Mapping The Nexus of Corruption and Business Ethics: A Bibliometric Study

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Abstract: Business ethics and corruption are closely related aspects of the social and corporate environment that are regularly monitored by the international community. Corruption has several harmful repercussions for individuals, organizations, and societies. Even while organizations are fighting corruption with increasing intensity, it cannot be eliminated. This scenario has drawn scholars from numerous disciplines to this subject. In accordance with the significance of the field, there are numerous established research projects and reviews in the field, but no bibliometric study has yet been conducted at the intersection of corruption and business ethics. Our study fills this gap and makes a direct contribution to the field by examining 990 articles from the Web of Science core collection published between 1980 and 2022. Using citation, co-words, and co-citation analyses, we aim to illustrate the conceptual, intellectual, and social structure of the field. The findings of the study may be helpful to scholars since this show both the current performance of authors, documents, and journals, as well as the progression of themes.

Keywords: Ethics, business ethics, corruption, bibliometric analysis, co-citation analysis.

Öz: İş etiği ve yozlaşma, toplumsal ve kurumsal çevrenin birbiriyle yakından ilişkili yönleri olarak uluslararası toplum tarafından düzenli olarak izlenmektedir. Yozlaşmanın bireyler, örgütler ve toplumlar üzerinde çok sayıda zararlı etkileri vardır. Örgütler yozlaşma ile giderek artan bir yoğunlukta mücadele etse de yozlaşma ortadan kaldırılamamaktadır. Bu senaryo, birçok disiplinden akademisyeni bu konuya çekmiştir. Alanın önemine uygun olarak, yazında çok sayıda önemli araştırma ve derleme bulunmaktadır, ancak yozlaşma ve iş etiği kesişiminde henüz bibliyometrik bir çalışma yapılmamıştır. Çalışmamız bu boşluğu doldurmakta ve Web of Science koleksiyonundan 1980-2022 yılları arasında yayınlanan 990 makaleyi inceleyerek alana katkı sağlamaktadır. Çalışmada atıf analizi, anahtar kelime eşdizimi ve ortak atıf analizleri kullanılarak; alanın kavramsal, entelektüel ve sosyal yapısının ortaya konması amaçlanmıştır. Çalışmanın bulguları, bir yandan yazarların, belgelerin ve dergilerin mevcut performansını diğer yandan temaların ilerleyişini göstermesi açısından akademisyenlere yardımcı olabilir.

Anahtar Kelimeler: Etik, iş ahlakı, yozlaşma, bibliyometrik analiz, ortak atıf analizi.

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Introduction

Although the idea of corruption is not new, in recent years its significance as a worldwide policy issue has increased. (De Jong & van Ees, 2014). Despite all efforts, corruption still exists and poses a constant danger to contemporary society. It is a difficult phenomenon to simply and broadly describe because it is dynamic and complex (Argandoña, 2003). The main idea behind corruption, which is described in the literature in a variety of ways, is that people abuse power for their own benefit and the benefit of their organizations. (Ashforth, Gioia, Robinson, & Trevino, 2008; Pinto, Leana, & Pil, 2008; Castro, Phillips, & Ansari, 2020). Bahoo, Alon, and Paltrinieri (2020) define corruption as an illegal action carried out through the abuse of power by public or private entities. Corruption is defined in a variety of ways in the literature; the central idea is that people misuse power for their own personal and their organizations' benefit (Ashforth, Gioia, Robinson, & Trevino, 2008; Pinto, Leana, & Pil, 2008; Castro, Phillips, & Ansari, 2020). In a comprehensive synthesis, Bahoo, Alon, and Paltrinieri (2020) define corruption as an illegal activity conducted through misuse of authority or power by public or private officeholders for private [and/or organizations'] gain and benefit, financial or otherwise. Corruption can manifest itself in a variety of ways, including bribery, embezzlement, theft and fraud, extortion, abuse of discretion, favoritism, nepotism, clientelism, conduct creating or exploiting conflicting interests, and improper political contributions (United Nations [UN], 2004). Apart from its means, the detrimental effects of corruption have a considerable impact on every aspect of social and economic life. To illustrate, the worldwide financial cost of corruption is estimated to be 5 percent of global GDP (UN, 2018). For researchers, greater awareness of corruption›s negative consequences has led to significant efforts to comprehend its complexity and propose strategies for its elimination (Pertiwi, 2018).

Both public and private organizations take measures to deal with corruption. From a macro-societal standpoint, anti-corruption policies and practices increase public trust in government and market institutions. It is also well established that greater control of corruption correlates with increased levels of innovation and entrepreneurship. (Anokhin & Schulze, 2009). On the other hand, the individual viewpoint has issues because people might try to benefit from corrupt activities. The factors that cause these problems, such as low perceived costs (Velamuri, Harvey, & Venkataraman, 2017) and individuals' tendency to rationalize corrupt behavior (Zyglidopoulos, Fleming, & Rothenberg, 2009), emphasize the critical relevance of business ethics. In other

words, business ethics is inextricably linked to corruption, as it includes principles for fighting corruption as well as other instrumental practices.

Numerous studies have been conducted in light of the rich and diverse multidisciplinary nature of corruption research; including organizational and psychological processes (Moore, 2009; Zyglidopoulos et al., 2009), sociological perspectives (Rosenblatt, 2012), cultural perception (Getz & Volkema, 2001; Wilhelm, 2002; Davis & Ruhe, 2003), political economy (Jain, 2001; Nwabuzor, 2005), finance and accounting (Malagueño, Albrecht, Ainge, & Stephens, 2010), multinationals (Cuervo-Cazurra, Dieleman, Hirsch, Rodrigues, & Zyglidopoulos, 2021) and even its' religious origins (Kayes, 2006). Even in a more condensed form, the web of science yields over ten thousand results with this concept specified as part of the title. Consistent with this, bibliometric studies of the literature on corruption have been conducted in several domains, including economics (Bahoo, Alon, & Floreani, 2021), international business (Bahoo, Alon, & Paltrinieri, 2020), and a variety of industries, including financial institutions (Bahoo, 2020), construction (Zhai, Shan, Darko, & Chan, 2021), oil (Moisé, 2020), procurement (Rakhel & Putera, 2021), and others. Nonetheless, to date, there is no bibliometric analysis of corruption at the nexus of business ethics; it is intriguing to see how this literature evolves.

