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Humility in organizations: a bibliometric study

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Abstract

Humility is a characteristic little studied in the organizational environment. The interest in research on humility started to gain some representativeness this century. However, literature reviews on humility in management are rare, making it necessary to systematize the relevant knowledge in this field. This research highlights the intellectual structure of the domain, the current studies, and research opportunities associated with humility in organizations. A bibliometric study was carried out from 2000 to 2020, and activity and relationship indicators, such as co-citations and bibliographic coupling, were analyzed. Results show three major thematic lines that make up the intellectual structure of the field: (i) concepts, antecedents, and organizational attributes, (i) methods and scales, and (iii) behavioral issues. This research is organized on four major fronts: (i) expressed humility, (ii) humility and CEOs, (iii) humility and teams, and (iv) humility and organizational behavior. Finally, an agenda for future research is presented, emphasizing the analysis of how expressed humility and humble behavior can be taught and internalized in the organizational culture.

Keywords: Humility. Humility in organizations. Organizational behavior. Bibliometric.

A humildade nas organizações: um estudo bibliométrico

Resumo

A humildade é uma qualidade pouco estudada no ambiente organizacional. O interesse pelas pesquisas acerca da humildade passou a ganhar alguma representatividade a partir deste século. Contudo, as revisões de literatura sobre a humildade na gestão são raras, tornando-se oportuna a sistematização do conhecimento relevante deste campo. Evidenciar a estrutura intelectual do domínio, as pesquisas atuais e as oportunidades de investigação associadas à humildade nas organizações é o objetivo desta pesquisa. Para tanto, foi realizado um estudo bibliométrico no período 2000-2020, e analisados indicadores de atividade e relacionais — cocitações e acoplamento bibliográfico. Os resultados mostram três grandes linhas temáticas que compõem a estrutura intelectual do campo: (i) conceitos, antecedentes e atributos organizacionais., (ii) métodos e escalas, e (iii) questões comportamentais. As pesquisas atuais estão organizadas em quatro grandes frentes: (i) humildade expressa, (ii) humildade e *CEOs*, (iii) humildade e equipes, e (iv) humildade e comportamento organizacional. Ao final é apresentada uma agenda de pesquisa futura, com destaque para a análise de como a humildade expressa e os comportamentos humildes podem ser ensinados e internalizados na cultura organizacional.

Palavras-chave: Humildade. Humildade nas organizações. Comportamento organizacional. Bibliometria.

Humildad en las organizaciones: un estudio bibliométrico

Resumen

La humildad es una cualidad poco estudiada en el entorno organizacional. El interés por la investigación sobre la humildad comenzó a ganar representación a partir de este siglo. Sin embargo, las revisiones de la literatura sobre la humildad en la gestión son escasas, por lo que es oportuno sistematizar los conocimientos relevantes en este campo. Evidenciar la estructura intelectual del dominio, la investigación actual y las oportunidades de investigación asociadas con la humildad en las organizaciones es el objetivo de esta investigación. Para ello, se realizó un estudio bibliométrico en el período 2000-2020, y se analizaron indicadores de actividad y relacionales – cocitación y acoplamiento bibliográfico –. Los resultados muestran tres líneas temáticas principales que conforman la estructura intelectual del campo: (i) conceptos, antecedentes y atributos organizacionales, (ii) métodos y escalas, y (iii) cuestiones de comportamiento. La investigación actual se organiza en cuatro frentes principales: (i) humildad expresada, (ii) humildad y directores ejecutivos, (iii) humildad y equipos, y (iv) humildad y comportamiento organizacional. Al final, se presenta una agenda de investigación futura, con énfasis en el análisis de cómo se pueden enseñar e internalizar la humildad expresada y los comportamientos humildes en la cultura organizacional.

Palabras clave: Humildad. Humildad en las organizaciones. Comportamiento organizacional. Bibliometría.

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INTRODUCTION

Research on humility has historical roots and is present in several fields of knowledge (Frostenson, 2016). The multidisciplinary nature of the phenomenon can be observed in the distribution of publications by different macro research areas¹, in which the fields of Psychology (23%), Philosophy (17%), Theology (12%), and Health (9%), concentrate almost two thirds of the publications. The Management and Business areas together account for less than 8% of the total number of verified publications, confirming that humility is little studied in this field, and little recognized as a corporate value in the administration and management literature (Anand, Walsh, & Moffett, 2019).

The interest in research on humility started to gain some representativeness from this century, when the volume of publications on humility more than doubled in relation to the immediately previous years, and it continued in positive its growth, in particular, from the last ten years. In this sense, confirming the emerging character that the topic of humility has acquired in this decade, we identified that the volume of publications in 2020 (596) is almost six times greater than that of 2010 (101). In the organizational context, the growing interest in the topic has increased in the last decade, in parallel to the ethical scandals and corporate frauds (e.g., Lehman Brothers, Parmalat, Worldcom, Enron, Volksvagen) that have shown that values such as humility; are essential for decision making (Vera & Rodriguez-Lopez, 2004). Even in the face of this new context, many authors claim that humility is a virtue little studied in the organizational environment, due to the conceptual and methodological challenges surrounding the topic (Anand et al., 2019; Davis, Worthington, & Hook, 2010).

Considering the recent interest for the topic of humility in organizations, the analysis and systematization of relevant knowledge is perceived as timely, identifying the evolution of its scientific domain and opening space for signaling gaps, and directing future research (Paul & Criado, 2020). In this sense, as a part of a literature review, quantitative bibliometric works can deal with a wealth of data, filter important articles by estimating their impact, and discover the thematic structure underlying the field, dealing with a supplementary spectrum to traditional narrative literature review studies (Zupic & Cater, 2015). Research by Zupic and Cater (2015) indicate that publications of bibliometric studies in the area of Management and Business have been growing more rapidly in some sub-areas, such as that of Strategy in Organizations, and that of Innovation, Technology and Entrepreneurship, while the growth is slower in the subarea of People Management and Labor Relations, opening an opportunity for bibliometric review studies associated with this subarea.

Hence, considering the complexity of the construct, the opportunity for works that use bibliometric studies, this study aims to highlight the domain's intellectual structure, and the current research and theoretical gaps associated with humility in organizations, based on the bibliometric study of the scientific field, from 2000 to 2020. In this sense, the study intends to contribute to the organizational literature in the field of administration and to open space for a greater understanding of the main research fronts of humility in organizations, a theme still little explored in the organizational context.

Finally, this article is organized in six parts: in addition to this introduction, in the second part, a literature review on humility – concepts and their application in organizations – is presented. In the third part, systematic review studies in this field are shown. In the fourth part, the methodological references for the analysis of this bibliometric study are presented. In a fifth part, the intellectual structure of the investigated field, the current state of the art, and the main themes studied are highlighted. Finally, last considerations for future research in the field are addressed.

¹ Data collected on the Web of Science database on April 17, 2021, whose total set is equivalent to 4,027 documents, based on research of articles with humility or humble terms, and with publication in English, in accordance with the methodological design of this research, which will be detailed in the 4th part of this study.

HUMILITY

Conceptualizing humility

The word humility comes from the Latin *humilitas*, which translation reminds us of the earth beneath us, referring to something fundamental within the individual (Argandona, 2015). Humility is considered an ethical value (Jennings, Sovereign, Bottorff, Mussell, & Vye, 2005) and a moral value of individuals (Murray, 2001), and, according to Morris, Brotheridge, and Urbanski (2005), it does not involve self-humiliation or excessively positive self-esteem, presenting itself in three connected and distinct dimensions: self-awareness, openness to others, and the transcendence of oneself to others. In this sense, humility reveals a greater human sensitivity to oneself and to the relationship with others, reflecting the desire to acquire a sophisticated awareness of one's own strengths, as well as weaknesses, in an active engagement in relationships with others and in consideration of something greater than the self or beyond personal interests (Nielsen, Marrone, & Slay, 2010). Humility is more than being modest, it's being aware of one's imperfections, open to new ideas, holistic and appreciative (Tangney, 2000), it can be a positive human trait, which is both stable and long-lasting, based on a self-perception that something greater than the self exists (Ou et al., 2014).

