Corporate governance characteristics and involvement in ESG activities: current trends and research directions

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Abstract

Purpose – *This study aims to conduct a comprehensive literature review to examine the relationship between corporate governance characteristics and firms' engagement in environmental, social and governance (ESG) activities. The review focuses specifically on academic papers published in ranked accounting and finance journals.*

Design/methodology/approach – *The analysis combines a structured literature review with citation analysis, topic modeling using a machine learning (ML) approach and a manual review of selected articles published between 2000 and 2021.*

Findings – *This paper contributes to corporate governance and ESG literature by conducting an in-depth review, offering a comprehensive analysis of the existing findings and identifying future research directions. From the reviewed literature, this paper proposes the following thematic areas: board characteristics, ownership structure and their impact on a company's engagement in ESG activities; CEO characteristics and their influence on a company's involvement in ESG activities; corporate governance and ESG as sources for transparency and legitimacy; internal and external assurance of a company's involvement in ESG activities; and gender diversity and a company's involvement in ESG activities.*

Originality/value – *The study provides a comprehensive understanding of corporate governance and ESG literature. The innovative combination of methods, including ML and manual techniques, enhances the ability to identify key research topics and uncover research directions in the field. Moving forward, this paper suggests several promising directions for future research, including examining the influence of emerging technologies on ESG reporting and assessing the impact of regulatory changes and context on the link between corporate governance and firms' involvement in ESG practices.*

Keywords *Corporate governance, Corporate social responsibility, ESG, Machine learning approach, LDA, Literature review*

Paper type *Literature review*

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1. Introduction

Corporate governance (CG) mechanisms play a crucial role in fulfilling strategic, monitoring and advisory functions as well as facilitating a firm's access to valuable information (Adams *et al.*, 2010; Hillman and Dalziel, 2003). CG practices encompass various activities and regulations designed to ensure that companies conform to prescribed codes and processes, considering both the legal framework of the company's jurisdiction and internal organizational procedures (Scherer *et al.*, 2016). Several high-profile corporate scandals of the 21st century, such as Enron, WorldCom, Refco and Volkswagen, have raised investors' awareness and sparked the interest of academics in this field. In recent years, there has been a growing trend of using CG mechanisms to oversee a broader range of business operations, including their impact on the environment and society. The composition of corporate boards, ownership structure and the presence of corporate committees have garnered significant interest in scholarly literature due to their impact on firms' engagement in sustainable activities and nonfinancial disclosure practices (e.g. Coffie *et al.*, 2018; Garanina and Aray, 2021; Iatridis, 2013; McCarthy *et al.*, 2017; Ntim and Soobaroyen, 2013).

The concepts of CG mechanisms and a firm's engagement in environmental, social and governance (ESG) activities [also referred to as corporate social responsibility (CSR)] aim to assist firms in achieving a balance between profitable operations and ethical practices (Jamali *et al.*, 2008). Businesses have been compelled to alter their strategies and boost investments in ESG practices due to various factors, such as environmental regulations, the rise of shareholder activism and the growing demand for sustainable products and services (Stubbs and Cocklin, 2008). In the context of CG, involvement in ESG activities refers to a company's ability to achieve long-term success and profitability while considering ESG aspects in its operations, which helps sustain a competitive advantage (Adams *et al.*, 2014; Nguyen *et al.*, 2021). The increased pressure from stakeholders and the wider community has intensified companies' involvement in nonfinancial disclosure and performance (Majeed *et al.*, 2015; Michelon *et al.*, 2020), making CG's role even more crucial.

In recent years, researchers have devoted significant attention to the relationship between a company's CG attributes and its engagement in ESG activities. This paper aims to examine the accounting and finance literature investigating CG characteristics as factors driving a firm's involvement in ESG activities. Based on a critical analysis of the existing literature, our study provides essential insights for researchers, policymakers and businesses, facilitating the best practices for achieving global sustainable development goals.

Several literature reviews (e.g. Aguilera *et al.*, 2021; Dwekat *et al.*, 2021; E-Vahdati *et al.*, 2019; Naciti *et al.*, 2021) have already been published examining the connection between CG and a company's sustainable performance. However, these papers either cover only a small corpus of papers, like E-Vahdati *et al.* (2019), who used content analysis to analyze 27 articles without offering a comprehensive overview, or focus on journals included in the Financial Times Research Rank list (FT50) from different research fields (e.g. Aguilera *et al.*, 2021). Given the limited research on the influence of CG on a company's involvement in ESG activities, this paper focuses only on ranked accounting and finance journals because these journals are likely to publish studies that explore the association between CG characteristics and a company's involvement in ESG activities. We have chosen to focus on accounting and finance journals for two main reasons. First, studies by Mathuva *et al.* (2019), Ntim and Soobaroyen (2013) and Alzeban (2020) provide evidence that CG directly influences firms' financial performance and nonfinancial reporting, which are core aspects of accounting and finance. Also, research in these fields offers critical insights into how governance structures impact financial outcomes and how these structures drive or deter ESG activities. Second, studies in finance and accounting journals often provide detailed financial analyses, metrics and models that are crucial for understanding the impact of CG on ESG activities. In addition, research articles published in accounting and finance literature extensively analyze the financial implications of ESG activities, making them essential for understanding the economic impact of CG characteristics on involvement in ESG initiatives. Therefore, it is an opportune moment to investigate the evolution of academic research over the past 21 years in the accounting and finance fields. The study seeks to address three specific research questions with the intention of advancing our comprehension in this field:

RQ1. What are the prominent trends and topics explored in research concerning the link between CG and a company's involvement in ESG/CSR activities, as evidenced by publications in ranked accounting and finance journals?

RQ2. What are the primary focal points within the key research topics identified in the literature?

RQ3. What are the future research directions and emerging trends concerning CG and a company's involvement in ESG/CSR activities?

We conduct a structured literature review to address these research questions with the aid of a machine learning (ML) tool that enhances manual analysis (Ranta *et al.*, 2023; Cai *et al.*, 2019; El-Haj *et al.*, 2019). By using the Latent Dirichlet Allocation (LDA) modeling technique, we can enhance the value of the structured literature review by incorporating additional insights. The corpus comprises 180 papers published in ranked accounting and finance journals listed by the Australian Business Deans Council (ABDC) and the Charted Association of Business Schools (CABS). We identify the following topics based on our analysis: Board characteristics, ownership and a company's engagement in ESG activities; CEO characteristics and their influence on a company's involvement in ESG activities; CG and ESG as sources of transparency and legitimacy; Internal and external assurance of a company's involvement in ESG activities; Gender diversity and a company's involvement in ESG activities.

Our paper contributes to the existing literature in several ways. First, we provide an in-depth and up-to-date review of the state and evolution of the field, outlining the primary topics of investigation within the corpus. Second, we present an exhaustive evaluation of the main findings within the identified key topics, offering a comprehensive depiction and critical analysis that has not been previously undertaken. Third, previous literature reviews that have examined this relationship have been limited in their scope. For instance, Aguilera *et al.* (2021) exclusively focused on articles published in the Financial Times top 50 journals and E-Vahdati *et al.* (2019), Naciti *et al.* (2021) and Dwekat *et al.* (2021) restricted their reviews to articles published up until 2017 and 2019, respectively. In contrast, our study extends the review timeline to encompass articles from 2019 to 2021, providing a more recent and relevant analysis. This updated sample constitutes a substantial 54% of our total sample, ensuring that our findings capture the current state-of-the-art in the field. Furthermore, we have conducted our analysis based on papers published in accounting and finance journals listed in ABDC and CABS journal lists to ensure the quality of our corpus. Finally, the application of the ML technique for conducting the literature review also makes our paper stand out from other literature reviews in the field. These contributions are expected to provide valuable insights for both academics and practitioners and pave the way for future research in this area.

The subsequent sections of the paper are structured as follows: the methodology for our literature review is described in Section 2, and the results are discussed in Section 3. Section 4 is dedicated to an in-depth analysis of the most representative articles identified during our review. In Section 5, we put forth potential directions for future research. Finally, Section 6 concludes the paper by providing key insights and remarks.

2. Methodology

Our study uses a systematic literature review methodology, which Massaro *et al.* (2016, p. 2) define as "a method for studying a corpus of scholarly literature, to develop insights, critical reflections, future research paths, and research questions." This approach is used to identify and analyze themes related to CG and firms' involvement in ESG activities. The review process is divided into various steps.

