

Sustainability and Business Ethics: The Trend in the Past 16 Years

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Abstract

The purpose of the study is to evaluate global research in form of bibliometric analysis of business ethics and its growth of publications from 2004 to 2020 from Scopus database. The study revealed, the research details such as co-authorship, leading countries in the research, top scholars and leading key words of business ethics related studies. The study contributed insights of business ethics related areas to the academics for further research. This study used VOS Viewer to analyze and visualize the global research trend on 'Sustainability in Business Ethics' in analyzing the bibliographic data. Bibliometric maps were retrieved from VOS Viewer. This paper can be beneficial for academicians, organizations, and business policymakers in understanding the global trend of 'Sustainability in Business Ethics' besides discovering the future directions and opportunities for future studies.

Keywords: Bibliometric Analysis, Bibliographic Map, VOS Viewer, Sustainability, Business Ethics

1. Introduction

In this century, the word "sustainability" and "Business Ethics" have been spoken widely in business ethics field. Business ethics comprises two words: "business" and "ethics", which cover the areas of moral principles, beliefs, values, culture, governance issues and a code of conduct for business (Mose and Buya, 2022). Business ethics are one of the key instruments to pursuit of long-term profit in global business world, as well as opulence and sustainability for the business organization and society as whole (Huang et al., 2022). Business ethics plays a vital role in sustainability and contributes to the growth of the organization and economy of the country. Besides, it also helps to sustain their customers. Business ethics explain what is right and wrong, what is fair and unfair, and it provides code of guidance to make decisions in day-to-day operations. Absence of code of ethics and principles in the business leads to lose loyal customers, employees, investors trust and sustainability of business. Business ethics are not exactly same as laws, and it is important to seek to enforce compliance. 90 percent of global sustainable organizations have code of ethics to ensure they have followed ethical decision-making in business.

Over the decades, researchers have been conducted to various studies on business ethics, as well as to investigate the importance of business ethics. However, the global trend yet to be discussed. Web of Science (WOS) and Scopus are two leading databases in the world. However, Scopus is a multidisciplinary database increasingly used by academic researchers because Scopus has collected more research articles which may not be available in WOS. The paper can be contributed for academicians, business organizations, and NGOs to understand the global trend and importance of business ethics. The paper focused on (1) the trend's outline of sustainability, (2) provides direction for future researchers, (3) stipulate new insight for policy makers. This paper intended to present bibliometric analysis from (2004 to 2020) to outline the trend of sustainability from the paper provides a big picture of sustainability trend and guidance for future research in looking for new areas in sustainability of research.

2. Methods

The approach of bibliometric analysis is conducted to collect the bibliographic data from previous studies through analyzing the past scholars' citation and writing (Zupic and Carter, 2015). Bibliometric analysis is believed that it can contribute in the way of suggesting future directions for the scholars in the particular discipline (Khudzari et al., 2018). Although review paper and bibliometric analysis are quite similar, different from review paper, the latter contributes in providing further information about the trend of the discipline, and the past publication performance.

2.1 Searching Strategy

Data mining for this bibliometric paper was conducted from 9th March to 10th March 2021, by exploring the Scopus database. In order to retrieve the necessary documents, the authors had determined a theme in the searching process. The key theme of this analysis is "Sustainability" in "Business Ethics" as the main words to be inserted in the searching of abstract and title. This is to obtain the global trend of the particular keywords. When the keywords are included, the authors sorted the articles based on the years, where the oldest paper was in 1998, while the latest is in 2020. Hence, in the query string, the keyword is in this order: TITLE-ABS-KEY (Sustainability AND "Business Ethic*") AND DOCTYPE (ar) AND PUBYEAR > 1998 AND PUBYEAR < 2021 AND (LIMIT-TO (SRCTYPE,"j")). By inserting the asterisk, it can help the authors to retrieve all the articles that used "ethic" and "ethics". From this query string, 266 documents were retrieved from the Scopus database.

Next, due to the 266 documents had included non-empirical papers which are irrelevant to this analysis, the authors added keywords, such as "progress", "review", "highlight", and "revisit" in the next query string. A total of 43 non-empirical papers was found after screening the new query string. The Scopus article identifier (EIDs) of the 43 articles were jotted down and included in the next query string that excluded the non-empirical papers. By excluding the non-empirical papers, 223 documents were retrieved. After excluding the non-empirical papers, the oldest paper was in 2004. By retrieving this data, the bibliometric analysis can be started by analyzing the bibliometric information. The search strategy process was indicated in Figure 1, while the query strings were listed in Table S1, supplementary material section.