The understanding of humility considers the intrapersonal and interpersonal dimensions (Davis et al., 2010). These dimensions can be observed in an interconnected way, since the humble person has high self-knowledge, as he/she can understand his/her own strengths and weaknesses (Nielsen et al., 2010), in allusion to the intrapersonal approach, as well as when he has an aptitude for emotional management, showing ability for self-control (Morris et al., 2005), in line with the interpersonal approach. The interdependence of visions holds that humility is practiced for the development or improvement of the agent and for the service to others (Davis et al., 2011).

The definitions and dimensions of humility run through a complex phenomenon (Nielsen & Marrone, 2018), making its measurement even more challenging. This measurement of humble behavior can consider both the measures of the general construct and the measures of the subdomains of the construct. The first, more associated with personality traits and, therefore, more lasting; and the latter, more susceptible to the effects of the context and its impact (McElroy-Heltzel, Davis, DeBlaere, Worthington, & Hook, 2019).

Humility in organizations

Studies on the topic of humility have historical roots and are present in several fields of knowledge such as Psychology, Philosophy, Theology, Ethics, and Management, among other areas (Frostenson, 2016). The term has lost its luster in the modern era due to its possible unworthy connotation and association with low self-esteem (Tangney, 2000), but recently, new theories started to portray humility as a strength and a talent (Argandona, 2015).

The importance of humility in management has been grounded in recent studies (Argandona, 2015; Frostenson, 2016). Identifying the humble behaviors expressed within the organizational environment, in the interpersonal dimension, and as a measure of general construct, means recognizing: (i) manifested willingness to see the self accurately (ii) appreciation of others' strengths and contributions and (iii) teachability: showing openness to learning, feedback, and new ideas from others (Owens, Johnson, & Mitchell, 2013).

Many empirical studies (e.g., Davis et al., 2017; Ou et al., 2014; Owens & Hekman, 2012, 2016; Rego et al., 2019; Rowatt et al., 2006) provide support for considering humility as a positive and effective quality for individuals, teams, and organizations (Nielsen et al., 2010). In these works, the authors analyze the role of humble leadership in engagement and learning (Nielsen & Marrone, 2018; Owens, Rowatt, & Wilkins, 2011), as well as in motivation (Owens & Hekman, 2012), and in resilience (Zhu, Zhang, & Shen, 2019). They also assess its effect on responsiveness (Prayag, 2018), on the well-being of followers (Zhong, Zhang, Li, & Zhang, 2019), and on innovation and creativity (Chen, Liu, Wang, & Hu, 2021; Hu, Jiang, Erogan, & Bauer, 2018; Mallén, Domínguez-Escrig, Lapiedra, & Chiva, 2020; Wang, Li, & Yin, 2020). Additionally, these studies consider the effect of humility on interpersonal relationships, and on cooperative relationships in the workplace (Owens et al., 2013; Rego, Cunha, & Simpson, 2018).

A relevant aspect for the understanding of humility in organizations is associated with the leader's behavior towards his followers (Argandona, 2017). The leader humble behavior is contagious to the team (Owens & Hekman, 2016), by promoting information sharing and joint decision-making (Ou, Waldman, & Peterson, 2018), in addition to a more constructive organizational climate,

and teamwork (Ali, Li, Khan, Shah, & Ullah, 2020). As for followers, regarding humility in organizations, those who express a genuine humble behavior are considered more competent and trustworthy by their leaders (Yang, Zhang, & Chen, 2019). Followers' confidence in their leaders tends to diminish when the first perceive that their leaders' speeches and humble behaviors are misaligned (Bharanitharan, Chen, Bahmannia, & Lowe, 2019; Swain & Korenman, 2018).

Finally, the empirical research by Maldonado, Vera, and Ramos (2018) synthesizes the factors that describe the characteristics of a humble organization: self-assessment and awareness, tolerance for errors, transparency and honesty, openness to the surroundings, people development and, finally, recognition of members. In humble organizations there is more freedom to accept mistakes and failures, new ideas are not censored or silenced, and a participative corporate context is echoed, in which members feel confident in sharing their views (Vera & Rodriguez-Lopez, 2004).

LITERATURE REVIEWS ON HUMILITY IN ORGANIZATIONS

Literature reviews on humility in organizations are rare and have started to present themselves to the field from the last ten years. In Box 1, we summarize the main works of literature review in organizations, published from 2000 to 2020, in chronological order, with their respective objectives.

These studies focus on three different approaches: (i) conceptual, in which it seeks to explore the definitions of humility in organizations, (ii) methodological, with a scale for measuring humility in the organizational context, and (iii) functional, which addresses the role that humility plays in organizational behavior. These works address the humility in organizations from the systematic review of the literature in the field, without a bibliographic spectrum that favors the understanding of the intellectual structure of the theme, and the identification of knowledge gaps for future research. Therefore, in order to identify the intellectual structure, the current state of the art, and the gaps in the knowledge domain of the humility construct in organizations, a bibliometric study was carried out, as it is effective for this type of investigation, providing methodological rigor through a systematic and reproducible technique, as we will detail below (Serra, Ferreira, Guerrazzi, & Scaciotta, 2018).

Box 1

Major literature review publications on humility in organizations

References	Objetive of work
Morris et al. (2005)	Explore the potential nexus between humility and leadership.
Owens et al. (2011)	Discuss the historical roots, meaning and antecedents of humility; the growing relevance of humility in organizations.
Chiu, Huang, and Hung (2012)	Provide a definition of humility that allows you to explore the differences between Western and Chinese views of humility.
Argandona, (2015)	Explain the basic traits of humility in general, and how they are manifested in the manager's life and profession.
Frostenson (2016)	Argue that humility reflects the interdependent nature of business.
Wallace, Chiu, and Owens (2016)	Create a new theoretical view on how leader's humility and the characteristics of the team members promote conditions for a shared leadership.
Argandona (2017)	Determine the role of virtues in general, and humility in particular, when applied to managerial work.
Nielsen and Marrone (2018)	Seek greater consensus on the definitions and concepts of humility.
McElroy-Heltzel et al. (2019)	Present a critical review of 22 measures of humility.

Source: Elaborated by the authors.

METHODOLOGICAL DESIGN

Bibliometric

The term *bibliometric* shows the mathematical and statistical analysis of recurrence patterns that are evident in the publication and use of documents (Diodato, 1994), and their metric studies allow the presentation of a relevant scientific mapping to the research topic in the field of metric studies (Van Eck, & Waltman, 2010). The procedures of this study followed the classic laws of bibliometric studies: (i) Lotka's Law, associated with authors' productivity, (ii) Bradford's Law, associated with the dispersion and relevance of journals, and (iii) Zipf's Law, associated to the themes in the field.

The maturation of the field of bibliometric studies improved the application of bibliometric laws, revealing specific techniques that allow identifying both the indicators of scientific activity – focusing on productivity, measuring production volume and impact – and the relationship indicators – with attention to the interactions that occur in the scientific community, and its multiple associations and relationships in a given scientific domain (Callon, Courtial, & Penan, 1995).

The existence of databases for the storage of bibliographic information encourages the use of bibliometric techniques anchored in the study of citations (Mingers, & Loet, 2015). The analysis of citations starts from the premise that the authors cite documents that they consider important in the development of their research (Ramos-Rodríguez & Ruíz-Navarro, 2004), thus revealing how the process of building their knowledge takes place. Therefore, the citation is taken as an objective reference of the scientific dialogue, highlighting the relationship between published documents and their authors (Grácio, 2016).