2.1 Step 1. The literature review protocol and research questions

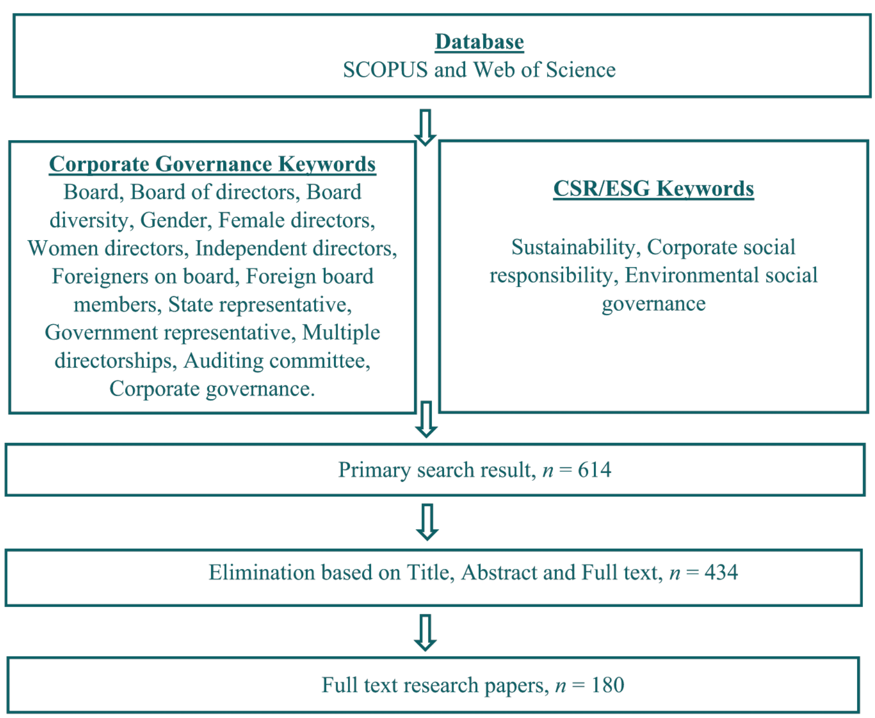
We begin by establishing the framework for our paper, noting that no comprehensive literature review on this topic, based on publications in accounting and finance journals, has been presented at conferences or published in ranked academic journals to date. According to Massaro *et al.* (2016, p. 7): "...researchers use a systematic literature review to map and evaluate the existing intellectual territory and to determine the needs for future study." Therefore, it is imperative to critically examine current knowledge to establish future research directions. Considering the limited scope of previous literature assessments, we formulate our research questions, defined in Section 1, using the three critical research tasks of "insight," "critique" and "transformative redefinition."

2.2 Step 2. Selecting articles for in-depth examination

Selecting an appropriate body of literature for a systematic literature review is crucial to avoid bias in the study's findings (Massaro *et al.*, 2016). We use the following procedure to identify and select the research articles for our study:

- Phase 1: We based our search on the CABS and ABDC rankings, focusing on accounting and finance journals. First, we compiled a comprehensive list of accounting and finance journals based on the CABS 2021 rankings. This exhaustive catalogue included 198 journals in total. Likewise, we compiled a list of journals from the 2019 ABDC rankings, totaling 332 journals. After removing duplicates, we obtained a final list of 393 unique journals. Within these journals, we focused on identifying relevant papers published between January 2000 and December 2021, aiming to capture the most recent and relevant scholarly contributions. The final list of journals and the papers used for the SLR is provided in the Appendix.
- Phase 2. We selected papers using two academic databases, Scopus and Web of Science. Our search was based on the keywords from two groups: keywords related to CG attributes and keywords related to ESG/CSR aspects. We used Boolean operators "AND" and "OR" to refine the search parameters (detailed in Figure 1). This step has returned 614 articles in total.
- Phase 3. We manually reviewed the 614 articles as follows. The titles and abstracts of all the selected papers were examined to check their relevance and appropriateness to

Figure 1 Data collection process



Source: Authors own work

the research topic. This process eliminated 89 articles. Furthermore, we carefully reviewed full texts, retaining only papers focusing on both CG attributes and CSR/ESG attributes, which excluded 345 articles. This process left us with a final selection of 180 articles for our literature review.

2.3 Step 3. Data coding and reliability assurance

To ensure the reliability of our analysis, we adopted the methodology used by Buenechea-Elberdin (2017), E-Vahdati *et al.* (2019) and Garanina *et al.* (2021), which involves manually coding and categorizing the full texts of the articles. We assessed interrater reliability using Krippendorff's alpha, a widely accepted measure for reliability testing (Krippendorff, 2013, p. 277). Each researcher individually reviewed the full texts of the articles, and subsequently, we compared and discussed our respective codings. Based on this comparison, we made incremental changes and adjustments to the coding protocol, such as expanding the list of ESG/CSR items and providing clearer definitions of the research methods. All modifications were thoroughly discussed until we reached a consensus. The results of the reliability testing and content analysis are presented in Table 1. Notably, the reliability measure for the coding exceeded the 0.800 threshold, indicating high reliability and strong agreement among researchers.

Table 1 Analytical framework

Category	*Variables*	*Results*	*Krippendorff's alpha*
Publication type	Single-authored	20	1.000
	Multiple-authored	160	
Country of the first author	Continental Europe	29	1.000
	United Kingdom	19	
	America	23	
	Australasia	85	
	Others	24	
Research method	Quantitative	151	1.000
	Qualitative	24	
	Mix-method approach	5	
Quantitative research methods	Empirical research	149	0.983
	Content analysis/other textual analysis	10	
	Other quantitative methods	0	
Qualitative research methods	Survey	5	0.958
	Casestudy/ interview	17	
	Literature review	8	
	Other qualitative methods	1	
Theories	Multiple theory	82	0.943
	No clear theory applied	45	
	Agency theory	19	
	Stakeholder theory	9	
	Legitimacy theory	7	
	Neo-institutional theory	3	
	Resource-based theory	3	
	Critical mass theory	3	
	Institutional theory	3	
	Upper echelon theory	2	
	Signalling theory	1	
	Social movement theory	1	
	Behavioural theory	1	

Notes: Table 1 shows the research paper characteristics used in our study based on publication type, country of origin of first author, research methodology and theories**Source:** Authors' own work

2.4 Step 4. Coding data using the developed framework and assuring reliability

ML is often utilized in tasks such as prediction, classification and clustering, which involve various forms of data processing (Athey, 2018a, 2018b). It offers powerful tools for analyzing a collection of texts, such as academic journal papers (Wanner *et al.*, 2014). Moreover, the ML approach offers several advantages, including wider generalizability, increased objectivity, improved replicability, enhanced statistical power and the ability to identify hidden linguistic features (El-Haj *et al.*, 2019). In our literature review, we incorporate one of the ML tools, known as LDA, which analyses a corpus of text and provides a systematic way to identify latent topics within it (Ranta *et al.*, 2023; Cai *et al.*, 2019; Fligstein *et al.*, 2017). This method is widely utilized in research for topic identification since it goes beyond static word frequencies and enables the exploration of latent relationships between terms and topics within a given sample (Blei *et al.*, 2003). Furthermore, it allows for the identification of the most representative articles associated with each topic and facilitates the identification of emerging trends within these topics. In LDA models, documents are represented as compositions of a fixed number of topics, which are probability distributions over a vocabulary. Determining the optimal number of topics is typically achieved through techniques such as grid search and the use of various topic coherence measures (Röder *et al.*, 2015). As LDA models identify topics as probability distributions over words, researchers can infer the meaning of the topics by observing the most probable words in each topic.

We used the Python programming environment (www.python.org) to construct our LDA model. First, we converted the articles from PDF to text files. Next, the contents of the text files were cleaned, removing everything other than words, which were converted into lowercase letters. Then, stop words (e.g. the, and, but, if, or) were excluded, and the remaining words were lemmatized (i.e. changed into their base form). During this process, we kept only nouns and discarded everything else. Finally, we converted the documents into a bag-of-words format and used them to train the LDA model.

The use of the LDA method offers substantial practical advantages as it allows for the representation of documents as a combination of multiple topics, with each topic represented as a mixture of different words. This characteristic is particularly advantageous in the context of CG and sustainability studies, where documents may contain overlapping themes. Despite this, Cai *et al.* (2019) argue that human researchers possess a unique advantage in evaluating future trends in the literature. Therefore, to offer a critique and gain more insights while identifying future research directions, we also conduct a manual analysis of the articles that LDA identified as most representative of each topic. This combined approach allows us to uncover nuanced insights and perspectives within the literature. El-Haj *et al.* (2019, p. 292) recommend using ML methods and high-quality manual analysis in conjunction, as they "represent complementary approaches to analyzing financial discourse."

2.5 Step 5. Analysis of the corpus from different dimensions

2.5.1 Citation analysis: impact of article measurement. According to Massaro *et al.* (2016, p. 767), highly-cited papers constitute a "corpus of scholarly literature" that can "develop insights, critical reflections, future research directions, and research questions." Many researchers support the growing importance of citation impact factors as they help researchers identify the most influential articles (Barrick *et al.*, 2019; Dumay and Cai, 2014; Jones and Alam, 2019). For our citation analysis, we used citation counts from Google Scholar and Harzing's Publish or Perish software as of February 5, 2024.

2.5.2 Prolific author origin. Floyd *et al.* (1994) suggest that the first author receives a nonmonetary reward and is considered the primary contributor to the article. The authors' name sequence is viewed as reflecting their contribution to academia (Balkin *et al.*, 2020; Sauermann and Haeussler, 2017; Venkatraman, 2010). Based on the approach outlined in

Dumay *et al.* (2018), we conducted coding of the countries of origin for the first authors by considering their university affiliations, and then classified them into four major regions: Australasia (which includes Australia, New Zealand and Asian countries), Continental Europe (which includes nations such as Finland, Denmark, Spain, France and Sweden), America (which includes Canada, South America and North America) and the UK. Some authors were categorized as "Other" because they were from countries such as Lebanon, Iran, Saudi Arabia and Africa that did not belong to any of the four regions mentioned above.

