

REVIEW



Gender Spectrum: Redefining Financial Disclosure Through Inclusive Leadership

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Abstract: This study conducts a bibliometric analysis of the literature on financial reporting quality and gender diversity in top management teams (TMTs) from 1943 to 2021. Utilizing the “Biblioshiny” tool, we examine publication trends, key themes, and the contributions of leading authors and institutions in this evolving field. Our analysis reveals a significant increase in annual publications, especially since 2016, indicating a growing scholarly interest in the impact of gender diversity on corporate governance and financial reporting practices. Notably, Spain and Canada emerge as key contributors, showcasing substantial citation metrics that underscore their influence in shaping discussions around gender dynamics in TMTs. The thematic analysis identifies core areas of focus, including the role of female directors in enhancing oversight and improving financial reporting quality. Furthermore, the study emphasizes the need for increased international collaboration, as the majority of contributions stem from single-country publications, limiting the diversity of perspectives. By providing a comprehensive overview of existing literature, this research contributes to the academic discourse on gender diversity and financial reporting while laying the groundwork for future studies aimed at exploring the complex dynamics between these critical dimensions. The insights gained can inform practitioners and policymakers on the importance of fostering gender diversity within corporate leadership to enhance financial transparency and governance effectiveness. Ultimately, this study highlights the necessity of integrating diverse perspectives in TMTs to improve overall corporate performance and accountability.

Keywords: bibliometric analysis, conceptual structure, financial reporting quality, gender diversity, top management team, business, management

1. Introduction

In recent years, the significance of gender diversity within top management teams (TMTs) has garnered considerable attention from scholars, practitioners, and policymakers alike [1]. The composition of TMTs is critical in shaping corporate governance and strategic decision-making. This influences a firm’s performance and overall competitiveness. Gender diversity, in particular, is believed to enhance the cognitive diversity of TMTs, leading to a broader range of perspectives and improved decision-making processes [2]. Consequently, this diversity is posited to impact various organizational outcomes, including financial disclosures.

Financial disclosure plays a vital role in ensuring transparency and accountability in corporate operations. It serves to communicate a firm’s performance and financial health to stakeholders, including investors, regulators, and the general public [3, 4]. Enhanced financial disclosures contribute to building trust among stakeholders and foster informed decision-making [5, 6]. Given the increasing

complexity of financial markets and the demand for greater corporate transparency, understanding the factors influencing financial disclosures has become paramount [7].

According to the theory of preformation, the TMT effectively regulates earnings standards [8]. The chief financial officer (CFO) is primarily responsible for the company’s strategic financial planning and working capital management. Additionally, the CFO directly oversees the preparation of the company’s financial reports and ensures the provision of accurate and truthful business information to external stakeholders. Despite extensive research on corporate governance and financial reporting, limited studies examine the direct impact of gender diversity in TMTs on financial disclosure practices. This study aims to address this gap by exploring the influence of gender diversity on financial reporting quality and its implications for corporate accountability and transparency.

According to the “upper echelons theory,” personal characteristics (gender) consisting of the TMT influence the overall company’s decision-making and behavior. In recent years, some scholars have proved that the TMT must have a very important impact on earnings management [9]. Diversity among the TMT serves as an important part of financial reporting quality [10]. It is important because the right-winger and moral behaviors of

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opposite sex top managers can serve as a natural defense against dishonest misstatements and, therefore, may have important account statements and economic implications [11]. However, few studies directly examine the effects of gender diversity on accounting conservatism, leaving a critical gap in understanding its role in financial disclosure practices. In the 21st century, financial scandals have erupted in major corporations such as Citigroup and WorldCom, among others. These incidents, involving a significant amount of financial fraud, have led investors to question the authenticity and reliability of the financial reporting of publicly traded companies [12]. In recent years, under the emphasis of the new era, the role of the finance director has evolved from operating behind the scenes to being involved in all phases of organizational activity, with its purposes now clearly defined and interpreted [9]. Top managers can be an important part of the effectiveness of the current work and may be used under the terms of the Creative Commons Attribution 3.0 License [9]. Thus, this paper believes that as the properties of top managers progressively develop, their assumptions before will also be continuously updated. Top managers, both men and women, have assorted management styles.

The Social System Political Theory provides additional insights into how traditional societal norms, such as the view that “men are superior to women,” shape TMT composition and financial management practices [13]. Women in senior executive roles may reduce unethical financial practices, thereby promoting higher-quality financial disclosures. These dynamics are particularly important given the ongoing challenges in ensuring reliability and credibility in financial [14].

After analysis of the factors related to our research area, we have some questions that need to be solved. All these questions will help address the main problems and guide future research. The future researcher will use this literature to support their study. So, we have listed the following questions:

- 1) What key elements emerge from the literature on financial reporting quality in relation to gender diversity in TMTs, and how do they contribute to redefining financial disclosure practices?
- 2) What major advancements and central themes can be identified in the literature regarding financial reporting quality and TMT gender diversity, and how do these themes inform inclusive leadership?
- 3) What insights can be gleaned from past literature on gender diversity and financial reporting quality, and how can these insights shape future perspectives and practices in financial disclosure?

We address the research question through a descriptive analysis by identifying key sources, authors, countries, publications, and affiliations in the area of financial reporting quality and TMT gender diversity in business management. To identify core sources and authors, we utilized metrics such as total citations and the number of articles published annually. We recommend the leading countries and affiliations based on publication frequency and citation impact.

Our focus is on core study areas and keyword themes, exploring the connections between various research streams to guide future research. To achieve this, we employed thematic map analysis. The main themes of the study are outlined using specific keywords that describe the research area. We also incorporated authors' keywords and titles to capture the primary focus of the research. Through a bibliometric tool in the R-program, we developed a framework to identify research themes and trends related to financial reporting quality and gender diversity in management.

2. Methodology

This study adopts a bibliometric approach to analyze the literature on financial reporting quality and TMT gender diversity. The bibliometric process involves two stages of data refinement and analysis.

In the first stage, we systematically selected data sources and keywords. We utilized leading bibliographic databases, including Scopus and Web of Science, to ensure the reliability and comprehensiveness of the dataset. Search parameters were carefully designed to capture relevant articles using keywords such as “financial reporting quality,” “financial statements,” “budget,” “financial position,” “financial informing,” “monetary,” “fiscal,” and “business enterprise.” Additional filters included limiting the publication type to journal articles, the language to English, and excluding articles published before 1999. Moreover, the decision to limit our review to articles published after 1999 is grounded in the significant shifts in both regulatory landscapes and organizational approaches to diversity and inclusion that began around this time. Articles not relevant to the study objectives were excluded during this phase. We filtered articles manually to ensure that they met our strict inclusion criteria, which focused on gender spectrum and financial disclosure. This initial search yielded 328 articles directly related to TMT gender diversity, with 27 articles focusing on microeconomics, macroeconomics, and investment, and 40 articles addressing economics, oversight, and debt management. We refined the dataset further by applying additional criteria to ensure alignment with the study's objectives. Articles not directly addressing financial reporting quality or TMT gender diversity were excluded, resulting in a final dataset of 395 articles. The selected articles underwent thorough bibliometric analysis using tools identifying trends, key phrases, authorship patterns, and citation networks. Only journal articles in English were included, allowing us to streamline the bibliometric trend analysis and ensure uniformity. Heat maps were generated to visualize keyword relationships and citation patterns to provide deeper insights. Network graphs were used to explore co-authorship connections and thematic clusters. These visualizations enhanced the clarity of the bibliometric findings and facilitated a better understanding of the relationships between key research themes.