Bibliometric studies have relied on visualization techniques, supported by software with great operationalization capacity, which support bibliometric mapping through mathematical and statistical resources, in order to better understand the information networks, present in the investigated scientific field (Borner, Chen, & Boyack, 2005; Calero-Medina, & van Leeuwen, 2012). In this way, scientific mapping becomes a combination of a classification and visualization (Boyack, & Klavans, 2014).

Data collection

Bibliometric data was compiled using the Thomson-Reuters *Web of Science (WoS)* Index, the citation database widely used in previous studies, due to its comprehensive coverage of social sciences publications (Most, Conejo, & Cunningham, 2018; Neuhaus & Daniel, 2008), and data was collected on April 17, 2021. Considering the multidisciplinary nature of the construct investigated, and the scope of this study being centered on the phenomenon of humility in organizations, all the journals, available in the database, in the research areas of *Business and Management*, natural domains of this investigation, were brought up. Furthermore, considering the emerging character of publications about humility in organizations in this century, it became plausible to insert, for data collection, the temporal delimitation between the years 2000 and 2020.

The research used articles published in journals of English language, as a reference. These are articles that are commonly certified and submitted to critical review by other researchers, achieving success in their approval for publication (Callon, Courtial, & Penan, 1995), and that portray the main language of science (Tardy, 2004). The selection of articles considered the keyword humility or humble* in the topic field, which delimits the search in the title, abstract and keywords. The asterisk that follows the searched keyword allows, in this case, the term to be considered in the singular and plural. The information was captured in * .txt format, and later it was organized for treatment and analysis with the support of the Microsoft-Excel system, year 2019, version 2103. The data were corrected for errors, the most common of which were misspellings in the titles and inconsistency in the use of capital letters. The different edition numbers, as well as the different forms of spelling of the authors' names were harmonized.

Considering the need for data mining of the data set, in light of the exhaustive, modern and impactful character that a bibliographic base must have, and still in line with the classic laws of bibliometric, several steps were applied, as shown in Figure 1. Six steps are detailed here: (i) exclusion of journals associated to topics such as: consumer marketing, organizational communication, public relation, gender, nursing, tourism, diversity, history business, and arts were not considered, as misaligned to the research interest, (ii) exclusion of articles whose title or abstract were related to the "honesty-humility" assessment theme because they associate humility with fronts substantially linked to psychological studies of personality, (iii) use of a filter that considers only the classification of journals on Journal Citation Report (JCR), published by Clarivate, year 2019, greater than 1.4., (iv) exclusion of articles' whose titles and abstracts were associated to subjects such as:

psychology, anthropology, aesthetic, economy, and life history were not considered, as misaligned to the research interest, (v) support of Proknow-C methodology (Tasca, L. Ensslin, S. R. Ensslin, & Alves, 2010), which suggests a filter from the most cited articles, the reinclusion of most recent articles, and those whose authors have been listed so far, with further refinement derived from rereading the articles' abstracts, (vi) although humility makes up the specific attributes of servant leadership (Mittal & Dorfman, 2012; Van Dierendonck & Nuijten, 2011) and inclusive leadership (Randel et al., 2018), in this study, with regard to leadership theories, these articles were also excluded. In the selection of works, relative to leadership, we included only articles referring to the practices of the humble leader (Owens & Hekman, 2012). The final set of data, presented in Box 2, comprised 36 articles, with 102 authorships, 2048 citations, and distributed in 20 journals, and corresponds to the sample of this research.

(-6)1. Exclusion of articles prior to 2000-2020 304 2. a. Exclusion of journals misaligned with the Selection of Database topic of this research (-154)(Web of Science-WoS) b. Exclusion of articles which title or abstract 150 were related to the "honesty-humility" c. Exclusion of Journals < A1 Û Selection of Keywords 3. Exclusion of articles which title or abstract (-22)"humility" or "humble*" were misaligned with the objective of this 128 4027 research ① 4. Procwork methodology (-105)a. Selection of most cited articles 23 Selection of Areas "Management" & "Business b. Reinclusion of most recent articles and (+17)310 those whose authors have been listed so far c. Further refinement, derived from rereading (-4)the articles' abstracts 36 (articles related to servant leadership and inclusive leadership)

Figure 1
Data Collection Steps

Source: Elaborated by the authors.

Analysis

This study applies a two-phase bibliometric procedure consisting of: (1) analysis of activity indicators; (2) analysis of relationship indicators. Bibliometric analyzes have traditionally been divided into categories that generate activity indicators, providing data related to the strength of impact and influence of research efforts, or even relationship indicators, presenting the links and the interaction between different researchers and different fields of research. The analysis of citation and co-citation are the most used techniques to obtain respectively these indicators (Cobo, López-Herrera, Herrera-Viedma, & Herrera, 2011). The activity indicators of this research were measured, considering the unit of analysis: authors, articles, and most influential journals within the sample. The relationship indicators were compiled in Box 3, which presents details of their concepts and propositions. In this block of relationship indicators, the study used the unit of analysis 'article' as a basis (McCain, 1990), in line with the objectives of this research, focused on the themes that make up the knowledge base in the field of humility in organizations. Articles with more than ten citations were considered for the analysis of co-citation, in order to facilitate the understanding of the representativeness of the field. The use of citations from articles published in research journals is a standard practice that increases the reliability of research results (Ramos-Rodríguez & Ruíz-Navarro, 2004). Furthermore, it is about understanding the references that support the state of the art of a field of knowledge (Grácio, 2016).

Box 2 Sample collected for this research

<u>□</u>	Author	Title	Year	Citations	Journal	JCR
П	Owens, B. P., & Hekman, D. R.	Modeling How To Grow: Na Indutive Examination of Humble Leader Behaviors, Contingencies, and Outcomes	2012	223	Academy of management journal	7,525
7	Owens, B. P., Johnson, M. D., & Mitchell, T. R.	Expressed Humility in Organizations: Implications for Performance, Teams, and Leadership	2013	195	Organization science	2,782
е	Ou, A. Y., Tsui, A. S., Kinicki, A. J., Waldman, D. A., Xiao, Z. X., & Song, L. J.	Humble Chief Executive Officers' Connections to Top Management Team Integration and Middle Managers' Responses	2014	192	Administrative science quarterly	8,304
4	Morris, J. A., Brotheridge, C. M., & Urbanski, J. C.	Bringing humility to leadership: Antecedents and consequences of leader humility	2005	190	Human relations	3,600
2	Collins, J.	Level 5 leadership: The triumph of humility and fierce resolve	2001	167	Harvard business review	5,694
9	Owens, B. P., Wallace, A. S., & Waldman, D. A.	Leader Narcissism and Follower Outcomes: The Counterbalancing Effect of Leader Humility	2015	135	Journal of applied psychology	5,818
7	Owens, B. P., & Hekman, D. R.	How Does Keader Humility Influence Team Performance? Exploring The Mechanisms of Contagion and Collective Promotion Focus	2016	130	Academy of management journal	7,525
8	Vera, D., & Rodriguez-Lopez, A.	Strategic virtues: Humility as a source of competitive advantage	2004	96	Organizational dynamics	1,852
6	Ou, A. Y., Waldman, D. A., & Peterson, S. J.	Do Humble CEOs Matter? An Examination of CEO Humility and Firm Outcomes	2018	79	Journal of management	8,852
10	Hu, J., Erdogan, B., Jiang, K. F., Bauer, T. N., & Liu, S. B.	Leader Humility and Team Creativity: The Role of Team Information Sharing, Psychological Safety, and Power Distance	2018	73	Journal of applied psychology	5,818
11 (Chiu, C. Y., Owens, B. P., & Tesluk, P. E.	Initiating and Utilizing Shared Leadership in Teams: The Role of Leader Humility, Team Proactive Personality, and Team Performance Capability	2016	72	Journal of applied psychology	5,818
$\frac{7}{}$	Zhang, H. Y., Ou, A. Y., Tsui, A. S., & Wang, H.	CEO humility, narcissism and firm innovation: A paradox perspective on CEO traits	2017	58	Leadership quarterly	6,642
13	Rego, A., Owens, B., Yam, K. C., Bluhm, D., Cunha, M. P. E., Silard, A., Goncalves, L., Martins, M., Simpson, A.V., & Liu, W. X.	Leader Humility and Team Performance: Exploring the Mediating Mechanisms of Team PsyCap and Task Allocation Effectiveness	2019	52	Journal of management	8,852
14	Ou, A. Y., Seo, J., Choi, D., & Hom, P. W.	When Can Humble Top Executives Retain Middle Managers? The Morderating Role of Top Management Team Faultlines	2017	45	Academy of management journal	7,525
15 / F	Rego, A., Owens, B., Leal, S., Melo, A. I., Cunha, M. P. E., Goncalves, L., & Ribeiro, P.	How leader humility helps teams to be humbler, psychologically stronger, and more effective: A moderated mediation model	2017	43	Leadership quarterly	6,642
16 (Oc, B., Bashshur, M. R., Daniels, M. A., Greguras, G. J., & Diefendorff, J. M.	Leader humility in Singapore	2015	36	Leadership quarterly	6,642
17 /	Argandona, A.	Humility in Management	2015	31	Journal of business ethics	

