

A BIBLIOMETRIC ANALYSIS OF BOARD DIVERSITY: RESEARCH TRENDS, CHALLENGES, AND FUTURE DIRECTIONS

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ABSTRACT

Board diversity has become a central issue in corporate governance, with growing recognition of its potential benefits for organizational performance, decision-making, and stakeholder engagement. This paper explores the concept of board diversity, examining various dimensions such as gender, ethnicity, age, and professional background. This study examines the evolution of board diversity, significant trends, and research gaps in current literature through bibliometric analysis. This study employs bibliometric analysis to identify the key areas of research, countries, languages, starting years, top journals, and prolific authors in board diversity. Using (Scopus.Com, n.d.) as the data source, 832 records published between 2016 and 2024 with the keyword "Board Diversity" were analyzed. This research utilized The VOS Viewer software for data analysis. This study implies that the bibliometric analysis highlights essential research gaps and trends, provides a thorough picture of the topic, and points out areas that need more investigation, especially the relationship between corporate success, sustainability, and board diversity. This can direct future studies and give academics and professionals a greater understanding of the strategic value of diverse boards. The results also highlight the regional distribution of research, identifying unexplored areas that can profit from targeted investigations. Ultimately, this study is a valuable tool for anyone wishing to learn more about the changing dynamics of board diversity and how it broadly affects corporate governance.

Keywords: Board Diversity, Bibliometric Analysis, VOS Viewer.

INTRODUCTION

In recent years, board diversity has become increasingly important in corporate governance practice and study. The make-up of an organization's leadership teams, especially corporate boards, is crucial in determining long-term performance, corporate culture, and strategic choices as businesses function in a more intricately linked and complicated global economy. Many business executives and others who care about good governance think that shareholder value and board diversity are positively correlated (Carter et al., 2003).

Board diversity includes individuals with different characteristics, such as gender, ethnicity, age, professional background, and educational experiences, among the members of a company's board of directors. Although research on board diversity has mainly focused on gender diversity, there are essential but little-studied aspects and consequences of board diversity that demand further attention. Among these is the range of board diversity factors: How can elements like business innovation, capital structure, sustainability performance, and corporate social performance—all infrequently studied—be related to gender diversity?

The topic has gained substantial attention due to the growing recognition of a diverse board's potential benefits, including enhanced decision-making, improved financial performance, and better alignment with diverse stakeholder interests. Businesses are particularly becoming more concerned with community

expectations, environmental issues, employee working conditions, and the protection of human rights. They operate their business according to moral principles (Beji et al., 2021).

The business case for board diversity is supported by numerous studies that suggest diverse boards are better equipped to generate innovative solutions, adapt to complex challenges, and create long-term value for shareholders. Concerning statistics, a survey of the Harvard Law School Forum on Corporate Governance for Board Effectiveness in 2021 says that, as described in Figure 1, Executives can achieve benefit from some of the same advantages that directors and investors do, as boards have made a concerted effort to diversify:

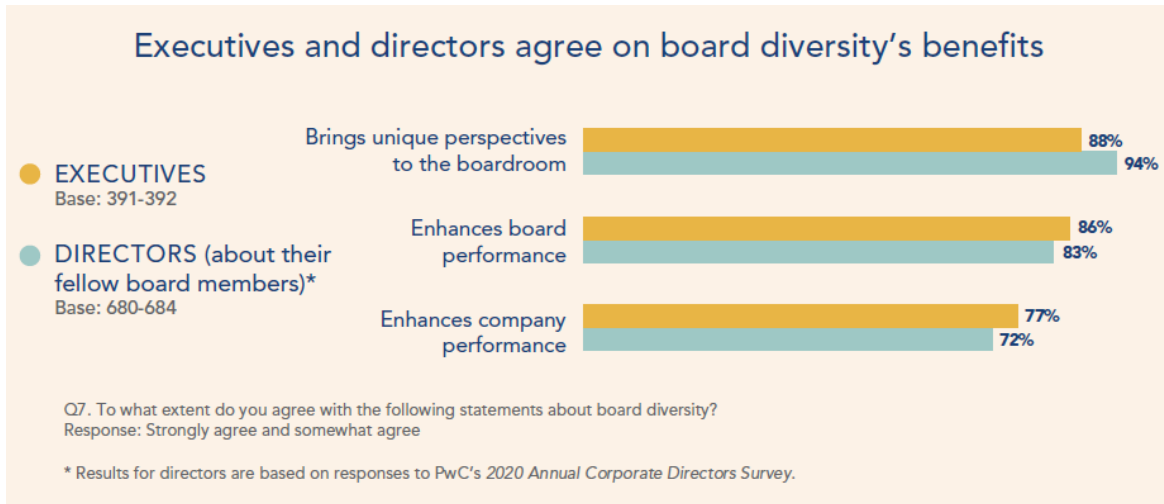


Figure 1. Board Diversity's benefits for unique perspectives on board performance

Source:(*Maria Castañón Moats and Paul DeNicola, 2021*)

The opinions of executives about board diversity are similar. According to 86% of executives, board diversity improves board performance, and 88% of executives feel it provides fresh viewpoints to the boardroom. Compared to 72% of board members, executives are even more likely to believe diversity enhances the board's strategy and risk oversight (83%). Additionally, 77% of executives feel that diversity improves firm success, which is slightly more probable than 72% of board members. Executives can be persuaded to perceive some of the same advantages that directors and investors do since boards have made a concerted effort to diversify (Maria Castañón Moats and Paul DeNicola, 2021). However, there may be drawbacks to a diverse board. For instance, social psychology research indicates that diversity causes more disputes among board members, which slows down decision-making (Triana et al., 2014).