The bibliometric analysis followed a five-step process, as illustrated in Figure 1.

This methodology provides a structured framework for identifying key research themes and trends in the literature on financial reporting quality and TMT gender diversity.

3. Results and Discussion

Bibliometric analysis involves the use of statistical and mathematical techniques to study books and media communication [15]. “Biblioshiny” is a tool designed within a package for non-coders, offering comprehensive scientometric and bibliometric analysis with various options categorized by sources, documents, authors, conceptual structure, social structure, and intellectual structure. It provides a wide range of outputs in tables and graphs, often not available in other software [16]. The results presented in this study are descriptive and in line with the purpose of bibliometric analysis. Tables and figures are used to summarize trends, keyword frequencies, co-authorship networks, and citation patterns, providing a clear overview of the research field. This approach allows for the identification of emerging themes and influential works without hypothesis testing.

Figure 1
The procedure of bibliometric analysis

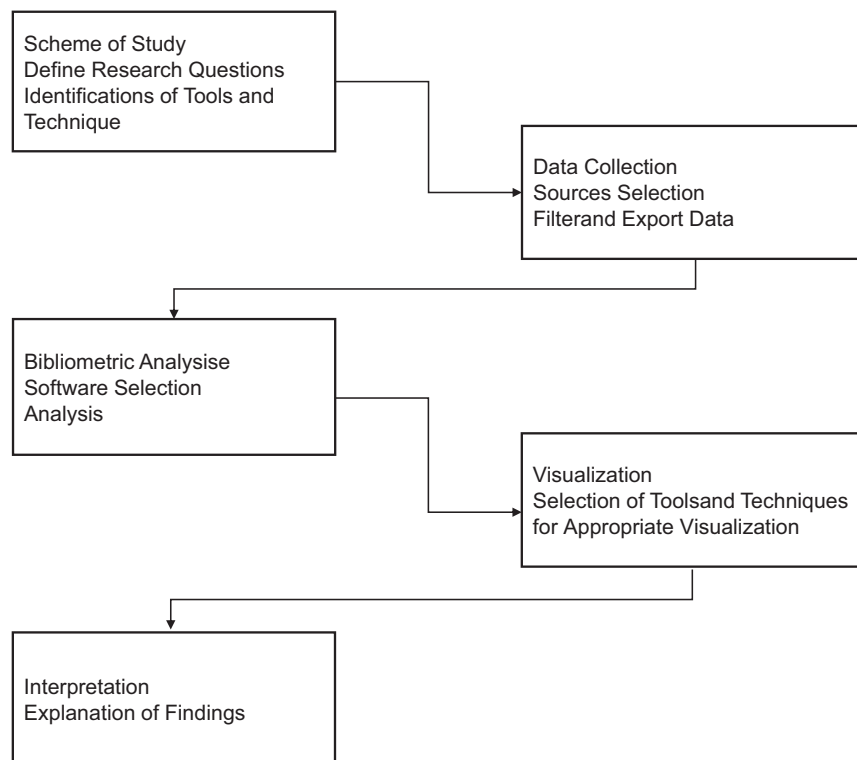


Table 1 outlines the key descriptive characteristics related to financial literacy, which are crucial to understanding before proceeding with the analysis. We reviewed and finalized 138 documents, all of which were journal articles. These journals collectively used 128 keywords plus 297 author-provided keywords. The analysis covers the period from 1943 to 2021, focusing on financial reporting quality and TMT gender diversity literature. A total of 323 authors contributed to these documents, with only 29 articles written by a single author. The collaboration index reflects the high level of collaboration in coronavirus-related publications. The document-per-author ratio is 0.427, indicating that, on average, nearly four authors contributed to each document.

Table 1
Descriptive statistics

Description	Results
Timespan	1943:2021
Journals	108
Papers	138
Average years from publication	11.3
References	7339
Keywords Plus (ID)	128
Author's Keywords (DE)	297
Authors	323
Single-authored documents	29
Multi-authored documents	294
Documents per Author	0.427
Co-Authors per Documents	2.47
Collaboration Index	2.7

Table 2
Annual scientific production

Year	Articles	Year	Articles
1943	1	2003	4
1977	1	2004	3
1984	2	2005	5
1988	2	2007	2
1991	4	2010	1
1992	1	2011	4
1993	1	2012	2
1994	2	2013	4
1995	5	2014	2
1996	3	2015	8
1997	2	2016	9
1998	2	2017	11
1999	2	2018	8
2000	3	2019	16
2001	3	2020	20
2002	2	2021	3

Table 2 shows the annual production for financial reporting quality and top management gender diversity.

The table lists articles along with their publication years, spanning from 1943 to 2021. In both 1943 and 1977, one article was published in each year. In 1995, the number of published articles increased by five, followed by a further increase of eleven articles in 2017. In 2019, article production reached 8, followed by a significant rise to 20 articles in 2020, and a subsequent decrease to 3 articles in 2021. The publication of only one article in 1943 and 1977 highlights the limited academic interest in gender

diversity and financial reporting during these years. This scarcity may be attributed to the socioeconomic context of the time, where corporate governance and gender diversity were not yet mainstream research topics. The significant growth in publications after the 2000s likely reflects increased awareness of diversity's role in corporate governance and the rise of regulatory frameworks promoting transparency. A detailed breakdown of the annual scientific production of articles is provided in Table 2.

Table 3 presents the total and average article citations by country for financial reporting quality and TMT gender diversity. In this table, Spain has 121 total citations, with 24.2 average article citations; Canada has 118 total citations, with 29.5 average article citations; and the USA has 91 total citations, with 6.067 average article citations. The detailed breakdown is provided in Table 3, with Canada showing the highest average article citation of 29.5 and Spain having the highest total citations of 121. The lowest average article citation is 5.111 in China, and the lowest total citation is 41 in New Zealand.

Figure 1 displays the yearly output of scientific publications in the realm of financial reporting quality and TMT gender diversity. Figure 2 shows that there's minimal research activity in initial years, indicating a limited focus on this area. However, a significant uptick in publications has been seen in recent years, pointing to a growing recognition of how gender diversity can influence corporate governance and financial reporting practices. This trend underscores the increasing scholarly attention to integrating gender diversity within management strategies to enhance corporate financial health [17].

Figure 3 highlights the timeline of research contributions by leading authors in the field of financial reporting quality and gender diversity. The chart tracks the publication periods of various authors, revealing sporadic output before 2010 and a noticeable concentration of work post-2015. This pattern suggests that the significance of gender diversity in corporate governance and its impact on

Table 3
Nations' total and average article citation

Nation	Total citations	Average article citations
CANADA	118	29.5
SPAIN	121	24.2
NORWAY	44	22
ISRAEL	84	21
FRANCE	61	20.333
NEW ZEALAND	41	13.667
MALAYSIA	57	11.4
UNITED KINGDOM	70	8.75
USA	91	6.067
CHINA	46	5.111

financial reporting quality have become a focal point for researchers over the last decade.