Bibliometric tools are essential for researchers to measure the impact of their research and to identify trends in their field. However, some argue that these tools can be misleading and should not be relied upon solely. One argument against bibliometric tools is that they do not take into account the quality of research. Citation counts can be influenced by factors such as self-citation or citation circles, which do not necessarily reflect the impact or value of a piece of research. Furthermore, bibliometric tools may prioritize certain types of publications over others, such as those published in high-impact journals. This can lead to a bias towards certain fields or topics, neglecting important research in other areas. Despite these limitations, bibliometric tools remain a valuable resource for researchers. They provide a quantitative measure of impact and can aid in identifying potential collaborators and funding opportunities. However, it is important to use them alongside qualitative measures and critical evaluation of research quality to ensure a comprehensive understanding of the impact and value of research.

Bibliometric tools, as opposed to systematic literature reviews and meta-analyses, offer analytical benefits for comprehending research topics by assessing various relationships between substantial research components (Donthu, Kumar, Mukherjee, Pandey, & Lim, 2021). Using bibliometrics, this study aims to map the conceptual, in-

tellectual, and social foundations and evolution of the corruption concept in relation to business ethics. The study of publications and citations is important for analyzing the productivity and impact of an individual, an organization, a country, or a journal over time (Donthu, Kumar, Mukherjee, Pandey, & Lim, 2021). Bibliometrics is a relatively new approach in business research that combines powerful tools to illustrate the domain's structure and evolution (Donthu, Reinartz, Kumar, & Pattnaik, 2021). This article may be contributive in two ways. First, we identify performance of the domain by displaying key authors, documents, and sources. Second, we identify the conceptual, intellectual, and social structure of the field which may provide insight for business ethics scholars. We analyzed 990 articles published from 440 different sources between 1980 and 2022 to explore the following research questions:

Q$_1$. Which research, authors, journals, institutions, and countries are leading this field, and what are the key topics and perspectives?

Q$_2$. What are the conceptual, intellectual and social structures of corruption research in business ethics?

Methodology

Bibliometric techniques have risen as critical techniques for evaluating the development of scientific fields over the past decade (Ellegaard & Wallin, 2015). Moreover, bibliometric techniques have evolved over time to address some of these criticisms. For example, newer methods such as altmetrics take into account social media activity and other non-traditional metrics when assessing the impact of scholarly work. It has also become popular in business research in recent years (Donthu, Reinartz, et al., 2021). Bibliometrics enables researchers to examine and display the complex relationships between publications (Gingras, 2016), making them useful tools for the study of science (Van Raan, 2019); synthesize large volumes of data to illustrate the state of a domain's intellectual structure and emerging trends (Donthu, Kumar, et al., 2021). Bibliometrics for science mapping address three aspects of research dimensions: (a) identifying the knowledge base of a research field (intellectual structure); (b) assessing the research front (conceptual structure); (c) developing the social network structure (social structure) (Aria & Cuccurullo, 2017).

We used the four-step analytical technique described by Donthu, Kumar, et al. (2021): First, in accordance with the study's objective, the study's scope should typically be large enough to support bibliometric analysis. Generally, a sample size of 500 articles is considered sufficient to grasp the bibliometric accuracy. A number

less than 300 is deemed insufficient to warrant the use of bibliometric analysis. Second, in accordance with the paper's purpose, it is critical to narrow the scope, which is specified as business ethics. The selection of the appropriate bibliometric analysis techniques is the second step. Due to the explorative nature of the study, we conducted performance analysis as well as science mapping. The third phase is the data retrieval required for the selected bibliometric analysis techniques, and the final stage is performing bibliometric analysis and reporting findings.

We selected Clarivate Analytics Web of Science (WOS) among online bibliographic databases. As a robust query tool, WoS is the most widely used citation-enhanced database for the collection of citation records (Furrer, Thomas, & Goussevskaia, 2008; Archambault, Campbell, Gingras, & Larivière, 2009; Karaboğa, Şehitoğlu, & Karaboğa, 2022). Having selected the database, we searched for articles in journals that are full length, peer-reviewed -excluded editorials, letters, book reviews, comments, and replies (Kumar & Dubey, 2021). We utilized a comprehensive query to search publications due to the exploratory nature of the research, which was similar to prior research (Diez-Vial & Montoro-Sanchez, 2017; Vallaster, Kraus, Lindahl, & Nielsen, 2019). We first searched all searchable fields using "business ethic*" query. Among 38.924 results from the core collection, we next refined our search by looking for the term "corruption" in the topics ("corrupt*") including title, abstract, author keywords, and Keywords Plus of WoS. We included Social Science Citation Index and Emerging Sources Citation Index. We also considered all languages (35 articles produced in languages other than English) since they include English abstracts and keywords. The search yielded 1.209 results. Following that, we filtered our collection by excluding proceedings papers, book chapters, and other editorial materials, resulting in 1034 articles. At this step, Then, after filtering out book chapters, proceedings papers, and other editorial documents from our collection, 1034 articles were left. At this stage, two researchers reviewed the study's material independently and put together the final article collection. We checked each article's title, abstract, and keywords sections to identify any records that contained the phrases "corruption" and "business ethics" in at least one of these sections in order to weed out any false positives. . Although this method may miss a few 'false negatives,' it ensures that no 'false positives' are found (Kovacs, Van Looy, & Cassiman, 2015: 956). As a result, 990 articles published in 440 different sources between 1980 and 2022 (first quarter) were identified. Our collection documented 1891 authors (Table 1).