3. Results

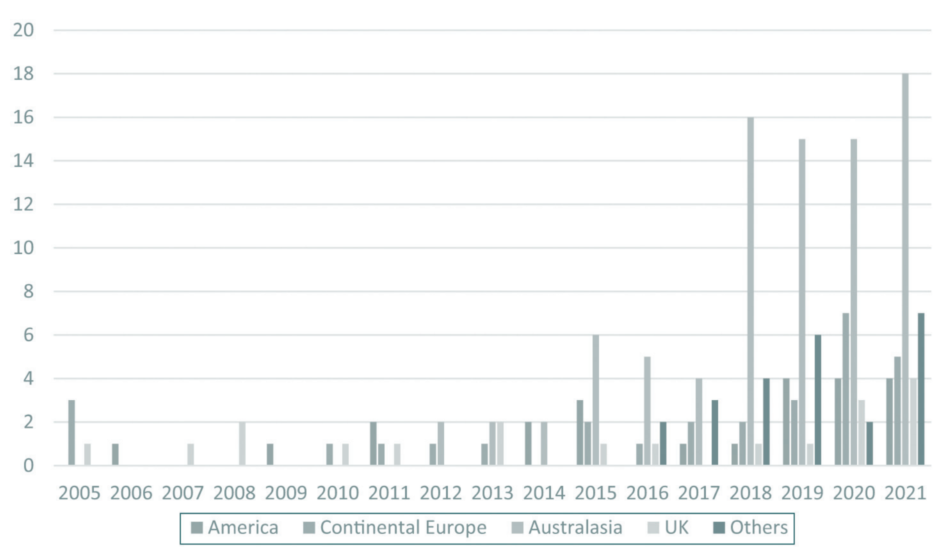
We begin by exploring the trends in academic publications that have examined the relationship between CG characteristics and companies' involvement in ESG activities. With descriptive statistics and analysis, we aim to provide a comprehensive overview of how this field has evolved over time and across different regions. Furthermore, we analyze differences between industries and review the theoretical lenses utilized in the studies.

3.1 Number of articles by year and by region

Figure 2 illustrates the number of publications examining the relationship between CG attributes and companies' involvement in ESG practices during the last 21 years, separately for different geographical locations. From 2000 to 2004, no publications on this topic appeared in accounting and finance journals that are ranked in CABS or ABDC. However, starting from 2007, the number of publications has been increasing steadily, with a significant surge observed after 2015. This notable increase in publications indicates that the topic is currently attracting a lot of attention among academics. The figure also reveals that, compared to authors from other regions, Australasian authors contribute significantly to the topic, accounting for 47.22% of the entire sample of articles.

The Global Financial Crisis (GFC) in 2008 led to a large-scale banking failure, which severely impacted business operations and induced economic uncertainty (Iwasaki, 2014). In response to the collapse of many companies during the GFC, the demand for better CG

Figure 2 A number of papers by region and year



Source: Authors own work

practices and greater board accountability increased, with a higher emphasis on firms' ethical, environmental and social responsibilities as a means of establishing operational legitimacy (Lawrence *et al.*, 2013; Mallin and Michelon, 2011). Moreover, the growing concern over climate change is putting pressure on companies globally to be more responsible toward society and the planet (Muttakin *et al.*, 2015). In 2006, the United Nations incorporated ESG factors into investment practices, establishing principles for responsible investing. These developments likely explain the increased interest among accounting and finance researchers in this area.

3.2 Theory

Our analysis reveals that various studies have utilized a range of theoretical lenses – approximately 82 in total – including agency theory, stakeholder theory, legitimacy theory, resource-based theory, neo-institutional theory, upper-echelons theory, critical mass theory and signaling theory to shape the relationship between CG characteristics and firm's engagement in ESG activities (Chahine *et al.*, 2019; Muttakin and Subramaniam, 2015; Naheed *et al.*, 2021; Ntim and Soobaroyen, 2013; Shamil *et al.*, 2014; Suyono and Farooque, 2018; Yang *et al.*, 2019; Zaman *et al.*, 2021). However, it is noteworthy that agency (Chintrakarn *et al.*, 2016; Paul and Barbara, 2009; Chong *et al.*, 2018) and stakeholder (Adinehzadeh *et al.*, 2018; Zaman *et al.*, 2021; Grosser and Moon, 2008 Manita *et al.*,2018) theories have been particularly attractive to accounting and finance researchers for analyzing this phenomenon.

3.3 Industry analysis

We also analyzed the industries that have been the focus of the papers in our corpus and found that they can be classified into three groups. The first group of papers focuses on all industries, including financial companies, and consists of a total of 66 studies. It is important to note that these studies typically focus on a single country in their analyses. According to Arora and Dharwadkar (2011) and Cooper (2017), incorporating the financial industry in the sample provides a fair representation and a comprehensive overview. Financial institutions and insurers, similar to other sectors, are subject to heightened societal scrutiny. Due to their specific core business, environmental impact and potential for both positive and negative externalities, the financial sector serves as an intriguing context for analyzing CG characteristics and a firm's involvement in ESG activities (Van Den Berghe and Louche, 2005).

The second group of papers specifically excludes financial companies and concentrates on nonfinancial sectors, accounting for a total of 67 studies. The most common reason behind this exclusion is the unique characteristics of nonfinancial sectors, which are subject to different regulatory oversight, capital structure decisions and disclosure rules (Alfraih, 2016; Chintrakarn *et al.*, 2016; Chithambo and Tauringana, 2017; Ntim and Soobaroyen, 2013).

The third group of papers comprising 16 studies, exclusively focuses on the financial sector, encompassing commercial banks, insurance companies and investment firms. However, the studies within this category do not explicitly state their reasons for focusing on this sector, with the exception of Ben Fatma and Chouaibi (2021). According to Ben Fatma and Chouaibi (2021), the financial sector holds the potential to either exacerbate or enhance a country's economic condition. Consequently, institutions within this sector are increasingly expected to operate in a responsible and ethical manner.

3.4 Proxies for measuring CSR/ESG metrics

Researchers have used various proxies to measure CSR/ESG performance and CSR/ESG disclosure. Some researchers, such as Esa and Ghazali (2012), Haniffa and Cooke (2005), Kiliç *et al.* (2015), Muttakin and Subramaniam (2015), Rao and Tilt (2021), Sharma and

Khanna (2014), use content analysis, where they codify text from annual reports, websites and CSR reports. These studies typically construct an index by summing up scores for each disclosed item, using a scoring system of 1 for disclosed items and 0 for items not disclosed. In contrast, other researchers, such as Borghesi *et al.* (2014), Bristy *et al.* (2021), Chintrakarn *et al.* (2016), Hegde and Mishra (2019), Khoo *et al.* (2022), McCarthy *et al.* (2017), Ongsakul *et al.* (2020), rely on data from the Kinder, Lyndenberg and Domini (KLD) database – now known as Morgan Stanley Capital International (MSCI). The KLD database covers data from the top 3,000 US firms and it evaluates positive and negative ESG performance across six primary indicators: community, employee, diversity, environment, product and human rights. In addition, some studies, such as those by Rossi *et al.* (2021) and Tapver *et al.* (2020), use the Thomson Reuters/Refinitiv/LSEG (ASSET4) database, which provides information on ESG performance across ten main ESG areas: CG, social, environment, management, workforce, human rights, CSR strategy, community, emissions and resource use.

Some researchers use the presence or absence of a company's sustainability report as a binary variable for evaluating involvement in ESG activities (Girella *et al.*, 2022; Rathnayaka Mudiyanselage, 2018; Shamil *et al.*, 2014). Others opt for the ESG disclosure score provided by Bloomberg (Arayssi *et al.*, 2016; Benjamin *et al.*, 2020; Chong *et al.*, 2018). In addition, some studies have incorporated standards like the GRI guidelines to account for CSR information (Kabir and Thai, 2021; Lu *et al.*, 2015; Suyono and Farooque, 2018). The GRI guidelines serve as a framework for companies to report the outcomes of their CSR actions.

Thus, our analysis reveals that there is no consensus among researchers regarding the measurement scores for CSR/ESG disclosure and performance, indicating a need for standardized metrics in future research.

3.5 Citation analysis

Table 2 presents the top ten most-cited articles. According to Small (2004), analyzing citation-based counts can assist researchers in determining the most influential authors with the highest impact in the field. The paper by Haniffa and Cooke (2005) emerges as the most cited paper, with 2,987 citations. Two other articles have gained over 1,000 citations each (Jamali *et al.*, 2008; Liao *et al.*, 2015). From the top ten list, two articles were published in top accounting and finance journals, one published in *British Accounting Review* (ranked as A* in the ABDC journal list), and the second published in *Journal of Corporate Finance* (ranked as 4 in the CABS list).

Furthermore, we have measured citation per year (CPY) to estimate a paper's influence as it is arguably a more accurate proxy for impact (Dumay *et al.*, 2018). The articles with the highest CPY are listed in Table 3. A comparison of Tables 2 and 3 reveals a substantial overlap between the articles included in each table. Using CPY as an indicator, the article by Gillan *et al.* (2021) has gained a comparatively high CPY. Papers published in the *British Accounting Review*, *Corporate Governance: An International Review*, *Journal of Accounting and Public Policy* and *Journal of Corporate Finance* have the highest overall citations. Moreover, *Corporate Governance: An International Review* has published several papers with the highest CPY.

3.6 LDA analysis

We used a two-step procedure to create clear and identifiable titles for each of the topics derived from our LDA analysis. First, we examined the 20 most important keywords identified by the LDA model for each topic (shown in Table 4). Next, to confirm the titles, we manually examined the most representative articles associated with each topic, as identified by the LDA model. This thorough process enabled us to assign the most appropriate titles for each of the topics.