Table 4 presents publication affiliations: Curtin University has six articles, Universiti Utara Malaysia has five articles, and Auckland University of Technology has two articles. All affiliations with articles are explained in Table 4, with Curtin University and Xiamen University having the highest number of publications, each with six articles. Auckland University of Technology, Bar-Ilan University, and Brunel University each have two articles, indicating lower article publication on financial reporting quality and TMT gender diversity. In addition to the annual production and article citations per year, it is imperative to see the main topics, places, and affiliations of financial reporting quality and TMT gender diversity publications.

Figure 4 provides a comprehensive three-field analysis linking keywords, countries, and academic affiliations. It captures research topics such as "corporate governance," "board of directors," and "earnings management" on the left. The middle section illustrates

Figure 2
Annual scientific production

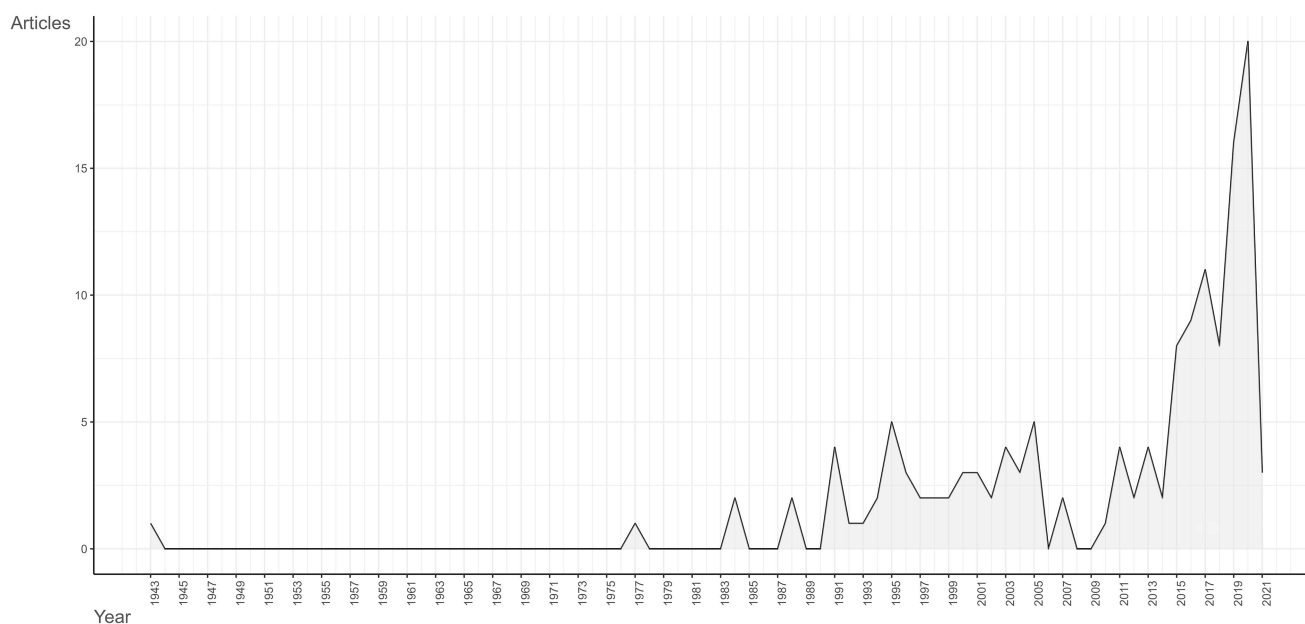


Figure 3
Average article citation per year

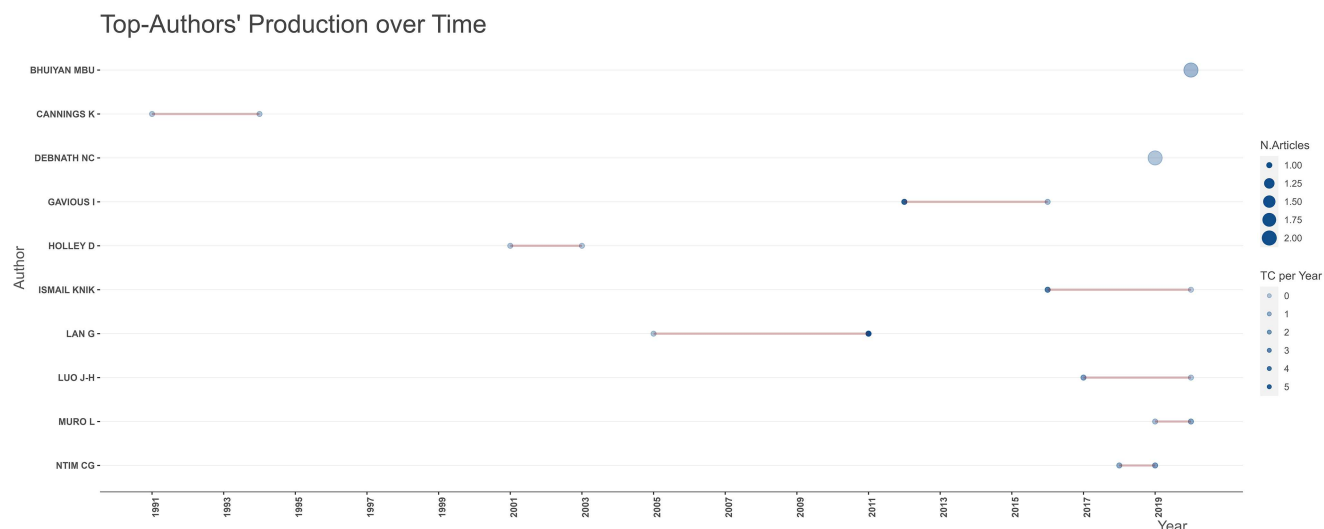


Table 4
Analysis of publication affiliations

Affiliations	Articles
CURTIN UNIVERSITY	6
XIAMEN UNIVERSITY	6
UNIVERSITI UTARA MALAYSIA	5
TON DUC THANG UNIVERSITY	4
XIAN JIAOTONG UNIVERSITY	4
EAST CAROLINA UNIVERSITY	3
LA TROBE UNIVERSITY	3
AUCKLAND UNIVERSITY OF TECHNOLOGY	2
BAR-ILAN UNIVERSITY	2
BRUNEL UNIVERSITY	2

the countries leading in research output, including China, the United Kingdom, and Australia. The right side presents the institutions contributing to the literature, with key players like the Asian Institute of Technology and Xiamen University. This visual showcases the global landscape of research, emphasizing how institutions across different nations contribute to exploring the intersection of gender diversity and financial reporting.

3.1. Influential aspects of financial reporting quality and top management team gender diversity literature

3.1.1. Core journals

To find the core journals involved in publishing financial reporting quality literature in the field of TMT gender diversity, we use source impact and Bradford law. Table 5 presents data for the top 10 journals according to their impact on financial reporting quality and TMT gender diversity literature. The ranking is based on the h-index, g-index, m-index, total citations (TC), number of publications (NP), and the year the publication started (PY_start). "Women in Management Review" ranks first with an h-index of 6, a g-index of 8, an m-index of 0.222, 78 total citations, and 11 publications since 1995. The *Journal of Business Ethics* follows with an h-index

of 3, a g-index of 3, an m-index of 0.273, 198 total citations, and 3 publications, starting in 2011.