18 Wang, L., Owens, B. P., Li, J. C., & Shi, L. H. 19 Rego, A., Cunha, M. P. E., & Simpson, A. V. 20 Owens, B. P., Yam, K. C., Bednar, J. S., Mao, J. H., & Hart, D. W. 21 Mao, J. H., Chiu, C. Y., Owens, B. P., Brown, J. A., & Liao, J. Q. 22 Lin, X. S., Chen, Z. X., Tse, H. H. M., Wei, W., & Ma, C. 23 Frostenson, M. 24 Bharanitharan, K., Chen, Z. X., Bahmannia, S., & Lowe, K. B. 25 Nielsen, R., & Marrone, J. A. 26 Wang, J., Zhang, Z., & Jia, M. 27 Qin, X., Chen, C., Yam, K. C., Huang, M. P., & Ju, D. 28 Carnevale, J. B., Huang, L., & Paterson, T.	.i, J. C., & Shi,	Find or and the Affective leader to be under and the and	ובשו	CITATIONS	Journal	כב
	.i, J. C., & Shi,)
		Exploring the Affective Impact, boundary Conditions, and Antecedents of Leader Humility	2018	30	Journal of applied psychology	5,818
	., & Simpson,	The Perceived Impact of Leaders' Humility on Team Effectiveness: an Empirical Study	2018	30	Journal of business ethics	4,141
	Bednar, J. S.,	The Impact of Leader Moral Humility on Follower Moral Self-Efficacy and Behavior	2019	23	Journal of applied psychology	5,818
	wens, B. P.,	Growing Followers: Exploring the Effects of Leader Humility on Follower Self-Expansion, Self-Efficacy, and Performance	2019	22	Journal of management studies	4,888
	e, H. H. M.,	Why and When Employees Like to Speak up More Under Humble Leaders? The Roles of Personal Sense of Power and Power Distance	2019	21	Journal of business ethics	4,141
		Humility in Business: A Contextual Approach	2016	17	Journal of business ethics	4,141
	, Z. X., K. B.	Is Leader Humility a Friend or Foe, or Both? An Attachment Theory Lens on Leader Humility and Its Contradictory Outcomes	2019	16	Journal of business ethics	4,141
	J. A.	Humility: Our Current Understanding of the Construct and its Role in Organizations	2018	15	International journal of management reviews	8,631
	а, М.	Understanding How Leader Humility Enhances Employee Creativity: The Roles of Perspective Taking and Cognitive Reappraisal	2017	15	Journal of applied behavioral science	1,500
	. C., Huang,	The Double-Edged Sword of Leader Humility: Investigating When and Why Leader Humility Promotes Versus Inhibits Subordinate Deviance	2020	11	Journal of applied psychology	5,818
	L., & Paterson,	LMX-differentiation strengthens the prosocial consequences of leader humility: An identification and social exchange perspective	2019	11	Journal of business research	4,874
Oc, B., Daniels, M. A., Diefendorff, J. M., Bashshur, M. R., & Greguras, G. J.	iefendorff, J. ireguras, G. J.	Humility breeds authenticity: How authentic leader humility shapes follower vulnerability and felt authenticity	2020	9	Organizational behavior and human decision processes	2,304
30 Anand, A., Walsh, I., & Moffett,	Aoffett, S.	Does humility facilitate knowledge sharing? Investigating the role of humble knowledge inquiry and response	2019	4	Journal of knowledge management	4,745
31 Zapata, C. P., & Hayes-Jones, L. C.	nes, L. C.	The consequences of humility for leaders: A double-edged sword	2019	m	Organizational behavior and human decision processes	2,304
Mallen, F., Dominguez-Escrig, E., Lapiedra, R., & Chiva, R.	scrig, E.,	Does leader humility matter? Effects on altruism and innovation	2020	2	Management decision	2,723
Ali, M., Zhang, L., Shah, S. J., Khan, S., & Shah, A. M.	S. J., Khan,	Impact of humble leadership on project success: the mediating role of psychological empowerment and innovative work behavior	2020	2	Leadership & organization development journal	1,977
34 Zhong, J., Zhang, L., Li, P., & Zhang. D. Z.	., & Zhang,	Can leader humility enhance employee wellbeing? The mediating role of employee humility	2020	2	Leadership & organization development journal	1,977
35 Li, Y., Wei, F., Chen, S. Y., & Yan, Y. S.	& Yan, Y. S.	Effects of CEO humility and relationship conflict on entrepreneurial performance	2020	1	International journal of conflict management	1,806
36 Peng, A. C., Wang, B. Y., Schaubroeck, J. M., & Gao, R. G.	Schaubroeck,	Can Humble Leaders Get Results? The Indirect and Contextual Influences of Skip-Level Leaders	2020	0	Journal of leadership & organizational studies	2,197

Source: JCRs collected on the Journal of Citation Report (JCR) on April 29, 2021.

Considering that recent publications have less time to accumulate citations, this research integrates to the relationship indicators, the bibliographic matching of current works, tracking the topics currently relevant to the field of humility in organizations. When considering different relationship indicators at the same time, the procedure adopted compensates for the weaknesses of each individual analysis, ensuring comprehensiveness to the domain of this research.

For a better understanding and interpretation of the measured results, the visualization technique used in this research was the network and cluster analysis, that allows to identify the similarities between the words located in the text of the documents. The technique was supported by the *Vosviewer software*, year 2020, version 1.6 16, able to generate co-occurrence maps from a large volume of data and measure the strength of association between the articles analyzed, based on specific criteria and score (Van Eck & Waltman, 2010). The workflow for carrying out scientific mapping with bibliometric methods proposed by Zupic and Carter (2015) was adopted in this research.

Box 3
Bibliometric technique, with a focus on co-occurrence network, used in this research

Relatioship indicators	Description	Propositions	Theoretical reference
Co-citation	It measures the magnitude of the relationship between two articles, based on the number of publications in which both are cited concurrently.	It presents the intellectual structure of knowledge from the community of citing articles, highlighting its centralities, already matured in the field.	Henri Small and Irena Marshakova (1973)
Bibliographic coupling	Measures the representativeness of the relationship between two articles, based on the number of references in common, cited by both.	It highlights the shared themes, supporting the visualization of the current state of scientific production.	Maxwell Mirton Kessler (1963)

Source: Elaborated by the authors.

