Gender diversity in corporate governance: a bibliometric analysis and research agenda

Gender diversity in corporate governance

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Abstract

Purpose – This paper aims to examine literature on corporate governance from the gender perspective adopting the two novel approaches: bibliometric analysis and content analysis.

Design/methodology/approach – For citation mapping and comprehensive content analysis, total 393 Web of Science indexed journal articles were selected. Initially, this study identifies the most productive authors, journal sources, countries and affiliation within the study topic.

Findings – Findings from the intellectual structure explore four underlying research stems in the corporate governance and gender literature: participation of women on corporate boards and their characteristics, women directors and their roles in board across different countries, gender diversity in the board and corporate social responsibility and firm financial performances, risks and stock prices.

Originality/value – From the content analysis, it is revealed that corporate governance and gender studies have predominantly investigated the gender diversity issues as a catalyst of corporate governance, with a focus on women on corporate boards and firm financial performance, risks and stock price, while the area of board gender diversity and corporate social responsibility remains relatively under-researched.

Keywords Bibliometric analysis, Corporate governance, Gender diversity

Paper type Literature review

1. Introduction

Corporate governance describes all the influences that affect an institution's processes, including those for appointing the controllers and/or regulators, involved in organizing the production and sale of goods and services (Turnbull, 1997). Although government authorities around the world are adopting policies designed to increase the participation of women in the

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Gender in Management: An International Journal © Emerald Publishing Limited 1754-2413 DOI 10.1108/GM-02-2021-0029 boards, it is still quite unclear how these policies are related to corporate governance (Abdullah et al., 2016). Corporate governance reforms have been motivated to a considerable degree by concerns about the possible impacts of gender diversity on firm performance, risk, and director compensation (Perryman et al., 2016). Indeed, there are several studies focused on the impact of the board gender composition on a firm's financial decisions and its valuation (Ahern and Dittmar, 2012). However, Sila et al. (2016) recently suggested that on average, firm risk is negatively related to the probability that a female director is appointed. As a result, there have been several inconclusive studies determining the relationship between corporate governance and board gender diversity (Ahmadi et al., 2018; Brammer et al., 2007). Both corporate governance and gender diversity literature have gained prominence in academia since late 90s when Rogelberg and Rumery (1996), Burke (1997), and Elsass and Graves (1997) analyzed the requirement of more women on corporate boards and roles of different aspects of diversity such as gender and race in decision-making, timeliness and team quality. Even though their findings suggest board members should be more diverse in all aspects, there are several barriers faced by women due to gender differences considering corporate governance.

Several review studies exist today on corporate governance and gender diversity among board of directors, analyzing several aspects of the firm (Ahern and Dittmar, 2012; Ahmadi *et al.*, 2018). For instance, applications of agency theories, barriers hindering the access of women to corporate boards, women participation in board control and decision-making, corporate value, technical efficiency of financial decisions, compensation differential, corporate social responsibility, etc. Although there are several studies based on conceptual framework in this literature field, there is no evidence of a bibliometric review focused on corporate governance and gender diversity. Hence, the goal of this paper is to close the literature gap by conducting a comprehensive bibliometric analysis of corporate governance and board gender diversity.

For reviewing corporate governance and gender literature, three research questions are set in this study. The first research question is:

RQ1. What are the key journals, impactful authors and most contributing countries in corporate governance and gender research?

The second research question is:

RQ2. How have the key corporate governance and gender studies evolved over time building on each other and what are the underlying research streams?

Finally, the third research question is:

RQ3. What are the trending studies in corporate governance and gender literature and what are their findings?

The rest of this study is organized as follows: Section 2 presents the methodology of this study and results of bibliometric citation analysis. The comprehensive bibliometric review and discussions are developed and presented in Section 3. Section 4 offers the future research agendas, and Section 5 concludes the study with conclusion and limitations of the review study.

2. Methodology

The goal of a review paper is to clarify the state of knowledge, explain apparent contradictions, identify needed research and create a consensus on a certain research field when none existed before. In this respect, a review of the existing literature that incorporates the outcomes of preceding research provides valuable insight for academicians and practitioners (Gurzki and Woisetschläger, 2017). There are many types of review papers, such as literature review

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(Grosvold et al., 2016), theme-based reviews (Okeahalam and Akinboade, 2003), framework-based reviews (Kirsch, 2018), meta-analysis-based review (Lagasio and Cucari, 2019) and framework-and-theory development reviews (Uhde et al., 2017). However, it can be noticed that there is no existing systematic literature review based on bibliometric analysis in corporate governance and gender literature. To fulfill this void in corporate governance and gender, this study adopts bibliometric techniques to demonstrate how corporate governance and gender literature evolved over time in addition to showing citation characteristics of it (Ikra et al., 2021; Jarin et al., 2021).

The bibliometric analysis is adopted in this systematic literature review to comprehend the essence of corporate governance and gender literature. Okoli and Schabram (2010) defined systematic literature review as a journal-length article whose sole purpose is to review the literature in a field, without any primary data (that is, new or original) collected or analyzed using a systematic, rigorous standard. A systematic sample selection process that consists of three steps to fulfil the objectives of this study have been adopted (Figure 1) to conduct the bibliometric analysis.

