GENDER DIVERSITY ON CORPORATE BOARDS: REVIEW AND FUTURE RESEARCH AGENDA THROUGH BIBLIOMETRIC MAPPING

Jagvinder Singh *, Shubham Singhana **, Deepti Aggrawal *

* University School of Management and Entrepreneurship (USME), Delhi Technological University, New Delhi, India
** Corresponding author, University School of Management and Entrepreneurship (USME), Delhi Technological University, New Delhi, India

Contact details: University School of Management and Entrepreneurship, Delhi Technological University, Vivek Vihar Phase 2, Vivek Vihar, New Delhi 110095, India

Open Access

How to cite this paper: Singh, J., Singhania, S., & Aggrawal, D. (2021). Gender diversity on corporate boards: Review and future research agenda through bibliometric mapping. Corporate Governance and Sustainability Review, 2(3), 57-72. https://doi.org/10.22495/cgsrv5i3p5

Copyright © 2021 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0). https://creativecommons.org/licenses/by/4.0/

ISSN Online: 2519-896X
ISSN Print: 2519-8971

Received: 07.06.2021
Accepted: 24.09.2021

JEL Classification: M14, G30, G34, G38
DOI: 10.22495/cgsrv5i3p5

Abstract

With growing regulatory changes with respect to the composition of the board of directors, the regulation for the appointment of women directors on the corporate boards has seen an upsurge in recent times. It is quite evident to believe that with so many countries mandating the appointment of women, the reasons are not just social but also economic in nature. The extant literature provides enough evidence based on various social and psychological theories that support the diversity element for better decision-making. This study is an attempt to analyze the scientific articles to understand the growth of this concept under various dimensions. The search, undertaken over the Scopus database, led to the retrieval of a total of 547 articles published during the period 1989–2021 which, after final filtration, brought the total number of results to 352 articles. VOSviewer software was employed for the purpose of analyzing these articles which helped in the formulation of bibliometric citation, co-citation, and co-word maps. The findings suggest the prominent countries, significant authors, major studies, and top journals in this domain. In addition, the study also identifies the various dimensions such as financial performance, social performance, environmental performance, sustainability disclosures being impacted due to the presence of gender diversity. The study is significant and unique based on the pretext that it uses the Scopus database for the purpose of bibliometric mapping whereas past studies have used the Web of Science database, thus the study’s outcome made a strong contribution in identifying emerging paradigms in the gender diversity literature.

Keywords: Gender Diversity, Women on Board, Financial Performance, Bibliometric Analysis

Authors’ individual contribution: Conceptualization — S.S.; Methodology — J.S., D.A., and S.S.; Validation — J.S. and D.A.; Formal Analysis — S.S.; Investigation — J.S. and D.A.; Writing — Original Draft — S.S.; Writing — Review & Editing — J.S., D.A., and S.S.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

Gender balance under various dimensions, such as economic participation and opportunity, political empowerment, educational attainment, has shown improvements in recent years at the global level. However, gender parity is still a distant dream. According to MSCI All Country World Index, in 2019, about 20% of all directors across companies were female, as compared to 17.9% in 2018. The reasons
for the slow-paced growth of women can be attributed to various reasons which are collectively known as the “glass ceiling” (Heredia, Ramos, Sarrió, & Candela, 2002). These obstacles, based on the societal perceptions, can take several forms including favoritism of male directors for other male directors (Hutchinson, Mack, & Plastow, 2015), the tendency of directors to feel more comfortable among directors from the same gender and demographic as per the similarity attraction theory (Chatman & O’Reilly, 2004), and the idea of prestigious occupations such as directorship belonging to males (Ridgeway, 2014).

The challenges amidst the growth of women directors on corporate boards are not just restricted to male directors but also certain perceptual biases of female directors, for example, due to the occupational identity threat females feel that growth in the number of females will lead to a fall in the esteem they have in the occupation (Cacoaua-Bitaud, 2008), and, therefore, Queen Bee strategy is adopted by females to distance themselves with the other females (Derks, Ellemers, van Laar, & de Groot, 2011). The advancement of women studies has given rise to various phenomena that portray various kinds of reasons that showcase the situations due to which even if women are being employed on board, they are not able to escalate to the upper echelons. One such phenomenon is the “double burden syndrome” that highlights the dual responsibilities of household along with the professional responsibilities of work which are considered as traditional gender-based responsibilities (Hochschild, 1990) this does not permit the women directors to take up higher responsibilities even if they wish to owe to lack of efficiency (Bratberg, Dahl, & Risa, 2002).

Another theory that documents the low representation of women on corporate boards is the concept of glass cliff that emphasizes the appointment on boards only in the situation of crisis when the firms are struggling to perform and there is a high likelihood of failure (Francoeur, Labelle, & Sinclair-Desgagné, 2008; Ryan & Haslam, 2007). Moreover, in case the situation of these firms deteriorate post appointment of women on boards, which in any case has been done noticing crisis, they shall be soon replaced by their male counterparts (Cook & Glass, 2014). Another deterrent theory is the concept of the sticky floor which is a slight contrast to the glass cliff theory and states that women are equally appointed as often as males, but they tend to receive lesser compensation (Adams & Funk, 2012). In addition to the above phenomena, women have also addressed semi-hostile work environments with regard to stereotyping, gender discrimination, and social exclusion (Abdalla, 2015).

The act of promoting adequate gender representation on corporate boards is not merely a social phenomenon to promote gender equality, but rather the presence of diversity can accord various economic benefits to the firms. The same can be justified with the help of agency theory, upper echelon theory, stakeholder’s theory, as well as resource dependence theory. Agency theory postulates that the presence of women directors shall reduce the information symmetry and hence improve the CSR quality and thus will also lead to the reduction in the agency issues (Reguera-Alvarado, de Fuentes, & Laffarga, 2017). Stakeholder theory supports women’s presence by suggesting that women possess more communal qualities than men, such as helpfulness, kindness, sympathy, interpersonal sensitivity, etc., which may facilitate their say based on stakeholders’ claims and expectations (Eagly, Johannesen-Schmidt, & van Engen, 2003). In contrast, upper echelons theory (UET) suggests that the prior experiences, value systems, and knowledge of the directors impact their decision-making, and men and women, therefore, bring different sets of strategies into the boardroom (Byron & Post, 2016). Resource dependency theory also advocates that the female directors’ presence shall turn out to be fruitful for the CSR disclosures since they would through their connections entail legitimacy between the society and stakeholders (Lückerath-Rovers, 2013). In this sense, gender diversity on boards helps in better decision-making, since women are more inclined towards asking questions and they make sure that the decisions are not finalized without adequate discussions (Konrad, Kramer, & Erkut, 2008).

The objective of this bibliometric review was to identify the theoretical and intellectual evolution in the domain of gender diversity on corporate boards. We believe that the concept of gender diversity on corporate boards affects the decision-making, in turn, would impact the practices undertaken by the firms. This paper throws light on the following research questions:

**RQ1:** What is the current publication volume and trends under gender diversity on boards?

**RQ2:** Which are the most influential countries publishing extensively in the gender diversity domain?

**RQ3:** Which are the top journals publishing articles on gender diversity?

**RQ4:** Which are the most significant research articles on gender diversity?

**RQ5:** Which theme of gender diversity have been popular among the research scholars in the past, as well as current, and which topics have scope for future research?

To answer these research questions, we systematically explored the various studies conducted on the theme of gender diversity on corporate boards using the Scopus database. The study is also unique in the sense that past studies have focused on the Web of Science database (Sánchez-Teba, Benítez-Márquez, & Porras-Alcalá, 2021) thus, the study would be helpful in identifying and complementing various emerging paradigms in gender diversity literature. The keywords that were used for finding the research articles were: women on board and board gender diversity. Further, bibliometric analysis was used to identify the various dimensions in which the studies have been conducted and what are the emerging domains of research in this area. VOSviewer software was used as a tool that helped us create the mapping based on the bibliometric citations, co-citations, and word maps. This further enabled us to identify and evaluate the major thrust areas where research has been conducted, the dominant journals extensively publishing, major countries in which research has been conducted, etc.
The remainder of the paper is organized as follows. The second section comprises the literature review that describes the various studies conducted in this area in a chronological pattern. The following section deals with the methodology used for the collection of the research studies, literature review, and sample. The fourth section comprises the analysis of the bibliometric maps. The last section deals with the results and conclusions.