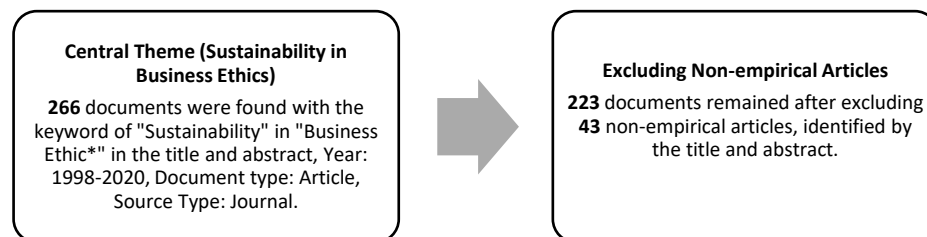


Figure 1. Searching Strategy

2.2 Bibliometric Map

In order to visualize the outcome of the bibliometric analysis, the authors used VOS Viewer to produce the visualization of bibliometric maps. The visualization function in VOS Viewer could help the authors to present the following aspects, such as co-authorship analysis, and interest of author keywords. To see the strength of links in the bibliometric maps, the strength value of lines that connecting each keyword could tell. The stronger the connection between two items or keywords, the higher the value of strength (Khudzari et al., 2018). Co-authorship analysis is about analyzing the linked countries that collaborated to publish the relevant papers, while author keywords analysis is about the amount of papers that linked the keywords and theme simultaneously (Van Eck and Waltman, 2018).

2.2.1 Co-authorship Analysis

The co-authorship analysis showed that, 60 countries were affiliated with 167 authors. The affiliated countries were clustered into seven regions, which are Europe (22 countries), Asia (13 countries), America (10 countries), Africa (6 countries), Middle East (6 countries), Oceania (2 countries), and United Kingdom (1 country).

2.2.2 Analysis of Co-occurrence

The co-occurrence analysis consists of author keywords and the exclusion of Scopus indexed keywords with a total of 13 keywords from 223 articles. Before importing all the author keywords into VOS viewer, the authors created a thesaurus file to prevent any identical keywords from repeating. This is done by screening and grouping the synonymic keywords. For instance, “corporate social responsibility”, “corporate social responsibilities”, and “CSR” are grouped as “CSR” as one.

In order to produce the output of analysis for author keywords, this study set the minimum of five occurrences. The VOSviewer was then adjusted to visualization setting to examine the strength of connection among the author keywords, number of occurrences, and average publications of year.

3. Results and Discussion

3.1 Research Growth

Sustainability in business ethics has been receiving stable attention since 2004. A total of 223 research papers published in the span of 16 years. Figure 2 indicates the trend of publications in Scopus. The first publication on sustainability in business ethics was published in 2004 with one paper. However, no significant growth of publication until the year of 2011. From 2011 onwards, the number of publications in sustainability in business ethics has been risen drastically till it reached the maximum of 33 papers in 2020.

The effort of research could be seen when the work of researching started to become more active in 2011. Although there was a slight declining in 2012, it continued to grow steadily from 2013 onwards. The increasing number of publications has resulted in the increased number of cumulative total publications. Within the time span of 10 years, the total publications increased from 6 journal articles in 2010 to 33 journal articles in 2020. This brings a meaning that, sustainability has begun to received attention and acknowledgment from researcher in the field of business ethics, which has led to the growing number of publications. As of 2020, 22% (49 articles) are open access articles, hence it is suggested that more journal papers should have public access to scholars in order to increase the rate of readability.