A descriptive analysis of the 36 sample articles was an additional methodological step, endorsing the relevance of quantitative and qualitative approaches (Fraga, Colomby, Gemelli, & Prestes, 2022). By including both quantitative, and narrative or more qualitative components, as in the case of this study, the review of papers can provide new conceptual frameworks, reveal inconsistencies in the body of research, synthesize diverse results and offer other scholars a "state of the art" view of a domain, and subsidies for new studies (Palmatier, Houston, & Hulland, 2018). This analysis pointed out the main theoretical concepts, the evolution, approximation, and counterpoint of the various approaches in the works, and their main contributions to the field.

RESULTS AND DISCUSSION

Activity indicators

Based on the sample of this research, activity indicators are presented in the form of (i) authors with the highest number of publications, (ii) most cited authors, (iii) most cited journals, and (iv) most influential articles. For the first indicator, the data initially reveals that more than 70% of publications are concentrated in 6 authors: Owens (28%; 10 articles), Ou (11%, 4 articles), Rego, Cunha, Waldman, and Yam (8% each, 3 articles each). A more detailed analysis, however, shows greater concentration, as, from the 3 articles by Rego and Cunha, which are all of common authorship, 2 of them had the authorial collaboration of Owens. The careful analysis also points out that 2 articles by Waldman have a co-authorship with Owens, and another with Ou. Finally, the analysis shows that Yam's 2 articles rely on Owens' authorial collaboration - one of which is also co-authored by Rego - bringing authorial hermeticism to the field. Co-authorship reveals the strength of the social structure of production (Zupic & Cater, 2015) and, in this sense, there is an authorial density set mainly in Owens (affiliated with the State University of New York) and also in Ou (affiliated with NUS, National University of Singapore Business School).

In line with the most cited authors, Box 4 details more than 70% of the representativeness of the citations - in a total of 6,901 citations, distributed among 102 authors, with about 68 citations/author. It appears that both Owens - with his empirical work on the role of humility in organizational behavior, and Ou - with empirical studies focused on the impact of humble top leadership on the organization's performance, continue to be influential in the field investigated. The works of Hekman and Tsui have the respective co-authorship of Owens and Ou, as well as those already mentioned by Waldman.

The most cited journals in the sample set are highlighted in Box 5. The six most cited journals correspond to more than 70% of the citations of the sample publications, revealing the force of these journals in the investigated theme. The Journal of Applied Psychology, with 6 publications, and the Journal of Business Ethics, with 5 publications, account for 30% of the sample publications, as shown in Box 2. The evaluation of the most influential articles in the sample - whose citation volume is detailed in Box 2, already presented - shows that the first ten articles cited - identified by *ID* # in the first column of Box 2 - correspond to more than 70% of the contemplated citations, revealing concentration of references about the investigated theme.

Box 4

Most influential authors within the sample

ID	Author	Citations	Papers
1	Owens, B. P.	925	10
2	Waldman, D. A.	406	3
3	Ou, A. Y.	374	4
4	Hekman, D. R.	353	2
5	Tsui, A. S.	250	2
6	Johnson, M. D.	195	1
7	Mitchell, T. R.	195	1
8	Kinicki, A. J.	192	1
9	Song, L. J.	192	1
10	Xiao, Z.	192	1
11	Brotheridge, C. M.	190	1
12	Morris, J. A.	190	1
13	Urbanski, J. C.	190	1
14	Collins, J.	167	1
15	Wallace, A. S.	135	1
16	Cunha, M. P.	125	3
17	Rego, A.	125	3
18	Rodriguez-Lopez, A.	96	1
19	Vera, D.	96	1
20	Goncalves, L.	95	2
21	Chiu, C. Y.	94	2
22	Yam, K. C.	86	3
23	Simpson, A. V.	82	2
24	Peterson, S. J.	79	1
#	Other authors	1877	86
#	Total	6901	135

Source: Elaborated by the authors.

The empirical articles dealing with expressed humility in leaders and in organizational practices, authored by Owens (*ID* 1, 2, 6 and 7), in addition to the empirical articles about the role of humble CEO, authored by Ou (ID 3 and 9), fill more than half of this subset. The article authored by Hu (*ID* 10) highlights humility as a relevant characteristic of the leader for the team's creativity. Finally, this subset of the ten most influential articles in the field of humility in organizations is completed with the works by Morris (*ID* 4), Collins (*ID* 5) and Vera (*ID* 8), which brought, a new focus on humility, highlighted in these studies as a strength and a talent.

Box 5

Journals with the highest number of citations in the sample

ID	Journal	JCR	Citations
1	Academy of management journal	7,525	398
2	Journal of applied psychology	5,818	344
3	Organization science	2,782	195
4	Administrative science quarterly	8,304	192
5	Human relations	3,600	190
6	Harvard business review	5,694	167
7	Leadership quarterly	6,642	137
8	Journal of management	8,852	131
9	Journal of business ethics	4,141	115
10	Organizational dynamics	1,852	96
11	Journal of management studies	4,888	22
12	International journal of management reviews	8,631	15
13	Journal of applied behavioral science	1,500	15
14	Journal of business research	4,874	11
15	Organizational behavior and human decision processes	2,304	9
16	Journal of knowledge management	4,745	4
17	Leadership & organization development journal	1,977	4
18	Management decision	2,723	2
19	International journal of conflict management	1,806	1
20	Journal of leadership & organizational studies	2,197	0

Source: Elaborated by the authors.

Relationship indicators

Based on the sample of this research, the relationship indicators are presented in the form of (i) co-citations of articles, and (ii) bibliographic coupling of articles. With regard to the citation of articles, a network of 14 articles is identified from the sample, segregated into 2 macro clusters. The articles most referenced with concomitant citations can be seen in Box 6.