Table 2 The top 10 articles by the total number of citations

Authors	*Title*	*Cites*	*Source and rank*
Haniffa and Cooke (2005)	The Impact of Culture and Governance on Corporate Social Reporting	3,074	*Journal of Accounting and Public Policy* (CABS 3; ABDC A)
Liao *et al.* (2015)	Gender Diversity, Board Independence, Environmental Committee and Greenhouse Gas Disclosure	1,596	*The British Accounting Review* (CABS 3; ABDC A*)
Jamali *et al.* (2008)	Corporate Governance and Corporate Social Responsibility Synergies and Interrelationships	1,224	*Corporate Governance: An International Review* (CABS 3; ABDC A)
Aguilera *et al.* (2006)	Corporate Governance and Social Responsibility: a Comparative Analysis of the UK and the US	859	*Corporate Governance: An International Review* (CABS 3; ABDC A)
Borghesi *et al.* (2014)	Corporate Socially Responsible Investments: CEO Altruism, Reputation and Shareholder Interests	806	*Journal of Corporate Finance* (CABS 4; ABDC A*)
Ntim and Soobaroyen, (2013)	Corporate Governance and Performance in Socially Responsible Corporations: New Empirical Insights from a Neo-Institutional Framework	774	*Corporate Governance: An International Review* (CABS 3; ABDC A)
Arora and Dharwadkar (2011)	Corporate Governance and Corporate Social Responsibility (CSR): the Moderating Roles of Attainment Discrepancy and Organization Slack	732	*Corporate Governance: An International Review* (CABS 3; ABDC A)
Iatridis (2013)	Environmental Disclosure Quality: Evidence on Environmental Performance, Corporate Governance and Value Relevance	576	*Emerging Markets Review* (CABS 2; ABDC A)
Kathy Rao *et al.* (2012)	Corporate Governance and Environmental Reporting: An Australian Study	562	*Corporate Governance: The International Journal of Business in Society* (CABS 2; ABDC C)
Sun *et al.* (2010)	Corporate Environmental Disclosure, Corporate Governance and Earnings Management	558	*Managerial Auditing Journal* (CABS 2; ABDC A)

Source: Authors' own work

Figure 3 illustrates how the weight (importance) of the topics has evolved over the years. As observed from the LDA analysis, the most widely discussed topics trending upward are "Internal and external assurance of involvement in CSR/ESG activities" and "CEO characteristics and their influence on involvement in CSR/ESG activities." Figure 3 also reveals a slight decrease in the importance of topics "CG and CSR/ESG as sources for transparency and legitimacy" and "Gender diversity and involvement in CSR activities" compared to previous years.

4. Key research topics: focus and critique

We proceed by answering the second research question. Drawing from the findings of our initial analysis, we identify the key topics of papers published in accounting and finance journals ranked in CABS and ABDC rankings that examine the relationship between CG attributes and a firm's engagement in ESG activities. As mentioned before our analysis of the distribution of topics identified five key research topics. We proceed by providing an analysis of each key research topic.

To select the most representative articles for each topic, the LDA model assigns topic weights for every paper in the sample, i.e. the "weight" of each topic in that article. Following the approach used by Moro *et al.* (2015), we then manually analyze the most representative papers pertaining to each of the key identified topics to define the focus of the research related to CG and CSR.

4.1 Board characteristics, ownership and involvement in CSR/ESG activities

Several studies have explored the relationship between various board and ownership characteristics and a firm's involvement in CSR/ESG activities (e.g. Garanina and Aray, 2021; Mallin and Michelon, 2011; Muttakin and Subramaniam, 2015). Research on board

Table 3 The top ten articles by citations per year

Authors	*Title*	*CPY*	*Source and rank*
Gillan *et al.* (2021)	Firms and social responsibility: A Review of ESG and CSR Research in Corporate Finance	534.33	*Journal of Corporate Finance* (CABS 4; ABDC A*)
Liao *et al.* (2015)	Gender Diversity, Board Independence, Environmental Committee and Greenhouse Gas Disclosure	177.33	*The British Accounting Review* (CABS 3; ABDC A*)
Haniffa & Cooke (2005)	The Impact of Culture and Governance on Corporate Social Reporting	161.78	*Journal of Accounting and Public Policy* (CABS 3; ABDC A)
Li *et al.* (2018)	The Impact of Environmental, Social, and Governance Disclosure on Firm Value: The Role of CEO Power	154.16	*The British Accounting Review* (CABS 3; ABDC A*)
McGuinness *et al.* (2017)	The Role of Board Gender and Foreign Ownership in the CSR Performance of Chinese Listed Firms	105.71	*Journal of Corporate Finance* (CABS 4; ABDC A*)
Mahrani and Soewarno (2018)	The Effect of Good Corporate Governance Mechanism and Corporate Social Responsibility on Financial Performance With Earnings Management as Mediating Variable	105.33	*Asian Journal of Accounting Research* (CABS No; ABDC C)
Jamali *et al.* (2008)	Corporate Governance and Corporate Social Responsibility Synergies and Interrelationships	76.50	*Corporate Governance: An International Review* (CABS 3; ABDC A)
Ntim and Soobaroyen (2013)	Corporate Governance and Performance in Socially Responsible Corporations: New Empirical Insights from a Neo-Institutional Framework	70.36	*Corporate Governance: An International Review* (CABS 3; ABDC A)
Jain and Jamali (2016)	Looking Inside the Black Box: The Effect of Corporate Governance on Corporate Social Responsibility	66.62	*Corporate Governance: An International Review* (CABS 3; ABDC A)
Arora and Dharwadkar (2011)	Corporate Governance and Corporate Social Responsibility (CSR): The Moderating Roles of Attainment Discrepancy and Organization Slack	56.30	*Corporate Governance: An International Review* (CABS 3; ABDC A)

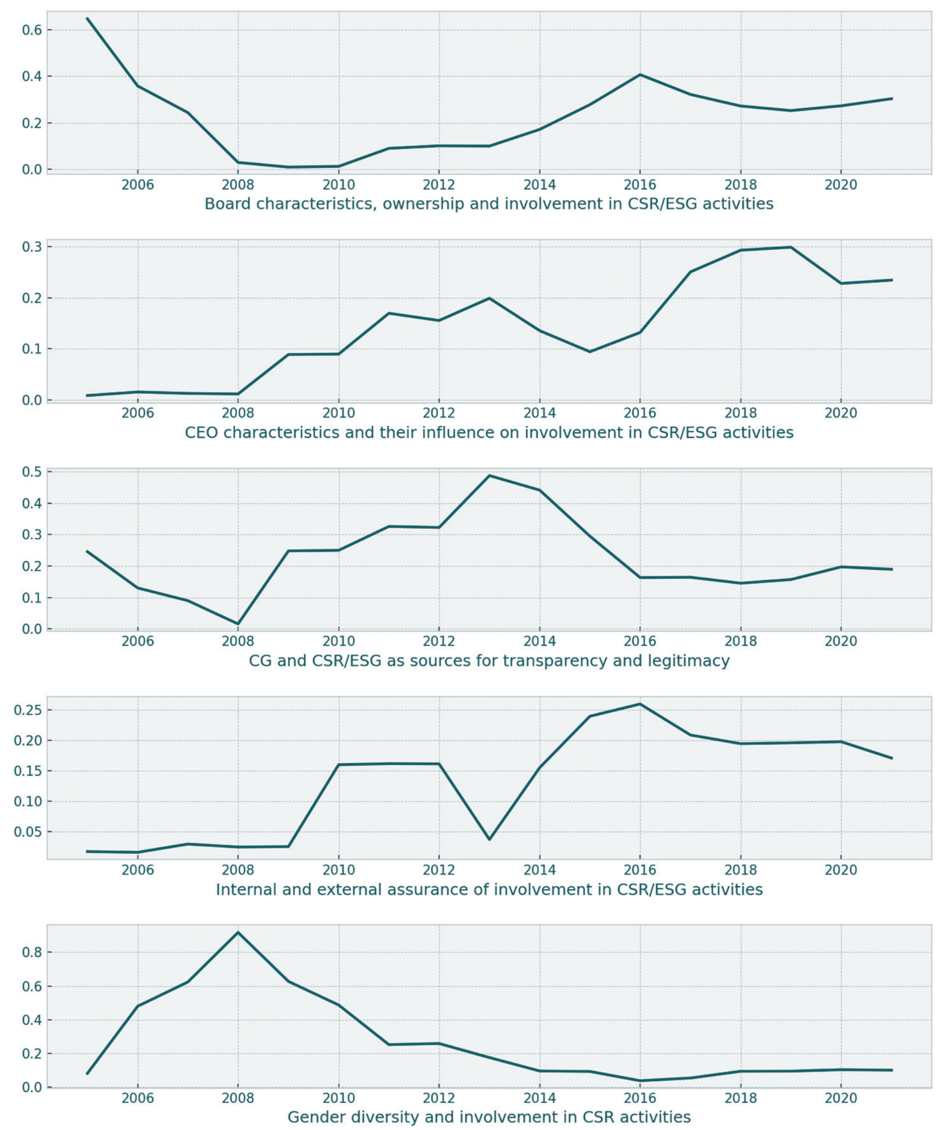
Source: Authors' own work

Table 4 The list of topics

Defined topics	*Keywords within the topics*	*Marginal topic distribution*
Board characteristics, ownership and involvement in CSR/ESG activities	CEO, family, influence, insurance, coefficient, duality, panel, network, age, compliance, legitimacy, ownership, item, experience, association, profitability, institution, expertise, profit, gender	0.28
CEO characteristics and their influence on involvement in CSR/ESG activities	Firm, bank, ceo, executive, woman, gender, age, representation, state, directorship, rating, incentive, strength, panel, coefficient, dummy, banking, presence, leverage, percent	0.21
CG and CSR/ESG as sources for transparency and legitimacy	Firm, finding, legitimacy, influence, transparency, panel, item, coefficient, category, tax, extent, auditing, organisation, determinant, activism, crisis, growth, earning, supply_chain, family	0.20
Internal and external assurance of involvement in CSR/ESG activities	Committee, carbon, earning, csr, emission, audit, auditor, firm, meeting, assurance, climate change, auditing, compliance, association, legitimacy, influence, expertise, energy, reduction, compensation	0.18
Gender diversity and involvement in CSR activities	Gender, woman, equality, interview, dimension, firm, committee, article, principle, work, concept, finding, organisation, bank, man, representation, question, compliance, boardroom, commitment	0.13

Notes: Table 4 presents a list of defined topics and associated keywords within each topic. In addition, the table provides the marginal topic distribution, indicating the prevalence of each topic**Source:** Authors' own work

Figure 3 The changes in weight of the topics identified with the help of LDA



Source: Authors own work

size and its impact on ESG involvement presents two contrasting views: one argues that smaller boards facilitate consensus, reducing agency problems, while the other contends that larger boards, with their diverse expertise, are more effective at addressing stakeholder concerns (Kabir and Thai, 2017; Shamil *et al.*, 2014). In addition, larger boards are found to positively impact ESG disclosures, as they facilitate healthy discussions on CSR activities and foster demand for more CSR engagement (Tran *et al.*, 2021). However, some studies argue that it is more reasonable to analyze the quality rather than the quantity of the board in relation to a company's involvement in ESG, as a high quality of the board and ownership structure may reduce the information asymmetry problem and promote more transparent and accountable information through voluntary disclosure (Garanina and Aray, 2021).