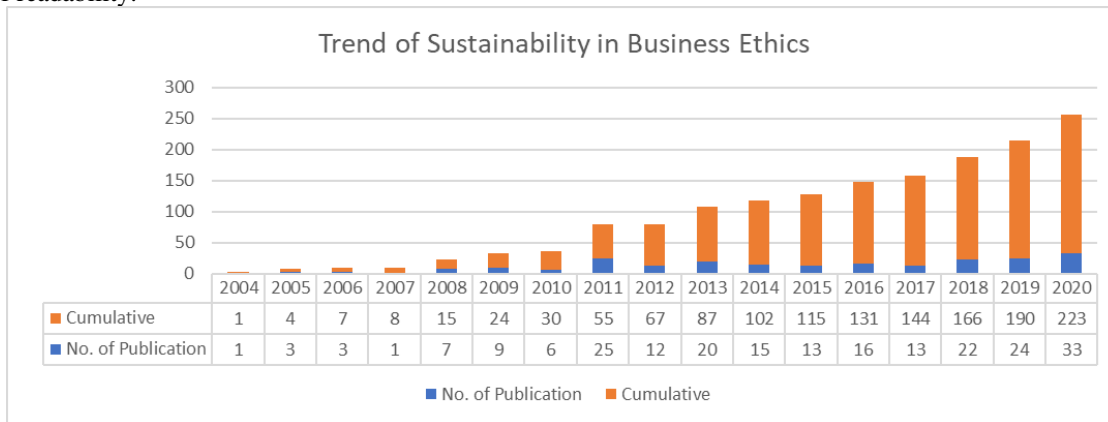


Fig 2. Trend of Sustainability in Business Ethics in Scopus database (2004 – 2020)

The authors analysed the trend based on the subject area as well. From the analysis of subject area in Scopus database, the growth of sustainability in business ethics was active in the area of Business, Management, and Accounting (34.8% documents), followed by Social Sciences (23.7% documents), and Economics, Econometrics, and Finance (15.3% documents). Other than these three major subject areas, sustainability in business ethics also received attention from other multidisciplinary area as well. For example, 27 documents of related topic were published in Environmental Science, 5 documents in Medicine area. This showed that the attention of business ethics was gained among scientists as well. This indicated that the importance of sustainability in business ethics could play an important role in other fields as well, which needing an exploration from future researchers.

3.2 Top Productive Journals Analysis

This section described the top ten leading journals which published most of the papers in Sustainability in Business Ethics. The authors compiled the top ten journals details in Table 1, which included the total publication and total citation in Scopus database. The ranking of the top ten journals was based on the total amount of publications.

As shown in Table 1, the leading journals were led by five different publishers. For example, the top two journals were led by Emerald and Wiley Blackwell. Out of five publishers, Emerald owned the highest number of journals, where 4 out of 10 journals were from this publisher. The remaining journals were led by Springer Nature, MDPI, and Cambridge University Press. From Table 1, most of the journals were indexed in Quartile 1 and 2 (Q1 and Q2) and the remaining journals were indexed in Quartile 3 and 4 (Q3 and Q4).

Based on the result as shown in Table 1, Journal of Business Ethics is the most productive journal that published the most papers (TP: 39; 17%) in Sustainability in Business Ethics, followed by Business and Society Review with 16 publications (7 %), and Management Research Review with 13 publications (6 %). Expectedly the most productive journal owned the highest number of citation (TC: 955).

As for the CiteScore analysis, among the top ten leading journals, three journals scored more than 5.0 in CiteScore, namely Journal of Business Ethics, Business Ethics, and Business Strategy and The Environment. The list of CiteScore in this paper is crucial to be reported because the list of CiteScore could help future readers to decide which journals they would publish in (Khudzari et al., 2018).

Table 1: Leading journals on Sustainability in Business Ethics Studies

Rank	Journal	Quartile	TP (%)	TC	CiteScore 2019	The most cited article (Reference)	Times cited	Publisher
1.	Journal of Business Ethics	Q1	39 (17)	955	7.0	Searching for New Forms of Legitimacy Through Corporate Responsibility Rhetoric (Castelló, I., Lozano, J.M., 2011)	123	Springer Nature
2.	Business and Society Review	Q2	16 (7)	127	1.3	The Economic Value of a Sustainable Supply Chain (Mefford, R.N., 2011)	35	Wiley-Blackwell
3.	Management Research Review	Q2	13 (6)	89	2.8	Environmental CSR and pro-environmental behaviors to reduce environmental dilapidation: The moderating role of empathy (Islam, T., Ali, G., Asad, H., 2019)	17	Emerald
4.	Sustainability Switzerland	Q2	11 (5)	110	3.2	An empirical exploration, typology, and definition of corporate sustainability (Bergman, M.M., Bergman, Z., Berger, L., 2017)	37	Multidisciplinary Digital Publishing Institute (MDPI)
5.	Emerald Emerging Markets Case Studies	Q3	7 (3)	1	0.1	Fashioning corporate social responsibility (Jones, P., Hillier, D., Comfort, D., 2012)	1	Emerald
6.	Business Ethics Quarterly	Q1	4 (2)	107	4.9	Ethics in the family firm: Cohesion through reciprocity and exchange (Long, R.G., Mathews, K.M., 2011)	57	Cambridge University Press
7.	Social Responsibility Journal	Q2	4 (2)	88	2.5	Social and environmental sustainability in the clothing industry: A case study of a fair trade retailer (Goworek, H., 2011)	53	Emerald
8.	Strategic Direction	Q4	4 (2)	1	0.1	Want to change the world? Think differently: An interview with Paul Polman, CEO of Unilever, part 2 (Polman, P., 2013)	1	Emerald
9.	Business Ethics	Q1	3 (1)	12	5.4	Three tiers of CSR: An instructive means of understanding and guiding contemporary company approaches to CSR?	12	Wiley-Blackwell