Diverse boards are more likely to question presumptions, have more in-depth conversations, and steer clear of groupthink traps, which can impede innovation and decision-making. Furthermore, businesses with diverse boards are frequently seen as more welcoming and socially conscious, which can improve their standing and draw in a broader range of stakeholders, such as staff members, clients, and investors. Different perspectives from people of various ages, genders, races, and nationalities make the board of directors more creative and adaptable than boards with less diversity (Kent Baker et al., 2020). Additionally, diverse boards are better able to represent the demographics of their clientele, which could result in more successful marketing campaigns and increased client interaction.

However, while the potential benefits of board diversity are widely acknowledged, achieving meaningful diversity on boards remains challenging. According to (Kaczmarek, 2017), in his study, in the broader context of the challenge the corporate governance community faces in its application to managerial practices and regulations. In the end, analyzing board diversity is a strategic necessity for businesses looking to stay competitive in a market that is changing quickly, in addition to being a question of moral obligation

and legal compliance. With sustainability, innovation, and stakeholder involvement becoming increasingly crucial to businesses, having a diverse board of directors can help them succeed in the long run.

Literature Review

Analysis of Board Diversity

In academic literature and corporate practice, board diversity has received much attention as a crucial aspect of corporate governance. The main conclusions from a large body of research on board diversity are summarized in this section, emphasizing the issues of creating a diverse board and the diversity's several dimensions, theoretical underpinnings, and business case. The conceptual underpinnings of diversity are examined at the outset of the review, followed by an analysis of empirical research examining the impact of board diversity on business outcomes. The review closes by discussing the obstacles to board diversity and possible solutions.

Board diversity is a broad and multifaceted concept encompassing a range of demographic, cognitive, and experiential characteristics. The most commonly discussed dimensions of board diversity are gender and ethnicity, but scholars have also examined diversity in age, education, professional experience, nationality, and cognitive perspectives (Milliken & Martins, 1996). Each aspect brings a different viewpoint and skill set to the decision-making process, potentially enhancing the board's ability to address complex challenges (Carter et al., 2003). The fundamental tenet of board diversity is the conviction that diverse viewpoints may stimulate more lively debates and creative ways of problem-solving, thus raising the standard of governance as a whole. However, diversity is not only limited to observable traits. The concept of "cognitive diversity," which refers to differences in thought processes, problem-solving approaches, and worldviews, is also critical to enhancing the board's effectiveness (Van Knippenberg & Wilke, 1992)

Empirical Studies on the Impact of Board Diversity

The empirical literature on the impact of board diversity on firm performance is vast but produces mixed results. Numerous studies suggest that board diversity has a positive effect on financial performance, as measured by metrics such as return on assets (ROA), return on equity (ROE), and Tobin's Q (Erhardt, 2003, n.d.) For instance, a study by (Carter et al., 2003) found a positive relationship between the number of women and minorities on boards and firm value. Similarly, research (Adams & Ferreira, 2009) indicated that gender-diverse boards are associated with better attendance and more effective governance structures.

However, some studies provide more nuanced or even contradictory findings. For example, (Adams & Ferreira, 2009) also found that while gender diversity could improve monitoring, it might lead to over-monitoring, negatively affecting firm performance in specific contexts. Other studies argue that the impact of board diversity is contingent upon the organizational context, industry sector, and the particular governance practices of the firm (Kang et al., 2007)

The non-financial benefits of board diversity have also been highlighted in the literature. Studies have shown that diverse boards can improve decision-making by bringing various perspectives and reducing groupthink (Forbes & Milliken, 1999). Furthermore, board diversity has been linked to improved innovation, enhanced corporate social responsibility (CSR) outcomes, and a better understanding of customer needs, particularly in diverse markets (Bear et al., 2010). (Buse et al., 2016) diverse boards are more likely to engage in socially responsible activities and bear greater accountability to broader stakeholder interests.

Challenges to Achieving Board Diversity

Despite the recognized benefits of diversity, achieving meaningful representation on boards remains a persistent challenge. Structural barriers, like the "old boys' network," which emphasizes personal connections and traditional hiring practices, restrict the range of candidates considered for board positions (Seierstad & Opsahl, 2011). Unconscious bias and stereotyping also play a significant role, as decision-makers may favor candidates who resemble themselves or fit traditional notions of leadership, thus perpetuating homogeneity (Singh, 2008).

Issues with pipelines make the problem of board diversity even more difficult. The primary talent source for board selections is executive roles, where women and minorities are frequently underrepresented (Eagly & Carli, 2018). While gender quotas have successfully increased female representation on boards, their implementation has sparked debate. Critics argue that quotas may lead to tokenism, where women are appointed for compliance rather than genuine inclusion (Krook & Norris, 2014). Moreover, some scholars question whether diversity initiatives should prioritize other dimensions of diversity, such as ethnicity or professional background, over gender alone (Terjesen et al., 2009).