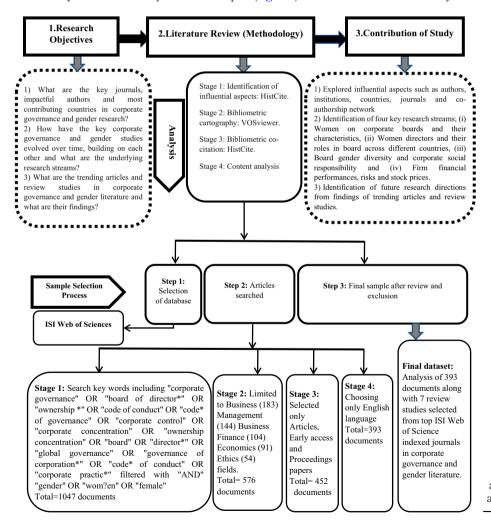


Figure 1.
Methodological
approach and source
author's presentation

The first step is related to the selection of the database to collect the articles and bibliometric data. The primary source of information is Web of Science (WoS) database because it is a comprehensive data set that incorporates other five databases and covers all the top journals since 1992. The same database was also used by Netter *et al.* (2009), Huang and Ho (2011) and Young *et al.* (2007).

The second step is related to the literature search and that is cornerstone in any bibliometric analysis. Articles were searched at four different levels to cover the widest possible range of the literature. At the first level, search from the WoS was carried out with the following keywords: "corporate governance" OR "board of director*" OR "ownership *" OR "code of conduct" OR "code* of governance" OR "corporate control" OR "corporate concentration" OR "ownership concentration" OR "board" OR "director*" OR "global governance" OR "governance of corporation*" OR "code* of conduct" OR "corporate practice*" filtered with "AND" "gender" OR "woman" OR "female" during the period 1992-2020. In the second level, the study field was limited to business, management, business finance, economics and ethics. Finally, by applying two filters in next two stages. corresponding to English language and articles only, a total of 393 articles were found. We set the language to "English" only for the easy use of software like VosViewer for further content analysis (Van Eck and Waltman, 2011). As a result, many book chapters were omitted as well. This procedure in the literature search was similar to the one applied by Apriliyanti and Alon (2017). The selection of keywords to search the literature on corporate governance and gender is confirmed through bibliometric cartography analysis (Figure 2).

3. Bibliometric review

3.1 The most cited authors, institutions and countries

By using bibliometric techniques and citation analysis, this section identifies the 20 most productive authors, countries and institutions, which are summarized in Table 1. Total local

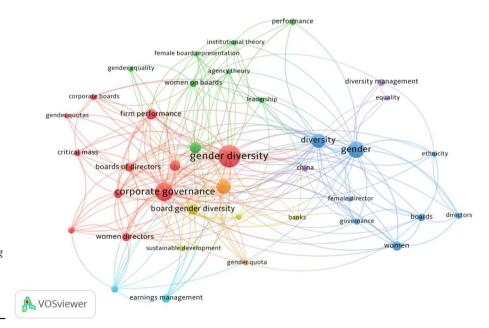


Figure 2.
Bibliometric
cartography showing
co-occurrence
network among
prolific authors'
keywords

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TLGS	3540	1826	229	282	344	284	392	208	355	140	145	137	133	229	19 60
TLCS	658	354	139	81	71	70	53	41	32	32	31	28	27	27	19
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Journal	Journal of Business Ethics	Corporate Governance: An International Review	Journal of Corporate Finance	Journal of Accounting and Economics	Quarterly Journal of Economics	Contemporary Accounting Research	Journal of Business Research	British Accounting Review	Academy of Management Journal	Business Strategy and the Environment	Strategic Management Iournal	European Management Review	British Journal of Management	International Journal of Human Resource Management	Gender in Management
TGCS	4388	2346	1757	1095	966	882	708	792	1358	759	443	248	224	321	232
TLCS	929	411	294	239	214	213	184	176	162	153	69	63	30	88	27
11	111	71	45	31	12	16	10	16	26	20	21	21	9	17	4
Country	USA	UK	Australia	China	Denmark	Italy	Malaysia	Norway	Spain	Canada	Germany	France	Sweden	New Zealand	Switzerland
TGCS	948	815	815	531	529	454	486	486	446	459	388	497	312	438	250
TLCS	212	198	198	143	142	116	101	101	88	28	62	22	11	99	83
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Institution	Copenhagen	BI Norwegian Business School	Tor Vergata University of Rome	Hong Kong Polytechnic University	City University of Hong Kong	Monash University	Polytechnic University Cartagena	University of Stirling	University of Technology Sydney	University of Michigan	Oklahoma State University	Lehigh University	University of Bath	Pace University	University of Reading
TGCS	834	546	546	585	486	400	282	331	336	388	388	388	388	497	344
TLCS	203	145	145	108	101	96	81	80	80	62	62	62	62	22	71
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Author	Morten	Fardinand A Gul	Bin Srnidhi	Antonio Minguez Vera	Kevin Campbell	Sabina Tacheva Nielsen	Anthony C. Ng	Andrea Calabro	Mariateresa Torchia	David A. Carter	Frank D'Souza	Betty J. Simkins	W. Gary Simpson	Corinne Post	Kenneth R. Ahern
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Table 1.
Top authors,
institutions,
countries and journal
sources in corporate
governance and
gender literature

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71	344	Monash University Sunway Campus	П	61	247	The Netherlands	6	26	203	International Review of Financial Analysis	4	19	20
20	281	Queensland University of Technology	9	29	301	Turkey	7	26	88	Journal of Management and Organization	လ	18	06
99	438	HEC Montreal	က	24	264	Pakistan	10	25	92	Corporate Social Responsibility and Environmental Management	12	17	163
99	438	University of Texas El Paso	2	49	176	Singapore	2	24	165	Organization Science	က	14	69
19	247	Hec Montreal and Cirano	-	46	233	Morocco	က	19	92	Group and Organization Management	က	13	80
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Table 1.