						(Aggerholm, H.K., Trapp, N.L., 2014)		
10.	Business Strategy and The Environment	Q1	3 (1)	345	8.4	Explanatory Factors of Integrated Sustainability and Financial Reporting (Frias-Aceituno, J.V., Rodríguez-Ariza, L., García-Sánchez, I. M., 2014)	162	Wiley-Blackwell

3.3 Top Nations, Collaboration, and Institutions Analysis

In this section, top 15 active nations are reported where the number of publications from the database of Scopus was concerned. Table 3 indicated the list of productive nations that contributed to the trend of Sustainability in terms of business ethics. The ranking in Table 3 is arranged based on the total publications of each nation.

From the list in Table 3, it showed that United States is the most active country in the publication of Sustainability in business ethics, where it has 59 publications, covering 26.5% of the global publication (223 publications). By leading as the top first country, United States is the key contributors in this business ethics Sustainability research. United States was then followed by United Kingdom (25 publications), Australia (20 publications), Spain (20 publications), and Canada (12 publications).

The trend of Sustainability in business ethics could be seen that it needs further explorations in future from the countries. This is because, as observed from Table 3, although New Zealand, Malaysia, and Mexico were listed as top 15 countries, their numbers of publications were five and below. As an addition to Table 3, a detailed list of top 50 leading countries and institutions was provided in Table S3, in the section of supplementary material.

As for the single-country publications (SCP) ranking in Table 3, 2/3 of the countries scored more than 50% in SCP, where the three highest SCP values (100%) were from India, Romania, and Malaysia. Although United Kingdom owned the second highest in number of publications, its SCP value was lower than 50%. SCP should be paid attention because the higher the percentage, the more the collaborations between the nations (Khudzari et al., 2018). Hence, it is crucial to have higher SCP in order to share the knowledge across the countries via collaboration.

Based on the World University Rankings 2021, in the list of productive academic institution, only two universities were ranked as the top 100 best universities (THE, 2021), which were The University of Manchester (27th), and Monash University (55th). This shows that more attention is needed from the universities to study or explore about Sustainability in business ethics context. It is believed that the attention of top global universities could help to increase the awareness of sustainability in business ethics.

Table 3: Leading Nations and Institutes in Employee Voice Studies

Rank	Country	TCP	SCP (%)	Productive Academic Institution	TPI
1	United States	59	61.02	Midwestern University Glendale	3
2	United Kingdom	25	36.00	The University of Manchester	2
3	Australia	20	30.00	Monash University	3
4	Spain	20	55.00	Universidad de Salamanca	5
5	Canada	12	25.00	York University	3
6	Netherlands	11	18.18	University of Twente	4
7	Germany	10	70.00	Martin-Universität Halle-Wittenberg	2
8	Italy	9	66.67	Università degli Studi di Siena	1
9	China	6	50.00	Xiamen National Accounting Institute	1
10	India	6	100.00	Indian Institute of Forest Management	1
11	Romania	6	100.00	Bucharest University of Economic Studies	3
12	Switzerland	6	83.33	Università della Svizzera italiana	1
13	New Zealand	5	60.00	University of Waikato	3
14	Malaysia	4	100.00	Universiti Sains Malaysia	1

15	Mexico	4	25.00	The University of New Mexico	3
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Note: TPC: total publications of the country; SCP: single-country publications; TPI: total publications of the organization

