing.
27	Leitterstorf e Rau (2014)	22	Family firms are willing to sacrifice economic gains in order to preserve their noneconomic utility?	Future research should apply to more active capital markets such as the United States and to different institutional settings such as Asia.
28	Kotlar, Fang, De Massis e Frattini (2014)	21	Do family managers form distinct benchmarks that capture the vendor's bargaining power? And what are they used for?	Use other sampling frames, other industrial sectors, and outside of Spain.
29	Pepper e Gore (2015)	20	What are the micro-foundations of agency theory, especially with regard to executive compensation, based on agent behavior?	Develop behavioral agency theory, in testing it empirically, and in identifying other implications for business practice.
30	Zona (2012)	18	Which the innovation investment during the major economic downturn of 2008–2009? And how, during global crises, the board of directors can affect the CEO’s proclivity to invest by leveraging performance management devices?	Explore the role of other organizational factors in shaping executives’ risk preferences at the top. Examine how other organizational factors influence the CEO/ board relations in the context of the behavioral agency model and the role of other organizational factors in shaping CEO risk preferences and investment during economic downturn.

Source: Originated by the authors.

CONCLUSIONS AND PROSPEROUS AVENUES

Bibliometric methods reveal a great potential for the quantitative confirmation of subjectively derived categories in published evaluations, as well as to explore the research scenario and identify categories. Most articles found have their approach to family businesses. One of the motivations may be given to larger family businesses. In smaller ones, from the point of view, the intimate and personal nature of such companies can make them ideal places for administration (Le Breton-Miller, Miller & Lester, 2011).

Behavioral agency theory provides a better framework for theorizing executive pay, an improved theory of agent behavior, and an improved platform for making recommendations about planning executive compensation plans (Pepper & Gore, 2015). Boards chaired by non-executives and dominated by non-executive directors are no longer adept at mandated pay performance by CEOs than executive-dominated boards (Capezio, Shields, & O'Donnell, 2011). These mechanisms reward the long-term benefits of social capital accumulated by CEOs through greater proportions of contingency payment (Fralich & Fan, 2015; Pepper & Gore, 2014). The board as a monitor instrument should always specify the criteria for the analysis of expectations and decision of the agents. The theory about behavioral logic is composed of a set of individual rules, their simplicity does not imply that their formulation is not always based on realistic elements of human behavior (Castañeda, 2009). On the other hand, when external mechanisms are rigorous, such as activist shareholders, the threat of an acquisition, or zealous securities analysts, top managers are more likely to engage in financial misbehavior (Shi, Connelly, & Hoskisson, 2017).

The risk of employment and the variability in remuneration lead to greater risk-taking, but the risk of falling and the intrinsic value of stock options correspond to lower risk-taking (Larraza-Kintana, Wiseman, Gomez-Mejia, & Welbourne, 2007). CEO-based compensation significantly influences strategic risk. Capital wealth creates risk, leading to less risk-taking (Devers, McNamara, Wiseman, & Arrfelt, 2008; Martin, Gomez-Mejia, & Wiseman, 2013). Lim (2017) attributes current wealth to providing risk reduction as CEOs seek to protect their options, but future wealth increases risk-taking due to a longer option payoff horizon. Stock options may not have their intended effects on anxious executives, as the risk-averse tendencies of these executives can offset the incentive properties of the options (Mannor, Wowak, Bartkus, & Gomez-Mejia, 2016). Yet, while managers can identify countless solutions through their detection capabilities, solutions depend on their risk preferences as a result of their framing as gain, as neutral or as a loss (Somsing & Belbaly, 2017). It is still found that agency disputes between controlling shareholders and minority shareholders arise when the dispersion of ownership decreases. This still affects the adoption of Enterprise Risk Management (ERM). However, when the property is more dispersed, the company places more focus on ERM projects (Mafrolla, Matozza, & Amico, 2016).