3.1.2. Core journal articles

This section highlights the most significant works in social science research on coronaviruses. Table 6 displays the top 10 internationally cited publications. At the top of the list is a study conducted by Srinidhi et al. [10], which explores whether US corporations with gender-diverse boards demonstrate higher earnings quality. The study concludes that increased female representation on boards can enhance the oversight of management's reporting, thereby improving the quality of financial earnings [10]. This finding underscores the positive impact of gender diversity on corporate governance and financial reporting accuracy.

The study is second on the list of most globally cited articles. The authors examine the association between the CFO's gender and the quality of accruals [18]. The study shows that companies with female CFOs have lower performance-matched absolute discretionary accruals and lower absolute accrual estimation errors, after controlling for other factors that prior research has shown to be associated with accruals. They investigated in 2010.

3.1.3. Core words

Table 7 presents a compilation of the most frequently used keywords in the literature related to financial reporting quality and gender diversity within TMTs. The table lists specific terms, their frequency of occurrence, and related keywords from authors. The most prominent word, "female," appears 312 times, indicating its centrality in discussions about gender diversity. Other notable terms include "human" (231), "United States" (210), and "management" (178), reflecting the geographical and contextual focus of the literature. The inclusion of terms such as "employment," "gender," and "directors" further emphasizes key themes in the research, highlighting the intersection of gender dynamics and financial reporting. This analysis provides insights into prevalent trends and areas of interest within the academic discourse on TMT gender diversity and financial disclosures.

The word cloud generated from the keywords in the literature is shown in Figure 5. Words that frequently appear in the research are displayed with larger font sizes. In the context of gender

Figure 4
Threefold analysis of literature

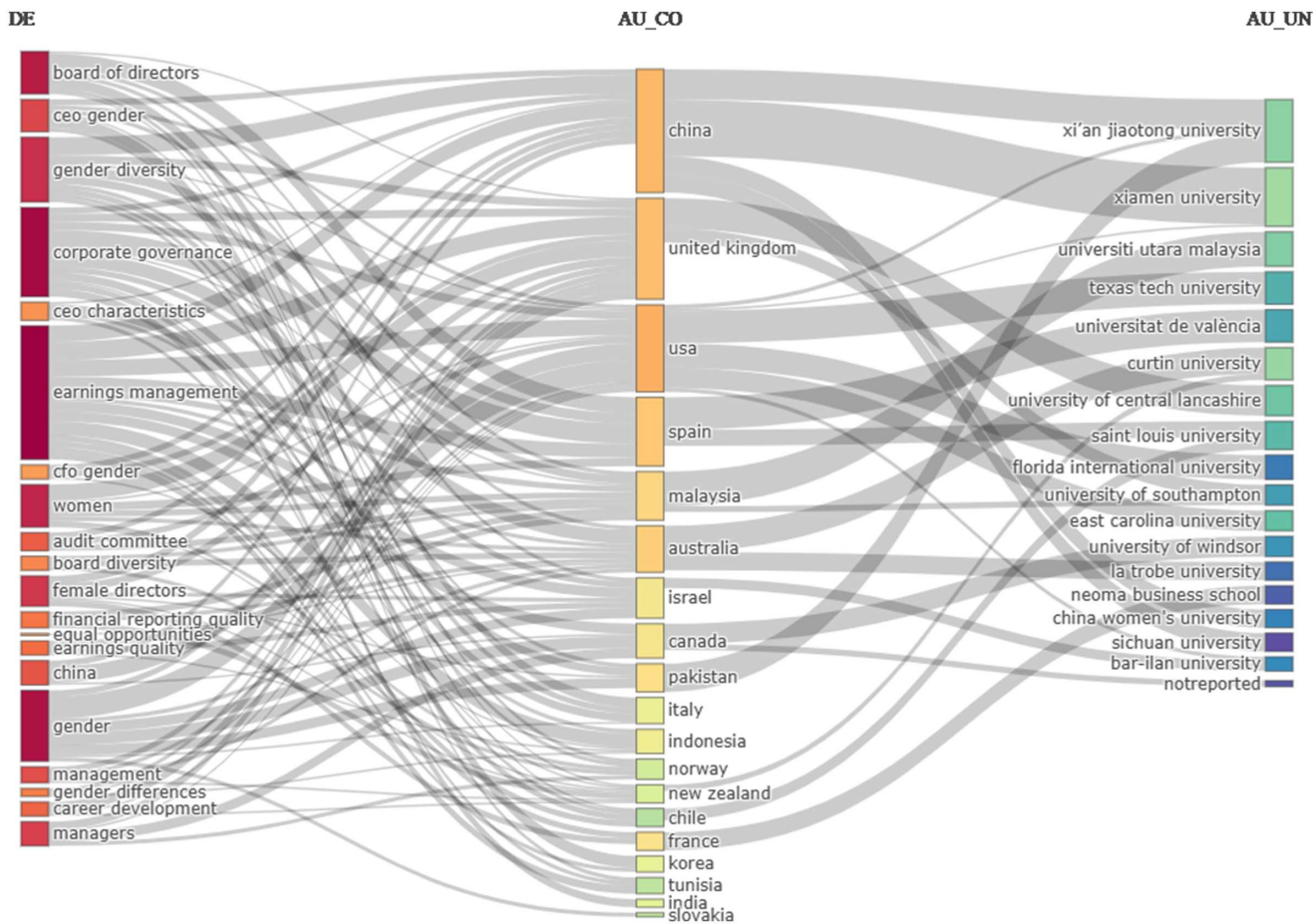


Table 5
Top 10 journals according to source impact

Source	h_index	g_index	m_index	TC	NP
WOMEN IN MANAGEMENT REVIEW	6	8	0.222	78	11
JOURNAL OF BUSINESS ETHICS	3	3	0.273	198	3
INTERNATIONAL JOURNAL OF ACCOUNTING AND INFORMATION	2	3	0.4	17	3
MANAGERIAL AUDITING JOURNAL	2	3	0.077	34	3
ACCOUNTING HORIZONS	2	2	0.286	41	3
ASIA-PACIFIC JOURNAL OF ACCOUNTING AND ECONOMICS	2	2	0.667	166	2
JOURNAL OF BUSINESS RESEARCH	2	2	0.285	19	2
RESEARCH IN INTERNATIONAL BUSINESS AND FINANCE	2	2	0.333	17	2
REVIEW OF QUANTITATIVE FINANCE AND ACCOUNTING	2	2	0.167	57	2

diversity and board-related studies, terms like “gender diversity,” “board of directors,” and “women” are the most prominent, indicating their central role in the research. Other significant terms include “female directors,” “audit committee,” “gender differences,” and “management.” Additionally, terms related to financial reporting and corporate governance, such as “earnings quality,” “financial reporting quality,” and “firm performance,” appear frequently. Geographic locations like “China” and “Malaysia” also emerge, reflecting the regional focus of some studies. This word cloud provides a visual summary of the key topics being researched in this

field, with a strong emphasis on gender diversity, management, and corporate governance.