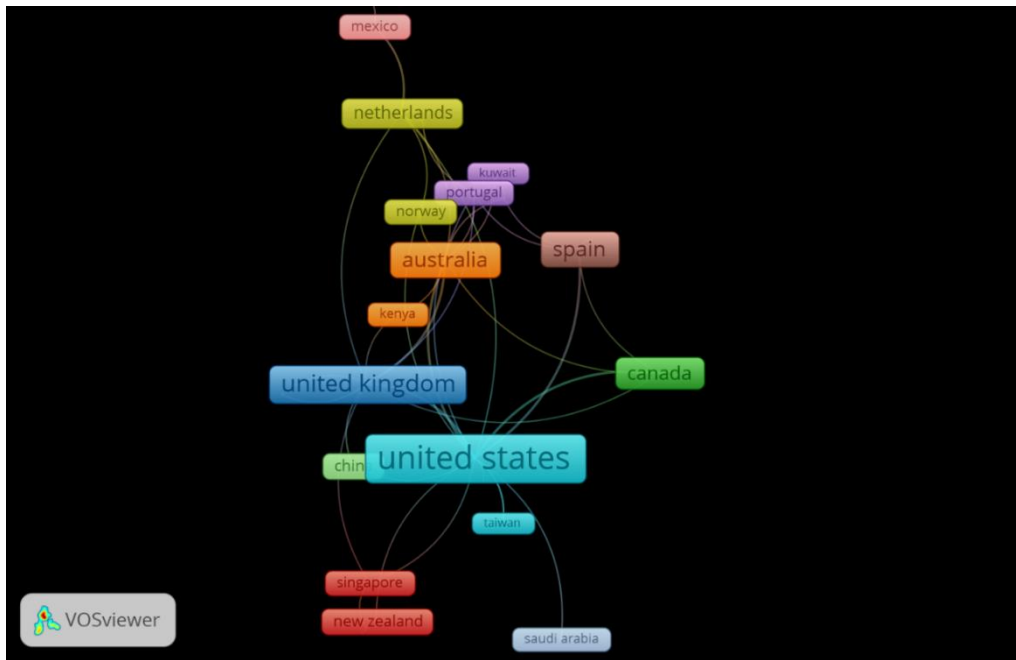


Figure 4. The bibliometric map of co-authorships

Referring to Figure 4, the authors have used the VOSviewer to visualize the information of co-authorship. When there is a strong link between nations, the locations of those nations will be closer together (Khudzari et al., 2018). As can be seen in Figure 4, the stronger the linkage between nations, the thicker will be the line in VOSviewer. In the research area of business ethics sustainability, United States was the country with the highest publication rate, followed by United Kingdom.

The co-authorship analysis showed that United States was also the country with the highest number of affiliations (14 links, 59 co-authorship), followed by United Kingdom (11 links, 25 co-authorship), Australia (10 links, 20 co-authorship), Canada (7 links, 12 co-authorship), and others. The analysis revealed that only 12% of the nations had more than 5 international collaborative publications. In addition to that, a total of 17 nations were not affiliated with any international nation in publishing employee voice papers, for example South Africa, South Korea, Sweden, Uruguay, and others. It is suggested that the 17 nations should collaborate by increasing the number of international students in universities, diverse working culture, improving the funding of research, and encouraging international collaborative research climate at respective working places.

3.4 Most Productive and Highly Cited Authors

The top productive authors for Scopus were extracted and sorted base on the number of publications. Table 4 indicated the top 10 leading scholars in the area of sustainability in business ethics. These authors are associated to four nations, which were US (5), Spain (3), Mexico (1), and Netherlands (1). The first publication of the leading researcher ranged between the years of 1985 to 2018, in which six of them were first author, two of them were second author, and two of them were third author and above.

García-Sánchez, I.M., Nithman, R.W., and Reficco, E. are the major contributors in Scopus database with 3 total publications, with h-index of 3, 0, and 3, respectively. However, among the three major contributors, only García-Sánchez, I.M. owned the highest citation among the scholars, where TC = 161. In addition to this, although Chen, I.J. was ranked as 8th leading author, Chen, I.J. owned the second highest citation, where TC = 89. From Table 4, it could be seen that most of the authors were from US, and this result is tally with the ranking of leading country, where US was the most active country in this research area. The authors from Spain were from the same university, namely

Universidad de Salamanca. This indicated that this university was active in publishing sustainability research in business ethics.

It can be concluded that the following authors are the most influential authors in the area of sustainability research in business ethics as they are the most productive based on the number of papers published in Scopus and they are highly cited authors.