Research examining the relationship between board independence and ESG activities reveals mixed findings. Some articles document a positive association between board independence and involvement in CSR activities (Muttakin and Subramaniam, 2015; Paul and Barbara, 2009). For example, Al-Gamrh *et al.* (2020) examined the impact of independent board members and foreign ownership on a firm's commitment to CSR. The findings indicate that companies with more independent directors and foreign ownership experience fewer conflicts between shareholders and managers. They protect better the interests of minority shareholders and heighten their social performance on a global scale. However, other scholars found no relationship (Orazalin, 2019; Yusoff *et al.*, 2019), suggesting that the number of independent directors may not significantly influence CSR disclosure.

According to Harjoto and Wang (2020), a board of directors with strong networks enables directors to access valuable resources embedded within their social and professional networks. These resources, accessible through direct and indirect professional connections, enhance firms' competitive advantages in meeting the requirements of noninvesting stakeholders, consequently leading to improved CSR/ESG performance.

Al-Mamun and Seamer (2021) find a statistically significant relationship between several director characteristics – such as their political influence, international experience, business knowledge, other directorships held and independence from management – and CSR engagement in six Asian emerging economies. The authors raise the question of determining which attributes are most important in amplifying companies' involvement in CSR. Therefore, they suggest that future studies focus on specific attributes of the board of directors to better understand their impact on sustainability (Al-Mamun and Seamer, 2021). The authors also highlight the need to analyze these links in different country contexts.

Several studies also examine the relationship between ownership characteristics and a firm's engagement in ESG activities. For instance, studies by Alshbili *et al.* (2020) and Kabir and Thai (2017, 2021) find that foreign ownership positively affects CSR disclosure, suggesting that CSR disclosure could serve as a legitimization strategy for foreign-owned companies. In contrast, Laksmi (2018) reports no correlation between foreign ownership and CSR disclosure in state-owned companies in Indonesia. A smaller number of studies have also examined other ownership variables, such as managerial ownership (Adel *et al.*, 2019; Ben Fatma and Chouaibi, 2021), institutional ownership (Shahab and Ye, 2018; Suyono and Farooque, 2018) and family ownership (Abdelfattah and Aboud, 2020; Amidjaya and Widagdo, 2020), finding a positive correlation with CSR disclosure. At the same time, Ullah *et al.* (2019) argue that managerial ownership may exhibit less accountability to stakeholders, leading to hesitancy in allocating funds for CSR-related initiatives, as there may be concerns about diminishing managers' share of the pie.

Aguilera *et al.* (2006) discover that institutional ownership plays a vital role in promoting engagement in CSR activities. This study further suggests that institutional ownership in pension funds and insurance firms is primarily linked to long-term investment strategies. In addition, these types of investors are keen on encouraging investments in CSR/ESG and act as a strong indicator for other investors regarding the position they should adopt. Research investigating the relationship between foreign ownership and CSR disclosure reports mixed findings. For instance, Meutia *et al.* (2017) and Muttakin and Subramaniam (2015) find no significant influence of foreign ownership on CSR disclosure. One plausible explanation provided by Meutia *et al.* (2017) is that foreign owners lack sufficient power to influence CSR disclosure. To gain a comprehensive understanding, Garanina and Aray (2021) emphasize the importance of understanding the nature of foreign ownership. Using a sample of Russian firms, Garanina and Aray (2021) find a negative association between foreign ownership and CSR disclosure, as foreign owners of Russian firms often register in offshore domiciles such as Cyprus or the Virgin Islands, primarily for tax optimization rather than pursuing long-term CSR/ESG strategies. Al-Gamrh *et al.* (2020) arrive at a similar conclusion, documenting that Arab foreign ownership negatively influences firms' social performance, while non-Arab foreign ownership has a positive impact. Thus, it is crucial to analyze the nature of foreign ownership to understand its influence on a company's engagement in CSR/ESG activities.

The academic literature widely recognizes that the experience of directors plays a crucial role in implementing sustainability practices within organizations. In this context, Naheed *et al.* (2021) conduct a study using Chinese data to examine how financial expertise of board members promotes CSR disclosure. The authors document that directors with financial expertise possess pertinent knowledge about the financial implications of enhancing CSR disclosure. These directors strongly believe that companies can achieve long-term performance by disclosing their socially responsible activities. The findings indicate that financial expertise is a significant characteristic of the board, enabling financial and nonfinancial performance through enhanced CSR disclosure.

4.2 CEO characteristics and their influence on involvement in CSR/ESG activities

The next group of papers identified by the LDA model focuses on the role of CEOs and particularly the traits of CEOs that may influence a firm's involvement in CSR/ESG activities. We proceed by analyzing in detail the most representative articles of this group.

Using firm-level data, McCarthy *et al.* (2017) demonstrate that managers' personal characteristics, particularly their confidence, affect corporate policies, including participation in CSR/ESG activities. The study reveals a significant negative correlation between CEO confidence and CSR activities, suggesting that firms led by more confident CEOs tend to undertake fewer CSR initiatives. This finding implies that CEO confidence may be inversely related to the level of CSR activity within a firm. In a related global study, Davidson *et al.* (2019) reveal that companies led by materialistic CEOs tend to have lower CSR scores. This finding aligns with the notion that materialistic CEOs engage in CSR activities primarily for personal benefits rather than out of a genuine commitment to CSR.

Zou *et al.* (2018) examine the participation of female executives in CSR in China. The findings suggest that the presence of female leaders positively impacts the level of CSR engagement. Similarly, a study by McGuinness *et al.* (2017) suggests that firms with female officers at the CEO and/or vice-CEO level exhibit better CSR performance, confirming the influential role of female executives in driving CSR initiatives. Moreover, the findings suggest that while gender diversity generally contributes to improved social performance of firms in most countries, the presence of female leadership alongside a diverse board composition might result in even stronger incremental effects. Taken together with the literature findings, we can infer that female leadership significantly promotes CSR change within organizations.

Cooper (2017) asserts that increased CEO turnover is linked to improved CSR performance. This is consistent with the stakeholder theory, which suggests that strong CSR engagement increases the likelihood of turnover. Another possible reason for this phenomenon is that firms with strong CSR involvement tend to have better governance practices that support the interests of diverse stakeholders. In addition, Cooper (2017) finds that firms actively engaged in CSR activities are more inclined to select a female CEO when faced with the need to replace an outgoing executive. Drawing on the upper-echelon theory, Kouaib *et al.* (2021) suggest that board characteristics may also influence CEO behavior. For example, CEOs' secure position will increase their support and commitment to executing CSR practices.

The evidence regarding the relationship between CEO duality and involvement in ESG activities reveals mixed results. CEO duality, defined as one person serving as both the chairman and CEO, concentrates power, which negatively affects nonfinancial disclosure and ESG practices of companies (Alfraih, 2016; Harun *et al.*, 2020; Lu *et al.*, 2015). Some studies report an insignificant relationship (Ben Fatma and Chouaibi, 2021; Nguyen *et al.*, 2021; Rezaee *et al.*, 2020), suggesting that CEO duality may not be a determinant of ESG-related disclosure. In contrast, Fahad and Rahman (2020) argue that CEO duality provides

CEOs with increased power, enabling them to make decisive decisions regarding corporate social activities and information disclosure, revealing a significant positive relationship between CEO duality and CSR disclosure.

Hegde and Mishra (2019) examine an additional characteristic of CEOs in US public corporations. The authors determine a positive correlation between married CEOs and a company's participation in CSR/ESG activities. They propose that this relationship can be attributed to the stability associated with marriage, suggesting that married life serves as a powerful catalyst for fostering prosocial values, preferences and behaviors among family members. Their findings indicate that companies led by married CEOs exhibit significantly higher scores on a widely recognized CSR index. The marital status of CEOs is considered one personal attribute that may be linked to both the socially responsible actions of corporations and various other individual traits. Another CEO attribute, narcissism, is positively associated with CSR activities (Hegde and Mishra, 2019; Kouaib *et al.*, 2021). Kouaib *et al.* (2021) conclude that narcissistic CEOs view CSR initiatives as opportunities to enhance their personal image, aligning their self-interest with socially responsible actions.

CEOs may also be motivated to engage in CSR decoupling when their company's actual CSR performance falls short of the desired CSR image (Sauerwald and Su, 2019). One possible explanation for increased involvement in CSR decoupling is the presence of CEO overconfidence. Overconfident CEOs tend to have a biased perception of their ability to influence their firm's CSR activities. This cognitive bias can lead CEOs to communicate a CSR narrative that is excessively optimistic compared to the actual CSR performance of the company, thereby resulting in CSR decoupling.