2. LITERATURE REVIEW

The theme of board gender diversity impacting firm performance has been the center of focus for researchers across the globe. According to Torchia, Caprara, and Guevara (2017), women can add unique perspectives, experience, working styles, more wisdom, good atmosphere in the boardroom, they are also found to have different values and are more sensitive to women issues. There are multiple theories, such as agency theory, resource dependence theory, upper echelon theory, etc., that clearly project the needs of creating a gender-diverse board. These theories have become the basis for academician policymakers, as well as regulators for formulating the legal regulations which shall put a thrust on such issues (Moreno-Gómez, Lafuente, & Vaillant, 2018). Based on the quick search, using the keywords: board gender diversity and women on board, we could infer that the research studies in this domain of gender diversity have grown substantially in recent years. The results show that there were merely 19 papers on the issue of gender diversity in the year 2010 as compared to 334 articles by the year 2020. The major research studies that were conducted were inclined towards measuring the impact of gender diversity on financial performance (Campbell & Mínguez-Vera, 2008; Luckeather-Rovers, 2013).

Adams and Ferreira (2009) suggested that board diversity impacts corporate governance, though they could not find any positive linkages with the financial performance. Even though there is a vast number of studies conducted to measure financial performance (Adams & Ferreira, 2009; Campbell & Mínguez-Vera, 2008; Halder, Shah, & Nageswara Rao, 2015; Sanan, 2016b; Singh, Singhania, & Sardana, 2019) across varying time periods, there is lack of consensus on the effect of board gender diversity on the firm performance. Many researchers found a positive linkage between gender diversity and financial performance measured through various market and accounting-based dimensions (Abdelzaher & Abdelzaher, 2019; Campbell & Mínguez-Vera, 2008; Giraldez-Puig & Berenguer, 2018; Terjesen, Couto, & Francisco, 2016; Velte, 2017), while other scholars have found a negative or no significant relationship (Chebri & Bahoussa, 2020; Sanan, 2016a; Shehata, Salhin, & El-Helaly, 2017; Singh et al., 2019). In this aspect, Campbell and Mínguez-Vera (2008) suggested that mixed results are caused due to varying legal and intuitional contexts in different countries, time periods, and based on the increased complexity owing to the larger boards which make it difficult for women due to lack of their representation (Pletzer, Nikolova, Kedzior, & Voelpel, 2015).

The research on board gender diversity has also taken various forms, such as corporate sustainability (Nadeem, Zaman, & Saleem, 2017), corporate social responsibility reporting (Pucheta-Martinez, Bel-Oms, & Oclina-Sempere, 2019), sustainable reporting quality (Al-Sheer & Zaman, 2016), etc. Birindelli, Iannuzzi, and Savioli (2019) also found that women CEOs are the linking pin to enhance the role of gender diversity on board with respect to environmental policies. Thus, we can see through a glass lather that various dimensions of board gender diversity require further exploration based on the systematic literature review.

In addition to this, various other institutions, as well as contextual factors, have also been looked upon. Institutional elements, such as corporate governance and societal perceptions (Abdullah, Ismail, & Nachum, 2016), social capital and institutional pressure (Rigolini & Huse, 2021), "soft laws" and gender-based quotas (Mateos de Cabo, Terjesen, Escot, & Gimeno, 2019) have been explored. Moreover, contextual factors, such as women's risk-taking ability in technology firms (Mukarram, Ajmal, & Saeed, 2018), the moderating role of industry-based sensitivity (Qureshi, Kikerud, Thresa, & Ahsan, 2020) have also been studied to some extent.

Despite growth and advancement, there are various aspects of board gender diversity where the literature is still in the state of dilemma, and the research in this area needs further exploration and investigation. Through this study, various research avenues shall be identified, research gaps shall be bridged and future directions for research shall also be established.

3. RESEARCH METHODOLOGY

The study focuses on the bibliometric analysis of the research articles on the topic of gender diversity on board based on the data (research articles) retrieved from the Scopus database (www.scopus.com). Though the Web of Science database is often considered a more popular database, the Scopus database launched by Elsevier in 2004 is found to have a broader database in social sciences, significantly covering more than 16 million references dating back to 1996 (Veira & Gomes, 2009). Since the area of gender diversity is deeply rooted in the discipline of corporate governance, which saw an upsurge in the late 1990s, the Scopus index database by Elsevier was found to be the best match for the same. The above argument was further corroborated by various scholars as well (Mongeon & Paul-Hus, 2016). Based on the preliminary search of keywords: gender diversity and women on boards, a total stream of 547 articles were found. Accordingly, in the second phase filters were places to screen out those articles which were not connected to the subject of the study, and we have only considered full articles, and have excluded publications, such as book chapters, conference papers, editorials, etc., since they ideally do not go through a full-fledged review process. After adequate refinement and filters in the second phase, a total of 352 articles were found relevant for the study which were published during the years 1983-2021. In the final phase, abstracts of 352 articles were scrutinized to eliminate those which did not belong to the subject domain.
4. ANALYSIS RESULTS

Firstly, based on the data extracted from the Scopus database, the author employed various descriptive statistics for the generation of various tables and graphs that could help in the identification of patterns within the database. The trends were identified in terms of the number of publications, top publishing countries, journals, top authors, most cited articles as well as the evolution of the keywords.

The author made use of citation, as well as co-citation analysis, to identify the features of the area of gender diversity on corporate boards to enhance the intellectual base (Zupic & Cater, 2015). Citation analysis refers to the frequency with which a research article or a document is cited or used by other papers located in the same database (Scopus, in this case). The author made use of the citation analysis to evaluate the top countries, journals, influential articles in the domain of gender diversity based on the number of citations (Tables 2–4).

Co-citation analysis helps us supplement the citation analysis by enhancing the intellectual base in a particular area by examining two research articles or documents which have been cited in a common document (Small, 1973).

The findings of the bibliometric analysis have been laid down in the order of research questions based on the gender diversity on the board domain.

4.1. Volume and trend analysis of published studies

The primary analysis is based on the volume of publication in the gender diversity domain. The final number of research articles post-filtration was 352 over a period of approximately 32 years (1989–2021) which represents that the area of gender diversity has not seen extensive publications but is growing at a rapid pace. Also, Table 1 points to the fact that Norway was the first country which passed mandatory legislations of gender-based quota in the year 2003. This further led to the series of legislations being passed in other countries leading to the gender diversity domain receiving wide scholarly attention.

Trends and evolution in the area were analyzed based on seeing the annual growth in the volume of publications. Figure 2 points towards the year-wise trends in the publications ranging from the years 1989-2021. We could notice a rising trend in the number of studies being published: 9 studies (1989–2006), 33 studies (2007–2013), 310 studies (2014–2021). The studies in gender diversity gained momentum post-2013 and the studies have seen exponential growth in various dimensions. This is indicative of the fact that the scope of research in gender diversity has increased over the year and carries huge potential in the coming future as well. Through this graphical representation, we could clearly notice that the number of publications has got a boost post-2010. The plausible reason for the same could be the parallel growth in the mandatory and voluntary provisions for the appointment of women on board in various countries. Table 1 clearly indicates that the majority of the countries mandated the gender quotes post-2010. This led to various researchers explore the various dimensions of having a gender-diverse board.

4.2. Publication by countries

The number of articles considered for the study was spread across 74 countries throughout the world. This clearly points to the fact that the gender diversity area has received wide attention globally and is not limited to certain continents. Table 2 provides the list of the top 20 most active countries with at least five publications in gender diversity on board. The US tops the list with 64 research publications and three thousand six hundred and thirty-six (3636) citations followed by the UK with 52 publications and nineteen hundred and sixty-four (6464) citations. The third spot is captured by Australia with 34 documents and sixteen hundred and eighty-one (1681) publications. Gender diversity on board is majorly connected to the corporate governance literature and the UK being the pioneer based on its Cadbury Report (The Committee on the Financial Aspects of Corporate Governance, 1992) and the US and Australia being the countries which have seen major corporate scams during 2000, the results are not surprising at all. The area would have received greater attention with a view to leverage out gender diversity-based advantages.
Table 2 also highlights an important aspect that more than 70% of the research on gender diversity has been conducted in the developed economies especially from Europe. The plausible reason that could explain such phenomenon is the emergence of OECD which has taken a strong take on corporate governance issues. Figure 3 provides a visual representation of the relationship between the various countries, through a bibliometric citation map.

Though the number of publications in emerging and developing economies is not much, we could still notice a sound number of publications of the countries like India and Pakistan which could be to test the impact of gender diversity post their mandatory provisions.

Figure 2. Articles showing gender diversity on corporate boards growth and trend based on publication each year

Table 1. Gender-based quota on board for various countries

| Countries | Quota | Year of passing | Compliance |
|-----------|-------|-----------------|------------|
| France    | 40%   | 2011            | 2017       |
| Norway    | 40%   | 2003            | 2008       |
| Spain     | 40%   | 2007            | 2013       |
| Finland   | 40%   | 2005            | 2005       |
| Canada    | 50%   | 2006            | 2011       |
| Israel    | 50%   | 2007            | 2010       |
| Iceland   | 40%   | 2010            | 2013       |
| Kenya     | 33%   | 2010            | 2010       |
| Belgium   | 33%   | 2011            | 2012       |
| Italy     | 33%   | 2011            | 2012       |
| Australia | 33%   | 2018            |            |
| India     | 1 woman on board | 2013 | 2015 |
| Pakistan  | 1 woman on board | 2017 | 2020 |
| Germany   | 1 woman if 4 or more executives in the board | 2021 | 2022 |

Source: Authors’ compilation.