3.1.4. Main authors, affiliations, institutions, and countries

Table 8 highlights the top 10 authors with the most significant impact on the literature related to financial reporting quality and TMT gender diversity. The ranking is determined based on the h-index, g-index, total number of publications (NP), m-index, and total citations (TC), as well as the starting year (PY_start) of their contributions in this field. Cannings K holds the top position, with

Table 6
Most globally cited article

Papers	Total citations	TC per year
Female Directors and Earnings Quality	38	33.4545
CFO Gender and Accruals Quality	53	12.75
CEO Gender, Ethical Leadership, and Accounting Conservatism	96	3.7143
Female Directors and Earnings Management: Evidence from UK Companies	82	11.7143
Does Female Directorship on Independent Audit Committees Constrain EM?	80	7.2727
Wall Street Reaction to Women in IPOs: Gender Diversity in Top Teams	67	4.4667
Female Directors and Earnings Management in High-Technology Firms	63	6.3
Disentangling Discrimination on Spanish Boards of Directors	575	77.96
Beyond Gender Diversity: How Attributes of Female Directors Affect EM	8	4.2667
Corporate Governance, Female Directors, and Quality of Financial Info	43	7.4667

Table 7
Most frequent words

Keyword plus Words	Frequency	Authors' keywords	
		Words	Occurrences
female	312	Female	8
human	231	Women	6
United States	210	Management	44
adult	203	Earnings	4
employment	178	Gender	51
male	175	directors	17
stereotyping	146	Study	4
womens status	135	Board	4
decision making	126	Firms	3
Europe	120	managers	50
characteristics	17	earnings management	28
female directors	8	corporate governance	19
ceo gender	6	gender diversity	12

Figure 5
Word cloud



an h-index and g-index of 2, 17 total citations, and a research history starting in 1991. Their knowledge of gender dynamics in management and financial reporting has been greatly influenced by his work. Gavius I, who began contributing in 2012, comes in second place behind Cannings with an h-index of 2, g-index of 2, and 69

total citations. The study conducted by Gavius primarily focuses on the impact of gender on earnings management and the representation of female directors on audit committees. Third-place finisher Holley D started his study in 2001 and has a total of nine citations, an h-index of two, and a g-index of two. Evaluating the frequency of gender disparities in management and decision-making processes has been made easier by Holley's work. Starting in 2019, Muro L has quickly gained influence, especially in the examination of earnings management and board structure, which has put him in fifth place. He has an impressive m-index of 0.667 in addition to an h-index and a g-index of 2 [19, 20]. Prominent contributions to this literature include Lang, NTIM CG, QiB, Saona P, Sial MS, and Simpson R. Their work offers important insights into how gender diversity in upper management impacts financial reporting standards. Their work spans many years, with total citations ranging from 9 to 84, reflecting their ongoing influence in the field.

Table 9 presents two sets of data: on the left side, it lists countries and regions with the highest scientific output over time, while the right side shows the countries with the most citations. The USA leads in terms of publications, with Canada in second place and the USA in third for citations. However, Spain outperforms Canada in total citations, despite Canada's high citation ranking. Canada holds the second position in citation counts. Canada's total citations

Table 8
Top 10 authors' impact in relevant literature

Author	h_index	NP	m_index	TC
Laura Muro	2	2	0.667	11
Paolo Saona	2	2	0.667	11
Muhammad Safdar Sial	2	2	0.667	12
Collins G. Ntim	2	2	0.5	21
QiB	2	2	0.4	15
Arieh Gavious	2	2	0.2	69
Mark Lang	2	2	0.118	84
Charles L. Holley	2	2	0.095	9
Ana Simpson	2	2	0.095	9
Kathy Cannings	2	2	0.065	17

are 118 articles, and the average article citation is 29.5 in financial reporting quality and TMT gender diversity. Israel ranks fourth in terms of citations at 84. The United Kingdom is ranked fifth, with a total citation of 70, which is lower than the USA's citations but higher than France's. France has a total citation of 61, with an average article citation of 20.333. Malaysia has a total citation of 57, China has a total citation of 46, and Norway has a total citation of 44, with an average article citation of 22. The tenth-ranked country is New Zealand, with a low total citation of 41 and an average article citation of 13.667.

Figure 6 represents the number of documents contributed by corresponding authors from various countries, distinguishing between single-country publications (SCPs) and multiple-country publications (MCPs). The USA leads with the highest volume, primarily through SCPs, while China shows a balanced mix of both SCPs and MCPs. Other notable contributors include the United

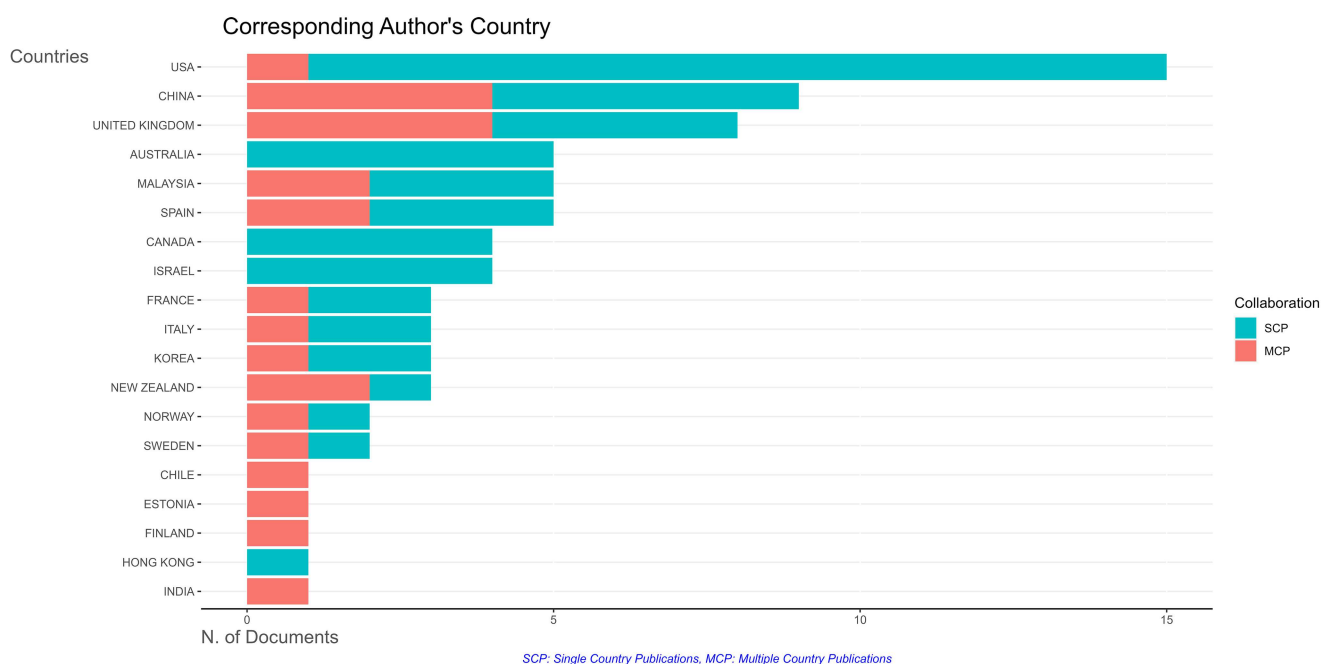
Table 9
Top nations in terms of publications and citations

Nations	Total citations	Average article citations
CHINA	46	5.111
USA	91	6.067
UNITED KINGDOM	70	8.75
MALAYSIA	57	11.4
NEW ZEALAND	41	13.667
FRANCE	61	20.333
ISRAEL	84	21
NORWAY	44	22
SPAIN	121	24.2
CANADA	118	29.5

Kingdom, Australia, and Malaysia. This distribution reflects the global engagement in the study of financial reporting and gender diversity, with cross-country collaborations enhancing the breadth of research.