Effective CG practices play a crucial role in this context, as governance mechanisms provide independent oversight and accountability, reducing the likelihood of CEOs misrepresenting the CSR efforts of the firm. For instance, having a higher proportion of outside directors or directors with significant ownership positions can help mitigate the positive association between CEO overconfidence and CSR decoupling. Therefore, the overall results reveal that CEOs and their personal characteristics play an important role in a company's engagement in CSR/ESG activities.

4.3 CG and CSR/ESG as sources for transparency and legitimacy

According to Suchman (1995, p. 574), "legitimacy refers to the general perception or assumption that the actions of an entity align with the socially constructed system of norms, values, beliefs, and definitions." Therefore, when corporations engage in CSR/ESG activities, they intentionally improve their organizational credibility by gaining support from influential stakeholders, including trade unions, shareholders, politicians and governments. Moreover, the study supports the notion that concentrated ownership is linked to a decline in CSR disclosures (Shahab and Ye, 2018). This study further suggests that institutional owners are inclined to engage in lobbying activities to gain the support of other influential stakeholders, including employees and governments. Such lobbying is intended to persuade managers to cultivate a more socially responsible image, thereby increasing market transparency and legitimacy.

According to the preface of the Global Reporting Initiative (GRI), "transparency regarding the sustainability of organizational activities is of interest to a wide variety of stakeholders, including business, labor, non-governmental organizations, investors, accountancy, and others" (Czernkowski *et al.*, 2019, p. 693). As a result, firms are now more conscious of their responsibilities to society and the environment, leading to a growing trend in social and environmental voluntary reporting (Boshnak, 2021), driven by market participants' demand for greater transparency (Michelon *et al.*, 2020). While improved transparency in CSR/ESG reporting can enhance a firm's legitimacy in the market, Michelon *et al.* (2020) argue that it is crucial to shift the focus away from disclosure as the primary objective of accounting studies. Instead, the authors advocate for analyzing how accounting practices can actively contribute to addressing social and environmental issues beyond mere market demands. Furthermore, Michelon *et al.* (2020) emphasize the need to explore how accounting can be more proactive in tackling social and environmental challenges beyond meeting the market's disclosure requirements.

In line with Michelon *et al.* (2020), efficient CG practices (e.g. board independence, CEO nonduality, CSR committees and institutional ownership) may improve the quality of CSR/ESG information reported, ensuring that it is disclosed free of errors and without restatements. As gaining legitimacy through better transparency is especially important for multinational corporations (Gold and Heikkurinen, 2018), CG mechanisms may play an even more crucial role in these types of companies for obtaining and improving their legitimacy.

According to Iatridis (2013), companies that provide high-quality environmental disclosures demonstrate effective CG practices and encounter fewer challenges in accessing capital markets. To achieve this, environmental disclosure should be relevant, easily understandable, accessible to users, provided on time and possess confirmatory value. In addition, the information presented should be comparable, reliable and free from errors or bias. The inclusion of numerical environmental data in disclosures can contribute to reducing environmental costs and the cost of capital by enhancing transparency (Iatridis, 2013).

Meaningful environmental disclosures would further enhance credibility, aid investors in accurately assessing a company's risk exposure and allow investors to adjust their investment strategy and portfolio accordingly (Iatridis, 2013). By meeting these criteria and providing comprehensive and reliable environmental disclosures, companies can enhance transparency, reduce risk and attract investors who prioritize sustainable practices.

Haniffa and Cooke (2005) suggest that the presence of independent and nonexecutive directors on a company's board, as well as the existence of an audit committee, can enhance the quality of reported environmental disclosures. These governance mechanisms contribute to improved transparency, thereby reducing levels of investor uncertainty. Independent and nonexecutive directors bring an objective perspective to the board and are less likely to be influenced by management biases. Their presence ensures that environmental disclosures are more accurate, reliable and free from potential conflicts of interest.

CG mechanisms play a crucial role in building trust among shareholders and guaranteeing fair treatment of all stakeholders (Mukhtaruddin *et al.*, 2019). CG contributes to establishing a strong foundation for sustainable practices within the organization by promoting transparency, accountability and ethical behavior. Furthermore, effective CG can assist a firm in implementing strong governance structures and processes that positively impact its competitive advantage. CG attributes such as board independence, ownership structure, board diversity and gender diversity determine the level of corporate environmental performance (Kock *et al.*, 2012). Effective CG mechanisms are also essential for implementing and developing good environmental practices (Harjoto and Wang, 2020).

Involvement in CSR/ESG-related activities may vary across different economic periods. For example, Chintrakarn *et al.* (2021) find that independent directors tend to hold an unfavorable view of CSR investments during challenging times. This perspective can be attributed to a decrease in their risk exposure. They also find that less effective boards do not behave in the same way and do not cut their CSR investments during crises, which contradicts the risk-mitigation hypothesis. As involvement in CSR during crises might decrease, disclosure transparency might also change.

Involvement in CSR/ESG activities to gain legitimacy can also vary based on country contexts (Boshnak, 2021; Cohen *et al.*, 2011). For instance, Shahab and Ye (2018) find that Chinese firms increase their voluntary engagement in socially responsible practices to strengthen their social legitimacy. Therefore, increased CSR/ESG transparency is related to the need to gain legitimacy and remain competitive in the institutional setting.

4.4 Internal and external assurance of involvement in CSR/ESG activities

The papers related to this topic analyze the importance of internal and external assurance of sustainable information. As sustainability reporting faces growing criticism for its perceived lack of transparency, assurance of a firm's involvement in ESG practices provides greater confidence in the CSR/ESG information disclosed to stakeholders (Trotman and Trotman, 2015). Given that sustainability reporting is crucial for addressing climate change issues and achieving a low-carbon economy, ensuring a company's actions related to greenhouse gas and energy reporting is vital (Trotman and Trotman, 2015). The increased interest in recent years in sustainable investments has also led to a rising demand for high-quality CSR/ESG reporting and disclosure by firms (Christensen *et al.*, 2021). Therefore, Trotman and Trotman (2015) claim that auditing nonfinancial information disclosed by companies may significantly reduce the "window dressing" effects. As CSR/ESG-related disclosure strengthens future stock return performance, investors should scrutinize ESG information for potential risks and rewards (Khan, 2019).

Research suggests that it is very difficult to assess a company's real involvement in ESG activities, which is why stakeholders must have concrete and verifiable facts about it (Khan, 2019). "While specified, quantifiable and verifiable information is perceived to be of higher quality" (Toms, 2002, p. 261), it is also more difficult to replicate by firms not committed to good CSR/ESG practices (Grosser and Moon, 2008). However, Peters and Romi (2015) highlight the challenges associated with sustainability reporting, particularly due to the absence of common standards and the limited public understanding of the origin and meaning of sustainability reports. These factors create opportunities for managers to engage in opportunistic behavior. Therefore, there is a need for assurance of CSR/ESG-related information by internal or external parties.

According to Trotman and Trotman (2015, p. 212), "the internal audit function plays a crucial role in ensuring the quality and integrity of corporate sustainability reports." The internal audit function can be executed through various mechanisms, such as the audit committee, an in-house assurance department, an effective board of directors, the inclusion of independent directors, women on boards and the involvement of institutional investors. These entities provide oversight and ensure that appropriate controls and processes are in place to validate the accuracy and completeness of sustainability data and reports (Trotman and Trotman, 2015). In addition to internal audit, establishing an environmental committee within the board of directors can further enhance the quality of corporate sustainability reports. This committee can focus specifically on environmental performance and monitor the implementation of sustainable practices within the organization. Furthermore, appointing a Chief Sustainability Officer to the management team can help ensure that sustainability considerations are integrated into strategic decision-making and day-to-day operations (Peters and Romi, 2015). External assurance can be provided by professional accountants and third-party consultants. Auditors' reports may be considered by stakeholders as essential in ensuring data reporting accuracy and completeness and may also lead to cost reduction and less information asymmetry (Trotman and Trotman, 2015).

According to Trotman and Trotman (2015), some businesses set up governance structures related to sustainability primarily with the intention of engaging in socially desired behavior. Peters and Romi (2015) find that only internal committees and boards containing directors with related expertise influence the likelihood and real quality of sustainability assurance. In addition, Peters and Romi (2015) document that environmental committees with greater expertise may prefer external assurance from the higher-quality services of professional accounting firms. This preference for external assurance reflects a desire for higher-quality services and independent validation of the reliability of sustainability reports. This creates a unique opportunity for the internal audit profession to position itself as an objective and value-adding assurance provider, serving as a substitute for external assurance (Peters and Romi, 2015).

Several studies have explored the impact of committees, such as CSR committees and sustainability officers, on a company's environmental and societal engagement. The presence of a CSR committee is seen as indicative of heightened care and active attention to sustainability issues, ultimately leading to an increase in CSR practices and reporting (Michelon and Parbonetti, 2012). This argument aligns with previous studies that have documented positive associations with CSR disclosure (Adel *et al.*, 2019; Alshbili *et al.*, 2020; Tran *et al.*, 2021), sustainability reporting (Peters and Romi, 2015) and environmental performance (Biswas *et al.*, 2018; Lu and Wang, 2021; Odoemelam and Okafor, 2018).

Furthermore, Grosser and Moon (2008) emphasize the importance of developing and implementing reporting guidelines, such as the GRI, Non-Financial Reporting EU Directives and Sustainability Reporting Guidelines, to enhance uniformity in reporting standards. Standardized guidelines can ensure consistency and make the assurance process easier. When reporting follows standardized guidelines, it becomes easier for assurance providers to assess the reported accuracy of information, its completeness and reliability. This enhances the credibility and trustworthiness of sustainability reports and promotes greater transparency and accountability. In addition to general reporting guidelines, there has been a growing interest in employee-related issues, such as gender diversity and equality (Grosser and Moon, 2008).