Table 2. Top 20 most active countries publishing on gender diversity

| Rank | Country                | Type of economy | Documents | Percentage of documents | Citations | ACPD | Nominal GDP |
|------|------------------------|-----------------|-----------|-------------------------|-----------|------|-------------|
| 1    | United States          | Developed       | 64        | 0.13                    | 1964      | 38   | 1           |
| 2    | United Kingdom         | Developed       | 52        | 0.13                    | 1681      | 49   | 13          |
| 3    | Australia              | Developed       | 34        | 0.08                    | 1346      | 43   | 14          |
| 4    | Spain                  | Developed       | 27        | 0.07                    | 799       | 30   | 40          |
| 5    | Malaysia               | Developing      | 23        | 0.06                    | 277       | 12   | 2           |
| 6    | China                  | Developing      | 19        | 0.05                    | 214       | 11   | 7           |
| 7    | France                 | Developed       | 19        | 0.05                    | 583       | 31   | 4           |
| 8    | Germany                | Developed       | 19        | 0.05                    | 482       | 25   | 8           |
| 9    | Italy                  | Developed       | 19        | 0.05                    | 403       | 22   | 9           |
| 10   | Canada                 | Developed       | 14        | 0.03                    | 118       | 30   | 43          |
| 11   | Pakistan               | Developed       | 12        | 0.03                    | 58        | 5    | 52          |
| 12   | New Zealand            | Developed       | 11        | 0.03                    | 148       | 13   | 33          |
| 13   | Norway                 | Developed       | 10        | 0.02                    | 76        | 11   | 35          |
| 14   | India                  | Developing      | 10        | 0.02                    | 76        | 11   | 35          |
| 15   | Netherlands            | Developed       | 6         | 0.01                    | 9         | 2    | 42          |
| 16   | Tunisia                | Developing      | 10        | 0.02                    | 95        | 10   | 91          |
| 17   | Lebanon                | Developing      | 8         | 0.02                    | 202       | 25   | 113         |
| 18   | Turkey                 | Developing      | 8         | 0.02                    | 101       | 13   | 20          |
| 19   | United Arab Emirates   | Developing      | 7         | 0.02                    | 76        | 11   | 35          |
| 20   | South Africa           | Developing      | 6         | 0.01                    | 9         | 2    | 42          |

Note: ACPD — Average citation per document.
4.3. Publication by journals

Next, we focus on describing the top journals publishing in gender diversity on board. The articles that were considered for the bibliometric analysis were spread across 155 journals throughout the world under several domains, such as ethics, corporate governance, finance, gender, accounting, economics, strategic management, psychology, etc. Table 3 points to the list of top 20 journals based on the number of publications and the Journal of Business Ethics published by Springer Nature’s tops the list with 38 research papers. The position of the journal contemplates the fact of how closely the gender diversity element is linked to ethics, governance, and sustainability. The ranking is followed by the Corporate Governance Journal with 28 publications. Next in line is Corporate Social Responsibility and Environment Management, Business Strategy and Environment & Corporate Governance: An International Review, to name a few. Out of the top 20 journals majority of the journals belong to the Corporate Governance discipline that also deduces us to the premise of the existence of the strong relationship between gender diversity and corporate governance. The remaining list comprises some of the top journals in Finance, Management, Strategic Management, and Accounting, such as Journal of Corporate Finance (#6), Management Decision Journal (#13), Strategic Management Journal (#18), and Accounting & Finance (#19). Most of these journals have high ratings based on the Journal of Business Schools rating which also confirms that the gender diversity area has found its place in some of the top journals and the area has wide scope for further exploration.

Table 4 comprises the list of the top 20 most active journals based on their citations in Scopus database. Journal of Business Ethics published by Springer Nature yet again tops the list with three thousand two hundred and sixty-nine (3269) citations being the most impactful journal in gender diversity. Interestingly, the Academy of Management Journal, which is a top-rated management journal, has taken the second spot with seven hundred and eighty (780) citations and with one of the highest ACPD (390). The own specialized area journal Corporate Governance: An International Review (#3), Corporate Governance (#7), Business Strategy & Environment (#9), Corporate Social & Environment Management (#10) are also included in the list. The list of other journals also comprises the top journals in various areas, such as Finance, Management, Accounting, etc., that portray the multidimensional aspect of the gender diversity issue.

A quick glance making a comparison between Table 3 and Table 4 reveals that though a large number of research articles are published in the same area-based journals, such as Corporate Governance, Ethics, and Sustainability (Journal of Business Ethics, Corporate Governance, Corporate Social Responsibility and Environment Management, etc.), the highest impact in terms of citations (total and ACPD) is caused by the journals in the area of Management, Accounting, and Economics which have relatively lesser publications (Academy of Management Journal, Journal of Management Studies, Journal of Accounting & Economics).

Figure 3 represents the journal co-citation analysis (JCA) that complements the outcomes of the citation analysis represented in Table 4. The various-sized bubbles or the nodes depicted on the JCA map represent the number of co-citations associated with the respective journals. The journals which are located closely are co-cited frequently (Zupic & Cater, 2015) or have been cited in similar content-based articles. The links associated with these nodes or bubbles act as an indication of the co-citation of articles that appear in these related journals. The frequency of co-citation of these research articles with related journals helps in the determination of the color of the nodes. Thus, common color nodes of these journals depict association or similarity in the contents being published (Zheng & Kouwenberg, 2019).

The JCA represents 4 major distinct sets of clusters that are associated with journals represented with unique areas or subject-based dimensions. The red-colored cluster is associated with Finance and Economics, the green color represents a majority of Management and Strategy-based journals, the blue color focuses on Accounting-based journals, and, finally, the yellow color comprises miscellaneous journals from the area of Governance, and Business Ethics. The focal point of the JCA map comprises of Journal of Business Ethics and Corporate Governance: An International Review which is associated with all the disciplines (Finance and Economics, Management, Strategy, and Accounting, as well as Governance and Business Ethics). Moreover, the Academy of Management Journal, as well as Journal of Financial Economics, are the most impactful journals in the discipline of Management, Finance, and Economics.

Figure 3 substantiates the outcomes derived based on the citation analysis represented in Table 4 which highlighted the presence of gender diversity-based articles in multi-discipline areas-based journals, such as Finance, Economics, Management, Strategy, and Accounting apart from Governance and Ethics.

Finally, based on the dual dimension of co-citations impact (number of co-citations), as well as boundary-based extension (links to the other journals), Journal of Business Ethics and Corporate Governance: An International Review is found to be the most impactful, as well as influential, journals publishing in gender diversity.
### Table 3. The top 20 most active journals publishing articles in gender diversity on board based on volume (1989–2021)

| Rank | Name of the journal                                      | Publisher                  | Coverage        | No. of articles | Scopus citations | ACPD  |
|------|----------------------------------------------------------|----------------------------|-----------------|-----------------|------------------|-------|
| 1    | Journal of Business Ethics                              | Springer Nature            | 1982–Ongoing    | 38              | 3269             | 86.03 |
| 2    | Corporate Governance (Bingley)                          | Emerald                    | 2001–Ongoing    | 28              | 308              | 11.00 |
| 3    | Corporate Social Responsibility and Environmental Management | Wiley-Blackwell            | 2003–Ongoing    | 13              | 203              | 15.62 |
| 4    | Business Strategy and the Environment                   | Wiley-Blackwell            | 1992–Ongoing    | 12              | 226              | 18.83 |
| 5    | Corporate Governance: An International Review           | Wiley-Blackwell            | 1993–Ongoing    | 9               | 686              | 76.22 |
| 6    | Journal of Corporate Finance                            | Elsevier                   | 1994–Ongoing    | 8               | 512              | 64.00 |
| 7    | Gender in Management                                    | Emerald                    | 2008–Ongoing    | 8               | 111              | 13.88 |
| 8    | International Journal of Business Governance and Ethics | Emerald                    | 2004–Ongoing    | 5               | 61               | 12.20 |
| 9    | Equality, Diversity, and Inclusion                      | Emerald                    | 2010–Ongoing    | 5               | 27               | 5.40  |
| 10   | Corporate Ownership and Control                         | Virtus Interpress          | 2003–2016       | 5               | 9                | 1.80  |
| 11   | Journal of Management and Governance                    | Springer Nature            | 1997–Ongoing    | 4               | 297              | 74.25 |
| 12   | Leadership Quarterly                                    | Elsevier                   | 1990–Ongoing    | 4               | 176              | 44.00 |
| 13   | Management Decision                                    | Emerald                    | 1967–Ongoing    | 4               | 47               | 11.75 |
| 14   | International Journal of Accounting and Information Management | Emerald                    | 2007–Ongoing    | 4               | 35               | 8.75  |
| 15   | Australasian Accounting, Business, and Finance Journal | University of Wollongong   | 2014–Ongoing    | 4               | 24               | 6.00  |
| 16   | European Management Journal                             | Elsevier                   | 1982–Ongoing    | 4               | 23               | 5.75  |
| 17   | International Journal of Finance and Economics          | Wiley-Blackwell            | 1996–Ongoing    | 4               | 4                | 1.00  |
| 18   | Strategic Management Journal                            | Wiley-Blackwell            | 1980–Ongoing    | 3               | 103              | 34.33 |
| 19   | Accounting and Finance                                  | Wiley-Blackwell            | 1979–Ongoing    | 3               | 86               | 28.67 |
| 20   | Business and Society                                    | SAGE                       | 1983–Ongoing    | 3               | 76               | 25.33 |