Table 4: The top 10 productive scholars in sustainability research in business ethics

Rank	Author	ID of Author in Scopus	First publication year*	TP	h-index	TC	Current Affiliation	Country
1	García-Sánchez, I.M.	57193363767	2006 ^a	3	3	161	Universidad de Salamanca	Spain
2	Nithman, R.W.	56716373100	2015 ^a	3	0	0	Midwestern University Glendale	US
3	Reficco, E.	36500240000	2009 ^a	3	3	24	Tecnologico de Monterrey	Mexico
4	Amor-Esteban, V.	57196276446	2018 ^a	2	2	27	Universidad de Salamanca	Spain
5	Ardichvili, A.	6507004597	1998 ^a	2	1	40	University of Minnesota Twin Cities	US
6	Blodgett, M.S.	6602903375	1995 ^b	2	2	41	Suffolk University	US
7	Casiano Flores, C.	57201492727	2013 ^c	2	2	22	University of Twente	Netherlands
8	Chen, I.J.	7402043422	1988 ^b	2	2	89	Cleveland State University	US
9	French, J.J.	36349895400	2008 ^a	2	0	0	University Northern Colorado	US
10	Galindo-Villardón, M.P.	6508229340	1985 ^c	2	2	27	Universidad de Salamanca	Spain

Note*= a: First Author, b: Second Author, c: Third Author and above; TP=Total Publication; TC=Total Citation

3.5 Author Keywords Analysis

Prior to developing a thesaurus file, a total of 19 author keywords was documented, in which 20% (4 author keywords) were used for five times, 10% (2 author keywords) were used for six times, 15% (3 author keywords) were used for seven times, 5% (1 author keyword) were used for nine times, and 45% (9 author keywords) were used for ten times and above. To prevent similar author keywords being analyzed, the author keywords were re-labeled in the thesaurus file. After inserting the thesaurus file, 13 author keywords (minimum five occurrences) were obtained from the new analysis. Figure 5 indicates the bibliometric map of author keywords. The author keywords will be discussed in the next section.

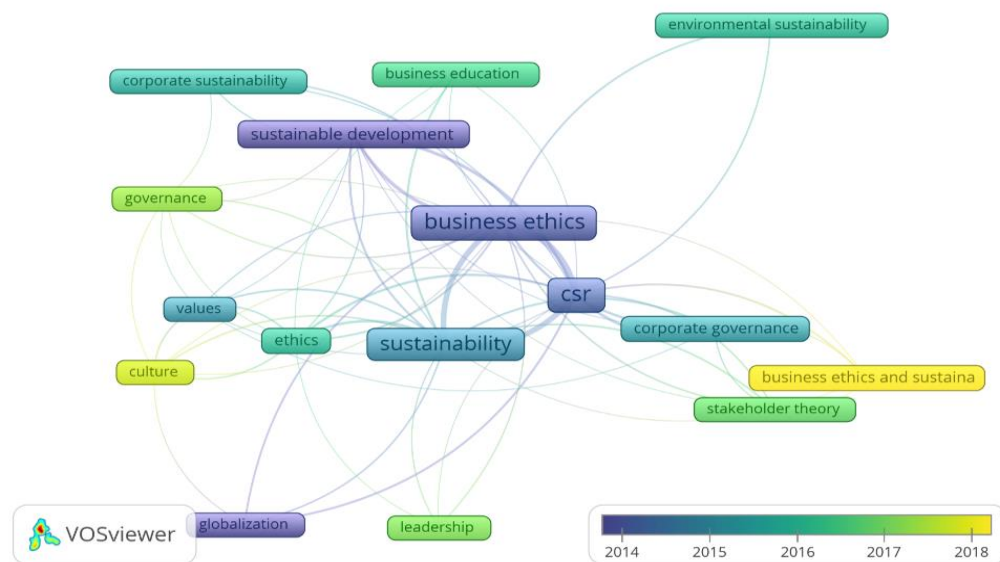


Figure 5. Bibliometric Map of Author Keywords

3.5.1 Concept and Terminology

The findings shows that keywords co-occurrences analysis indicated that “Business Ethics” was the most occurrence keyword in the past studies (371 occurrences, 122 links). The keyword “sustainability” has 13 links (71 occurrences), “sustainable development” has 10 links (23 occurrences); “Corporate Social Responsibility” (CSR) has 15 links (87 occurrences). In addition, the study also revealed that 2014 to 2015 researchers used “Globalization” (4 links and 6 occurrences); “sustainable development” (10 links and 23 occurrences), “CSR” (15 links and 87 occurrences); and “Values” (8 links and 7 occurrences) with business ethics. In 2016, the researchers focused on business education (5 links and 6 occurrences) and stakeholder theory (6 links and 9 occurrences); ethics (9 links and 16 occurrences) with business ethics. From 2017 onwards the researchers diverted their studies to link to “Culture” (7 links and 5 occurrences), “environmental sustainability”, (2 links and 5 occurrences); “governance” (8 links and 5 occurrences), and “business ethics and sustainability” (5 links and 13 occurrences).