METHODS

The bibliometric analysis in this study utilized data retrieved from Scopus in September 2024. A bibliometric analysis uses statistical techniques to identify trends within a field, construct the profile of publications on a particular scientific research topic, and ascertain qualitative and quantitative changes in that topic (De Bakker et al., 2005). This study aims to provide ease of formation and visualization of bibliometric maps, which are increasingly popular in bibliometric research. For this reason, this study analyzes all documents in Scopus whose title, abstract, and content mention "board diversity." Therefore, the following is the syntax for the search:

Your query : (TITLE(board diversity) AND PUBYEAR > 2015 AND PUBYEAR < 2025 AND (LIMIT-TO (SUBJAREA,"BUSI") OR LIMIT-TO (SUBJAREA,"ECON") OR LIMIT-TO (SUBJAREA,"SOCI")) AND (LIMIT-TO (DOCTYPE,"ar")) AND (LIMIT-TO (PUBSTAGE,"final")) AND (LIMIT-TO (LANGUAGE,"English")))

To display and analyze the trends in the bibliometric form, the received results were downloaded in CSV format and processed using VOSviewer. VOSviewer is a software tool for constructing and visualizing bibliometric networks. These networks may include journals, researchers, or individual publications, and they can be built based on citation, bibliographic coupling, co-citation, or co-authorship relations. VOSviewer also offers text mining functionality that can be used to construct and visualize co-occurrence networks of important terms extracted from a body of scientific literature.

Articles, reviews, and conference papers are all included in the 832 documents that made up the sample. The bibliometric analysis was completed by separating the terms or points of view that are frequently discussed in the field of board diversity research, identifying scholars or researchers who are actively circulating examination on board diversity and joint effort among these journalists, and examining the amount of dispersed focus on designs from 2016 to 2024. The amount of published research about board diversity will be discussed in this study. Charts that rise or fall over an extended period, like ten years, typically show trend patterns (Agung Budi Santoso, 2017). These data were analyzed using the Visualization of Similarities (VOS) Viewer. Additionally, Vosviewer may produce keyword maps based on shared networks or publisher, author, or journal maps based on co-citation networks (Hudha et al., 2020).

Bibliometric analysis is one well-proven means to study such scientific activity more objectively (Tan, Goudarzlou, and Chakrabarty 2010). Based on trends in research subjects (such as author keywords) and research activity trends (such as categories, journals, language, and country distributions), this study aimed to identify the characteristics of scientific articles (Li & Zhao, 2015).

The bibliometric pointers utilized in this study are as follows:

- Most cited articles on board diversity
- Research area where the authors have published research on board diversity.
- The year in which research papers on board diversity were published between 2016 and 2024.
- Countries where the authors published research on board diversity.
- Journal where the author has published research on board diversity.
- Authors whose research on board diversity has been published.
- Term Analysis from research publications on board diversity.

Figure 2 depicts how the 2016–2024 publication period's data were obtained from the Scopus website using the keyword board diversity. The number of studies on board diversity that have been published will be examined in this study.