Results from the US restaurant industry study have prompted overconfident CEOs, despite having stock-based compensation, to tend to take more strategically risky investments. Replicated studies in other industries or countries could provide a broader understanding of how share-based compensation influences strategic risk-taking (Seo & Sharma, 2018). Companies in economies with less developed markets will not only take different amounts of investment but will also take safer and short-term projects, thus making them less profitable (Almeida, Campello, & Weisbach, 2011). Instead of seeing how Ang et al. (2000), which showed that agency costs are higher when non-managers manage the business, it is possible to see in Vos and Roulston (2008) that increasing owner involvement increases profitability and does not see financial frustration. In the structure of the analysis of SME financing decisions, as in Berger and Udell (1998), we can see the financial satisfaction. It is necessary to better understand the behavioral processes that lead to strategic decisions in innovation between family firms and in comparison, with non-family firms (Kotlar, De Massis, Frattini, Bianchi, & Fang, 2013).

In the line of investment in innovation, when the CEO perceives higher levels of company effectiveness, the risk of this is positively related to R & D performance results, based on the resonance of the invention, in citation of subsequent patents originating from patents registered by the company (Martin, Washburn, Makri, Gomez-Mejia, 2015). Another strand is slack resources. The positive impact of paying CEOs' stock options on R & D spending is more prominent when off-balance (Tu & Wu, 2007). Against unfavorable events, in order to alleviate the risk aversion that normally affects executives, the greater the volume of resources, the more investment in innovation during a global crisis (Zona, 2012). For CEOs who hold the wealth of current and future options, the probability of bankruptcy weakens and increases risk-taking, respectively, than these negative deviations from the agent, while the slack facilitates risk-taking in the context of positive deviation.

It is possible to visualize a large amount of research in context and using family business theory (Table 4 and Table 7). There is a subtler understanding of the heterogeneity of family control over key strategic actions (Evert, Sears, Martin, & Payne, 2018). Still, family companies pay less attention to the adoption of ERM (Mafrolla, Matozza & Amico, 2016). Non-family members may also accept nepotist practices when they perceive a genuine concern for the well-being of the family that owns them (Firfiray, Cruz, Neacsu, & Gomez-Mejia, 2018). The presence of the family on the board also outweighs the benefits of having selected equilibrium succession mechanisms, be it a greater emphasis on socioemotional wealth or less effective succession mechanisms (Minichilli, Nordqvist, Corbetta, & Amore, 2014). Finally, executives in family businesses are important because of their influence on risk exposure and financial performance. The behavioral agency brings the family's desire to maintain socio-emotional wealth, as well as to ensure the performance and survival of businesses (Miralles-Marcelo, Miralles-Quiros & Lisbon, 2014), as well as family owners, can be influenced by the potential of gaining socio-economic wealth by investing in R & D (Gomez-Mejia, Campbell, Martin, & Hoskisson, 2013).

Unethical behavior, agency problems, CEO compensation and risk change are some of the side effects of shareholder wealth maximization (SWM) (Yahanpath & Joseph, 2011). Studies will be important in determining the motivation, especially of agency problems. Some other mechanisms to mitigate these problems need empirical research, such as hiring altruistic individuals at the expense of personal interests; specifying in a restricted way the activities of the employees; emphasizing incentive mechanisms based on inputs and intrinsic; and invest in non-intrusive monitoring mechanisms (Rivera-Santos, Rufín, & Wassmer, 2007). It is also suggested that the combination of the proposition in understanding whether and how the dimensions of socio-emotional wealth (SEW) affect the decision-making of family firms, and this affects the performance of firms, with elements of existing organizational theories that are based on the economy, such as resource-based view, transactional cost, and property rights (De Castro, Crespi-Cladera & Aguilera, 2016). Another way to research is the distribution of gender within the high management level. Baixauli-Soler, Belda-Ruiz and Sanchez-Marin (2015), isolate the female gender and find that in which there is the female representation, there is a more conservative behavior compared to the genderless.

Finally, bibliometric methods do not replace extensive reading and synthesis. Bibliometrics can reliably link publications, authors or journals, and produce tables, maps, and graphs of published research, but it is up to the researcher and your knowledge of the field to interpret the findings - which is the hardest part.

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