### Table 4. The top 20 most active journals publishing articles in gender diversity on board based on citations (1989–2021)

| Rank | Name of the journal                                      | Publisher                  | Coverage        | No. of articles | Scopus citations | ACPD  |
|------|----------------------------------------------------------|----------------------------|-----------------|-----------------|------------------|-------|
| 1    | Journal of Business Ethics                              | Springer Nature            | 1982–Ongoing    | 38              | 3269             | 86.03 |
| 2    | Academy of Management Journal                           | Academy of Management      | 1989–Ongoing    | 2               | 780              | 390.00|
| 3    | Corporate Governance: An International Review           | Wiley-Blackwell            | 1993–Ongoing    | 9               | 686              | 76.22 |
| 4    | Journal of Corporate Finance                            | Elsevier                   | 1994–Ongoing    | 8               | 512              | 64.00 |
| 5    | Journal of Management Studies                           | Wiley-Blackwell            | 1964–Ongoing    | 1               | 440              | 440.00|
| 6    | Journal of Accounting and Economics                    | Elsevier                   | 1979–Ongoing    | 1               | 393              | 393.00|
| 7    | Corporate Governance (Bingley)                          | Emerald                    | 2001–Ongoing    | 28              | 308              | 11.00 |
| 8    | Journal of Management and Governance                    | Springer Nature            | 1997–Ongoing    | 4               | 297              | 74.25 |
| 9    | Business Strategy and the Environment                   | Wiley-Blackwell            | 1992–Ongoing    | 12              | 226              | 18.83 |
| 10   | Corporate Social Responsibility and Environmental Management | Wiley-Blackwell            | 2003–Ongoing    | 13              | 203              | 15.62 |
| 11   | Leadership Quarterly                                    | Elsevier                   | 1990–Ongoing    | 4               | 176              | 44.00 |
| 12   | Accounting and Finance                                  | American Accounting Association | Cambridge University Press | 1996–Ongoing | 2 | 151 | 75.50 |
| 13   | Journal of Management and Organization                  | American Accounting Association | Cambridge University Press | 1995–Ongoing | 2 | 126 | 63.00 |
| 14   | Organization Science                                   | Institute for Operations Research and the Management Sciences | 1996–Ongoing | 1 | 112 | 112.00 |
| 15   | Gender in Management                                    | Emerald                    | 2008–Ongoing    | 8               | 111              | 13.88 |
| 16   | Strategic Management Journal                            | Wiley-Blackwell            | 1980–Ongoing    | 3               | 103              | 34.33 |
| 17   | Scandinavian Journal of Management                      | Elsevier                   | 1988–Ongoing    | 2               | 98               | 49.00 |
| 18   | Accounting and Finance                                  | Wiley-Blackwell            | 1979–Ongoing    | 3               | 86               | 28.67 |
| 19   | Business and Society                                    | SAGE                       | 1983–Ongoing    | 3               | 76               | 25.33 |
| 20   | Journal of Business Research                            | Elsevier                   | 1973–Ongoing    | 2               | 72               | 36.00 |
4.4. Influential articles

The bibliometric analysis also helps us identify those research articles available in our database which have made a significant impact in the area, or the discipline being studied. Citation analysis helps in measuring the number of times a particular research article has been quoted or cited after being used by the other documents. It also helps to determine the impact of the article on the scientific community (Ding & Cronin, 2011). Table 5 lists down the top 20 most cited papers based on the citations available in the Scopus database. The list provided in Table 5 re-confirms the impact and dominant position of the Journal of Business Ethics as 8 out of 20 (40%) of the top 20 most influential articles are published in this journal.

Campbell and Minguez-Vera (2008) were among the pioneer authors to study the impact caused by gender diversity on boards on firms’ financial performance. They found in their study that gender diversity on board based on parameters such as percentage of women on board, diversity indices like Blau and Shannon have a positive impact on firms’ financial performance whereas the reverse relationship is not true. Bear, Rahman, and Post (2010) extended the knowledge base of gender-based literature by evaluating the relationship between board diversity and gender aspect on corporate social responsibility and firm reputation. The study found positive linkages between gender diversity and firm reputation mediated through the CSR ratings. Miller and del Carmen Triana (2009) brought an interesting dimension through their study, where they found that board racial and gender diversity are not causally linked to the firm performance rather, they are partially mediated by firm reputation and innovation. They also found positive linkages between gender diversity and innovation.

We came across an interesting aspect represented by Table 5, that 12 out of 20 most cited articles (60%) were focused upon linking gender diversity and financial performance aspects in various forms. Now, to enhance the intellectual base of the literature we performed the document co-citation analysis (DCA). DCA is performed to extend the literature to a wider number of research articles, where 21630 referenced articles were considered for the analysis. The top 20 most co-cited articles are represented in Table 6.

The list of articles in Table 6 demonstrates that “Women in the Boardroom and their Impact on Governance and Performance” (Adams & Ferreira, 2009) is the most cited and impactful article in the gender diversity literature. The study found that gender-diverse boards trigger the board-related aspects in terms of governance, and this leads to an impact on a firm’s financial performance. Though the paper was not part of our Scopus database but has received the highest co-citation owing to its impactful literary contribution. They also concluded
that mandatory women quotas are detrimental to a firm’s performance. Table 6 re-affirms that Bear et al.’s (2010) and Miller and del Carmen Triana’s (2009) are the other two most influential co-cited articles published in the literature.

Moreover, Table 6 clearly depicts and confirms the premier position held by the Journal of Business Ethics and Corporate Governance: An International Review as both these journals account for 25% (5 each) out of the 20 most co-cited articles.

Table 5. Top 20 most influential journals articles published in the area of gender diversity based on Scopus citations (1989–2021)