Table 1. Main information about the collection	
Timespan	1980:2022
Sources (Journals, Books, etc)	440
Documents (Number of articles)	990
Authors	1891
Author Appearances	2209
Authors of single-authored documents	323
Authors of multi-authored documents	1568
Single-authored documents	364
Documents per Author	0.524
Authors per Document	1.91
Co-author per Document	2.23
Collaboration Index	2.5
Keywords Plus (ID)	1522
Author's Keywords (DE)	2592

We used citation, co-words, and co-citation analyses to illustrate the conceptual, intellectual, and social structure of the field. First, as is identical in bibliometric studies, we represent performance data derived from contributions, which is descriptive in nature (Cobo, Lopez-Herrera, Herrera-Viedma, & Herrera, 2011; Donthu, Reinartz, et al., 2021). Citation analysis is used to assess which publications, authors, and sources are the most influential and important in the research stream, based on the number of citations received by each contributor (Donthu, Kumar, et al., 2021). Second, in intellectual structure, we used co-citation networks to examine the relationships between cited publications in order to better understand the evolution of the foundational themes, which represent the field's intellectual structure. The use of co-citation instruments (e.g., network, map) enables the identification of central, peripheral, or bridging themes, articles, journals, and so forth (Zupic & Čater, 2015; Donthu, Kumar, et al., 2021). The visualization of a co-citation map is a type of exploratory data analysis (Fahimnia, Sarkis, & Davarzani, 2015). Third, to illustrate the conceptual structure, a co-word analysis is utilized to explore the existing relationships among topics in the field by focusing on the content of the publication. The terms used in a co-word analysis are frequently generated from keywords (Baker, Pandey, & Haldar, 2020). It reveals the conceptual structure of the field. Here, Donthu, Kumar, et al. (2021) recommend that the co-word analysis can be used as complementary to enrich the understanding of thematic clusters derived from co-citation analysis. We also employed multiple correspondence analysis (MCA), which is an exploratory multivariate

technique for the graphical and numerical analysis of multivariate categorical data (Aria & Cuccurullo, 2017). The MCA identifies clusters based on the relative positions of the points and their distribution along the dimensions; the more similar the words in a cluster, the closer they are depicted on the map (Cuccurullo, Aria, & Sarto, 2016). Fourth, we exhibited institutional and geographical collaborations. Bibliometrix (Aria & Cuccurullo, 2017), an open-source R-package for extensive bibliometric analysis, was used in combination with the Shiny package (Chang et al., 2018).

Analyses and Results

Performance and Citation Analysis

The initial descriptive findings reveal that the number of publications has been steadily increasing at an annual rate of 8.55% (Fig 1). 2007 was apparently a turning point, based on the number of publications compared to the previous period. The number of publications has been increasing at a rapid and relatively continuous rate since this year. Citation averages by author and year indicate a comparable range of variation. The dotted line in the figure depicts the trend of the total number of citations per year. Our analysis indicates that citations continue to grow at a slower rate than the number of publications. This illustrates that the field has shifted to a quantitative rather than a qualitative growth trajectory.
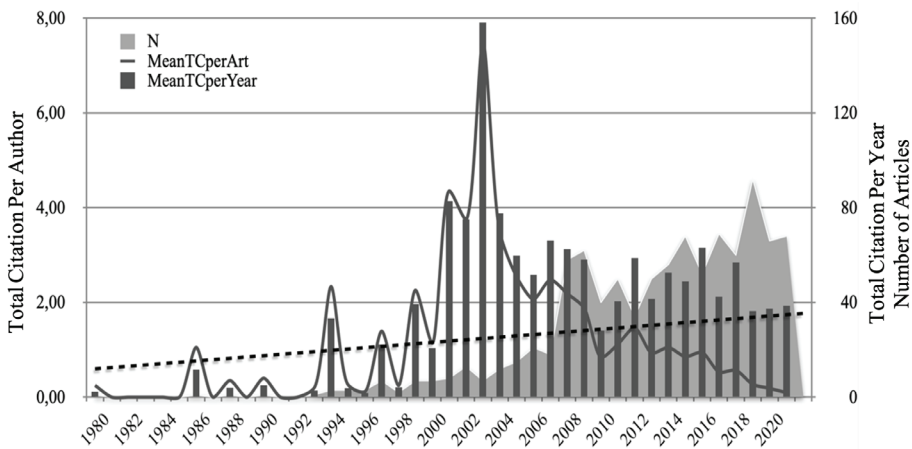

Fig. 1 Annual scientific production

N: number of articles, MeanTCperArt: Mean total citation per article, MeanTCperPear: Mean total citations per year

Contributions by key authors are critical to the field's structure. An average of 1.91 authors per article was identified in the sample. The top three most relevant authors were: Tang, with 6.05 fractionalized frequency (14 articles); Windsor, with 4.50 fractionalized frequency (5 articles); and Argandoña, with 4.00 fractionalized frequency (4 articles). According to the theoretical distribution through Lotka's law, "core authors" published at least four articles. Authors with a single article accounted for 87.9% of the total production, while authors with two articles accounted for 9.3% and authors with three articles accounted for 2%. This shows that the field is not dominated by a small group of researchers. The most locally cited authors were Argandoña, with 67 local citations; Cullen, with 52 local citations; and Leana, with 52 local citations.