The statistics for the top 10 nations with the most matching author contributions are shown in Table 10, with the USA leading the way. Out of the 15 articles that the USA's corresponding authors have published, 13 are SCPs and 2 are MCPs. MCPs in this instance suggest that at least one co-author is a foreign national. China comes in second place with nine contributions, five of which are SCPs and two MCPs. The United Kingdom follows in third place with eight publications, evenly divided between four SCPs and four MCPs. Australia ranks fourth, with five articles focused on financial reporting quality and TMT gender diversity, all of which are SCPs. Malaysia holds the fifth position, also with five corresponding author publications. The global importance of gender diversity in TMTs is evident, and improving financial reporting quality requires

Figure 6
Most relevant affiliations



substantial international collaboration, especially within the management and business literature. The contributions of these countries underscore the increasing relevance of gender diversity and financial reporting quality in academic research across borders.

Table 10
Corresponding author's country

From	To			
Country	Articles	Freq	SCP	MCP
AUSTRALIA	5	0.0556	5	0
CANADA	4	0.0444	4	0
ISRAEL	4	0.0444	4	0
FRANCE	3	0.0333	2	1
ITALY	3	0.0333	2	1
USA	15	0.1667	13	2
MALAYSIA	5	0.0556	3	2
SPAIN	5	0.0556	3	2
CHINA	9	0.1	5	4
UNITED KINGDOM	8	0.0889	4	4

Table 11 highlights the issue of limited global collaboration, as observed in the research contributions. The USA collaborated with China on five articles, while China partnered with Pakistan on another five publications. Similarly, Australia worked with New Zealand on two articles. Despite these instances of collaboration, the overall level of international cooperation remains low, with relatively few joint publications between countries worldwide. Other countries' collaboration with each other in the table collaboration network is only one article.

Table 11
Collaboration network

From	To	Freq
USA	CHINA	5
CHINA	PAKISTAN	3
AUSTRALIA	NEW ZEALAND	2
INDIA	BANGLADESH	2
SPAIN	CHILE	2
UNITED KINGDOM	NEW ZEALAND	2
AUSTRALIA	HONG KONG	1
AUSTRALIA	MALAYSIA	1
CHINA	AUSTRALIA	1
CHINA	UNITED KINGDOM	1

3.2. Conceptual framework

This section provides insight into various themes by examining the relationships among keywords (keyword plus). Initially, the study identifies multiple topics related to financial reporting quality and TMT gender diversity within business and management over time. These word networks are then plotted on a two-dimensional matrix, referred to as a "Thematic Map," to assess the centrality and density of the network.

3.2.1. Thematic map

Figure 7 and Table 12 present a thematic map categorizing research themes into motor, niche, basic, and emerging or declining

Table 12
Keywords in each cluster

Color	Theme	Keywords
Red	Impact of Gender Diversity on Management and Business	Leadership, corporate governance, board members, women, gender, female executives, directors, administrators, CEO, management
Blue	Challenges and Oversight of Boards of Directors	Governance, board members, gender, board inclusivity, financial disclosures, real earnings manipulation, women, female board members
	Strategies for Gender Diversity in Top Management Teams and Financial Disclosure Quality	Career advancement, equal access, management, supervisors
Green		
Purple	Gender Diversity and the Influence of Global Organizations	Performance, gender disparities, CFO, earnings integrity

themes based on their density and centrality. Key motor themes include China, gender inequality, the glass ceiling, and capital structure. These themes are recognized as crucial and well-established within the fields of financial governance and gender dynamics. The presence of such themes underscores findings similar to those in Vieira et al. [21], who highlighted the persistent relevance of the glass ceiling across various academic disciplines.

Leadership, categorized under niche themes, is depicted as less integral yet significant, suggesting potential for deeper research integration into gender diversity discussions. Basic themes like women directors and CEO gender underscore shifts in corporate leadership dynamics, highlighting the broader impacts of gender diversity on business success and risk management. This reflects ongoing shifts noted in broader bibliometric analyses like those by Santoso et al. [22], who observed fluctuating interests in audit practices within gender studies.

Emerging themes such as audit quality suggest areas that may be gaining or losing momentum in the academic discourse, indicating new opportunities for research, especially in how different global contexts might influence these dynamics.

This thematic analysis not only reveals well-established and evolving research areas but also emphasizes the need for further exploration to enhance understanding of how gender diversity impacts corporate governance and financial performance. The map illustrates the necessity for continued research to enrich the body of knowledge in gender diversity and its effects on corporate practices.

Table 13 is derived from the clusters. The first cluster focuses on earnings management, encompassing topics such as earnings quality [23], financial health [24], crash risk, compensation, revenues, and remuneration [25]. The second cluster, centered around gender, explores CFO gender [25]. Amorelli and García-Sánchez [26] explored issues such as CEO gender and the presence of female