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citations, that corresponds to the number of times an article is cited by other articles in the sample of the study, have been considered as the dominant variable for determining the ranking of these authors, institutions and countries.

In terms of the scientific centers, the Copenhagen Business School was the most productive and influential institution in this research area with a total number of 8 articles and more than 200 total local citations. This institution has also received the highest total global citations. Other top institutions with more than 100 local citations includes BI Norwegian Business School (Norway), Tor Vergata University of Rome (Italy), Hong Kong Polytechnic University (Hong Kong), City University of Hong Kong (Hong Kong), Monash University (Australia), Polytechnic University Cartagena (Spain) and University of Stirling (UK), Although University of Stirling and Polytechnic University Cartagena have significant total local and global citations, they published only one article each. This means that despite the scarce number of publications, they have provided one of the most influential studies in corporate governance and gender literature. Indeed, it is interesting to note that the most cited document was written by two authors at University of Stirling. However, in terms of productivity, only four institutions published more than four articles: Copenhagen Business School (eight articles), University of Technology Sydney (five articles), University of Bath (five articles) and Queensland University of Technology (six articles).

Regarding the countries, the USA appeared to be the most productive and influential country with a total number of 111 documents, more than 600 total local citations and more than 4,000 total global citations. In terms of the number of papers, only 4 countries have produced 40 or more documents: USA, UK, Australia and Spain. These countries have also received the largest number of total global citations (>1,000 citations). However, in terms of total local citations, only USA, UK, Australia, People's Republic of China, Denmark and Italy top the list with more than 200 citations. Eight articles by US authors received more than 20 total local citations.

The 393 publications included in this study were published in 143 different journals, 20 of which accounted for 43% (170) of the total number of documents. Out of these 20 sources, 16 have an impact factor above 2 and 2 journals have an impact factor beyond 7. It is frequently used as a proxy for the relative importance of a journal within its field. Hence, journals with higher impact factors are often deemed to be more important than those with lower ones. From these 20 sources, *Journal of Business Ethics* appeared to be the most relevant source with a total number of 43 documents, total local citations of more than 650, total global citations of beyond 3,500 and an impact factor slightly greater than 1. But it is noteworthy that 12 out of 20 most productive authors had no documents in *Journal of Business Ethics*.

3.2 Conceptual structure

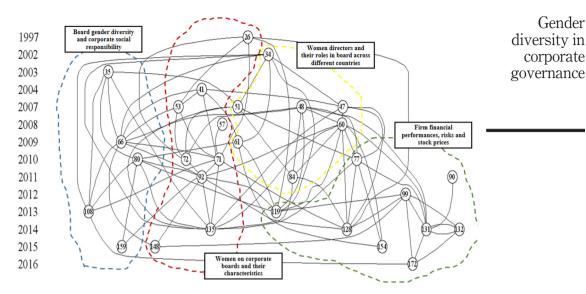
Conceptual structure provides a quicker way for researchers to perceive knowledge structure of corporate governance and gender literature with authors' keywords as variables. Figure 2 represents a scientific mapping of conceptual structure that generates a crystal-clear outlook on the most important words contributed by authors and how they are interconnected to each other in the field under study. Figure 2 exhibits seven different clusters formed by association strength setting parameters to authors keywords, where minimum number of occurrences is 5 and out of 832 keywords only 38 keywords meet these parameters. The clusters are circle shaped and their size denotes an item's relevance whereas the network connections identify the most closely linked items. The position of the circles and their colors are used to pile the items in a random fashion.

The distance among clusters is inversely proportional to the number of co-occurrences between keywords. Thus, shorter distances suggest greater co-occurrence among provided keywords. These configure a quite dispersed network with only 225 links and 5.92 links per keyword. The keywords with the highest number of links (15 or more) are: corporate governance (31 links), gender diversity (29), gender (25), board of director (25), diversity (24), board diversity (20), female directors (17), corporate social responsibility (15) and boards of directors (15). The total link strength of the network is 566, with the highest link strength between the terms corporate governance and gender diversity (27), followed by gender and diversity (24), board of directors and gender diversity (20), board of directors and corporate governance (16), corporate governance and board diversity (9), female directors and gender diversity (5), corporate governance and corporate social responsibility (4) and female directors and board diversity (4). The remaining 215 links (95.56% of the links of the network) show a link strength lower than 4, and almost 50% lower than 1.

Following the objective of identifying clusters of related keywords, a minimum number of two keywords per cluster have been established, given that all the papers included in this dataset have at least two author keywords to assure that each cluster is created around a minimum of two different references. This specification leads to seven clusters: Cluster I (red, 11 keywords), at the center of the graph, contains the following key terms: corporate governance, gender diversity, board diversity, boards of directors, corporate boards, critical mass, firm performance, financial performance, gender quotas, corporate social responsibility and women directors; Cluster II (green, 8 keywords) is related to theories, roles and characteristics of female directors: female directors, women on boards, female board representative, leadership, performance, agency theory, institutional theory and gender equality; Cluster III (blue, 8 keywords) refers to most generic terms of corporate governance and gender literature: boards, directors, gender, ethnicity, diversity, governance, women and female director; Cluster IV (vellow, 4 keywords), contains terms in relation to bank and sustainability such as banks, environmental performance, board gender diversity and sustainable development; Cluster V (violet, 3 keywords) is related to China, equality and diversity management; Cluster VI (indigo, 2 keywords), is related to board composition and earnings management, and finally, Cluster VII (orange, 2 keywords) is related to gender quota and board of directors. The concepts of corporate governance and gender are the two with the highest link strengths (143 and 142, respectively) and number of occurrences (77 and 120), and are more distant from the rest of keywords, including the board of directors' concept, that ranks the third with link strength of 87 and 43 occurrences. Therefore, these three corporate governance and gender concepts are placed at the center of the network, facilitating its interconnectedness which helps to summarize this bibliographic cartography.