Articles are the primary source of impact in the field. The average number of citations per document was 21.43, and the average number of citations per year was 2.05. Table 2 shows a list of the top ten most locally and globally cited articles. From the list, the top three local cited articles were authored by Pinto et al. (2008) with 52 local, and 251 global citations; Martin, Cullen, Johnson, and Parboteeah (2007), with 47 local, and 247 global citations; and Davis and Ruhe (2003), with 35 local, 157 global citations. The top three global cited articles were authored by Ashfort and Anand (2003), with 696 global citations; Anokhin and Schulze (2009), with 325 global citations; and Pinto et al. (2008), with 251 global citations.

Table 2 Top 10 most cited articles					
	Most Local Cited	LC	GC	Most Global Cited	GC
1	Pinto, J., Leana, C. R., & Pil, F. K. (2008). Corrupt organizations or organizations of corrupt individuals? Two types of organization-level corruption. *Academy of Management Review*, *33*(3), 685-709.	52	251	Ashforth, B. E., & Anand, V. (2003). The normalization of corruption in organizations. *Research in organizational behavior*, *25*, 1-52.	696
2	Martin, K. D., Cullen, J. B., Johnson, J. L., & Parboteeah, K. P. (2007). Deciding to bribe: A cross-level analysis of firm and home country influences on bribery activity. *Academy of Management Journal*, *50*(6), 1401-1422.	47	247	Anokhin, S., & Schulze, W. S. (2009). Entrepreneurship, innovation, and corruption. *Journal of business venturing*, *24*(5), 465-476.	325

3	Davis, J. H., & Ruhe, J. A. (2003). Perceptions of country corruption: Antecedents and outcomes. *Journal of Business Ethics*, *43*(4), 275-288.	35	157	Pinto, J., Leana, C. R., & Pil, F. K. (2008). Corrupt organizations or organizations of corrupt individuals? Two types of organization-level corruption. *Academy of Management Review*, *33*(3), 685-709.	251
4	Argandoña, A. (2003). Private-to-private corruption. *Journal of Business Ethics*, *47*(3), 253-267.	33	76	Kaptein, M. (2004). Business codes of multinational firms: What do they say?. *Journal of Business Ethics*, *50*(1), 13-31.	248
5	Sanyal, R. (2005). Determinants of bribery in international business: The cultural and economic factors. *Journal of Business Ethics*, *59*(1), 139-145.	33	100	Martin, K. D., Cullen, J. B., Johnson, J. L., & Parboteeah, K. P. (2007). Deciding to bribe: A cross-level analysis of firm and home country influences on bribery activity. *Academy of Management Journal*, *50*(6), 1401-1422.	247
6	Collins, J. D., Uhlenbruck, K., & Rodriguez, P. (2009). Why firms engage in corruption: A top management perspective. *Journal of Business Ethics*, *87*(1), 89-108.	33	142	Dunfee, T. W., & Warren, D. E. (2001). Is guanxi ethical? A normative analysis of doing business in China. Journal of business ethics, 32(3), 191-204.	230
7	Steidlmeier, P. (1999). Gift Giving, Bribery and Corruption: Ethical Management of Business Relationships in China. *Journal of Business Ethics*, *20*(2), 121-132.	27	154	Shao, R., Aquino, K., & Freeman, D. (2008). Beyond moral reasoning: A review of moral identity research and its implications for business ethics. *Business Ethics Quarterly*, *18*(4), 513-540.	207
8	Aguilera, R. V., & Vadera, A. K. (2008). The dark side of authority: Antecedents, mechanisms, and outcomes of organizational corruption. *Journal of Business Ethics*, *77*(4), 431-449.	27	137	Fan, Y. (2002). Ganxi's consequences: Personal gains at social cost. *Journal of business ethics*, *38*(4), 371-380.	199

| 9 | Gordon, K., & Miyake, M. (2001). Business approaches to combating bribery: A study of codes of conduct. *Journal of business Ethics*, *34*(3), 161-173. | 22 | 63 | Su, C., & Littlefield, J. E. (2001). Entering guanxi: a business ethical dilemma in mainland China?. *Journal of business ethics*, *33*(3), 199-210. | 186 |
| 10 | Hess, D., & Dunfee, T. W. (2000). Fighting corruption: a principled approach. *Cornell International Law Journal*, *33*(3), 593-593. | 21 | 43 | DeCelles, K. A., DeRue, D. S., Margolis, J. D., & Ceranic, T. L. (2012). Does power corrupt or enable? When and why power facilitates self-interested behavior. *Journal of applied psychology*, *97*(3), 681. | 183 |

LC: Local citation (citation within 473 articles); GC Total citation (actual Web of Science citation).

Table 3 summarizes the top ten most local cited references. The top three most cited references were authored by Ashfort and Anand (2003), with 124 local citations; Trevino (1986), with 80 local citations; and Ashfort et al. (2008), with 78 local citations.

Table 3 Top 10 most local cited references					
	Author(s)	Title	Journal	LC	GCg
1	Ashforth, B. E., & Anand, V. (2003).	The normalization of corruption in organizations.	Research in Organizational Behavior	124	1762
2	Trevino, L. K. (1986).	Ethical decision making in organizations: A person-situation interactionist model.	Academy of Management Review	80	4859
3	Ashforth, B. E., Gioia, D. A., Robinson, S. L., & Trevino, L. K. (2008).	Re-viewing organizational corruption	Academy of Management Review	78	742
4	Jones, T. M. (1991).	Ethical decision making by individuals in organizations: An issue-contingent model	Academy of Management Review	71	5607
5	Mauro, P. (1995).	Corruption and growth	The Quarterly Journal of Economics	70	13113

6	Anand, V., Ashforth, B. E., & Joshi, M. (2004).	Business as usual: The acceptance and perpetuation of corruption in organizations	Academy of Management Perspectives	69	1055
7	Shleifer, A., & Vishny, R. W. (1993).	Corruption	The Quarterly Journal of Economics	57	7881
8	Husted, B. W. (1999). Wealth, culture, and corruption.	Wealth, culture, and corruption	Journal of International Business Studies	55	1281
9	Pinto, J., Leana, C. R., & Pil, F. K. (2008).	Corrupt organizations or organizations of corrupt individuals? Two types of organization-level corruption	Academy of Management Review	51	681
10	Victor, B., & Cullen, J. B. (1988).	The organizational bases of ethical work climates	Administrative Science Quarterly	47	3560

LC: Local citation (citation within 473 articles); GCg: Global citation (actual Google scholar citation).