| Rank | Title                                                                 | Authors                                      | Paper type | Name of the journal                          | Year | Citations |
|------|----------------------------------------------------------------------|----------------------------------------------|------------|----------------------------------------------|------|-----------|
| 1    | Gender Diversity in the Boardroom and Firm Financial Performance | Campbell and Minguez-Vera                    | Empirical  | Journal of Business Ethics                   | 2008 | 654       |
| 2    | The Impact of Board Diversity and Gender Composition on Corporate Social Responsibility and Firm Reputation | Bear, Rahman, and Post                      | Empirical  | Journal of Business Ethics                   | 2010 | 588       |
| 3    | Demographic Diversity in the Boardroom: Mediators of the Board Diversity — Firm Performance Relationship | Miller and del Carmen Triana                 | Empirical  | Journal of Management Studies                | 2009 | 440       |
| 4    | Organizational Predictors of Women on Corporate Boards               | Hillman, Shropshire, and Camella             | Empirical  | Academy of Management                        | 2007 | 406       |
| 5    | Does Board Gender Diversity Improve the Informativeness of Stock Prices? | Guì, Srinidhi, and Ng                       | Empirical  | Journal of Accounting and Economics          | 2011 | 393       |
| 6    | Women on Boards and Firm Financial Performance: A Meta-Analysis     | Post and Byron                               | Review     | Academy of Management Journal                | 2015 | 374       |
| 7    | The Contribution of Women on Boards of Directors: Going beyond the Surface | Nielsen and Huse                             | Empirical  | Corporate Governance: An International Review | 2010 | 369       |
| 8    | Women on Corporate Boards of Directors and their Influence on Corporate Philanthropy | Williams                                     | Empirical  | Journal of Business Ethics                   | 2003 | 277       |
| 9    | Do Women Directors Improve Firm Performance in China? | Liu, Wei, and Xie                           | Empirical  | Journal of Corporate Finance                 | 2014 | 264       |
| 10   | Gender Diversity in the Boardroom and Firm Performance: What Exactly Constitutes a “Critical Mass”? | Joeckx, Pull, and Vetter                    | Empirical  | Journal of Business Ethics                   | 2013 | 231       |
| 11   | Hidden Connections: The Link Between Board Gender Diversity and Corporate Social Performance | Boulouta                                    | Empirical  | Journal of Business Ethics                   | 2013 | 211       |
| 12   | Female Presence on Corporate Boards: A Multi-Country Study of Environmental Context | Terjesen and Singh                          | Empirical  | Journal of Business Ethics                   | 2008 | 174       |
| 13   | Women on Boards and Firm Performance                               | Lückerath-Rovers                            | Empirical  | Journal of Management and Governance         | 2013 | 172       |
| 14   | Women on Board: Does Boardroom Gender Diversity Affect Firm Risk?  | Sıla, Gonzalez, and Hagendorff              | Empirical  | Journal of Corporate Finance                 | 2016 | 170       |
| 15   | Board Gender Diversity and Corporate Response to Sustainability Initiatives: Evidence from the Carbon Disclosure Project | Ben-Amar, Chang, and McIlkenny             | Empirical  | Journal of Business Ethics                   | 2017 | 137       |
| 16   | Are There Gender-Related Influences on Corporate Sustainability? A Study Of Women on Boards of Directors | Galbreath                                    | Empirical  | Journal of Management and Organization       | 2011 | 119       |
| 17   | The Double-Edged Nature of Board Gender Diversity, Firm Performance, and the Power of Women Directors as Predictors of Strategic Change | del Carmen Triana, Miller, and Trzebiatowski | Empirical  | Organization Science                        | 2014 | 110       |
| 18   | Women on Boards of Directors and Corporate Social Performance: A Meta-Analysis | Byron and Post                              | Empirical  | Corporate Governance: An International Review | 2016 | 106       |
| 19   | Does Board Gender Diversity Have a Financial Impact? Evidence Using Stock Portfolio Performance | Chapple and Humphrey                        | Empirical  | Journal of Business Ethics                   | 2014 | 106       |
| 20   | Female Board Appointments and Firm Valuation: Short and Long-Term Effects | Campbell and Minguez-Vera                   | Empirical  | Journal of Management and Governance         | 2010 | 103       |
Table 6. The top 20 most influential research articles based on document co-citation analysis on gender diversity literature

| Rank | Co-cited reference | Authors | Paper type | Name of the journal | Year | Citations |
|------|--------------------|---------|------------|---------------------|------|-----------|
| 1    | Women in the Boardroom and their Impact on Governance and Performance | Adams and Ferreira | Empirical | Journal of Financial Economics | 2009 | 78        |
| 2    | Women Directors on Corporate Boards: A Review and Research Agenda | Terjesen, Sealy, and Singh | Review | Corporate Governance: An International Review | 2009 | 67        |
| 3    | Gender Diversity in the Boardroom and Firm Financial Performance | Campbell and Minguez-Vera | Empirical | Journal of Business Ethics | 2008 | 56        |
| 4    | Women Directors on Corporate Boards: From Tokenism to Critical Mass | Torchia, Calabro, and Huse | Empirical | Journal of Business Ethics | 2011 | 51        |
| 5    | Women on Boards and Firm Financial Performance: A Meta-Analysis | Post and Byron | Review | Academy of Management Journal | 2015 | 44        |
| 6    | The Impact of Board Diversity and Gender Composition on Corporate Social Responsibility and Firm Reputation | Bear, Rahman, and Post | Empirical | Journal of Business Ethics | 2010 | 41        |
| 7    | Gender Diversity in Corporate Governance and Top Management | Francoeur, Labelle, and Sinclair-Desgagné | Empirical | Journal of Business Ethics | 2008 | 37        |
| 8    | The Contribution of Women on Boards of Directors: Going Beyond the Surface | Nielsen and Huse | Empirical | Corporate Governance: An International Review | 2010 | 34        |
| 9    | Corporate Governance, Board Diversity, and Firm Value | Carter, Simkins, and Simpson | Empirical | The Financial Review | 2003 | 32        |
| 10   | Board of Director Diversity and Firm Financial Performance | Erhardt, Werbel, and Shrader | Empirical | Corporate Governance: An International Review | 2003 | 32        |
| 11   | Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure | Jensen and Meckling | Empirical | Journal of Financial Economics | 1976 | 31        |
| 12   | Does Female Board Representation Influence Firm Performance? The Danish Evidence | Rose | Empirical | Corporate Governance: An International Review | 2007 | 31        |
| 13   | Does Board Gender Diversity Improve the Informativeness of Stock Prices? | Gul, Srinidhi, and Ng | Empirical | Journal of Accounting and Economics | 2011 | 28        |
| 14   | The Gender and Ethnic Diversity of US Boards and Board Committees and Firm Financial Performance | Carter, D’Souza, Simkins, and Simpson | Empirical | Corporate Governance: An International Review | 2010 | 24        |
| 15   | Critical Mass: The Impact of Three or More Women on Corporate Boards | Konrad, Kramer, and Erkut | Empirical | Organizational Dynamics | 2008 | 23        |
| 16   | Female Directors and Earnings Quality | Srinidhi, Gul, and Tsui | Empirical | Contemporary Accounting Research | 2011 | 23        |
| 17   | Additions to Corporate Boards: The Effect of Gender | Farrell and Hersh | Empirical | Journal of Corporate Finance | 2005 | 22        |
| 18   | Hidden Connections: The Link Between Board Gender Diversity and Corporate Social Performance | Boulouta | Empirical | Journal of Business Ethics | 2013 | 21        |
| 19   | Boards of Directors and Firm Performance: Integrating Agency and Resource Dependence Perspectives | Hillman and Dalziel | Conceptual | Academy of Management Review | 2003 | 21        |
| 20   | Organizational Predictors of Women on Corporate Boards | Hillman, Shropshire, and Cannella | Empirical | Academy of Management Journal | 2007 | 21        |

4.5. Topical focus in gender diversity knowledge base in past, present, and future

To respond to the final research question, we made use of the keywords occurrence analysis that helped them identify the most widely studied topics as well as their association with other dimensions. In the words of Zupic and Cater (2015), “When words frequently co-occur in documents, it means that the concepts behind those words are closely related. The output of the co-word analysis is a network of themes and their relations that represent the conceptual space of a field” (p. 435). The co-occurrence of these keywords acts as an important tool to identify the trends as well as various dimensions of scientific research in a particular area (Madani & Weber, 2016) which have been studied by academicians and scholars.
The keyword co-occurrences were conducted based on the "all keywords" and it led to the identification of 45 keywords with a minimum of 5 occurrences. The keywords that dominated the co-occurrence analysis were "Corporate Governance" (112 cases), "Gender Diversity" (100 cases), "Board of Directors" (54 cases), "Corporate Social Responsibility" (25 cases), and "Firm Performance" (23 cases). The results clearly re-affirm the dominant linkage of gender diversity with corporate governance mechanisms as has been found in the "canonical" paper of Adams and Ferreira (2009). The other major dimensions that have been widely explored were the implications on corporate social responsibility and firm performances.

Another added feature of conducting a co-occurrence keyword analysis is to identify the "emerging research topics" which shall provide directions for future research in the same discipline as well as associated disciplines. Through the VOSviewer software author has also constructed a visualization keyword co-occurrence map of the literature keeping the threshold occurrence level as 5. The rationale behind keeping a low occurrence count is, the gender diversity literature is an emerging topic and does not comprise many frequently occurring keywords. To have a comprehensive idea of the emerging topics the author has eliminated some of the keywords such as gender diversity (100 cases), as well as some other related terms, such as women on boards (35 cases), etc., due to their extreme and frequent occurrences.

The keyword occurrence map primarily focuses on two aspects: firstly, the frequency of occurrence of keywords and, secondly, the transition in popularity of these keywords over a period. Figure 4 shows a depiction of the most frequently used keywords over some of the past decades.

The emerging research topics can be identified from Figure 4 based on the light green as well as yellow colors. On the parameters of frequency as well as recency the topics that have emerged significantly in the last few years are Sustainable Development (7 cases), Environmental Performance (7 cases), Innovation (7 cases), Agency Theory (6 cases), Board Size (5 cases) and Corporate Social Responsibility (CSR) Reporting (5 cases). These are some of the emerging topics that can be built upon by scholars and academicians for future research.

The emerging studies have focused upon the role of gender diversity on sustainable development (Bravo & Reguera-Alvarado, 2019; Sumedreda, 2016; Valls Martínez, Cruz Rambaud, & Parra Oller, 2019) and they have also found that bringing together of the diverse range of expertise and knowledge in the form of women's representation on board would improve decision making in the context of sustainability (Nadeem et al., 2017). Furthermore, it has also been found that women directors tend to show a greater inclination towards the community service projects as compared to the male directors (Groysberg & Bell, 2013) and they are found less guilty of violations related to environmental concerns (Donaldson & Preston, 1995), this has further led to policy thinkers invoke more stringent gender diverse laws and policies.