3.3 Intellectual structure

A citation map in Figure 3 is used to show the evolution of corporate governance and gender research. The "Graph Maker" tool of the HistCite software has been used to visualize reciprocal citations of the published articles. This tool helps in identifying key research themes within a specific topic. Due to the large number of articles, for simplicity and usability, articles with at least Local Citation Score (LCS) value of 20 were considered for the citation mapping. The Local Citation Score is measured by calculating how many times a paper is cited by other papers locally. Filtering with LCS count greater or equal to 20 provided 30 articles, which can be regarded as the most cited ones within in this research filed. Publication years are shown on the vertical axis in Figure 2, and each of the nodes



Notes: Node-Article: 26-Burke (1997), 34-Burgess and Tharenou (2002), 35-Williams (2003), 41-Singh and Vinnicombe (2004), 47-Brammer et al. (2007), 48-Rose (2007), 51-Peterson and Philpot (2007), 53-Ruigrok et al. (2007), 57-Francoeur et al. (2008), 60-Campbell and Mínguez-Vera (2008), 61-S. Brammer et al. (2009), 66-Huse et al. (2009), 71-Nielsen and Huse (2010a), 72- Nielsen and Huse (2010b), 77-Carter et al. (2010), 80-Bear et al. (2010), 84-Srinidhi et al. (2011), 90-Gul et al. (2011), 92-Torchia et al. (2011), 99- Ahern and Dittmar (2012), 108-Boulouta (2013), 119-Joecks et al. (2013), 128-Chapple and Humphrey (2014), 131-Liu et al. (2014), 132-Levi et al. (2014), 135-Ali et al. (2014), 148-Terjesen et al. (2015), 154-Cumming et al. (2015), 159-Liao et al. (2015), 172-Sila et al. (2016)

Figure 3. Bibliometric citation and co-citation mapping of the most influential documents

Gender

corporate

represents one of the 30 articles, with a unique numerical ID (record number from the repository of 393 articles). There are many bibliometric techniques to conduct citation analysis, among them co-citation analysis reflects the frequency at which two articles are cited together by other articles (Chen et al., 2010; Gmür, 2003). Here, based on citation links from Figure 3, co-cited articles are identified. This is useful to explore sub-streams in a research field by an in-depth content analysis of all the articles in Figure 3.

By constant iterative analysis of 30 articles, the following four key streams of literature are identified:

- (1) women on corporate boards and their characteristics (shown in red colour);
- women directors and their roles in board across different countries (shown in yellow colour);
- board gender diversity and corporate social responsibility (shown in blue colour); (3)
- firm financial performances, risks and stock prices (shown in green colour).

These main themes are also shown in Figure 3 to explain how co-cited articles of prolific authors are connected to each other. The timeframe (1997-2016) was automatically generated by the HistCite software based on the total local citations. The authors who met this threshold were identified and their influential documents were mapped in Figure 3. After 2016, there were no influential documents as it takes some time to reach significance in academia. In the next sub-sections, the key theories, methods, and findings of the articles depicted in Figure 3 are briefly discussed in the context of their respective research streams.

4. Analysis of most recent and trending documents

Content analysis identifies and records relatively objective characteristics of research provided by contributing authors. This is proven to be reliable and plausible by Krippendorff (2018). Therefore, conducting a review, the major literature streams are pinpointed. Corporate governance has been perceived as a largely unsystematic part within business research that has been fragmented into many individual topics (Tunger and Eulerich, 2018). Among them, the issue of gender diversity has attracted researchers, as it is an important mechanism for firm risk mitigation, a driver of corporate social responsibility, and a way to ensure compliance with owners' interests (Rao and Tilt, 2016; Sila et al., 2016). Table 2 summarizes the most recent documents in this research field based on local cited references greater than 10, setting a time frame of the last five years following studies of Lin et al. (2019) and Stemler (2015). All these 18 documents were published in 14 different sources out of which only two sources have a WoS impact factor greater or equal to 3, and all the sources have a WoS impact factor beyond 0.5. About 46.67% of the most recent documents belong to Business Strategy and the Environment (3 documents). Gender in management (2 documents) and Corporate Governance: An International Review (2 documents), having a Web of Science impact factor of 5.483, 0.611 and 2.294, respectively.

The analysis of 18 most trending and recent documents reveals that the issues such as percentage of women in top management or board, payment discrimination between men and women board members, independence of women board member, association of financial default risk with board gender diversity, earnings management and earnings quality have been gradually receiving attention in corporate governance and gender diversity literature.

5. Conclusions

In this paper, several bibliometric techniques on Web of Science (WoS) database indexed publications are applied to provide an outline of the most productive and most influential authors, institutions, countries and sources in corporate governance and gender literature. The findings reveal that Morten Huse, Copenhagen Business School and the USA lead the lists of most productive and most influential authors, institutions and countries, respectively. The publication and citation structure reveals that during the past seven years, an average 38 documents were published each year. The number of publications has increased over the last few years specially after 2010. Only a few papers have received more than 50 local citations, with one document having more than 100 local citations.