Journals are another critical component of the development of an area of study. A preliminary examination of the data reveals that the Journal of Business Ethics is the leading figure in the field in terms of scientific production on the subject. Starting from the earliest publication, the number of articles in this journal was 296 (h-index: 56; g-index:82). Following journals appeared to have a relatively balanced impact on the field. Notably, with the exception of the Journal of Business Ethics, other sources began publishing articles on this subject after 2000.

Table 4 Top 10 source local impact

	Journal	h-index	g-index	GC	NP
1	Journal of Business Ethics	56	82	10354	296
2	Business Ethics Quarterly	13	15	816	15
3	Research in Organizational Behavior	1	1	696	1
4	Academy of Management Journal	2	2	347	2
5	Harvard Business Review	3	3	325	3
6	Journal of Business Venturing	1	1	325	1
7	Journal of World Business	4	4	304	4

8	Corporate Governance- An International Review	3	4	262	4
9	Organizational Behavior and Human Decision Processes	5	6	254	6
10	Academy of Management Review	1	1	251	1

h-index: The statistic for assessing cumulative scholarly output and performance; it balances quantity and quality by comparing publications to citations; g-index: The statistic based on the distribution of citations received by a given researcher's publications; GC: Global citation (actual Web of Science citation); NP: Number of publications.

Finally, we analyzed the growth rates of the sources to determine which journals have a growing interest in this field. Figure 2 depicts these journals.
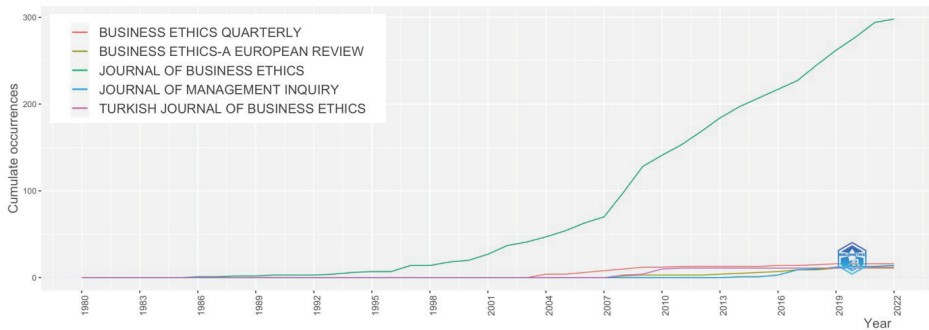

Fig. 2 Source Growth

Intellectual Structure of the Field

We employed co-citation analyses of sources to illustrate the intellectual structure of the field. Co-citation analysis is a well-known bibliometric technique that illustrates the structure of a certain field by the relationships between its nodes; e.g., authors, papers, and journals (Aria & Cuccurullo, 2017; Donthu, Kumar, et al., 2021). Figure 2 depicts the journal source co-citation analysis. Our analysis of the co-citation network finds three unique clusters. The red cluster of journals serve as the focal point of the network, with an emphasis on business and management. The blue cluster represents an area that is primarily concerned with sociological and behavioral views and is positioned near the central cluster. Journals in the green cluster, which differ somewhat from the first two, include publications with an emphasis on economics and finance. The co-citation network illustrates that the Journal of Business Ethics has the strongest impact, occupying a pivotal position

within the network, followed by the Academy of Management Review and the Academy of Management Journal.
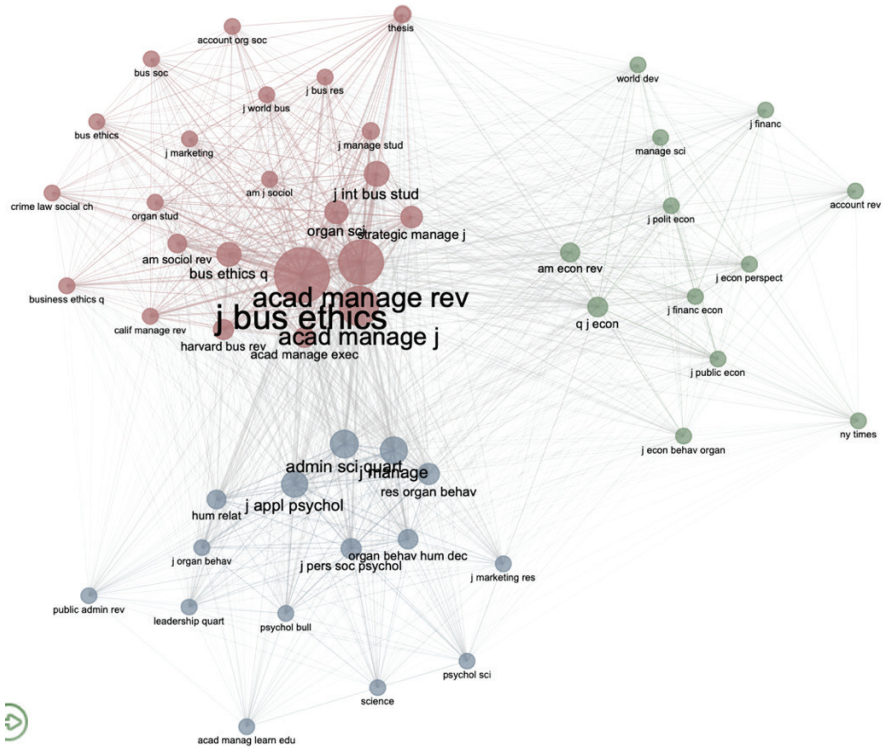