Figure 7
Thematic map

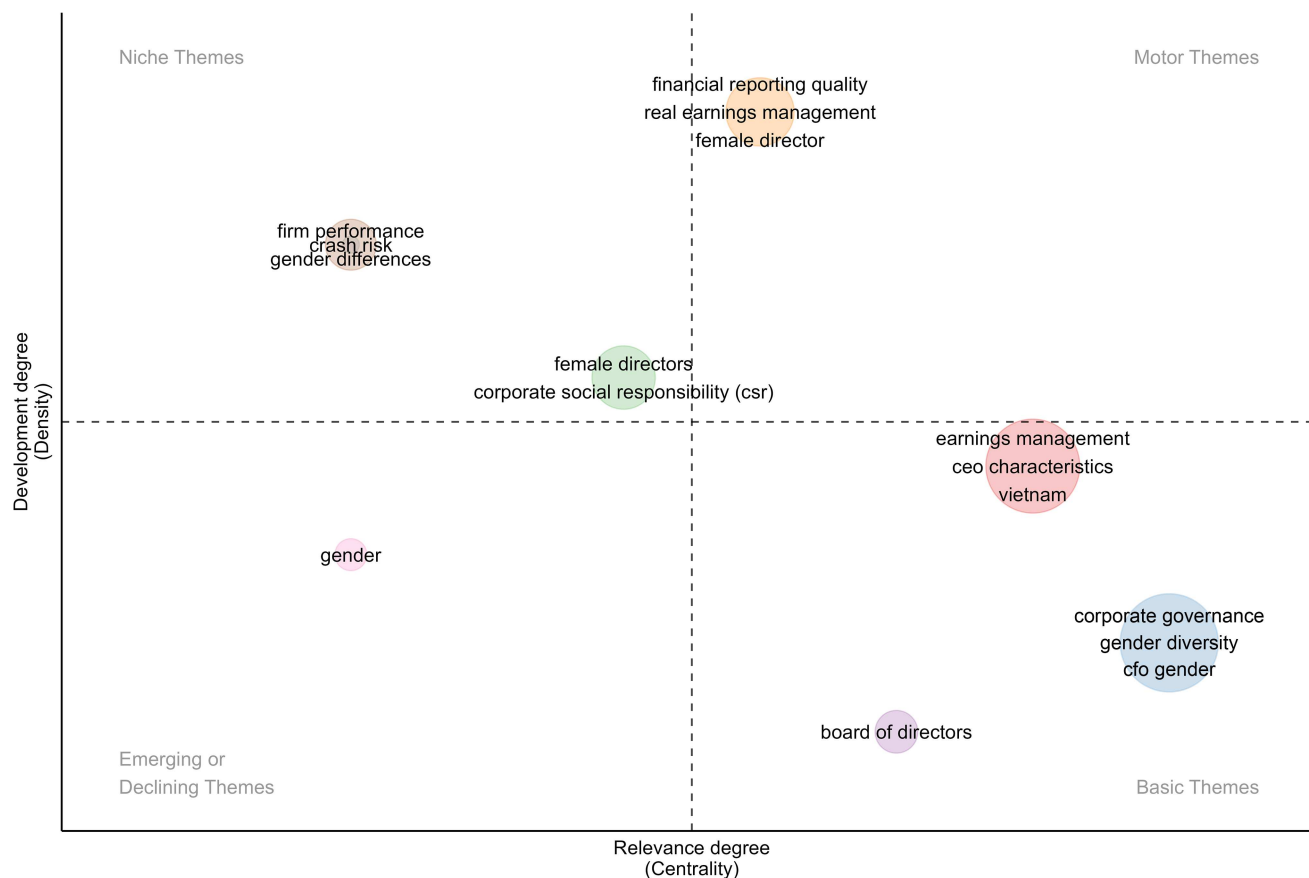


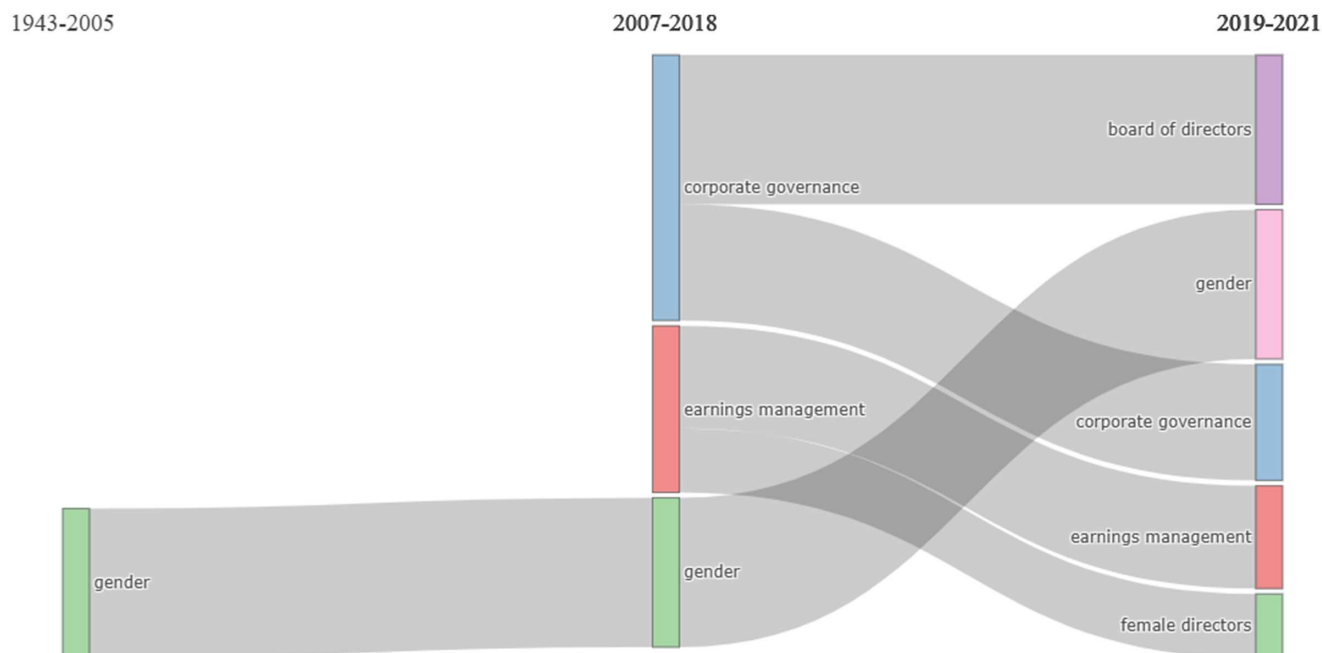
Table 13
Themes and keywords in thematic map

Cluster representation	Theme	[Keywords in cluster]
Earnings Management	Core Theme	Earnings integrity, financial status, crash susceptibility, compensation, revenue, salary, remuneration
Gender	Core Theme	CFO gender, CEO gender, female directors, sexuality, social status, identity, femininity, bisexuality
Company Performance	Emerging or Declining Themes	Audit, quality of financial disclosures, trading records, economic performance, return on investment, corporate profits
Capital Structure	Key Theme	Recapitalization, financing options, financial framework, fiscal structure, funding, capital administration
Gender Differences	Key Theme	Gender disparity, gender imbalance, gender discrimination, glass ceiling, systemic barriers
Leadership	Specialized Theme	Direction, authority, guidance, management, oversight

directors [27], as well as broader topics including sexuality, social class [27], and gender identity—such as femininity and bisexuality [28]. Research under this theme examines the impact of gender diversity on auditing practices, financial performance [29], and corporate financials, such as trade records [30] and earnings [31]. This cluster is closely associated with capital structure, which is considered a pivotal theme in financial reporting quality and TMT gender diversity literature [32]. Researchers can further explore capital structure through the lenses of recapitalization, financial facilities, financial infrastructure, and capital management [33]. The theme of

gender differences also plays a significant role, with key elements like gender inequality [34], the glass ceiling, and discriminatory barriers shaping this cluster [35]. Leadership, another prominent topic, is considered a niche area. This cluster encompasses topics related to authority, direction, guidance, and managerial control, as discussed by Ayaz et al. [36]. Compared to earlier bibliometric studies, such as those reviewed by Teodósio et al. [37], this research extends the understanding of how gender roles influence financial decision-making by providing empirical evidence from various global contexts, addressing a critical gap in the literature regarding the integration of

Figure 8
Thematic evolution



sociocultural factors in corporate governance. This adds to the existing knowledge base and helps mitigate discrimination in management.

Capital structure, another motor theme, deals with fiscal frameworks, fund management, and capital allocation [38]. Integrating research on emerging themes can help elevate these topics to the core or motor themes in the future, enhancing their centrality and relevance in the literature by Cannella et al. [39].

3.2.2. Thematic evolution

Figure 8 illustrates the thematic evolution of literature related to financial reporting quality, corporate governance, and gender diversity over time. It uses Keywords Plus to depict how key themes have developed across distinct periods, offering a visual representation of the progression of research topics. The period from 1943 to 1980 marks the foundational exploration of gender-related issues within corporate governance and financial reporting. During this time, primary themes revolved around gender inequality and discrimination. Scholars and policymakers began addressing the societal impacts of gender disparities in corporate and academic settings. This era laid the groundwork for future studies on gender diversity in leadership roles, reflecting society's growing awareness of gender inequality and its implications in the workplace.