Box 6 Works with concomitant citations, from the sample

ID	Bibliographic Reference	Citations	Strength
1	Owens B. P., & Hekman, D. R. (2012). Modeling How to Grow: An Inductive Examination of Humble Leader Behaviors, Contingencies, and Outcomes. <i>Academy of Management Journal</i> , <i>55</i> (4), 787-818. Retrieved from https://doi.org/10.5465/amj.2010.0441	31	226
2	Owens, B. P., Johnson, M. D., & Mitchell, T. R. (2013). Expressed Humility in Organizations: Implications for Performance, Teams, and Leadership. <i>Organization Science</i> , 24(5), 1291-1600. Retrieved from https://doi.org/10.1287/orsc.1120.0795	31	227
3	Morris, J. A., Brotheridge, C. M., & Urbanski, J. C. (2005). Bringing humility to leadership: Antecedents and consequences of leader humility. <i>Human Relations</i> , <i>58</i> (10), 1323-1350. Retrieved from https://doi.org/10.1177/0018726705059929	30	219
4	Ou, A. Y., Tsui, A. S., Kinicki, A. J., Waldman, D. A., Xiao, Z., & Song, L. J. (2014). Humble Chief Executive Officers' Connections to Top Management Team Integration and Middle Managers' Responses. <i>Administrative Science Quarterly</i> , <i>59</i> (1), 34-72. Retrieved from https://doi.org/10.1177/0001839213520131	25	184
5	Vera, D., & Roridguez-Lopez, A. (2004). Strategic Virtues: Humility as a Source of Competitive Advantage. <i>Organizational Dynamics</i> , <i>33</i> (4), 393-408. Retrieved from https://doi.org/10.1016/j.orgdyn.2004.09.006	22	161
6	Owens, B. P., & Hekman, D. R. (2016). How Does Leader Humility Influence Team Performance? Exploring the Mechanisms of Contagion and Collective Promotion Focus. <i>Academy of Management Journal</i> , <i>59</i> (3), 1088-1111. Retrieved from https://doi.org/10.5465/amj.2013.0660	21	154
7	Nielsen, R., Marrone, J. A., & Slay, H. S. (2010). A New Look at Humility: Exploring the Humility Concept and Its Role in Socialized Charismatic Leadership. <i>Journal of Leadership & Organizational Studies, 17</i> (1), 33-43. Retrieved from https://doi.org/10.1177/1548051809350892	20	144
8	Tangney, J. P. (2000). Humility: Theoretical Perspectives, Empirical Findings and Directions for Future Research. <i>Journal of Social and Clinical Psychology, 19</i> (1), 70-82. Retrieved from https://doi.org/10.1521/jscp.2000.19.1.70	18	128
9	Owens, B. P., Wallace, A. S., & Waldman, D. A. (2015). Leader narcissism and follower outcomes: The counterbalancing effect of leader humility. <i>Journal of Applied Psychology</i> , <i>100</i> (4), 1203-1213. Retrieved from https://doi.org/10.1037/a0038698	17	138
10	Exline, J. J., & Geyer, A. L. (2004). Perceptions of Humility: A Preliminary Study. <i>Self and Identity, 3</i> (2), 95-114. Retrieved from https://doi.org/10.1080/13576500342000077	14	100
11	Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. <i>Journal of Applied Psychology, 88</i> (5), 879-903. Retrieved from https://doi.org/10.1037/0021-9010.88.5.879	13	104
12	Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), <i>Multilevel Theory, Research, and Methods in Organizations</i> (pp. 349-381). San Francisco, CA: Jossey-Bass.	12	95
13	Hayes, A. F. (2018). <i>Introduction to Mediation, Moderation, and Conditional Process Analysis</i> (2nd ed). New York, NY: The Guilford Press.	11	93
14	Peterson, C., & Seligman, M. E. P. (2004). <i>Character strengths and virtues: A handbook and classification</i> . Oxford, UK: Oxford University Press.	11	73

Source: Elaborated by the authors.

The first six works – identified by *ID* # in the first column of this Box 6 – are present within the sample itself, confirming the hermeticism of the investigated thematic field. Considering the frequency of citations and the strength of the association between the referenced documents, it can be inferred that the knowledge base of the field passes specifically through these works. The nodal network and clusters map can be seen in Figure 2. The two macro clusters are identified by the colors red and green. The volume of citations is highlighted by the size of the nodes of each work, which are interconnected by the interlinking lines denoting the relevance and strength of the links existing between the works.

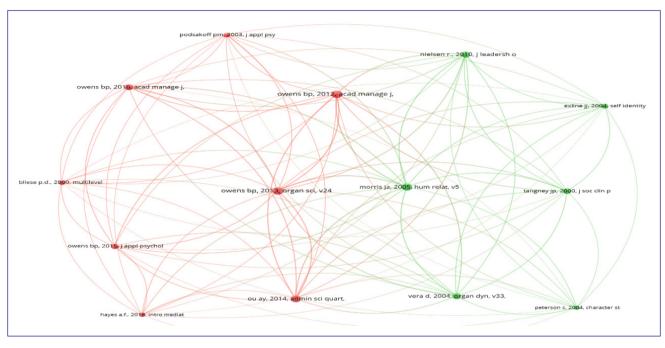


Figure 2
Map of co-citation per work

Source: Elaborated by the authors.

The detailed examination of each work that composes these groups allows making associations, identifying similarities, and understanding the intellectual structure of the researched area. The macro cluster 1, green in Figure 2, and called *Concepts, antecedents, and organizational attributes*, includes works by Tangney (*ID* 8, from Box 8), by Exline (*ID* 10), and also by Peterson (*ID* 14), which bring a more positive conceptual view to humility, paving the way for the exploration of the phenomenon and its respective implications, within organizations. These works are more peripheral on the map. The other works of this macro cluster, mapped with close similarity, closer to the center of the map, are the publication by Morris (*ID* 3), Vera (*ID* 5), and Nielsen (*ID* 7). These articles highlight humility as a strength, an individual talent, and a positive quality to be potentially explored for the benefit of organizations. The study by Vera (*ID* 5) exemplifies this thematic front, in the sense of associating humility, based on its characteristics, with the achievement of competitive advantage for organizations.

The macro cluster 2, on the other hand, has two subgroups. Subgroup A, called *Methods and scales*, is composed of works by Podsakoff (*ID* 11), Bliese (*ID* 12), and Hayes (*ID* 13), shown at the far end of the map, and which deals with the measurement methods and research models, revealing, therefore, a suited thematic to the field, and which signals to support the empirical studies of the works of subgroup B, called *Behavioral issues*. This subgroup shows Owens' studies (*ID* 1, 2, 6 and 9), interested in identifying humble behaviors within organizations, coining the concept of expressed humility, and revealing its effect on the contagion of work teams and on organizational performance. In a similar line, this subgroup shows the work by Ou (*ID* 4), interested in exploring the effect of humility with senior leadership, reinforcing the role of humility in different levels of organizational behavior. Data reveal the importance of these two authors - Owens and Ou - and their respective works, for this field of investigation. Box 7 summarizes the two identified co-citation clusters per work and their thematic contents.

Box 7
Analysis of clusters by work, based on co-citations

Macro Cluster	Sub Cluster	Thematic Content
1. Green	Organizational concepts, background, and attributes.	Theoretical studies of the conceptual evolution of humility and its implications in the organizational context.
2. Red	A. Methods and scales	A. Conceptual research on methods and measurement scales to support empirical work in the field.
z. Red	B. Behavioral issues	B. Empirical research on the role of humility and its effect on the dimensions of organizational behavior.

Source: Elaborated by the authors.

Regarding the bibliographic coupling, the mapping shown in Figure 3 reveals the connection between the works in the sample that share at least one common reference. The four macro clusters are identified by colors and are composed of works that tend to cite the same articles cited by the other participants in the same group, revealing the overlap of their bibliographies, and signaling the dominant intellectual structure in this group.

Cluster 1, green, called *Expressed humility*, is concerned with accommodating the concept of humility, in order to allow greater penetration in the field of organizations, identifying behaviors, expressed by members of the organization. These are conceptual and empirical works, with the purpose of calibrating the central measurement of humility in the organizational environment, based on the behavioral attributes of leaders. An example is the empirical research by Owens (*ID* 2) that brings the concept of expressed humility. In cluster 2, yellow, called *Humility and CEOs*, the works present the role of the humble CEO and its effects in the organizational context. In group 3, blue, called *Humility and teams*, the articles, by describing the relationship of humility with work teams, empirically demonstrate the effect that humble leader plays in the diffusion of creativity, collaboration, and performance of teams. An example is the study by Owens (*ID* 7), which presents the mechanisms of contagion of humility in teams and models its effect on organizational performance.

Finally, in cluster 4, red, called *Humility and organizational behavior*, the works focus on-proving the varied effects of humility on the individual and organizational dimensions of the organizational behavior.

Owens (2017)

chang (2017)

chang (2017)

chiu(2018)

ou (2014)

chiu(2016)

c

Figure 3
Bibliographic coupling map by works

Source: Elaborated by the authors.

The analysis of bibliographic coupling shows that the themes that seem to be of most recent interest in the study of humility in organizations, as the concept of expressed humility is widespread and calibrated, are related to the influence of humility in the levels of organizational behavior, highlighting its role in both individual, team and organizational performance. Box 8 summarize the 4 clusters of the bibliographic coupling, sharing, therefore, their works - identified by *ID* # in the first column of Box 2, previously presented.