Findings from the 15 most recent documents in corporate governance and gender literature reveal that the most influential papers in this field were published from 11 different sources out of which 2 sources have a WoS impact factor greater or equal to 2; 4 of those documents were published from these 2 sources, and the rest in 9 different sources. The keyword co-occurrence network analysis explores 7 different clusters in corporate governance and gender literature, among which clusters marked with the keywords of corporate governance, gender diversity, gender, board of director, diversity, board diversity, female directors, corporate social responsibility and boards of directors offer the highest potential as key research streams in this literature. The co-citation analysis in intellectual structure also reveals four core themes that researchers approached to carry out their

Author	Selective findings	Local citations	Gender diversity in
Arioglu (2020)	The findings of the current study demonstrate that the presence and percentage of female directors both have a positive effect on company financial performance in a cultural setting where the opposite might be expected Present evidence also finds that the effect becomes larger as the	22	corporate governance
Cordeiro et al. (2020)	level of the independence of female directors becomes greater • Findings show that firms with three or more women directors have significantly higher environmental performance • Findings also show that effects of gender diversity on environmental performance is higher in family firms and in dual-	17	
Nadeem (2020)	 class firms A significant positive relation between gender diversity and intellectual capital disclosure-in line with resource dependence theory A significant negative impact of female independent directors on intellectual capital disclosure-opposite to agency theory predictions 	14	
Nadeem <i>et al.</i> (2020)	The findings also suggest that although female directors cater to the interests of broader stakeholder groups, family ownership causes them to mainly focus on environmental stakeholders Also, firms with greater female representation on boards exhibit	17	
Oradi and Izadi (2019)	 higher overall stakeholder value Findings include that presence of at least one female member on audit committees reduces the likelihood of the incidence of financial restatements The additional analyses show that independent and financial expert female members on audit committees is more strongly 	16	
Adusei (2019)	associated with a reduction in financial restatements • Findings show that board gender diversity significantly hurts technical efficiency • The results also show that larger MFIs are more likely to be	12	
Alkalbani et al. (2019)	 technically efficient than smaller MFIs Findings provide that woman on the remuneration committee reduce shareholders' dissent via say-on-pay Only firms with a critical mass of more than 30% women on this committee are more likely to have less shareholders' dissent via 	13	
Cambrea et al. (2019)	 say-on-pay Findings show that women in monitoring functions, ruled by independent directors and female chairs, led to a decrease in cash reserves Findings also show that companies managed by female CEOs have larger cash holdings 	15	
Egerová and Nosková (2019)	 The findings show that the premises of the upper echelons' theory are also applicable to SMEs This study does not support a linear relationship between the number of women in top management team and financial performance and only partially supports a U-shaped curvilinear relationship 	17	
Lauring and Villeseche (2019)	 Findings show that openness to diversity is strongly associated with team performance Findings bridge the critical mass theory and diversity and performance scholarship by establishing the joint effect of compositional and contextual characteristics on the performance of gender diverse teams 	11 (continued)	Table 2. Most trending documents in corporate governance and gender literature

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Table

	Author	Selective findings	Local citations
	Martin-Ugedo <i>et al.</i> (2019)	 Findings show that the presence of women on the board has a positive impact on the performance of Italian and Spanish firms This study also finds that the "masculinity" dimension has a 	14
	McGuinness (2019)	negative impact on firm performance • Findings suggest that women offer resource dependencies, add expertise and boost capital funding • Findings suggest that gender-diversity play a major role in capital funding	14
	Orazalin (2019)	 The findings provide weak evidence of the association between board independence and earnings quality The findings show that companies with greater board gender diversity are more effective in constraining earnings management 	14
	Pucheta-Martínez and Bel-Oms (2019)	 The results show that independent female directors are positively associated with the likelihood of voluntarily setting up all or some of the committees and a supervision and control committee The percentage of shares held by female directors has a positive effect on the voluntary creation of an executive committee 	11
	Tanaka (2019)	Authors find substantial differences between inside and outside directors Findings include that smaller and younger firms with larger boards, higher managerial ownership, and smaller foreign operations are more likely to have female inside directors	13
	Báez et al. (2018)	The results suggested very relevant gap in the three analyzed dimensions: presence, salary and seniority It demonstrates the enormous gap still existing between men and women at the top of tourist organizations worldwide	32
	Wagana and Nzulwa (2017)	Evaluates theoretical and empirical literature related to board gender diversity and corporate performance with an aim of establishing areas of gaps for further research	23
2.	Bokhari and Hashmi (2016)	Despite the fact that the developing countries are making efforts to encourage gender diversity in boards, they are unable to do so at the desired pace due to cultural norms, societal traits and other similar obstacles	10

research. These four core themes can be further studied to better understand the nature of relationship with corporate governance and gender diversity. Technical efficiency, earnings management, capital funding, cash holdings and remuneration pattern based on gender diversity are the hot topics identified from the research agenda.

Future studies can be conducted based on these identified hot topics to provide crystal clear picture of gender diversity in corporate governance. Implications for further research may include how the role of gender diversity can influence in decision making and firm performance. In conclusion, this paper serves as a directory for future scholars to help them identify major documents, institutions, countries, and journals along with findings of recent articles and review studies. Researchers may also perform other types of review on corporate governance and gender literature to discover its essence in depth.

This study has certain limitations. First, this study considered data only from the WoS database which is a potential bias in sampling approach. Future studies should focus on other databases to examine trends in corporate governance and gender literature. Second, only journal articles papers were considered for this study. Other kinds of documents were

ignored due to software limitations. Finally, this study examined the contributions for the whole period, thus lacking focus on a time. So, it would be helpful to perform this same kind of analysis for different identified periods for example, from 2016 to 2021.