From 1980 to 2000, the focus expanded to deeper discussions on governance structures and the role of diversity in corporate decision-making. This period saw the emergence of research connecting gender diversity to corporate governance practices, particularly in financial reporting. While diversification into specialized domains was still developing, gender continued to be a critical topic in discussions about corporate transparency and financial integrity. Studies increasingly recognized the potential influence of gender diversity on financial performance and reporting quality.

The period from 2000 to 2021 reflects a progression toward more specialized research within the field of gender diversity and corporate governance. From 2000 to 2018, the literature began to emphasize corporate governance structures and practices, exploring

how gender diversity impacts organizational outcomes, including financial reporting. From 2019 to 2021, there was a significant shift in focus toward the unique roles of female directors in governance. This evolution aligns with earlier bibliometric findings by Sánchez-Teba et al. [40], who identified similar trends in gender studies but lacked a focused examination of financial governance. This study addresses such gaps by emphasizing the intersection of gender diversity and earnings management, offering new insights into financial transparency and governance dynamics. Moreover, compared to broader studies such as Kent Baker et al. [41], this research highlights the underexplored geographic disparities in gender's impact on governance, suggesting future work should analyze regional variations to build a more comprehensive global framework.

Overall, the thematic evolution illustrated in Figure 8, shows how research on corporate governance, earnings management, and gender concerns has become increasingly specialized, underscoring the importance of understanding gender diversity's role in business practices and decision-making processes.

4. Conclusion

This article presents a comprehensive bibliometric analysis of the literature surrounding financial reporting quality and gender diversity in TMTs, covering 1943–2021. Through applying advanced scientometric tools, particularly the “Biblioshiny” package, we have examined various aspects of this growing field, including publication trends, key themes, and the contributions of prominent authors and institutions. The analysis reveals a significant increase in scholarly articles on financial reporting quality and gender diversity, particularly in recent years. Starting from a modest output, the annual scientific production has grown notably, with a peak of 20 articles published in 2020. This upward trend underscores the increasing recognition of the importance of gender diversity within corporate governance frameworks and its implications for enhancing financial reporting practices. The historical context of

gender issues in corporate governance is crucial for understanding this evolution, as foundational studies laid the groundwork for more specialized research. Our findings highlight that a total of 138 documents were reviewed, comprising solely journal articles, with 323 authors contributing to this body of work. This high level of collaboration, indicated by the document-per-author ratio of 0.427, reflects a collective effort to address the complexities of gender diversity in TMTs and its impact on financial performance. Notably, the collaboration index of 2.7 suggests that partnerships among authors are prevalent, fostering diverse perspectives in this critical area of research. In examining the geographical distribution of citations, Spain and Canada emerge as leaders, with Spain showing the highest total citations (121) and Canada demonstrating the highest average citations per article (29.5). This indicates a strong engagement from these countries in advancing the discourse on gender diversity and financial reporting quality. Conversely, countries like China and New Zealand displayed lower citation rates, highlighting disparities in research impact across different regions. The data suggest that while some countries are at the forefront of this research, others have significant room for growth.

Additionally, the findings underscore the necessity for increased international collaboration among researchers. Although our analysis identifies some instances of collaborative publications, the overall level of international cooperation remains limited. Encouraging partnerships across borders could enhance the depth and breadth of insights, ultimately enriching the academic discourse on gender diversity and financial reporting quality. In conclusion, this bibliometric analysis not only contributes to the existing body of literature on financial reporting and gender diversity but also paves the way for future research endeavors. By highlighting key themes, influential authors, and geographic disparities, this study emphasizes the importance of integrating gender diversity into management strategies to enhance corporate financial health.

4.1. Policy recommendation

To address the gaps highlighted, we recommend the implementation of mandatory gender quotas for TMTs and corporate boards to ensure equitable representation and drive systemic change in leadership diversity. Organizations fostering gender diversity in leadership should be incentivized through measures such as tax breaks, grants, or public recognition, encouraging them to prioritize diversity as a core component of their governance structure. Additionally, inclusive recruitment strategies, leadership development programs, and workplace flexibility should be adopted to reduce gender biases, prepare underrepresented groups for leadership roles, and retain diverse talent. These practical measures, coupled with integrating diversity metrics into performance evaluations and governance reports, would not only enhance gender representation but also improve financial reporting quality and decision-making processes, aligning corporate practices with broader societal and organizational goals.

4.2. Future agendas

First, researchers should conduct longitudinal studies that track gender diversity in TMTs over a 10- to 15-year period, examining its correlation with changes in financial reporting quality. This approach could involve analyzing annual reports and financial disclosures to quantify improvements in earnings quality and governance practices linked to increased female representation. Second, cross-cultural comparisons should be made between countries with differing gender diversity policies, such as Sweden and the USA.

This research aims to understand how cultural factors and regulatory frameworks influence the relationship between gender diversity and financial reporting practices. A sample size of at least 50 firms per country could yield statistically significant results. Third, there is a need for sector-specific analysis focusing on the impact of gender diversity in TMTs within specific industries like technology or finance. Future studies could examine at least three sectors, utilizing case studies to assess how gender dynamics affect corporate governance and financial performance and comparing these results across sectors. Fourth, researchers should analyze the effectiveness of gender diversity initiatives, such as board quotas, on financial reporting quality. This research could involve a pre- and post-implementation analysis of firms subject to such policies, evaluating metrics like audit quality and transparency. Finally, facilitating collaborative research initiatives between academia, industry practitioners, and policymakers is essential. These collaborations can develop practical guidelines for enhancing gender diversity in corporate leadership and include workshops and conferences that bring together diverse stakeholders to share insights and create actionable strategies.

4.3. Limitations of the study

The study has several limitations. First, bibliometric analysis may overlook qualitative insights and contextual factors. Second, publication bias may arise, as studies with negative findings are less likely to be published. Third, the time frame (1943–2021) may not capture emerging trends beyond this period. Fourth, the geographic focus may limit generalizability, as much research is concentrated in North America and Europe, potentially ignoring insights from other regions. Finally, the analysis may not adequately consider intersectionality with other forms of diversity, and subjective categorization of keywords may lead to inconsistencies in interpretation.

Ethical Statement

This study does not contain any studies with human or animal subjects performed by any of the authors.

Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

Data Availability Statement

Data are available on request from the corresponding author upon reasonable request.

Author Contribution Statement

Amna Arshad: Conceptualization, Validation, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing, Funding acquisition. **Saira Arshad:** Methodology, Validation, Formal analysis, Data curation, Writing – original draft, Supervision, Project administration. **Mahnoor:** Conceptualization, Methodology, Software, Formal analysis, Investigation, Resources, Writing – original draft, Writing – review & editing, Visualization, Funding acquisition. **Khoula Naseer:** Methodology, Validation, Formal analysis, Resources, Writing – review & editing, Funding acquisition. **Muhammad Rehan:** Validation, Visualization. **Hafiz Azeem:** Software, Investigation, Visualization.

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