Box 8
Analysis of clusters by work, based on bibliographic coupling

CLUSTER	FIRST AUTHORSHIP AND WORK IDENTIFICATION
1. Green – Expressed humility Owens (ID 1), Owens (ID 2), Morris (ID 4), Vera (ID 8), Oc (ID 16), Argandon Frostenson (ID 23), Nielsen (ID 25) and Anand (ID 30).	
2. Yellow – Humility and <i>CEOs</i>	Ou (<i>ID</i> 3), Ou (<i>ID</i> 9), Zhang (<i>ID</i> 12) and Ou (<i>ID</i> 14).
3. Blue – Humility and teams	Owens (ID 7), Hu (ID 10), Rego (ID 13), Rego (ID 15) and Rego (ID 19).
4. Red – Humility and organizational behavior	Collins (<i>ID</i> 5), Owens (<i>ID</i> 6), Chiu (<i>ID</i> 11), Wang (<i>ID</i> 18), Owens (<i>ID</i> 20), Mao (<i>ID</i> 21), Lin (<i>ID</i> 22), Bharanitharan (<i>ID</i> 24), Wang (<i>ID</i> 26), Qin (<i>ID</i> 27), Carnevale (<i>ID</i> 28), Oc (<i>ID</i> 29), Zapata (<i>ID</i> 31), Mallen (<i>ID</i> 32), Ali (<i>ID</i> 33), Zhong (<i>ID</i> 34), Li (<i>ID</i> 35) and Peng (<i>ID</i> 36).

Source: Elaborated by the authors.

Descriptive Analysis of Sample Articles

The examination of these 36 works allows us to identify an effort dedicated to the conceptualization of humility and the measurement of its effects in the organizational context. Literature review publications on humility in organizations (ID 4, ID 17, ID 23, and ID 25) face the complexity of defining the phenomenon, following the conceptual trail of Tangney (2000) about a more positive view of humility. In these articles, already highlighted in Box 1, humility is seen as traits of self-awareness, openness, and transcendence, postulated as a virtue, and evolving towards the creation of observable dimensions and measures that keep these characteristics at their core. These articles explore the theme from an organizational perspective, in particular, pointing out the leader's traits, attributes and behaviors.

Considering the role of the leader and interested in identifying the effect of his behavior, the article by Collins (ID 5) conducts empirical research over five years with business leaders and develops the concept of Level 5 Leader: an individual who combines extreme personal humility (modesty, calm determination, ambition channeled towards the organization, and assuming responsibility) with intense professional will (great results and unwavering determination to do what must be done). In 2012, on a qualitative study based on 55 in-depth interviews with leaders from various sectors, the article by Owens (ID 1) develops a model of behaviors, contingencies, and outcomes, related to humble leadership, attesting that leadership humility favors the growth of followers, and induces them to believe that their own developmental journeys and feelings of uncertainty are legitimate in the workplace. The following year, the article by Owens (ID 2) finds a relevant gap: humility research topic has been stymied due to a lack of consensus with its conceptualization and the difficulty in measuring humble behaviors. Faced with this gap, the article develops and validates a scale of expressed humility.

In turn, within this theme of interest, the article by Oc (ID 16) in order compares nine behavioral dimensions of humble leaders in different cultural contexts, based on semi-structured interviews. It is evident that dimensions such as being modest, approachable, and showing empathy towards subordinates are not as common attributes in cultures where people accept power inequalities as a normal and expected characteristic of relationships. The model proposed by Owens's article (ID 1) emerges in Oc's publication (ID 16), but the identification of other behavioral dimensions indicative of humility suggests that the assessment of humble behaviors can be more complex, even regarding the expressed humility proposed by the article by Owens (ID 2). Finally, Anand's article (ID 30) presents an exploratory study that identifies several individual tendencies that help predict situations of humility that favor the exchange of knowledge between members of the organization.

Owens' articles, written in 2015 (ID 6), 2016 (ID 7) and 2019 (ID 20), analyze the relationship of humble leaders with their followers, from different perspectives. The first develops a survey to analyze how the leader's narcissism and humility

interact, concluding that narcissistic leaders can positively influence their followers when narcissism is tempered by humility. The second uses the triangulation of three studies to test the relationship between leader humility and the performance of followers, attesting that leader humility can spread via social contagion to followers and can affect team performance. The third proposes a model of moral humility of the leader that, empirically tested, predicts the moral effectiveness of the follower. One of the conclusions of the article by Owens (ID 7) reinforces the points of the article by Vera (ID 8), by proposing that the virtue of humility plays an important strategic role in organizations and considering that collective humility positively predicts performance. This finding supports the proposition in Vera's article (ID 8) that humility can be a source of competitive advantage.

Some articles, still interested in the role of the humble leader, such as those by Oc, published in 2014 (ID 3), 2017 (ID 14) and in 2018 (ID 9), focus on the figure of CEOs and Top Executives. In the first article, a scale of humility was developed and validated, being applied in Chinese companies, concluding that humble CEOs (i) admit their strengths and weaknesses, have self-confidence, and value the strengths of others, (ii) become a source of charisma enriching interpersonal and organizational trust, and (iii) have strategic value in building competitive advantage. The second reveals that the humility of Top Executives increases subordinates' job satisfaction and reduces their voluntary turnover. Additionally, the article retrieves a discussion already presented by Owens' article (ID 1) where the leader's humility may not be universally effective as the humble leader, knowing his weaknesses, may need a supportive environment to adapt and to flourish their humble behaviors in the face of demands from followers, a theme that had already been raised by another article of yours (ID 6).

Intherest in some articles is established in relation to the humble leadership role in the effectiveness of organizational teams. In this sense, the article by Hu (ID 10) explores the relationship between humble leadership and team creativity, through a quantitative survey with data from Chinese work teams and concludes that the positive relationship between the leader's humility and the team information sharing was significant and positive only in teams with cultural contexts that value low power distance. Wang L.'s article (ID 26) also explores the relationship between the humble leader and teams' creativity in situations of normality and crisis, identifying that the leader's humility is positively related to followers' perspective taking and creativity in both contexts. The article by Rego (ID 13) conducts three studies in three different cultures – Singapore, Portugal and China – to analyze how leader's humility facilitates the development of the team's psychological capital, favoring the allocation of daily tasks and performance, and its positive conclusions are similar to article by Carnevale (ID 28), which proposes a model to explain how and when the leader's humility motivates the pro-sociality of followers; and also to the article by Ali (ID 33), which analyzes the impact of humble leadership on the success of a project, as a contribution to the Project Management literature. The contribution of these articles also lies in the potential heterogeneous effect of humility, identifying that the humble leader helps to build adaptive forces among followers, in addition to the homogeneous effects on followers, highlighted by the Owens' article (ID 7).

Still along this line, the article by Rego (ID 15), by adopting the concept of expressed humility from Owens' article (ID 2), empirically reinforces the conclusions highlighted by Owens (ID 7), in the sense that the humility of leader is contagious and adds that it reinforces the psychological capital of teams. Also, the article by Rego (ID 19) attests that through balanced information processing, the humble leader impacts the team's effectiveness, and the major contribution of this article lies in the aspect of corroborating the benefits of not only using self-reports to measure humility. Chiu's article (ID11), based on concepts of leader humility (ID 2, 4 and 5), provides a comprehensive investigation into how formal team managers promote the growth of informal leadership among team members. This finding is consistent with Owens' article (ID 1), both in confirming that follower involvement in the leader-follower relationship is essential to ensuring the effectiveness of leader humility, and in attesting to the effectiveness of leader humility in teams. Based on social learning theory, Peng's article (ID 36) proposes a model in which humble behaviors exhibited by higher-level leaders reach lower-level team leaders and thus indirectly promote team performance. The article is in line with what is highlighted in Owens's article (ID 7), regarding the role of higher-level leaders in promoting humble behaviors of lower-level leaders. The articles by Wang L. (ID18) and Mao (ID21), both empirical, emphasize that leader's humility has a positive indirect effect on the performance

of the followers' tasks. The first defends that the impact occurs through the increase in the relational energy of the follower and the decrease in emotional exhaustion. The second argues that the effect is due to followers' self-motivation, in line with the self-expansion theory. Both articles work from the perspective of psychological change promoted by the humble leader's behavior with teams.