3.5.2. Topic of Interest

Figure 5 shows that researchers focused on the relevant keywords that were always linked to business ethics, such as Corporate Social Responsibilities (CSR), Sustainability, Culture and Governance between 2004 to 2020. The researchers used “Culture” (7 links and 5 occurrences), and “sustainability” (13 links ,71 occurrences), “sustainable development” (10 links ,23 occurrences) and “governance” (8 links and 5 occurrences) during the set period. Sustainability has widely focused by academicians, organizations, and government in the discussion on business ethics. Sustainability helps preserving organizational resources for future. Sustainable development is achieved by practicing ethical principles. Sustainability is used different context of sustainable development of environment and culture. In context of globalization, multinational companies expanded their business in many countries. The keywords of ‘sustainability’ and ‘business ethics ‘are interrelated because it was believed that these two words are sharing the similar concepts (Borland et al., 2022). Both concepts are aimed to the business continuity via different strategies from the top management. As shared by Capparelli, Chionna, and Riglietti (2022), business continuity is tied with the culture of organization. Hence, with these connections, it is possible that those keywords above are mentioned frequently to be linked with sustainability and business ethics.

Due to the expansion of globalization, many multinational companies look into business ethics issues and corporate social responsibilities, governance into a new perspective of managing. The businessmen or entrepreneurs deal with different culture and various corporate governance to sustain their business. Smith and Drudy (2022) declared that in multinational companies treating business ethics through influencing cultural context. International differences in cultural values, governance and ethical values are important for sustainability of the business. Corporate

governance has gained attention for recent years due to lack of ethical code (Maile and Vyas-Doorgapersad, 2022). Corporate frauds and the crisis of investor trust have moved to developed ethical codes.

The bibliometric information in this paper revealed that business ethics receives wide attention among the researchers in this century, which may be due to many global businesses were collapsed due to breaches of corporate governance, sustainability, and business ethics. It is believed that business ethics very influence on pursuit sustainability of business and long-term profit. Therefore, the author keywords analysis showed the connections between the keywords, such as corporate governance, sustainability, and CSR to business ethics. Organizations expected to enforce of business ethics for long term success and sustainability. In general term, business ethics explain what is right and wrong that prescribe a code of behavior and guidelines for conducting business sustainability and its responsibilities towards society.

3.6 Limitations of Study

The searching strategy is restricted for 'sustainability' and "business ethic*" to the titles and abstracts. This strategy might overlook other journal articles on sustainability in business ethics in Scopus database. It is believed that some scholars might exclude the keyword of 'sustainability' in their studies and opted for 'sustainable performance' in explaining the performance of company. Future scholars are suggested to compare the studies of 'sustainability in business ethics" via various databases, such as combining WOS and Scopus, for the purpose to obtain a more comprehensive result.

4. Conclusion

The study analysis provides a clear picture of business ethics growth based on 223 related studies in Scopus database. Since the 2004 till current year, business ethics studies have been increasing gradually, the researchers have been recognized business ethics, and its contributions to sustainability and organizations performance. The analysis also indicated that United States, United Kingdom, and Australia are the leading countries focused on their research on Business Ethics. However, it shows not many studies have been done on Asian countries. Business Ethics is new area, and it is going to be hot topic in future because it provides guidance for business sustainability and long-term profit. Therefore, the study suggests the Asian countries to do more research on business ethics and sustainability.

5. About the Authors

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6. SUPPLEMENTARY MATERIALS

Research article:

SUSTAINABILITY AND BUSINESS ETHICS: THE TREND IN THE PAST 16 YEARS

Supplementary information:

Table S1: Search strategies and query strings

Table S2: The top 50 most productive institutions in Sustainability Business Ethics research