Fig. 3 Source (journals) co-citation network

The co-citation network of the document source is represented in Figure 4. Source co-citations were found to be grouped in two clusters. In line with the citation indicators (most local cited articles are represented in Table 3), articles by Ashfort & Anand (2003), Asforth et al. (2008), Anand et al. (2004), Trevino (1986), Jones (1991), and Pinto et al (2998) played a central role in the co-citation network. These studies (red cluster) examined corruption in the context of organizational processes and decision making. On the other hand, other studies (blue cluster) are positioned towards economics (Shleifer and Vishny 1993; Mauro, 1995) and international business (Martin et al., 2007; Husted, 1999).
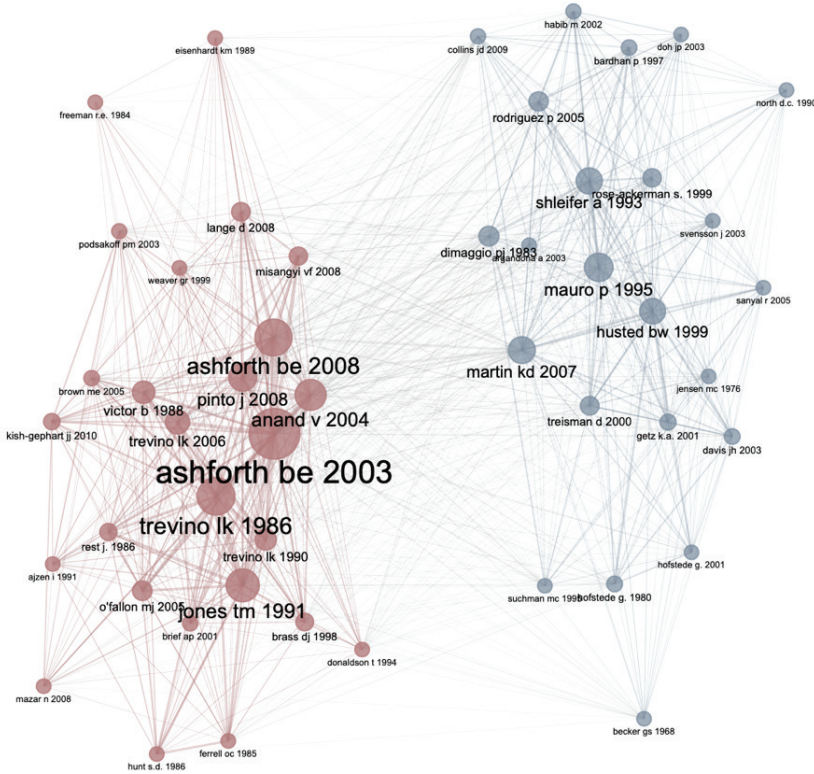
Fig. 4 Source (Documents) co-citation network

Conceptual Structure of the Field

The conceptual structure of a field refers to the underlying principles, theories, and ideas that shape the way we understand and approach a particular subject. In any given field, there are certain assumptions and beliefs that guide research, practice, and discourse. These conceptual structures can be explicit or implicit and can change over time as new knowledge is gained. Understanding the conceptual structure of a field is essential for advancing knowledge and making meaningful contributions. It allows us to identify gaps in our understanding, challenge existing assumptions, and develop new theories or approaches. Moreover, it helps us communicate with others in the field by providing a shared language and framework for discussion.

The conceptual structure enables the reader to comprehend the subjects and determine which are the most critical and recent issues. We illustrate the conceptual structure using co-word networks, which reveal connections between concepts via term co-occurrences (Callon, Courtial, Turner, & Bauin, 1983; Ding, Chowdhury, & Foo, 2001). Co-word analysis generates clusters of keywords that can be classified as themes and mapped in a two-dimensional grid employing respective density and centrality scores in Bibliometrix (Aria & Cuccurullo, 2017). We first employed factorial analysis through multiple correspondence analysis. This analysis uses K-means clustering to classify clusters of articles that specify common topics (Aria & Cuccurullo, 2017). Figure 5 depicts how keyword proximity links to shared substance, which indicates that keywords are close to one another because a substantial number of articles treat them together. The center of the map indicates the average position of all the keywords and thus the field's center (Cuccurullo et al., 2016). The horizontal dimension shows the multidimensionality of the keywords. As it appears, the blue cluster of keywords (i.e., values, morality, unethical behavior, responsibility, dishonesty) was the most multidimensional group. The red cluster of keywords, on the other hand, was more multidimensional. The most multidimensional concepts in this cluster were institutional theory, international business, bribery, guanxi, and globalization. Together with the vertical dimension, the grid demonstrates the distinction of topic polarity.
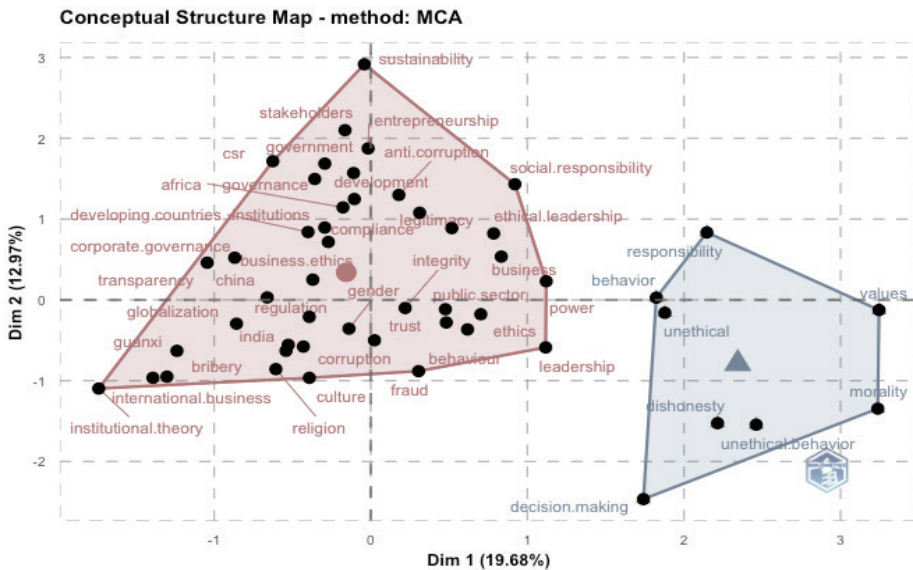