Publications from 2019 and 2020 have been interested in the role of humble leadership in themes related to organizational behavior, such as the articles by Lin (ID 22) and Bharanitharan (ID 24), that investigate the followers' ability to influence the leader himself. These works show that the followers' sense of power supports the relationship between the leader's humility and the employee's voice, and this relationship is considered stronger the smaller the power distance. The contribution of these articles lies in explaining that the defensive voice behavior of followers can be seen as a failure to recognize the point of view of others (Vera & Rodriguez-Lopez, 2004), in an expression of self-sufficiency. Zapata's article (ID 31), based on five studies, provides a more balanced perspective on the consequences of leader humility, demonstrating that, apparently, in ideal circumstances, expressed humility increases fellowship but can lead to costs for the leader, as it weakens its effectiveness and diminishes its perception of agency. In a similar vein, Qin's article (ID 27) suggests attention to the benefits of leader's humility, since its effects depend on the subordinates' attributions of such humble behavior. The article by Zhong (ID 34) confirms, through a survey of 228 employees, that humble leadership is positively correlated with employee well-being, expanding the contributions of research by Bharanitharan (ID 24). The article by Oc (ID 29) analyzes, from four studies with different methodologies and in different cultural contexts, the relationships between leader's humility, the authenticity of that humility, follower's vulnerability and the authenticity felt by the follower. The research shows that the humble leader – in a genuinely expressed demonstration (Owens & Hekman, 2012) - is inherently other-oriented, impacting the followers' general well-being. Finally, Mallen's article (ID 32) considers altruism as a mechanism that favors the relationship between humble leadership and business innovation.

The descriptive analysis of the articles in the sample confirms that the complexity of the phenomenon of humility has given rise to discussions about a possible consensual concept of what is expressed-humility in organizations and the need to identify possible mechanisms for measuring humble behaviors. This remains evident as the evolution of studies on this theme explored alternative practical dimensions indicative of humility and faced the challenges of evaluating humble behaviors. However, works that show that humble practices of leadership favor the development of followers (Owens et al., 2013; Owens & Hekman, 2012) end up promoting other empirical studies in the field of humility in organizations. In this sense, empirical works started to renew discoveries on the role of humility in the organizational context and its effects, with emphasis on the figure of the decision-making elite, its followers, and behavioral issues. These studies focus on associating humble leadership behaviors with a sustainable source of competitive advantage for the organization, its impact on creativity and consistency of team performance, as well as the adaptive forces of followers. The interest in the role of humble leadership in matters of organizational behavior, such as the well-being of teams in contemporary publications is evident. Additionally, we can see the importance given by these recent works in highlighting the perspective of followers as influencers and beacons of leaders' humble behaviors, as well as in signaling that leaders' humble behavior can harm their effectiveness, opening a possible path of interest for further research in the field. Viewing the effects of humble practices in the organization under a more balanced tonic between benefits and harms, based on empirical research that measures the degree of leaders expressed humility, represents a fruitful path of practical contribution to the decision-making elite and may represent a new milestone of interest in this field of investigation.

CONCLUSION

Designed to highlight the intellectual structure of the domain, the current research and the theoretical gaps associated with humility in organizations, this research was supported by a bibliometric study in this field, from 2000 to 2020. The study identified hermeticism in author production and sources of publication, influential works in the field, and a themes evolution supported by antecedents and concepts of humility, that points out the consequences on the levels of organizational behavior. The main results can be summarized as follows:

- 1. The production of the field knowledge is particularly carried out by the authors Owens and Ou, whose works are present in all clusters that characterize the intellectual structure of the field, anchoring recent research in this domain.
- 2. Three major thematic lines have been identified, which make up the intellectual structure of studies of humility in organizations: (i) concepts, antecedents, and organizational attributes (ii) methods and scales, and (iii) behavioral issues. Aspects of organizational attributes and behavioral issues are more central to the field, while the antecedents and methods and scales occupy a peripheral space, supporting the field. These lines of research, and in this order, have evolved over the past twenty years, indicating that the construction of the concept of humility in organizations is based mainly on the work of Tangney (2000), and gains an organizational spectrum in the works by Vera and Rodriguez-Lopez (2004), by Morris et al. (2005), and by Nielsen et al. (2010). Thereafter, the investigation of humility in organizations is based on works of research methods about organizational behavior, such as Podsakoff (2003), and finds practical echo, mainly in the empirical studies of Owens (2012, 2013), and Ou (2014), which focus on the role of humility in issues related to organizational behavior.
- 3. Considering that the topic is recent and examining the current state of the art of research, four major research fronts have been identified: (i) expressed humility, (ii) humility and CEOs, (iii) humility and teams, and (iv) humility and organizational behavior. These are the trends and possible areas of interest in the field, suggesting increasing curiosity in exploring the extent to which the adoption of organizational behaviors, expressed and measured in the corporate context, can have a positive effect on the individual performance of leader and followers on teams, and also on organizational effectiveness. From the concept of humility in the organizational spectrum expressed humility, in the concept of Owens et al. (2013) the mediating and moderating role of humble behaviors and its effects and consequences, seems to trigger the most recent interest in this field.
- 4. All the lines that make up the intellectual structure of the field affect the current research, in some way. This can be observed by the analytical examination of the set of authors cited in each of the works. As an example of this perception, we notice that the works of Owens et al. (2013) and Morris et al. (2005) are referenced in almost all works in the sample. However, there seems to be some closer link between some thematic lines of the intellectual structure and some current research fronts. The works that deal with concepts, antecedents and organizational attributes seem to have a greater influence on the studies that calibrate the concept of expressed humility. Likewise, works that deal with methods and scales, as well as those that deal with behavioral issues, seem to have greater penetration with the works that deal with humility and CEOs, humility and teams, and humility and organizational behavior.
- 5. Considering some areas of opportunity associated with humble organizational behavior, the study of the current state of the art investigations on humility in organizations reveals a possible future research agenda for the field: (i) analysis of how expressed humility and humble behavior can be taught and internalized in the organizational culture, (ii) role of expressed humility and humble behavior in cultural fit (iii) relationship between cultural typologies and humility in the organization (iv) role of national cultures in the perceptions of expressed humility and humble behavior; and (v) influence of expressed humility and humble behavior in the cultural adaptation of expatriates.

Aiming to enrich the analysis, this research was additionally supported by a descriptive analysis of sample articles, which main results can be summarized as follows: (i) the first studies in the field are concerned with overcoming the challenges of consolidating the concept of humility in organizations, and begin to adopt a more positive view of the construct; (ii) the complexity of evaluating humble behaviors gives rise to the development and validation of an expressed humility scale that becomes the basis for a representative range of empirical works; (iii) field studies explore humble behaviors of the decision-making elite and point them as a source of competitive advantage, indicating the positive effects on the management and performance of teams (iv) the most recent publications on the subject continue to be interested in the role of humble leadership in organizational behavior issues, and open space to deepen the analysis about the role of followers in face of leaders' humble behavior, as well as about humble behavior being associated with weak or ineffective leadership.

Finally, considering the intended contribution of this study in the sense of adding perspectives to the organizational literature in the field, the present work advances, under the spectrum of quantitative-qualitative methodologies, by drawing an indicative panorama of the relevant aspects of the literature produced, presenting the evolution dynamics of the intellectual structure of the domain, in particular through cluster and descriptive analyses, as well as by indicating the lines of research with potential for investigation, in face of a topic that is still scarce within the organizational context.

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