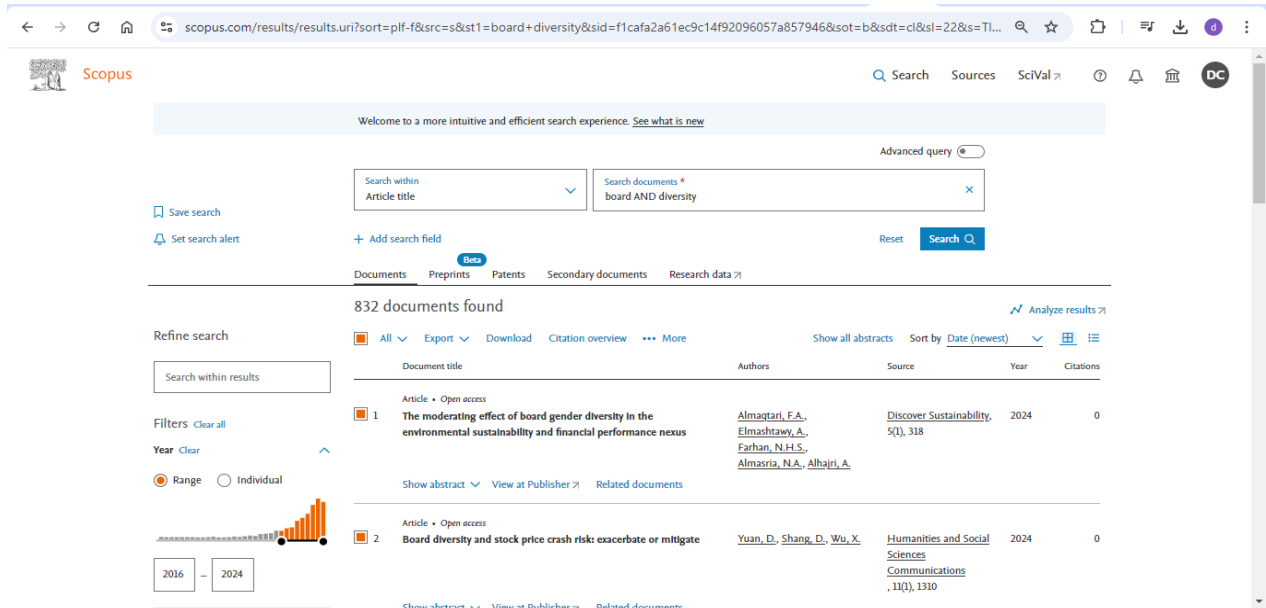


Figure 2. Data Source

ANALYSIS

Most Cited Articles

Board diversity is a topic worth discussing because of its significant impact on corporate governance, innovation, performance, and stakeholder relations at various levels. The quantity of citations determines the effect of a publication it obtains. The impact of a publication is determined by the amount of citations it obtains (Donthu et al., 2021). Thus, we examine the most significant papers in a research field to comprehend the intellectual processes of the field. Table 1 displays the collection's most frequently mentioned articles.

Table 1 only contains the top 10 citations out of 832 publications and 3402 citations, namely articles related to Board Diversity that are the most cited. The results from Table 1 showed that (Ben-Amar et al., 2017) article on the Technology Readiness Index reached 620 citations.

Table 1. Most cited articles on Board Diversity.

Document Title	Authors	Journal Title	Total Citations
Board Gender Diversity and Corporate Response to Sustainability Initiatives: Evidence from the Carbon Disclosure Project	Ben-Amar W.; Chang M.; McIlkenny P.	Journal of Business Ethics	621
Board Composition and Corporate Social Responsibility: The Role of Diversity, Gender, Strategy and Decision Making	Rao K.; Tilt C.	Journal of Business Ethics	608

Women on board: Does boardroom gender diversity affect firm risk?	Sila V.; Gonzalez A.; Hagendorff J.	Journal of Corporate Finance	502
Does the presence of independent and female directors impact firm performance? A multi-country study of board diversity	Terjesen S.; Couto E.B.; Francisco P.M.	Journal of Management and Governance	479
Board diversity, firm risk, and corporate policies	Bernile G.; Bhagwat V.; Yonker S.	Journal of Financial Economics	438
Diversity of Board of Directors and Environmental Social Governance: Evidence from Italian Listed Companies	Cucari N.; Esposito De Falco S.; Orlando B.	Corporate Social Responsibility and Environmental Management	427
Does Board Gender Diversity Influence Financial Performance? Evidence from Spain	Reguera-Alvarado N.; de Fuentes P.; Laffarga J.	Journal of Business Ethics	328
A bibliometric analysis of board diversity: Current status, development, and future research directions	Kent Baker H.; Pandey N.; Kumar S.; Haldar A.	Journal of Business Research	319
Comprehensive Board Diversity and Quality of Corporate Social Responsibility Disclosure: Evidence from an Emerging Market	Katmon N.; Mohamad Z.Z.; Norwani N.M.; Farooque O.A.	Journal of Business Ethics	304
Board Diversity and Corporate Social Responsibility: Empirical Evidence from France	Beji R.; Yousfi O.; Loukil N.; Omri A.	Journal of Business Ethics	278
Total			4304

Source: Data processed

Table 1 shows the top 10 citations, with a total of citations of 4304. Based on the most cited articles, it is estimated that the research of Ben-Amar et al. (2017) is the most cited by the number of 620 total Citations. Furthermore, (Rao & Tilt, 2015) had 608 total citations, and (Sila et al., 2015) had 502 total citations.

Research Area

Firms with more gender-diverse boards tend to perform better financially due to the broad range of perspectives brought into decision-making processes (Carter et al., 2003). It has also been demonstrated from a research standpoint that board diversity affects several research areas. The field of psychology research reveals that the emotional intelligence of board members, particularly in diverse groups, facilitates better conflict resolution and enhances group cohesion, leading to more effective decision-making (Goleman, 2020). Table 2 contains only the top 10 of the 16 research areas with a total 1578 number of publications.

Table 2. Research area on Board Diversity.

Ranking	Research area	Number of Publications
1	Business, Management and Accounting	627

2	Economics, Econometrics and Finance	363
3	Social Sciences	270
4	Environmental Science	99
5	Decision Sciences	56
6	Arts and Humanities	49
7	Energy	41
8	Computer Science	32
9	Engineering	21
10	Psychology	20
	Total	1578

Source: Data processed

The number of documents issued in various fields of knowledge is depicted in Table 2. The Scopus contains 627 papers in Business, Management and Accounting. In Economics, Econometrics, and Finance, 365 documents; In Social Sciences, 270 papers; in Environmental Science, 99 records; and 56 in Decision Sciences. These figures reveal a significant difference between the number of documents in Business, Management, and Accounting and the number of other knowledge areas.

These findings imply that board diversity is relevant in business, management, and accounting. Results show that board diversity and financial performance correlate positively, emphasizing the need for inclusive leadership in management techniques (Post et al., 2011). Because it can produce better decisions, improve performance, and encourage innovation within the company.

The ranking does not include six other research areas that address board diversity. The number of documents in this field is irrelevant because there are less than 10 board diversity documents in each category.

Year of publication

A search for the concept of board diversity in Scopus reveals articles on the status of board diversity that began around 1993. However, a closer examination of these documents shows that they do not address board diversity in implementation but rather the governance needs for meeting board diversity. According to Scopus, the term board diversity was previously used in a journal in 1993. However, before 2019, only a handful of papers were published annually (less than 50 per year).