Despite having some limitations, this paper provides a valid overview of how corporate governance and gender literature developed over the time and a synopsis of the most influential and most productive authors, institutions, countries and sources. It creates an opportunity for the less experienced researchers to focus on this area. It also provides worthwhile offering to the interested readers a fuller access to the bibliographic analysis and future research scopes. Finally, this review paper will serve as a solid foundation for developing future meta-analyses on this topic.

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References

- Abdullah, S.N., Ismail, K.N.I.K. and Nachum, L. (2016), "Does having women on boards create value? The impact of societal perceptions and corporate governance in emerging markets", *Strategic Management Journal*, Vol. 37 No. 3, pp. 466-476.
- Adusei, M. (2019), "Board gender diversity and the technical efficiency of microfinance institutions: does size matter?", *International Review of Economics and Finance*, Vol. 64 No. 5, pp. 393-411.
- Ahern, K.R. and Dittmar, A.K. (2012), "The changing of the boards: the impact on firm valuation of mandated female board representation", *The Quarterly Journal of Economics*, Vol. 127 No. 1, pp. 137-197, doi: 10.1093/qje/qjr049.
- Ahmadi, A., Nakaa, N. and Bouri, A. (2018), "Chief executive officer attributes, board structures, gender diversity and firm performance among french CAC 40 listed firms", *Research in International Business and Finance*, Vol. 44 No. 2, pp. 218-226.
- Ali, M., Ng, Y.L. and Kulik, C.T. (2014), "Board age and gender diversity: a test of competing linear and curvilinear predictions", *Journal of Business Ethics*, Vol. 125 No. 3, pp. 497-512.
- Alkalbani, N., Cuomo, F. and Mallin, C. (2019), "Gender diversity and say-on-pay: evidence from UK remuneration committees", Corporate Governance: An International Review, Vol. 27 No. 5, pp. 378-400.
- Apriliyanti, I.D. and Alon, I. (2017), "Bibliometric analysis of absorptive capacity", *International Business Review*, Vol. 26 No. 5, pp. 896-907.
- Arioglu, E. (2020), "Female board members: the effect of director affiliation", *Gender in Management:* An International Journal, Vol. 35 No. 2, pp. 225-254.
- Báez, A.B., Báez-García, A.J., Flores-Muñoz, F. and Gutiérrez-Barroso, J. (2018), "Gender diversity, corporate governance and firm behavior: the challenge of emotional management", European Research on Management and Business Economics, Vol. 24 No. 3, pp. 121-129.
- Bear, S., Rahman, N. and Post, C. (2010), "The impact of board diversity and gender composition on corporate social responsibility and firm reputation", *Journal of Business Ethics*, Vol. 97 No. 2, pp. 207-221.
- Bokhari, S.N. and Hashmi, K.A. (2016), "A critical review on the corporate governance, board independence and gender diversity in emerging Asian countries", Corporate Governance, Vol. 25, pp. 67-84.
- Boulouta, I. (2013), "Hidden connections: the link between board gender diversity and corporate social performance", *Journal of Business Ethics*, Vol. 113 No. 2, pp. 185-197.
- Brammer, S., Millington, A. and Pavelin, S. (2007), "Gender and ethnic diversity among UK corporate boards", Corporate Governance: An International Review, Vol. 15 No. 2, pp. 393-403.
- Brammer, S., Millington, A. and Pavelin, S. (2009), "Corporate reputation and women on the board", British Journal of Management, Vol. 20 No. 1, pp. 17-29, doi: 10.1111/j.1467-8551.2008.00600.x.
- Burgess, Z. and Tharenou, P. (2002), "Women board directors: characteristics of the few", *Journal of Business Ethics*, Vol. 37 No. 1, pp. 39-49, doi: 10.1023/a:1014726001155.