Fig. 5 MCA analysis, conceptual structure map

Second, we demonstrated a thematic map that enables us to examine topics in terms of the quadrant in which they are located (Figure 6). The centrality axis on the map represents the degree of relevance of variables and provides information about the significance of the themes. The internal strength of the clusters is measured by the density axis (Aria, Misuraca, & Spano, 2020; Aria, Cuccurullo, D'Aniello, Misuraca, & Spano, 2022). Basic themes (Cell I) are included in the first quadrant. The clusters in this zone show high centrality and low-intensity values, indicating that they address key concerns in the field and intersect with related fields. Emerging or declining themes positioned in the lower-left quadrant (Cell II) indicate lower centrality and intensity ratings, denoting peripheral subjects that have not been completely developed or are moderately relevant to the field. Greater centrality and density (Cell III) values denote *motor themes* that are well-developed and relevant for shaping the domain's conceptual framework. Finally, the upper-left quadrant (Cell IV) is assigned to highly specific subjects. These are referred to as *niche topics*, as they are well developed but remain peripheral to the domain.
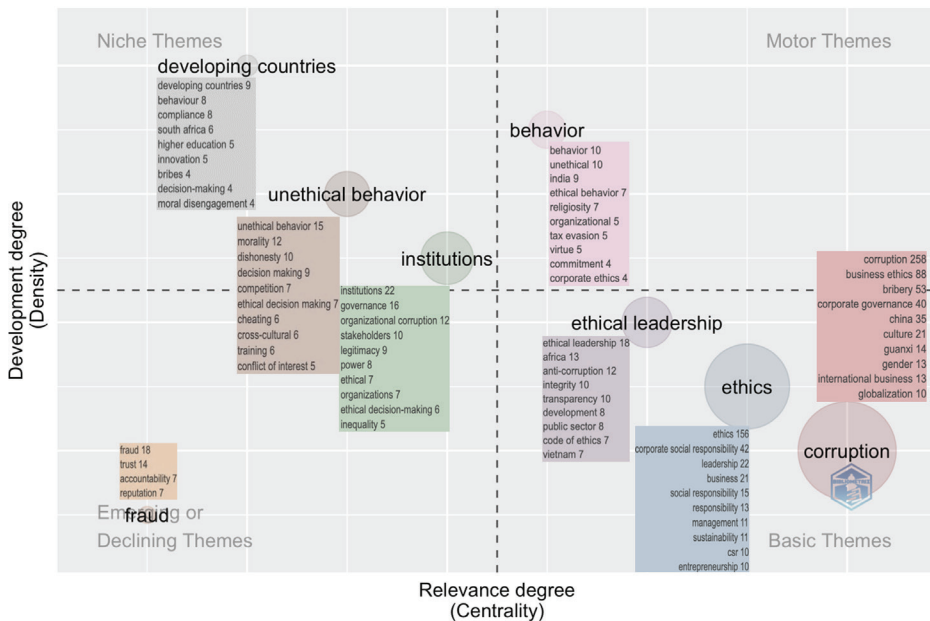

Fig. 6 Thematic map

Findings show three clusters as basic themes (Cell I). Ethical leadership (i.e., Africa, anti-corruption, integrity, transparency, etc.), ethics (i.e., corporate social responsibility, business, sustainability, etc.), and corruption (bribery, corporate

governance, China, culture, etc.), were the most closely related to the basic themes. These concepts were closer to the center and covered conceivably more established topics in the field. Cell II revealed the fraud cluster (i.e., trust, accountability, reputation, etc.) as an isolated cluster. These concepts have not been completely developed; the items in this cluster were unidimensional. There were also three clusters positioned in Cell IV, namely developing countries (i.e., compliance, higher education, innovation, South Africa, etc.); unethical behavior (morality, dishonesty, etc.); and institutions (governance, stakeholders, legitimacy, power, etc.). The first consists of highly specialized topics that are developed but remain on the periphery of the area. However, the proximity of the other two clusters to the center made them more relevant. As it refers to motor themes, Cell III consists of well-developed subjects. The cluster "behavior" (i.e., ethical behavior, India, religiosity, tax evasion, virtue, etc.) seems to be relevant for shaping the domain's conceptual framework.