Table 3. The year in which research papers on Board Diversity were published between the years 2016 and 2024.

Ranking	Year	Number of Publications
1	2024	152
2	2023	175
3	2022	139
4	2021	101
5	2020	84
6	2019	71
7	2018	43
8	2017	39
9	2016	28
	Total	832

Source: Data processed

The information shows how interest in this field of information has expanded from one year to another. Table 3 displays the number of publications from 2016 to 2024. The data demonstrate that interest in this area of study has grown annually. Except for the first five years, which appear to be relatively stable, the number of publications increases annually. The number of publications has steadily increased from 2016 to 2024. Academic interest in this subject has grown since 2021. There will be nearly 100 more articles on Board Diversity in 2021 than in 2020, and a similar pattern will continue in 2022. Information was gathered in early October 2024 when this examination was conducted, and 154 archives were distributed. The number is expected to rise in 2023, according to estimates. Some factors, including increased data availability, investor and regulatory pressure, societal shifts, and knowledge of diversity's financial and social advantages, have contributed to the growth of research on board diversity.

Countries

Table 4 shows that, in the United States, there have been 147 publications since 2016 on board diversity. The United Kingdom ranks second, with 104 publications. After that, China was in third place with 81 publications, while Indonesia was in thirteenth place with 30 publications.

Table 4. Countries where board diversity research has been published.

Ranking	Countries	Number of Publications
1	United States	147
2	United Kingdom	104
3	China	81
4	Australia	80
5	Malaysia	68
6	Pakistan	53
7	Spain	52
8	France	41
9	Italy	40
10	India	39
	Total	705

Source: Data processed

Table 4 contains only the top 10 of the 85 countries with a total number of publications of 1297. Because they have less than 40 publications and do not apply to this study, The study does not cover all remaining countries in the analysis because they have fewer than 40 publications and are therefore irrelevant to the study. Most journals are based in the USA or the UK, which explains the variation in the number of documents.

Journals

When conducting a literature review, knowing about the journals that publish research on board diversity is essential. This is true not only for choosing which journal to read but also for understanding the focus of each journal on board diversity.

Table 5 presents the journals that publish the most board diversity documents and their impact factors based on Scopus data. All journals remembered for the Scopus data set are explored for quality yearly because of four mathematical quality measures: SJR (SCImago Journal Rank), h-Index, CiteScore, and

SNIP (Source Normalized Impact per Paper). Table 5 contains only 12 journals of the 310 journals that publish research on board diversity.

Table 5. Journal where the author has published research on board diversity.

Ranking	Journals	Number of Publications
1	Corporate Governance (Bingley)	38
2	Corporate Social Responsibility and Environmental Management	28
3	Sustainability (Switzerland)	23
4	Business Strategy and the Environment	21
5	Journal of Business Ethics	21
6	Gender in Management	20
7	Journal of Corporate Finance	16
8	Cogent Business and Management	15
9	Finance Research Letters	13
10	Corporate Governance: An International Review	10
11	International Review of Financial Analysis	10
12	Journal of Management and Governance	10
13	Journal of Risk and Financial Management	10
	Total	235

Source: Data processed

According to Table 5, the Corporate Governance (Bingley) Journal has published more board diversity research than any other journal, with 38 documents on the subject. With 28 publications from Corporate Social Responsibility and Environmental Management, Jurnal is second. Sustainability Switzerland comes in third.

According to Scopus, research on board diversity has been published in 354 journals. However, in the interest of conciseness, this study only considers the 13 journals with the highest number of publications. However, outside the 13 journals above, are 341 papers published by less than 10 journals.

Authors

According to Li and Zhao (2015), according to the study, keyword analysis is a helpful tactic for mapping published research. When conducting a bibliometric analysis of research in a particular field, measuring research performance at the micro level (i.e., at the level of individual scientists) (Rey-Martí et al., 2016). Scholars can expand their expertise and obtain a more comprehensive viewpoint by examining these significant writers. (Wang et al., 2014).

Table 6. Authors who have published research on board diversity.

Rangking	Author Name	Number of Publications
1	Jiraporn, P.	8
2	Nadeem, M.	8
3	Saeed, A.	7
4	Ahmed, A.	6

5	Issa, A.	6
6	Khan, I.	6
7	Pucheta-Martínez, M.C.	6
8	Adusei, M.	5
9	Kuzey, C.	5
10	Lee, S.M.	5
11	Setiawan, D.	5
12	Singhania, S.	5
13	Terjesen, S.	5
14	Uyar, A.	5
	Total	62

Source: Data processed

Table 6 contains a list of the principal writers of the board diversity. This part makes use of all documents and articles. After excluding writers with fewer than five published publications, Table 6 only includes the top fourteen authors out of 160. We set these criteria to keep the table modest since most writers had only written two articles.

Table 6 shows the results of the Scopus data obtained by Jiraporn, P., Nadeem, and Saeed, A., the primary authors. They often publish research on board diversity and collaborate with other authors, as shown in the table above.