As previous research has observed a clear link between CG characteristics, a firm's involvement in CSR/ESG activities and a firm's performance, assurance of sustainable actions may help unmask earnings management (Abdelfattah and Elfeky, 2021). Therefore, internal and external assurance in companies with high-quality CG mechanisms may reduce earnings management (Mahrani and Soewarno, 2018).

4.5 Gender diversity and involvement in CSR activities

Gender diversity has been extensively examined in the board diversity literature, and our LDA model identifies a topic focused on the relationship between gender diversity at the board level and a company's engagement in CSR/ESG activities. The literature explores the correlation between gender and a company's CSR/ESG practices, with a primary emphasis on the role of female directors on boards. These diverse studies present differing conclusions on this relationship.

Several studies, including those by Arayssi *et al.* (2016), Borghesi *et al.* (2014), Mohd-Said *et al.* (2018) and Rahman and Ismail (2018), find a positive association between having female directors on the board and a firm's involvement in CSR activities. They attribute this positive relationship to two main factors. First, the communal nature of women, who are more likely to engage in CSR activities within social- and people-oriented environments. Second, the ethical judgment and behavior of women play a crucial role, suggesting that female directors are more predisposed to evaluating situations that demand ethical decisions. They are also considered more likely to respond to diverse circumstances wherein a company holds direct or indirect social responsibilities, as discussed by Mohd-Said *et al.* (2018). In contrast, other authors report no significant relationship, arguing that in societies characterized by a male-dominated system, the viewpoints and inputs of female directors might be considered less significant or receive insufficient attention. This perspective suggests that the inclusion of female board members could be perceived as mere tokenism in developing nations and Gulf Cooperation Council (GCC) countries (Fahad and Rahman, 2020; Mousa *et al.*, 2018; Muttakin and Subramaniam, 2015; Yusoff *et al.*, 2019).

Rao and Tilt (2021) have previously emphasized the importance of gender diversity in promoting engagement in CSR/ESG issues in Australia. However, they also find that the impact of individual women on CSR initiatives is limited unless a certain threshold or “critical mass” of at least three women is present on the board. Similarly, Adams and Ferreira (2009) conduct a study examining the association between gender diversity on the board of directors and CSR performance. Their findings further suggest that companies with more female directors exhibit better CSR performance and positively influence a firm’s engagement in CSR activities, particularly in the areas of environmental and social responsibility.

In this context, Manita *et al.* (2018) document a strong and positive correlation between gender diversity on boards and ESG disclosure. The authors report that the presence of a significant proportion of women on boards prevents and surpasses the “invisibility” phenomenon and leads to higher levels of ESG disclosure. Empirical evidence further suggests that when two or more women are appointed to a board, they function as active minorities, influencing the establishment of rules, procedures and practices (Yarram and Adapa, 2021). Companies with diverse boards exhibit greater transparency, openness and commitment to CSR. The existing evidence supports token and critical mass theory, suggesting that limited representation of women may not have a substantial impact on CSR/ESG performance. Conversely, achieving improved gender balance is associated with more positive CSR/ESG activities and a reduction in controversial practices.

Rao and Tilt (2021) argue that the limited impact of having a small share of women on boards on CSR/ESG involvement is primarily due to a lack of support from the board, particularly from influential board members or the chair. This lack of support stems from the existence of a traditional male-dominated board culture, often characterized as an “old boys club,” with a primary focus on profit maximization. In such environments, the perspectives and contributions of women may not receive adequate attention or consideration. A study by Zhao and Lord (2016) suggests that women in leadership or managerial positions may need to conceal their emotions and adopt a more masculine behavioral style. In line with this, most female directors surveyed in the study mentioned that they must adopt a specific style or behavior to gain attention and influence within board discussions, particularly in the presence of the “old boys club.” This behavior often responds to the prevailing norms and expectations within male-dominated work environments. One aspect of this behavioral adaptation addresses the perception that women are primarily interested in “soft” issues, such as social responsibility or sustainability, which may be undervalued in traditional boardroom settings. Female directors may need to emphasize their competence in areas traditionally associated with male directors, such as finance, strategy or operations, to gain credibility and be taken seriously.

A few studies explore other gender attributes such as education, age, political connections and report different relationships. For example, Yang *et al.* (2019) find an insignificant relationship between the education of women on boards and involvement in CSR activities, explaining that influential female managers in society may not possess extensive academic qualifications yet actively engage in philanthropy and environmental conservation efforts. Similarly, female community leader directors with political connections are negatively linked to CSR disclosure (Ramon-Llorens *et al.*, 2021), supporting the argument that community leaders with political connections may not be inclined to promote CSR due to their political nexus.

The framework developed by the United Nations Special Representative of the Secretary-General on Business and Human Rights acknowledges the importance of gender as a fundamental element within the broader context of human rights. The framework highlights the increasing expectations placed on businesses to actively promote gender equality, address gender-based discrimination and violence and create inclusive and diverse work environments. Gender equality is recognized as an integral component of this framework, reflecting the growing emphasis on reporting and addressing gender-related issues within the business and human rights agenda (Miles, 2011). It reflects the understanding that businesses have a role in promoting gender equality and contributing to achieving the Sustainable Development Goals, particularly Goal 5 (Gender Equality).

In addition to the significance of women's representation on boards, Grosser and Moon (2008) assert that incorporating reporting on gender equality issues is essential in CSR disclosure. However, the authors observe that the market does not necessarily seek or reward such information despite its importance. This lack of demand for gender equality disclosure, combined with the absence of legal requirements and concerns about potential exposure to competitors, may explain why companies are hesitant to disclose extensive information on gender equality practices. Women's influence on engagement in CSR may vary across different country contexts due to cultural factors. For example, female representation on bank boards is positively associated with CSR disclosure (Tapver *et al.*, 2020). The findings further indicate that increasing the number of women on boards beyond the mandated quota may impact CSR reporting differently in countries with a more masculine orientation, compared to those with a more feminine orientation. Also, countries with a greater focus on femininity tend to produce a larger number of sustainability reports, although the quality of these reports may not necessarily be high (Gallén and Peraita, 2017). A research study conducted on a sample of US companies discovered that the return on investment in CSR diminishes as the proportion of female directors on the board increases, implying that women may prioritize financial performance over CSR (Bristy *et al.*, 2021). Therefore, examining the unique dynamics and challenges present in emerging economies is necessary. Dwekat *et al.* (2021) highlight the importance of researching the role of women on the board of directors, specifically within the context of emerging countries.

5. Future research directions

We proceed by discussing possible future research directions, thereby addressing our third research question.

5.1 Board characteristics, ownership and involvement in CSR/ESG activities

Different CG characteristics related to board composition have been linked to companies' involvement in forward-looking ESG practices. Future studies could explicitly explore the impact of cultural diversity among directors on a company's CSR/ESG disclosure and performance. Additionally, examining various board characteristics – including the number of female directors, CEO duality, audit committee composition and board size – would offer a more comprehensive understanding of how governance factors affect a firm's involvement in CSR/ESG practices (Al Fadli *et al.*, 2019). Currently, there is no consensus among researchers which board characteristics most effectively influence CSR/ESG disclosure and performance. Thus, many aspects of board composition could be further explored. For instance, expertise, education, age and cultural background are variables that researchers could investigate to better understand companies' socially responsible practices.

Given the growing frequency of climate-related catastrophic events, future research may focus on analyzing more concrete factors or pillars of a firm's involvement in CSR/ESG activities and how these relate to CG characteristics. Moreover, future studies could leverage new databases and sources of information or apply qualitative approaches to explore these issues in greater depth.

We argue that the evolving global economic trends and the inherent sociocultural disparities between developed and developing nations underscore the need for additional research on CSR practices within the context of developing countries (Garanina and Aray, 2021; Muttakin and Subramaniam, 2015). Another rationale for further exploration of CSR reporting in developing economies is the growing demand for such reports, particularly as firms in these countries play an increasingly significant role in the global supply chain.

It's also important to note that only a few studies have focused on specific industries (Ben Fatma and Chouaibi, 2021; García-Sánchez *et al.*, 2018; Mukhtaruddin *et al.*, 2019; Tapver *et al.*, 2020; Zhang *et al.*, 2020). This study encourages a more focused analysis of the relationship between CG characteristics and involvement in CSR/ESG activities within companies belonging to specific industries.

5.2 CEO characteristics and their influence on involvement in CSR/ESG activities

It is well established that globalization has accelerated progress and fostered economic growth for firms. Consequently, the role of the CEO has become increasingly crucial in enhancing companies' CSR practices, as it signals to stakeholders the firm's commitment to social responsibility and reliability in both foreign and domestic markets. There is much to explore regarding the factors that determine the relationship between a CEO's attributes and a firm's involvement in CSR/ESG activities. For example, how do a CEO's background, engagement, age and education affect CSR/ESG performance and disclosure? We suggest a more in-depth analysis of the impact of a CEO's psychological and social traits on their role in CSR/ESG activities. In addition, future studies could examine how contextual and cultural factors moderate this relationship (Mallin and Michelon, 2011). We also recommend that future research on CEO attributes should incorporate both qualitative approaches and meta-analysis. Some variables could be analyzed in more detail, as Judd *et al.* (2001) suggest that the same variable may potentially serve as both a mediator and/or a moderator.

In their paper, Sauerwald and Su (2019) propose that boards might appoint highly experienced CEOs as a symbolic gesture, creating a favorable impression among stakeholders and leading to improvements in CSR strategies. As such appointments could be perceived as exogenous shocks, future studies might use quasi-natural experiments or other methods to empirically test the influence of such appointments on a firm's engagement in CSR/ESG activities.