Social Structure of the Field

Social networks are critical for diffusing a field's knowledge base to users (Aldrich, 2012). The United States, the United Kingdom, China, Australia, and Canada had the most scientific production over the entire time period. While the time slice has no effect on the rankings of countries' publishing profiles, the map of scientific collaboration indicates a considerable variation in the two periods of time (see Fig 1). Figure 6 represents the collaboration map that shows how the collaboration network has increased dramatically since 2008.
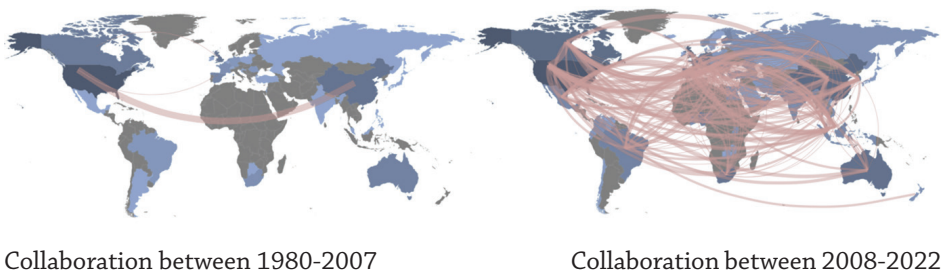

Collaboration between 1980-2007   Collaboration between 2008-2022

Fig. 6 Collaboration map

Illustrated in Figure 7, Middle Tennessee University, Chinese University of Hong Kong, Seoul National University of Singapore, Boston College, Northeastern University, Harvard University, and Michigan University had a relatively central impact on the field's institutional collaboration figures. Institutional collaborations appear to fit a pattern comparable to that of country groups.
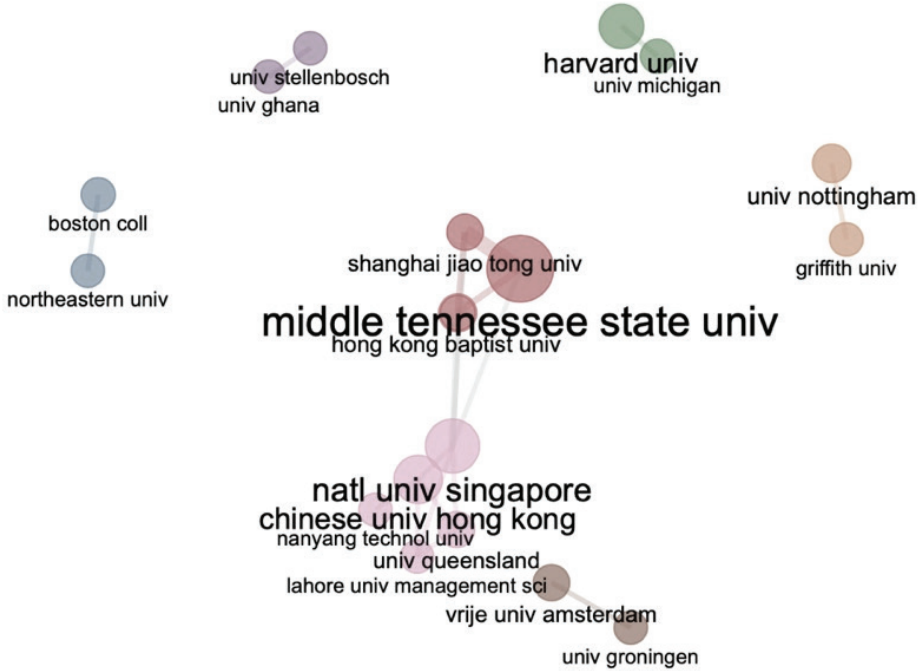

Fig. 7 Collaboration network

Conclusion and Discussion

Our study presented findings from 43 years of research on the nexus between corruption and business ethics. Corruption is historically harmful (Kucur & Taşcı, 2010), and its detrimental impacts are evident in almost every aspect of organizational life. While some have suggested that corruption facilitates transactions in developing countries (Leff, 1989) or is tied to cultural relativism (Husted, 1999), business ethics as a set of universal norms and principles rejects these arguments. Still, its importance as a global policy concern has grown in recent years (De Jong & van Ees, 2014).

Our study identified the most frequently cited journals and articles, as well as co-cited works and research topics discovered through grouping co-cited works. First, we showed that the field's growth trajectory seemed to have shifted from qualitative

to quantitative. As the number of publications grows, the number of citations grows at a slower rate. An examination of key authors' works demonstrates that the field is not dominated by a limited number of authors. The field's multidisciplinary nature is considered to have had a key role in this result. Secondly, the Journal of Business Ethics appears to have pioneered the field, followed by the Academy of Management Review and Academy of Management Journal. The journal co-citation network revealed a distinction between economics and finance, organizational behavior, and business-management journals. The distinction between macro (i.e., national income, culture, development level) and micro viewpoints (i.e., firms, entrepreneurs, individuals) is thought to have a significant effect on this difference. Multidimensional concepts are getting popularity alongside the results of the MCA. The well-developed and pertinent motor subjects are depicted in the thematic map. In the area, there is a lot of discussion about the micro-level organizational variables (such as moral character, virtue, commitment, etc.). . Developing countries, education, and innovation are all on the periphery of the core. Furthermore, concepts such as fraud, trust, accountability, and reputation were isolated and unrelated to the field's primary themes. Finally, we showed the social structure and collaborative patterns. Since 2007, we've noticed a considerable improvement in collaborative patterns. Furthermore, the institutional collaboration profile matched the geographical and cultural dispersion of the groups.

The findings revealed that organizational studies are gaining popularity in this discipline. Literature reviews or bibliometric analyses that focus on cultural and meso-organizational features may be useful in this setting. The integration of sub-dimensions should be the focus of future research. We anticipate that our comprehensive research will enable academics to analyze the field's strengths and limitations, as well as its future development potential. Investigating divergences and convergences on corruption in business ethics journals and other sources may provide a contribution to the field. The database of this study consisted predominantly of business ethics journals, although it did not distinguish the sources in this way. Still, it may be interesting to trace the academic patterns of corruption, particularly in economics and management areas. Further, while this study does not contain a periodical examination, it may be interesting to analyze how the phenomena of corruption evolves over time using bibliometric techniques. The study has its own limitations. The first is that bibliometric analysis has limitations (Belter, 2015), particularly in terms of capturing complexity (Haustein & Larivière, 2015). Second, the bibliographic coupling technique was not included in this study. Using this technique—at least in a hybrid form with others—can be helpful to see where a field will evolve in the future (Boyack & Klavans, 2010).

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