Term Analysis

In the unit of analysis, we will create a map using data from the Vos Viewer with a minimum number of occurrences of terms of 5 of the 1540 terms and 96 that meet the threshold. Figure 3, an organizational representation of a term, shows the number of examinations whose titles and modified works discuss terms connected with board diversity and the connection between these terms. From this figure, it is known that the relationship between the topic and the absorption capacity in terms of the title and keywords is not the entire content of the article. Based on Figure 3, In general, board diversity research can be divided into two major groups: the group of "sustainability performance" (marked in red) and the group of "gender diversity"(marked in green).

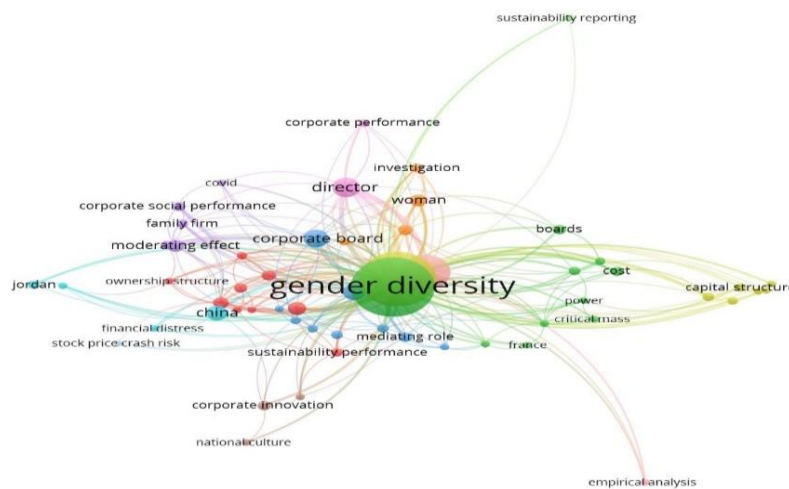


Figure 3. Terms Network Visualization of VOS Viewer.

Figure 4 and Figure 5 show that the gender diversity level group has a relationship with several aspects, including performance, study, impact, value, and others. Diverse viewpoints in decision-making are a result of gender diversity in management teams. Because different perspectives and experiences are reflected, (Miller & Triana, 2009) discovered that diversity on corporate boards improves the caliber of strategic decisions. This is especially crucial in sustainability contexts, where choices must consider society's and the environment's long-term effects. Additionally, gender variety fosters greater creativity and innovation. Companies that prioritize diversity are more likely to be inventive, which is crucial for creating sustainable solutions, according to research by (Eccles et al., 2014). Sustainable business practices and more ecologically friendly products are two ways this innovation might show itself.

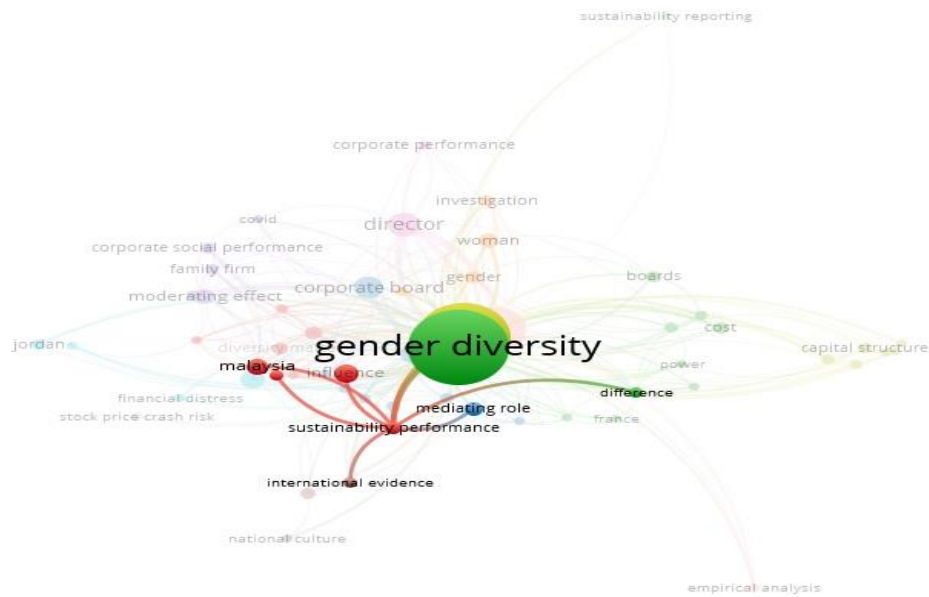


Figure 4. Gender Diversity Level connection of VOS Viewer (on Sustainability Performance).