Another topic that has received attention in the gender diversity literature in recent years is how do gender diversity impact environmental performance (Alazzani, Hassanein, & Aljanadi, 2017; Birindelli et al., 2019; Lu & Herremans, 2019). In this domain, some recent developments have been in investigating the relationship between the moderating role of family and dual ownership structures and gender diversity on environmental performance (Cordeiro, Profumo, & Tutore, 2020).

Recent studies have also investigated the role of gender diversity on corporate social responsibility reporting (Issa & Fang, 2019; Pucheta-Martínez & Gallego-Alvarez, 2019). The studies have also highlighted the role played by various elements of board composition such as board size, board independence, CEO duality, etc., on CSR reporting (Pucheta-Martínez & Gallego-Alvarez, 2019). The typology of female directors, such as independent and outside directors, is also a growing stream that impacts CSR disclosures (Cabeza-García, Fernández-Gago, & Nieto, 2018). We also notice the prevalence of the terms like "agency theory and "innovation" in the knowledge base of gender diversity literature, therefore, future studies can also be linked to measuring the moderating role of agency theory or innovation and gender diversity on various dimensions, such as sustainability, environmental performance, and CSR reporting.
Figure 4. Temporal overlay on a keyword co-occurrence map for the BDCG knowledge base published from 1989 to 2021 (threshold 5 co-occurrences, display 45 keywords)

5. CONCLUSION

The bibliometric analysis clearly reveals that the knowledge base of gender diversity on boards has grown exponentially from 1989 to 2021. The study reveals that the literature has diversified globally and is spread across 74 countries but there is a dominance of studies conducted by the developed nations like the US, the UK, Australia, Spain, France, Germany, etc. The plausible reason for the same could be the inherent linkage of the gender diversity literature with corporate governance, and since these developed nations were the pioneers of various corporate governance codes, the outcome seems justified. There also appears to be growing in the research studies conducted in the developing economies post-adoption of mandatory and voluntary codes for women directors’ appointments.

The citation, as well as co-citation analysis, reveals the multidisciplinary nature of the topic covering journals across various subjects, such as Finance, Economics, Management, Strategy, Accounting, as well as Corporate Governance, and Ethics. The two most influential journals that should be of most interest to scholars working in the gender diversity area are Journal of Business Ethics and Corporate Governance: An International Review. Though considering the multidisciplinary nature, Journal of Financial Economics and Academy of Management Review, are also well sought-after journals that could be of insight. These journals portray potential publishing avenues for scholars and researchers.

Moreover, the inherent linkage of the Gender Diversity area towards Corporate Governance impacts several other dimensions through the decision-making attribute of the board, such as Finance, Corporate Social Responsibility, Sustainability, Leadership, Accounting, etc. Another valuable contribution made with the help of citation analysis is to identify the pioneer articles that have made a significant impact on the intellectual development of the area. The two pioneer studies by Campbell and Minguez-Vera (2008) and Bear et al. (2010) threw light on two major dimensions of gender diverse boards that is Financial Performance and Corporate Social Responsibility, respectively. These studies were the steppingstones for other scholars to explore the dimension of gender diversity in both developed and developing economies.

The distribution of literature in the various multidisciplinary subjects along with the keyword co-occurrence analysis affirms wide scope of research in developing economies as well as several dimensions that have seen meagre growth and development. Since developing economies widely differ from developed ones owing to weak legal frameworks (Djankov, La Porta, Lopez-de-Silanes, & Shleifer, 2008; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997) along with the prevalence of concentrated ownerships (Claessens, Djankov, & Lang, 2000). The keyword evolution map highlighted various emerging topics in the literature that can provide a future scope of the study for the researchers; some of the prominent ones being Sustainable Development, CSR Reporting, Environmental Performance as well as Innovation.

We would like to suggest that though some past contributions (Al-Shaer & Zaman, 2016; Nadeem et al., 2017; Valls Martinez et al., 2019; Zahid et al., 2020) have been made in evaluating the role of gender diversity on corporate sustainability practices/disclosures. There is still a dearth of research articles in this knowledge base especially in the context of emerging economies that provide sufficient room for research in this dimension.

Despite the great contribution of this study, the study also has its share of innate limitations like
various other studies. The primary limitation of this study is that a single database (Scopus) has been used for the collection of the research studies. This could have led to the missing of various other studies that could have been collected from multiple data sources. This shall also limit the interpretation of the results to some extent. The study has certain practical, as well as managerial, implications as the study throws to light various elements where the benefit of gender diversity could accrue and can help the firms in better decision-making. For various firms, it also opens policy implications where they could understand the relevance of having adequate gender diverse representation on the board. The literature clearly points towards the critical mass aspect of gender diversity (LaFuente & Vaillant, 2019; Yarram & Adapa, 2021) and the benefits that might accrue from the same. The literature clearly points towards other interdisciplinary aspects, such as corporate sustainability, innovation, CSR reporting, agency theory, etc. Policymakers, as well as scholars, must identify these research gaps and dimensions and must address these gaps in future studies.

REFERENCES

1. Abdalla, I. A. (2015). Career facilitators and barriers of Arab women senior executives. *International Journal of Business and Management*, 10(8), 218-232. https://doi.org/10.5539/ijbm.v10n8p218
2. Abdelzaher, A., & Abdelzaher, D. (2019). Women on boards and firm performance in Egypt: Post the Arab Spring. *The Journal of Developing Areas*, 53(1). Advance online publication. https://doi.org/10.1353/jda.2019.0013
3. Abdullah, S. N., Ismail, K. N. I. K., & Nachum, L. (2016). Does having women on boards create value? The impact of societal perceptions and corporate governance in emerging markets. *Strategic Management Journal*, 37(3), 466-476. https://doi.org/10.1002/smj.2352
4. Adams, K. R., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291-309. https://doi.org/10.1016/j.jfineco.2008.10.007
5. Adams, R. B., & Funk, P. (2012). Beyond the glass ceiling: Does gender matter? *Management Science*, 58(2), 219-235. https://doi.org/10.1287/mnsc.111.14152
6. Alazzani, A., Hassanein, A., & Aljanadi, Y. (2017). Impact of gender diversity on social and environmental performance: Evidence from Malaysia. *Corporate Governance*, 17(2), 266-283. https://doi.org/10.1108/CG-12-2015-0161
7. Al-Sheer, H., & Zaman, M. (2016). Board gender diversity and sustainability reporting quality. *Journal of Contemporary Accounting and Economics*, 12(3), 210-222. https://doi.org/10.1016/j.jcae.2016.09.001
8. Bear, S., Rahman, N., & Post, C. (2010). The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *Journal of Business Ethics*, 97(2), 207-221. https://doi.org/10.1007/s10551-010-0505-2
9. Ben-Amar, W., Chang, M., & McIlkenny, P. (2017). Board gender diversity and corporate response to sustainability initiatives: Evidence from the carbon disclosure project. *Journal of Business Ethics*, 142, 369-383. https://doi.org/10.1007/s10551-015-2759-1
10. Birindelli, G., Iannuzzi, A. P., & Savioli, M. (2019). The impact of women leaders on environmental performance: Evidence on gender diversity in banks. *Corporate Social Responsibility and Environmental Management*, 26(6), 1485-1499. https://doi.org/10.1002/csr.1762
11. Boulouta, I. (2013). Hidden connections: The link between board gender diversity and corporate social performance. *Journal of Business Ethics*, 113, 185-197. https://doi.org/10.1007/s10551-012-1293-7
12. Bratberg, E., Dahl, S.-A., & Risa, A. E. (2002). "The double burden": Do combinations of career and family obligations increase sickness absence among women? *European Sociological Review*, 18(2), 233-249. https://doi.org/10.1093/esr/jer2.233
13. Bravo, F., & Reguera-Alvarado, N. (2019). Sustainable development disclosure: Environmental, social, and governance reporting and gender diversity in the audit committee. *Business Strategy and the Environment*, 28(2), 418-429. https://doi.org/10.1002/bse.2258
14. Byron, K., & Post, C. (2016). Women on boards of directors and corporate social performance: A meta-analysis. *Corporate Governance: An International Review*, 24(4), 428-442. https://doi.org/10.1111/corg.12165
15. Cabeza-Garcia, L., Fernández-Gago, R., & Nieto, M. (2018). Do board gender diversity and director typology impact CSR reporting? *European Management Review*, 15(4), 559-573. https://doi.org/10.1111/emre.12143
16. Cacouault-Bitaud, M. (2008). Is the feminization of a profession a loss of prestige? *Travail, Genre et Sociétés*, 5(1), 91-115. https://doi.org/10.3917/tgs.005.0091
17. Campbell, K., & Miguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of Business Ethics*, 83(3), 435-451. https://doi.org/10.1007/s10551-007-9630-y
18. Campbell, K., & Miguez-Vera, A. (2010). Female board appointments and firm valuation: Short and long-term effects. *Journal of Management & Governance*, 14, 37-59. https://doi.org/10.1007/s10997-009-9092-y
19. Carter, D. A., D’Souza, F., Simkins, B. J., & Simpson, W. G. (2010). The gender and ethnic diversity of US boards and board composition and firm financial performance. *Corporate Governance: An International Review*, 18(5), 396-414. https://doi.org/10.1111/j.1467-8683.2010.00809.x
20. Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial Review*, 38(1), 33-51. https://doi.org/10.1111/j.1540-6288.2003.t08668.x
21. Chapple, L., & Humphrey, J. E. L. (2014). Does board gender diversity have a financial impact? Evidence using stock portfolio performance. *Journal of Business Ethics*, 122, 709-723. https://doi.org/10.1007/s10551-013-1785-0
22. Chatman, J. A., & O'Reilly, C. A. (2004). Asymmetric reactions to work group sex diversity among men and women. *Academy of Management Journal*, 47(2), 193-208. https://doi.org/10.2307/15135772
23. Chebri, M., & Bahoussa, A. (2020). Impact of gender and nationality diversity on financial performance: A study of listed banks in Morocco. *Corporate Ownership and Control*, 18(1), 56-68. https://doi.org/10.22495/ococ181art5
24. Claessens, S., Djankov, S., & Lang, L. H. P. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics*, 58(1–2), 81-112. https://doi.org/10.1016/s0304-405x(00)00067-2
25. Cook, A., & Glass, C. (2014). Above the glass ceiling: When are women and racial/ethnic minorities promoted to CEO? Strategic Management Journal, 35(7), 1080-1089. https://doi.org/10.1002/smj.2161