Table S1: Search strategies and query strings

Items	Theme	Search for:	Query Strings
i.	Central	Sustainability & Business Ethics research articles	TITLE-ABS-KEY(Sustainability AND "Business Ethic*") AND DOCTYPE (ar) AND PUBYEAR > 1998 AND PUBYEAR < 2021 AND (LIMIT-TO (SRCTYPE,"j"))
ii.	Central	Non-empirical papers in (i)	TITLE-ABS-KEY(Sustainability AND "Business Ethic*") AND DOCTYPE (ar) AND PUBYEAR > 1998 AND PUBYEAR < 2021 AND (TITLE ("recent" OR progress OR review OR critical OR revisit OR advance OR development OR highlight OR perspective OR prospect OR trends OR bibliometric OR scientometric) OR (ABS (progress OR review OR bibliometric OR scientometric))) AND (LIMIT-TO (SRCTYPE,"j"))
iii.	Central	Sustainability & Business Ethics research without non-empirical papers	TITLE-ABS-KEY(Sustainability AND "Business Ethic*") AND DOCTYPE (ar) AND PUBYEAR > 1998 AND PUBYEAR < 2021 AND (LIMIT-TO (SRCTYPE,"j")) AND NOT EID (2-s2.0-33750285681 OR 2-s2.0-43949100339 OR 2-s2.0-43149107229 OR 2-s2.0-52249087087 OR 2-s2.0-57849092358 OR 2-s2.0-84879422926 OR 2-s2.0-76649089359 OR 2-s2.0-77950156877 OR 2-s2.0-78649805561 OR 2-s2.0-84897128594 OR 2-s2.0-78651106800 OR 2-s2.0-79957970151 OR 2-s2.0-

			84879823716	OR	2-s2.0-84874423694	OR	2-s2.0-
			84860589544	OR	2-s2.0-84897382464	OR	2-s2.0-
			84915754256	OR	2-s2.0-84902813769	OR	2-s2.0-
			84955557975	OR	2-s2.0-85050756993	OR	2-s2.0-
			85010433872	OR	2-s2.0-84965112296	OR	2-s2.0-
			84950118622	OR	2-s2.0-84920520405	OR	2-s2.0-
			84982181843	OR	2-s2.0-84922733063	OR	2-s2.0-
			85021999006	OR	2-s2.0-85025840464	OR	2-s2.0-
			85021432373	OR	2-s2.0-85013684204	OR	2-s2.0-
			85020214614	OR	2-s2.0-85030165123	OR	2-s2.0-
			85076721592	OR	2-s2.0-85051334827	OR	2-s2.0-
			85033487648	OR	2-s2.0-84973130395	OR	2-s2.0-
			85060458687	OR	2-s2.0-85014038945	OR	2-s2.0-
			85063809794	OR	2-s2.0-85069912471	OR	2-s2.0-
			85071535512	OR	2-s2.0-85075935474	OR	2-s2.0-
			85073416442)))				

Table S2: Top 50 most productive institutions in Sustainability Business Ethics Research

Rank	Institution	No of Publications	Country
1	Universidad de Salamanca	5	Spain
2	University of Twente	4	Netherlands
3	University of Waikato	3	New Zealand
4	Midwestern University Glendale	3	US
5	Fordham University	3	US
6	Monash University	3	Australia
7	Universidad de Granada	3	Spain
8	The University of New Mexico	3	US
9	York University	3	Canada
10	Universidad de Los Andes, Colombia	3	Colombia
11	Bucharest University of Economic Studies	3	Romania
12	ESADE	3	Spain
13	IESA	2	Venezuela
14	Gretsa University	2	Kenya
15	German University in Cairo	2	Egypt
16	Brock University	2	Canada
17	Universitatea din Bucuresti	2	Romania
18	The University of Manchester	2	UK
19	Cleveland State University	2	US
20	Victoria University	2	Australia
21	Tecnologico de Monterrey	2	Mexico
22	Utrecht University	2	Netherlands
23	Suffolk University	2	US
24	University of Colorado at Colorado Springs	2	US
25	Martin-Universität Halle-Wittenberg	2	Germany
26	University Northern Colorado	2	US
27	Universidad de Zaragoza	2	Spain

28	University of Sussex	2	UK
29	Macquarie University	2	Australia
30	Copenhagen Business School	2	Denmark
31	Erasmus Universiteit Rotterdam	2	Netherlands
32	Universidad Pontificia Comillas	2	Spain
33	University of Lethbridge	2	Canada
34	The University of Sydney	2	Australia
35	Alliance Manchester Business School	2	UK
36	Universitat Ramon Llull	2	Spain
37	University of Minnesota Twin Cities	2	US
38	Curtin University	2	Australia
39	Griffith University	2	Australia
40	Pontificia Universidad Catolica del Peru	2	Peru
41	Leibniz-Institut für Agrarentwicklung in Transformationsökonomien	2	Germany
42	Universidad Peruana de Ciencias Aplicadas	2	Peru
43	NUS Business School	2	Singapore
44	Schulich School of Business	2	Canada
45	Nottingham Business School	2	UK
46	Griffith Business School	2	Australia
47	CENTRUM PUCP Escuela de Negocios	2	Peru
48	Article 13	1	UK
49	University oAS Aargau	1	Switzerland
50	GIFT University	1	Pakistan