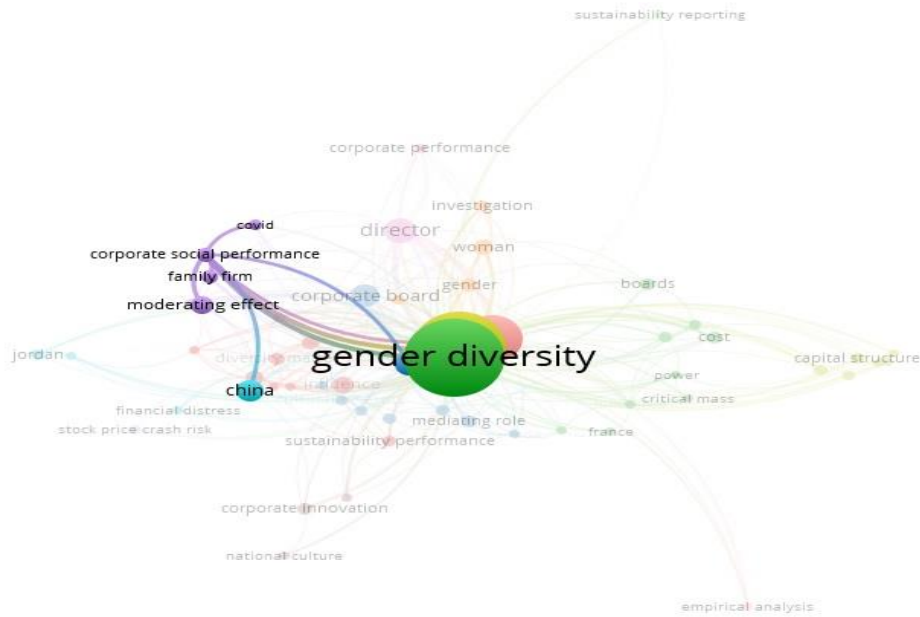


Figure 5. Gender Diversity Level Connection of VOS Viewer (on Corporate Social Performance)

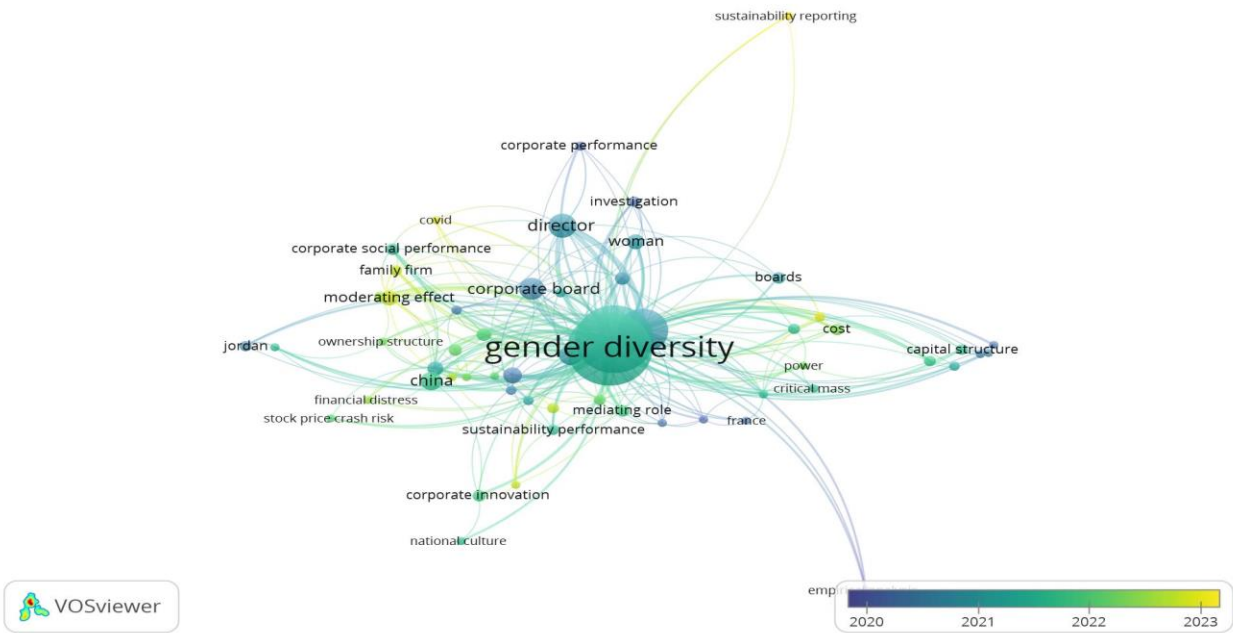


Figure 6. Terms Overlay Visualization of VOS Viewer.

The overlay visualization of historical traces of board diversity research was processed with VOSViewer. The darker the visualization of bibliometric analysis, the longer the study has been carried out; if the visualization shows a lighter color, the research will be conducted shortly.

Figure 6 shows the results of VOSViewer processing to produce an overview from 2020 to 2023. The overlay visualization section 2020 will be displayed as a dark network and will be brighter in the following years. The most recent topics about board diversity and gender diversity are then displayed in Figure 6,

which is an overlay visualization for a term. According to Figure 6, sustainability performance, corporate innovation, cost, mediating role, financial distress, family firm, and COVID are relatively new aspects of board diversity and gender diversity research.