- Burke, R.J. (1997), "Women on corporate boards of directors: a needed resource", *Journal of Business Ethics*, Vol. 16 No. 9, pp. 909-915, doi: 10.1023/a:1017987220508.
- Cambrea, D.R., Tenuta, P. and Vastola, V. (2019), "Female directors and corporate cash holdings: monitoring vs executive roles", Management Decision, Vol. 58 No. 2, pp. 295-312.
- Campbell, K. and Minguez-Vera, A. (2008), "Gender diversity in the boardroom and firm financial performance", *Journal of Business Ethics*, Vol. 83 No. 3, pp. 435-451.
- Carter, D.A., D'Souza, F., Simkins, B.J. and Simpson, W.G. (2010), "The gender and ethnic diversity of US boards and board committees and firm financial performance", *Corporate Governance: An International Review*, Vol. 18 No. 5, pp. 396-414.
- Chapple, L. and Humphrey, J.E. (2014), "Does board gender diversity have a financial impact? Evidence using stock portfolio performance", *Journal of Business Ethics*, Vol. 122 No. 4, pp. 709-723.
- Chen, C., Ibekwe-SanJuan, F. and Hou, J. (2010), "The structure and dynamics of cocitation clusters: a multiple-perspective cocitation analysis", *Journal of the American Society for Information Science and Technology*, Vol. 61 No. 7, pp. 1386-1409.
- Cordeiro, J.J., Profumo, G. and 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*, Vol. 29 No. 3, pp. 1127-1144.
- Cumming, D., Leung, T.Y. and Rui, O. (2015), "Gender diversity and securities fraud", *Academy of Management Journal*, Vol. 58 No. 5, pp. 1572-1593.
- Egerová, D. and Nosková, M. (2019), "Top management team composition and financial performance: examining the role of gender diversity", *E+M Ekonomie a Management*, Vol. 22 No. 2, pp. 129-143.
- Elsass, P.M. and Graves, L.M. (1997), "Demographic diversity in decision-making groups: the experiences of women and people of color", *The Academy of Management Review*, Vol. 22 No. 4, pp. 946-973, doi: 10.2307/259250.
- Francoeur, C., Labelle, R. and Sinclair-Desgagné, B. (2008), "Gender diversity in corporate governance and top management", *Journal of Business Ethics*, Vol. 81 No. 1, pp. 83-95.
- Gmür, M. (2003), "Co-citation analysis and the search for invisible colleges: a methodological evaluation", *Scientometrics*, Vol. 57 No. 1, pp. 27-57.
- Grosvold, J., Rayton, B. and Brammer, S. (2016), "Women on corporate boards: a comparative institutional analysis", *Business and Society*, Vol. 55 No. 8, pp. 1157-1196.
- Gul, F.A., Srinidhi, B. and Ng, A.C. (2011), "Does board gender diversity improve the informativeness of stock prices?", *Journal of Accounting and Economics*, Vol. 51 No. 3, pp. 314-338.
- Gurzki, H. and Woisetschläger, D.M. (2017), "Mapping the luxury research landscape: a bibliometric citation analysis", *Journal of Business Research*, Vol. 77 No. 1, pp. 147-166.
- Huang, C.-Y. and Ho, Y.-S. (2011), "Historical research on corporate governance: a bibliometric analysis", *African Journal of Business Management*, Vol. 5 No. 2, pp. 276-284.
- Huse, M., Nielsen, S.T. and Hagen, I.M. (2009), "Women and employee-elected board members, and their contributions to board control tasks", *Journal of Business Ethics*, Vol. 89 No. 4, pp. 581-597.
- Ikra, S.S., Rahman, M.A., Wanke, P. and Azad, M.A.K. (2021), "Islamic banking efficiency literature (2000–2020): a bibliometric analysis and research front mapping", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 13 No. 2, pp. 1157-1196.
- Jarin, T.A., Mumu, J.R., Talukder, A.A. and Azad, M.A.K. (2021), "Integration of knowledge in education: a bibliometric review", Bangladesh Journal of Integrated Thoughts, Vol. 17 No. 1, pp. 35-47.
- Joecks, J., Pull, K. and Vetter, K. (2013), "Gender diversity in the boardroom and firm performance: what exactly constitutes a 'critical mass?", *Journal of Business Ethics*, Vol. 118 No. 1, pp. 61-72.
- Kirsch, A. (2018), "The gender composition of corporate boards: a review and research agenda", *The Leadership Quarterly*, Vol. 29 No. 2, pp. 346-364.
- Krippendorff, K. (2018), Content Analysis: An Introduction to Its Methodology, Sage publications.

- Lagasio, V. and Cucari, N. (2019), "Corporate governance and environmental social governance disclosure: a meta-analytical review", Corporate Social Responsibility and Environmental Management, Vol. 26 No. 4, pp. 701-711.
- Lauring, J. and Villeseche, F. (2019), "The performance of gender diverse teams: what is the relation between diversity attitudes and degree of diversity?", European Management Review, Vol. 16 No. 2, pp. 243-254.
- Levi, M., Li, K. and Zhang, F. (2014), "Director gender and mergers and acquisitions", Journal of Corporate Finance, Vol. 28, pp. 185-200.
- Liao, L., Luo, L. and Tang, Q. (2015), "Gender diversity, board independence, environmental committee and greenhouse gas disclosure", *The British Accounting Review*, Vol. 47 No. 4, pp. 409-424.
- Lin, T.-J., Lin, T.-C., Potvin, P. and Tsai, C.-C. (2019), "Research trends in science education from 2013 to 2017: a systematic content analysis of publications in selected journals", *International Journal of Science Education*, Vol. 41 No. 3, pp. 367-387.
- Liu, Y., Wei, Z. and Xie, F. (2014), "Do women directors improve firm performance in China?", *Journal of Corporate Finance*, Vol. 28, pp. 169-184.
- McGuinness, P.B. (2019), "Beyond the board realm: women in senior management and their impact on IPO capital funding", *British Journal of Management*, Vol. 30 No. 2, pp. 389-414.
- Martín-Ugedo, J.F., Mínguez-Vera, A. and Rossi, F. (2019), "Female directors and firm performance in Italian and Spanish listed firms", *Academia Revista Latinoamericana de Administración*, Vol. 32 No. 3, pp. 411-436.
- Nadeem, M. (2020), "Does board gender diversity influence voluntary disclosure of intellectual capital in initial public offering prospectuses? Evidence from China", *Corporate Governance: An International Review*, Vol. 28 No. 2, pp. 100-118.
- Nadeem, M., Gyapong, E. and Ahmed, A. (2020), "Board gender diversity and environmental, social, and economic value creation: does family ownership matter?", Business Strategy and the Environment, Vol. 29 No. 3, pp. 1268-1284.
- Netter, J., Poulsen, A. and Stegemoller, M. (2009), "The rise of corporate governance in corporate control research", *Journal of Corporate Finance*, Vol. 15 No. 1, pp. 1-9.
- Nielsen, S. and Huse, M. (2010a), "The contribution of women on boards of directors: going beyond the surface", *Corporate Governance: An International Review*, Vol. 18 No. 2, pp. 136-148.
- Nielsen, S. and Huse, M. (2010b), "Women directors' contribution to board decision-making and strategic involvement: the role of equality perception", *European Management Review*, Vol. 7 No. 1, pp. 16-29.
- Okeahalam, C.C. and Akinboade, O.A. (2003), "A review of corporate governance in Africa: literature, issues and challenges", Paper presented at the global corporate governance forum, The Netherlands.
- Okoli, C. and Schabram, K. (2010), "A guide to conducting a systematic literature review of information systems research", *Sprouts: Working Papers on Information Systems*, Vol. 10 No. 26, available at: http://sprouts.aisnet.org/10-26.
- Oradi, J. and Izadi, J. (2019), "Audit committee gender diversity and financial reporting: evidence from restatements", *Managerial Auditing Journal*, Vol. 35 No. 1, pp. 67-92.
- Orazalin, N. (2019), "Board gender diversity, corporate governance, and earnings management", *Gender in Management: An International Journal*, Vol. 35 No. 1, pp. 37-60.
- Perryman, A.A., Fernando, G.D. and Tripathy, A. (2016), "Do gender differences persist? An examination of gender diversity on firm performance, risk, and executive compensation", *Journal of Business Research*, Vol. 69 No. 2, pp. 579-586.
- Peterson, C.A. and Philpot, J. (2007), "Women's roles on US fortune 500 boards: director expertise and committee memberships", *Journal of Business Ethics*, Vol. 72 No. 2, pp. 177-196.
- Pucheta-Martinez, M.C. and Bel-Oms, I. (2019), "What have we learnt about board gender diversity as a business strategy? The appointment of board subcommittees", *Business Strategy and the Environment*, Vol. 28 No. 2, pp. 301-315.