26. Cordeiro, J. J., Profumo, G., & Tutore, I. (2020). Board gender diversity and corporate environmental performance: The moderating role of family and dual-class majority ownership structures. Business Strategy and the Environment, 29(3), 1147-1164. https://doi.org/10.1002/bse.2421

27. del Carmen Triana, M., Miller, T. L., & Trzebiatowski, T. M. (2014). The double-edged nature of board gender diversity: Diversity, firm performance, and the power of women directors as predictors of strategic change. Organization Science, 25(2), 321-652. https://doi.org/10.1287/orsc.2013.0842

28. Derks, B., Ellemers, N., van Laar, C., & de Groot, K. (2011). Do sexist organizational cultures create the Queen Bee? British Journal of Social Psychology, 50(3), 519-535. https://doi.org/10.1348/014466610X523820

29. Ding, X., & Cronin, B. (2011). Popular and/or prestigious? Measures of scholarly esteem. Information Processing and Management, 47(1), 80-96. https://doi.org/10.1016/j.ipm.2010.01.002

30. Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2008). The law and economics of self-dealing. Journal of Financial Economics, 88(3), 430-465. https://doi.org/10.1016/j.jfineco.2007.02.007

31. Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. Academy of Management Review, 2011, 65–91. https://doi.org/10.5465/amr.1995.9503271992

32. Eagly, A. H., Johannesen-Schmidt, M. C., & van Engen, M. L. (2003). Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. Psychological Bulletin, 129(4), 569-591. https://doi.org/10.1037/0033-2909.129.4.569

33. Erhardt, N. L., Werbel, J. D., & Shrader, C. B. (2003). Board of director diversity and firm financial performance. Corporate Governance: An International Review, 11(2), 102-111. https://doi.org/10.1111/1467-8683.00011

34. Farrell, K. A., & Hersch, P. L. (2005). Additions to corporate boards: The effect of gender. Journal of Corporate Finance, 11(1–2), 85-106. https://doi.org/10.1016/j.jcorpfin.2003.12.001

35. Francoeur, C., Labelle, R., & Sinclair-Desgagné, B. (2008). Gender diversity in corporate governance and top management. Journal of Business Ethics, 81(1), 83–95. https://doi.org/10.1007/s10515-007-9482-5

36. Galbreath, J. (2011). Are there gender-related influences on corporate sustainability? A study of women on boards of directors. Journal of Management & Organization, 17(1), 17–38. https://doi.org/10.5172/jmo.2011.17.1.17

37. Giraldez-Puig, P., & Berenguer, E. (2018). Family female executives and firm financial performance. Sustainability, 10(11), 4163. https://doi.org/10.3390/su10114163

38. Groysberg, B., & Bell, D. (2013). Dysfunction in the boardroom. Harvard Business Review, 91(6), 89–97. Retrieved from https://hbr.org/2013/06/dysfunction-in-the-boardroom

39. Gul, F. A., Srinidhi, B., & Ng, A. C. (2011). Does board gender diversity improve the informativeness of stock prices? Journal of Accounting and Economics, 51(3), 314–338. https://doi.org/10.1016/j.jacceco.2011.01.005

40. Haldar, A., Shah, N., & Nageswara Rao, S. V. D. (2015). Gender diversity in large listed Indian companies. Corporate Ownership and Control, 13(2–3), 51, 573–580. https://doi.org/10.1108/cooc-1211c5p8

41. Heredia, E. B., Ramos, A., Sarrió, M., & Candela, C. (2002). Más allá del “techo de cristal”: Diversidad de género. Revista del Ministerio de Trabajo y Asuntos Sociales, 40, 55-68. Retrieved from https://www.resarchgate.net/publication/28059151_Mas_alla_del_techo_de_cristal

42. Hillman, A. J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource perspectives. Academy of Management Review, 28(3), 383-396. https://doi.org/10.5465/amr.2003.10169729

43. Hillman, A. J., Shropshire, C., & Cannella, A. A., Jr. (2007). Organizational Predictors of Women on Corporate Boards. Academy of Management Journal, 50(4), 941-952. https://doi.org/10.5465/amj.2007.26279222

44. Hochschild, A. (1990). Ideology and emotion management: A perspective and path for future research. In T. D. Kemper (Ed.), Research agendas in the sociology of emotions (pp. 117–142). New York, NY: State University of New York Press.

45. Hutchinson, M., Mack, J., & Plastow, K. (2015). Who selects the "right" directors? An examination of the association between board selection, gender diversity and outcomes. Accounting and Finance, 55(4), 1071-1103. https://doi.org/10.1111/acaf.12082

46. Isa, A., & Fang, H.-X. (2019). The impact of board gender diversity on corporate social responsibility in the Arab Gulf states. Gender in Management, 34(7), 577-605. https://doi.org/10.1002/gm.2018-00087

47. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305-360. https://doi.org/10.1016/0304-405X(76)90026-X

48. Joczks, J., Pull, K., & Vetter, K. (2013). Gender diversity in the boardroom and firm performance: What exactly constitutes a “critical mass”? Journal of Business Ethics, 118, 61–72. https://doi.org/10.1007/s10551-012-1553-6

49. Konrad, A. M., Kramer, V., & Erkut, S. (2008). Critical mass: The impact of three or more women on corporate boards. Organizational Dynamics, 37(2), 145–164. https://doi.org/10.1016/j.orgdyn.2008.02.005

50. La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal determinants of external finance. Journal of Finance, 52(3), 1131–1150. https://doi.org/10.1111/j.1540-6261.1997.tb02727.x

51. Lafuente, E., & Vaillant, Y. (2019). Balance rather than critical mass or tokenism: Gender diversity, leadership and performance in financial firms. International Journal of Manpower, 40(5), 894–916. https://doi.org/10.1108/IJM-10-2017-0268

52. Liu, Y., Wei, Z., & Xie, F. (2014). Do women directors improve firm performance in China? Journal of Corporate Finance, 28, 169–184. https://doi.org/10.1016/j.jcorpfin.2013.11.016

53. Lu, J., & Herremans, I. M. (2019). Board gender diversity and environmental performance: An industries perspective. Business Strategy and the Environment, 28(7), 1449-1464. https://doi.org/10.1002/bse.2326

54. Lückeath-Rovers, M. (2013). Women on boards and firm performance. Journal of Management and Governance, 17(2), 491-509. https://doi.org/10.1007/s10997-011-9186-6

55. Madani, F., & Weber, C. (2016). The evolution of patent mining: Applying bibliometrics analysis and keyword network analysis. World Patent Information, 46, 32–48. https://doi.org/10.1016/j.wpi.2016.05.008

56. Mateos de Cabo, R., Terjesen, S., Escot, L., & Gimeno, R. (2019). Do ‘soft law’ board gender quotas work? Evidence from a natural experiment. European Management Journal, 37(5), 611-624. https://doi.org/10.1016/j.emj.2019.01.004
57. Miller, T., & del Carmen Triana, M. (2009). Demographic diversity in the boardroom: Mediators of the board diversity — Firm performance relationship. Journal of Management Studies, 46(5), 755-786. https://doi.org/10.1111/j.1467-6486.2009.00839.x