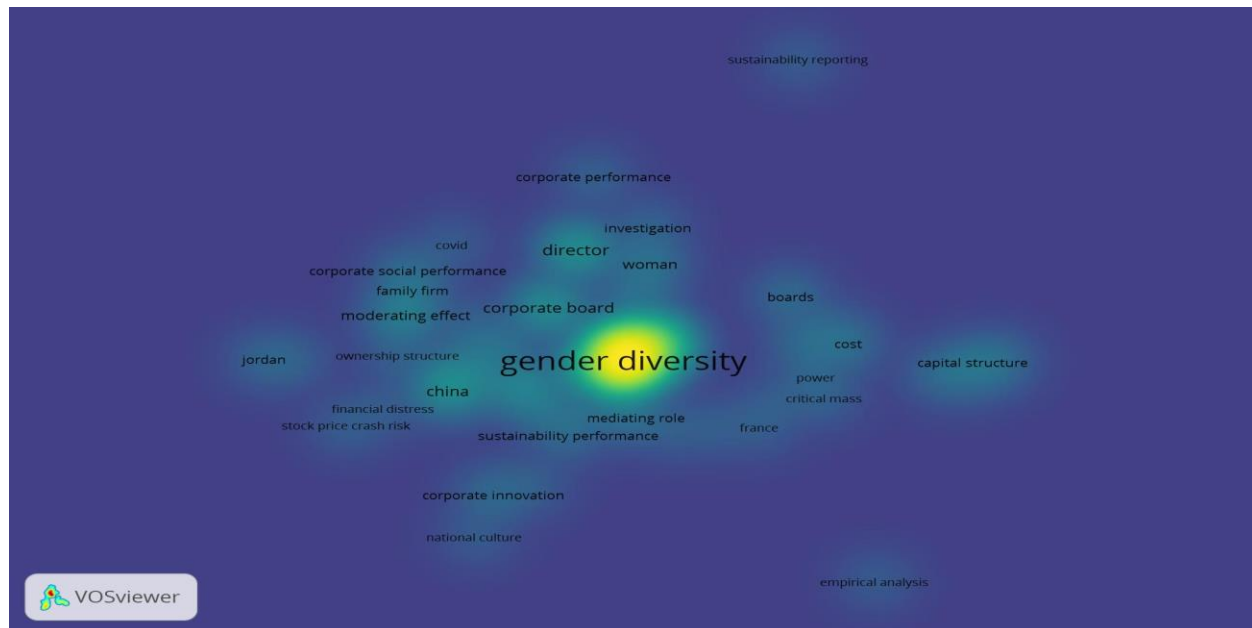


Figure 5. Density Overlay Visualization of VOS Viewer.

The term's density visualization in Figure 7 shows the aspects of board and gender diversity that are rarely studied. According to Figure 7, sustainability performance, corporate innovation, capital structure, corporate social performance, corporate board, and other aspects are the ones that researchers in the field of board diversity and gender diversity rarely investigate. These angles are groundbreaking thoughts or factors that scientists can explore later on.

CONCLUSIONS

The bibliometric analysis of board diversity research, the language of publications, trends in the number of publications over time, the most relevant journals for the literature review, term analysis from research publications, and the most prolific and cited board diversity authors are all presented in this article to help identify the researcher's research areas. Those new to board diversity might learn from this analysis which journals to look at and which authors are most well-known. By filling in these research gaps, future studies can explore the broader implications of board diversity in contemporary corporate governance and offer practical insights into the many advantages of diversity for organizational and human development.

354 journals of the 832 board diversity research documents analyzed bibliometrically from the Scopus database are scientific articles. The term "board diversity" first appeared in 1993, but researchers didn't start paying attention to the idea until 2019. In 2022, there were 139 published documents, and the number of publications increased yearly. Most board diversity research is conducted in the United States (147 publications). Journal of Corporate Governance (Bingley) is the journal that publishes the most board diversity research (38 documents), and Jiraporn, P. and Nadeem, M. are the authors who publish the most board diversity research (8 papers).

The variable or aspect widely studied in the "board diversity" keyword is gender diversity. Although gender diversity has been dominant in research on board diversity, further researchers can explore the discussion of gender diversity by relating it to variables that are still rarely studied: sustainability

performance, corporate innovation, capital structure, corporate social performance, corporate board, and others. In the digital era, the impact of digital tools, remote collaboration technologies, and virtual boardrooms on promoting and managing board diversity has not been adequately addressed despite its growing relevance in today's corporate landscape. Future studies should analyze how digital collaboration tools and virtual board meetings affect board diversity initiatives, addressing challenges and identifying opportunities to enhance inclusivity through technology. Product performance is enhanced by using and allocating digital technology resources, which raises market acceptance and makes a product more competitive (Zhang et al., 2024).

Board diversity research can also be explored by involving the impact on employee engagement, technology and board diversity, and perceptions of diversity areas. First, board diversity's crucial but frequently disregarded benefit is its effect on staff engagement. A more inclusive corporate culture can be established by diverse boards, encouraging a work atmosphere where all staff members are encouraged to participate and feel appreciated. Organizations looking to improve performance and retain talent must comprehend how board diversity affects employee morale, contentment, and general engagement. Second, in today's digital world, the influence of technology on board diversity is growing increasingly significant. Board operations have changed due to the popularity of remote meetings and digital collaboration technologies. Examining how these technological developments can help or hurt efforts to promote diversity in boardrooms will give important information to businesses that want to use technology in their governance procedures. Lastly, a company's reputation and brand are greatly influenced by how different stakeholders—consumers, investors, and employees—perceive diversity. A more thorough grasp of the effects of board diversity will result from investigating how these views impact stakeholder engagement and organizational dynamics.

Although future analyses should include more articles that demonstrate the advantages of board diversity for both individual and enterprise development, which have more impact factors, this study reveals some findings that can help guide experts in the field of board diversity.

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