- Rao, K. and Tilt, C. (2016), "Board composition and corporate social responsibility: the role of diversity, gender, strategy and decision making", *Journal of Business Ethics*, Vol. 138 No. 2, pp. 327-347.
- Rogelberg, S.G. and Rumery, S.M. (1996), "Gender diversity, team decision quality, time on task, and interpersonal cohesion", *Small Group Research*, Vol. 27 No. 1, pp. 79-90.
- Rose, C. (2007), "Does female board representation influence firm performance? The Danish evidence", Corporate Governance: An International Review, Vol. 15 No. 2, pp. 404-413, doi: 10.1111/j.1467-8683.2007.00570.x.
- Ruigrok, W., Peck, S. and Tacheva, S. (2007), "Nationality and gender diversity on Swiss corporate boards", *Corporate Governance: An International Review*, Vol. 15 No. 4, pp. 546-557.
- Sila, V., Gonzalez, A. and Hagendorff, J. (2016), "Women on board: does boardroom gender diversity affect firm risk?", *Journal of Corporate Finance*, Vol. 36, pp. 26-53.
- Singh, V. and Vinnicombe, S. (2004), "Why so few women directors in top UK boardrooms? Evidence and theoretical explanations", *Corporate Governance*, Vol. 12 No. 4, pp. 479-488.
- Srinidhi, B., Gul, F.A. and Tsui, J. (2011), "Female directors and earnings quality", *Contemporary Accounting Research*, Vol. 28 No. 5, pp. 1610-1644.
- Stemler, S.E. (2015), "Content analysis", Emerging Trends in the Social and Behavioral Sciences: An Interdisciplinary, Searchable, and Linkable Resource, Vol. 16 No. 2, pp. 1-14.
- Tanaka, T. (2019), "Gender diversity on Japanese corporate boards", *Journal of the Japanese and International Economies*, Vol. 51 No. C, pp. 19-31.
- Terjesen, S., Aguilera, R.V. and Lorenz, R. (2015), "Legislating a woman's seat on the board: institutional factors driving gender quotas for boards of directors", *Journal of Business Ethics*, Vol. 128 No. 2, pp. 233-251.
- Torchia, M., Calabrò, A. and Huse, M. (2011), "Women directors on corporate boards: from tokenism to critical mass", *Journal of Business Ethics*, Vol. 102 No. 2, pp. 299-317.
- Tunger, D. and Eulerich, M. (2018), "Bibliometric analysis of corporate governance research in Germanspeaking countries: applying bibliometrics to business research using a custom-made database", *Scientometrics*, Vol. 117 No. 3, pp. 2041-2059.
- Turnbull, S. (1997), "Corporate governance: its scope, concerns and theories", *Corporate Governance*, Vol. 5 No. 4, pp. 180-205.
- Uhde, D.A., Klarner, P. and Tuschke, A. (2017), "Board monitoring of the chief financial officer: a review and research agenda", *Corporate Governance: An International Review*, Vol. 25 No. 2, pp. 116-133.
- Van Eck, N.J. and Waltman, L. (2011), "Text mining and visualization using VOS viewer", Small Group Research, Vol. 27 No. 1, pp. 79-90.
- Wagana, D.M. and Nzulwa, J.D. (2017), "Corporate governance, board gender diversity and corporate performance: a critical review of literature", European Scientific Journal, Vol. 15 No. 2, pp. 11-43.
- Williams, R.J. (2003), "Women on corporate boards of directors and their influence on corporate philanthropy", *Journal of Business Ethics*, Vol. 42 No. 1, pp. 1-10, doi: 10.1023/a:1021626024014.
- Young, A., Li, G. and Lau, A. (2007), "Corporate governance in China: the role of the state and ideology in shaping reforms", *Company Lawyer*, Vol. 28 No. 7, pp. 204-211.

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