58. Monge, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: A comparative analysis. Scientometrics, 106(4), 2131-2152. https://doi.org/10.1007/s11192-015-1765-5

59. Moreno-Gómez, J., Lafuente, E., & Vaillant, Y. (2018). Gender diversity in the board, women's leadership and business performance. Gender in Management, 33(2), 104-122. https://doi.org/10.1108/GM-05-2017-0058

60. Mukarram, S. S., Ajmal, T., & Saeed, A. (2018). Women directors' propensity towards risk in technology firms. Corporate Governance, 18(2), 353-367. https://doi.org/10.1108/CG-09-2017-0213

61. Nadeem, M., Zaman, R., & Saleem, I. (2017). Boardroom gender diversity and corporate sustainability practices: Evidence from Australian Securities Exchange listed firms. Journal of Cleaner Production, 145, 874-885. https://doi.org/10.1016/j.jclepro.2017.02.141

62. Nielsen, S., & Huse, M. (2010). The contribution of women on boards of directors: Going beyond the surface. Corporate Governance: An International Review, 18, 136-148. https://doi.org/10.1111/j.1467-8683.2010.00784.x

63. Pletzer, J. L., Nikolova, R., Kedzior, K. K., & Voepel, S. C. (2015). Does gender matter? Female representation on corporate boards and firm financial performance — A meta-analysis. PloS ONE, 10(6), e0130005. https://doi.org/10.1371/journal.pone.0130005

64. Post, C., & Byron, K. (2015). Women on boards and firm financial performance: A meta-analysis. The Academy of Management Journal, 58(5), 1546-1571. Retrieved from https://www.jsstor.org/stable/24758233

65. Pucheta-Martínez, M. C., & Gallego-Alvarez, I. (2019). An international approach of the relationship between board attributes and the disclosure of corporate social responsibility issues. Corporate Social Responsibility and Environmental Management, 26(3), 612-627. https://doi.org/10.1002/csr.1707

66. Pucheta-Martínez, M. C., Bel-Oms, I., & Olcina-Sempere, G. (2019). Commitment of independent and institutional women directors to corporate social responsibility reporting. Business Ethics, 28(3), 290-304. https://doi.org/10.1111/beer.12218

67. Qureshi, M. A., Kirkerud, S., Theresa, K., & Absan, T. (2020). The impact of sustainability (environmental, social, and governance) disclosure and board diversity on firm value: The moderating role of industry sensitivity. Business Strategy and the Environment, 29(3), 1199-1214. https://doi.org/10.1002/bse.2427

68. Reguera-Alvarado, N., de Fuentes, F., & LaFargue, J. (2017). Does board gender diversity influence financial performance? Evidence from Spain. Journal of Business Ethics, 141(2), 337-350. https://doi.org/10.1007/s10551-015-2735-9

69. Ridgeway, C. L. (2014). Why status matters for inequality. American Sociological Review, 79(1), 1-16. https://doi.org/10.1177/0003122413515997

70. Rigolini, A., & Huse, M. (2021). Women and multiple board memberships: Social capital and institutional pressure. Journal of Business Ethics, 169(3), 443-459. https://doi.org/10.1007/s10551-019-04313-6

71. Rose, C. (2007). Does female board representation influence firm performance? The Danish evidence. Corporate Governance: An International Review, 15(2), 404-413. https://doi.org/10.1111/j.1467-8683.2007.00570.x

72. Ryan, M. K., & Haslam, S. A. (2007). The glass cliff: Exploring the dynamics surrounding the appointment of women to precarious leadership positions. Academy of Management Review, 32(2), 549-572. https://doi.org/10.5465/amr.2007.24351896

73. Sanan, N. K. (2016a). Board gender diversity, financial and social performance of Indian firms. Vision, 20(4), 361-367. https://doi.org/10.1177/097722916673006

74. Sanan, N. K. (2016b). Board gender diversity and firm performance: Evidence from India. Asian Journal of Business Ethics, 5(1), 1-18. https://doi.org/10.1177/097722916673006

75. Sánchez-Tebá, E. M., Benítez-Márquez, M. D., & Forras-Alcalá, P. (2021). Gender diversity in boards of directors: A bibliometric mapping. Journal of Open Innovation: Technology, Market, and Complexity, 7(1), 12. https://doi.org/10.1186/joimtc.7010012

76. Shehata, N., Salhin, A., & El-Helaly, M. (2017). Board diversity and firm performance: Evidence from the U.K. SMES. Applied Economics, 49(48), 4817-4832. https://doi.org/10.1080/00036846.2017.1293796

77. Sila, V., González, A., & Hagendorf, J. (2016). Women on board: Does boardroom gender diversity affect firm risk? Journal of Corporate Finance, 36, 26-53. https://doi.org/10.1016/j.jcorpfin.2015.10.003

78. Singh, A. K., Singhania, S., & Sardana, V. (2019). Do women on boards affect firm’s financial performance? Evidence from Indian IPO firms. Australasian Accounting, Business and Finance Journal, 13(2), 53-68. https://doi.org/10.14453/aabfj.v13i2.4

79. Small, H. (1973). Co-citation in the scientific literature: A new measure of the relationship between two documents. Journal of the American Society for Information Science, 24(4), 265-269. https://doi.org/10.1023/A:10230420406

80. Srindhi, B., Gui, F. A., & Tsui, J. (2011). Female directors and earnings quality. Contemporary Accounting Research, 28(5), 1610-1644. https://doi.org/10.1111/j.1911-3846.2011.01071.x

81. Sumedrea, S. (2016). Gender diversity and firm performance in seeking for sustainable development. Bulletin of the Transilvania University of Braşov Series V: Economic Sciences, 9(58), No. 2, 369-384. Retrieved from http://webbut.unitbv.ro/BUL2016/Series%20%20/APPLE%20%20/39_Sumedrea.pdf

82. Terjesen, S., & Singh, V. (2008). Female presence on corporate boards: A multi-country study of environmental concern. Journal of Business Ethics, 83, 55-63. https://doi.org/10.1007/s10551-007-9656-1

83. Terjesen, S., Couto, E. B., & Francisco, P. M. (2016). Does the presence of independent and female directors impact firm performance? A multi-country study of board diversity. Journal of Management and Governance, 20(3), 447-483. https://doi.org/10.1007/s10997-014-9307-8

84. Terjesen, S., Sealy, R., & Singh, V. (2009). Women directors on corporate boards: A review and research agenda. Corporate Governance: An International Review, 17(3), 320-337.

85. The Committee on the Financial Aspects of Corporate Governance. (1992). Financial Aspects of Corporate Governance in Australia (Cadbury Report). Retrieved from https://ecgi.global/sites/default/files/codes/documents/cadbury.pdf

86. Torchia, M., Calabrò, A., & Huse, M. (2011). Women directors on corporate boards: From tokenism to critical mass. Journal of Business Ethics, 102(2), 299-317. https://doi.org/10.1007/s10551-011-0815-z
87. Valls Martínez, M. C., Cruz Rambaud, S., & Parra Oller, I. M. (2019). Gender policies on board of directors and sustainable development. Corporate Social Responsibility and Environmental Management, 26(6), 1539-1553. https://doi.org/10.1002/csr.1825
88. Velte, P. (2017). Do women on management board increase fair value relevance? Corporate Governance and Sustainability Review, 1(1), 6-16. https://doi.org/10.22495/cgsrv1i1p1
89. Vieira, E. S., & Gomes, J. A. N. F. (2009). A comparison of Scopus and Web of Science for a typical university. Scientometrics, 81(2), 587-600. https://doi.org/10.1007/s11192-009-2178-0
90. Williams, R. J. (2003). Women on corporate boards of directors and their influence on corporate philanthropy. Journal of Business Ethics, 42, 1-10. https://doi.org/10.1023/A:1021626024014
91. Yarram, S. R., & Adapa, S. (2021). Board gender diversity and corporate social responsibility: Is there a case for critical mass? Journal of Cleaner Production, 278, 123319. https://doi.org/10.1016/j.jclepro.2020.123319
92. Zahid, M., Rahman, H. U., Ali, W., Khan, M., Alharthi, M., Qureshi, M. I., & Jan, A. (2020). Boardroom gender diversity: Implications for corporate sustainability disclosures in Malaysia. Journal of Cleaner Production, 244, 118683. https://doi.org/10.1016/j.jclepro.2019.118683
93. Zheng, C., & Kouwenberg, R. (2019). A bibliometric review of global research on corporate governance and board attributes. Sustainability, 11(12), 3428. https://doi.org/10.3390/su11123428
94. Zupic, I., & Cater, T. (2015). Bibliometric methods in management and organization. Organizational Research Methods, 18(3), 429-472. https://doi.org/10.1177/1094428114562629