5.3 CG and CSR/ESG as sources for transparency and legitimacy

CG practices are essential for bridging the information gap between a corporation and its stakeholders by ensuring transparent reporting of the company's actions. Previous studies (e.g. Dharmasiri *et al.*, 2022; Harjoto and Wang, 2020) indicate that closed board networks can foster falsification, manipulation and unethical practices. Therefore, future research could investigate the role of board connections and networks in obtaining legitimacy. In the context of emerging countries, firms' nonfinancial disclosures might be subjective (Mukhtaruddin *et al.*, 2019). Thus, researchers should incorporate various types of reports – such as sustainability, annual and media reports – to assess the quality of CSR/ESG disclosure and verify transparency.

According to Al-Gamrh *et al.* (2020), ownership structure plays a significant role in influencing a firm's social and financial performance. Haniffa and Cooke (2005) argue that to avoid ethnocentric biases, legitimacy should be contextualized within the environmental framework, especially when evaluating developing countries using Anglo-Saxon cultural norms as an absolute standard. These norms may differ significantly in countries with varying levels of development. Therefore, future research could explore the influence of different ownership types – such as domestic, institutional, state and foreign ownership – on a firm's engagement in CSR/ESG activities across diverse country contexts. Furthermore, examining CSR/ESG disclosure by small- and medium-sized enterprises could be a promising area for future research, offering insights into the extent of CSR/ESG disclosure and performance. Moreover, future studies could analyze in greater detail the influence of specific CG characteristics on particular types of ESG performance and disclosure (e.g. emission-related disclosure).

5.4 Internal and external assurance of involvement in CSR/ESG activities

The number of research articles investigating the relevance of audits in the context of CSR/ESG activities is steadily growing. A potential future research direction could involve conducting a more in-depth analysis of the role that internal and external audits play in assessing CSR/ESG information. As CG codes and structures continue to evolve, auditors must adhere to assurance norms and maintain quality in CSR reporting (Peters and Romi, 2015), highlighting another promising area for future research. Given that CSR and sustainability reporting standards are changing, necessitating firms to adapt to new reporting norms, future research could examine the actual changes in reporting quality over time and how well these changes comply with evolving norms and guidelines. Thus, the role of internal and external assurance becomes increasingly vital as it ensures the integrity of CSR activities within an organization.

We anticipate a further increase in interest toward sustainable investments in the future. Both mandatory and nonmandatory guidelines are required for companies to communicate their corporate strategy concerning their commitment to environmental stewardship and responsibility. At the same time, it is critically important for investors and analysts to distinguish between actual CSR/ESG performance and mere disclosure, to mitigate the potential effects of "window dressing" or "decoupling." Therefore, auditing CSR/ESG information is likely to play an even more significant role in the future. For instance, we recommend including additional and more detailed indicators of sustainability expertise, particularly related to management, board members and assurance providers (Peters and Romi, 2015; Trotman and Trotman, 2015).

In many developing countries, the disclosure of CSR/ESG activities is voluntary, as there are no regulations mandating it. Therefore, it would be valuable to investigate what types of information regarding social and environmental actions are disclosed by different types of companies (Coffie *et al.*, 2018; Wasdani *et al.*, 2021). This line of inquiry could provide important insights into the quality and scope of CSR/ESG reporting in various contexts.

5.5 Gender diversity and involvement in CSR/ESG activities

On the 17 SDGs' agenda, SDG 5 is related to the improvement of gender diversity on the board of directors (United Nations, 2021). Previous research confirms that reaching a critical mass of women on boards positively influences a firm's involvement in CSR/ESG activities. Most studies in this context have used quantitative methods and are often country-specific. However, some researchers have recommended using qualitative methods to gain a more in-depth understanding of this issue (Majeed *et al.*, 2015; Mohd-Said *et al.*, 2018). Such an approach may help clarify, validate and provide insights into the factors that influence CSR/ESG performance and disclosure.

Future research on this topic could also investigate the influence of female directors' values and attitudes, their social networks and the impact of their appointments on board decision-making processes and involvement in CSR/ESG activities. In addition, future studies could explore the role of factors such as firm size, industry type and cultural differences in moderating the relationship between gender diversity and a firm's CSR/ESG engagement. Some of these variables could also be included as mediators in research models (Judd *et al.*, 2001).

Moreover, we suggest that future research on gender diversity utilize new databases or computer-intensive methodologies, such as text mining on conference calls or board meeting minutes, to extract relevant data. Khlif and Achek (2017) also document that the percentage of female equity ownership in companies can impact various aspects of CSR activities. Therefore, investigating this research question across different institutional settings is crucial. Another promising direction for future research is to explore the characteristics of women on boards, as it is not just the number of women on the board, but also differences in their age, education, experience and national origin that may influence a company's involvement in CSR/ESG activities.

6. Conclusions

The primary aim of this paper is to clearly delineate the key topics and trends identified in research investigating the relationship between CG characteristics and a firm's involvement in CSR/ESG activities, as published in ranked accounting and finance journals. This study uses a complementary approach by combining ML techniques with high-quality manual analysis to identify research topics and trends based on a corpus of 180 papers. The findings of the study highlight the following themes emphasized by researchers: board characteristics, ownership and involvement in CSR/ESG activities; CEO characteristics and their influence on CSR/ESG involvement; CG and CSR/ESG as sources of transparency and legitimacy; internal and external assurance of CSR/ESG activities; and gender diversity in relation to CSR/ESG activities.

Our literature review reveals that studies in this field have predominantly been conducted in Australasian countries (Australia, New Zealand and Asia), followed by the Continental European region. In addition, we document that gender diversity is frequently used to assess board diversity, while other factors – such as multiple directorships, board tenure, board expertise, CEO duality or foreign board members – are less commonly explored in research. The results of our analysis align with resource-based and stakeholder theories, suggesting that incorporating varied skills, experiences and perspectives among board members and CEOs leads to increased involvement in ESG activities. Building upon institutional theory, we also document that different ownership types (e.g. institutional, family and foreign) can influence a firm's ESG involvement. Future research could test different theoretical underpinnings, such as legitimacy, ownership structure and resource dependency theories, to delve deeper into the mechanisms through which CG characteristics shape ESG involvement, considering potential moderating or mediating factors in this relationship. Moreover, further investigation into the relationship between CG characteristics and a firm's involvement in CSR/ESG activities is needed, particularly given the significant role of country context as highlighted by previous research findings. To enhance the validity of research findings, supplementary qualitative research methodologies – such as surveys, interviews or board case studies – should also be used.

Building on these findings, several practical implications for organizations, policymakers and stakeholders can be identified. First, companies should diversify their board composition to include members with a broad range of skills, experiences and perspectives, thereby enhancing the formulation and execution of the company's ESG strategy. Second, tailoring ESG strategies to fit different ownership types can lead to more sustainable outcomes. By addressing these implications, firms can enhance their ESG performance, contributing to sustainable development and gaining a competitive edge in a sustainability-conscious market. Third, regulators and policymakers could leverage the findings of this research to shape policies that promote sustainable practices, emphasizing the need for transparency and engagement across different types of companies.

Our study contributes to the literature in several ways. While literature reviews often focus on specific topics or subfields, our analysis provides a broader overview of the link between CG characteristics and a firm's involvement in CSR/ESG activities, identifying common themes that unite diverse research streams. The use of the ML approach in the literature review provides a novel and efficient way of synthesizing information and extracting meaningful insights. It enables researchers to identify relevant studies, evaluate their quality and generate a comprehensive overview of the existing literature. However, this study is not without its limitations, as it focused only on academic articles from two ranked journal lists, i.e. CABS and ABDC, excluding other sources such as books, reports and working papers.

Therefore, considering the inclusion of these additional academic sources could be an avenue for future research.

This article presents a concise overview of the existing landscape within accounting and finance research related to the investigated topic. By examining trends and identifying research directions, our study can potentially predict future citation impact and propose further research directions for authors. Additionally, our findings may prompt journal editors to call for special issues. Overall, this study provides valuable insights for policymakers, managers and investors seeking to better understand the relationship between CG characteristics and a firm's involvement in ESG activities.

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Appendix

Table A1 Summary of all the articles from the ABDC and ABS list

Source	*ABS ranking*	*ABDC ranking*	*No. of Papers*	*% of total data sets*
Academy of Accounting and Financial Studies		C	5	2.77
Accounting and Business Research	3	A	1	0.55
Accounting and Finance	2	A	3	1.66
Accounting Forum	3	B	2	1.11
Accounting Research Journal	2	B	6	3.33
Accounting, Organizations and Society	4*	A*	1	0.55
Asia Pacific Journal of Financial Studies		B	1	0.55
Asian Academy of Management Journal of Accounting and Finance		C	2	1.11
Asian Journal of Accounting and Governance		C	2	1.11
Asian Journal of Accounting Research		C	2	1.11
Asian Journal of Business and Accounting		C	1	0.55
Asian Review of Accounting	2	B	2	1.11
Asia-Pacific Management Accounting		C	1	0.55
Auditing: A Journal of Practice and Theory	3	A*	2	1.11
Australasian Accounting, Business and Finance Journal	1	B	5	2.77
Australian Accounting Review	2	B	1	0.55
Banks and Bank Systems		C	1	0.55
Behavioral Research in Accounting	3	A	1	0.55
British Accounting Review	3	A*	3	1.66
Corporate Governance: An International Review	3	A	11	6.11
Corporate Governance: The International Journal of Business in Society	2		22	12.22
Emerging Markets Finance and Trade	2	B	4	2.22
Emerging Markets Review		A	3	1.66
European Accounting Review	3	A*	1	0.55
Financial Analyst Journal	3	A	1	0.55
Geneva Papers on Risk and Insurance: Issues and Practice	2	B	3	1.66
Indian Journal of Corporate Governance		C	5	2.77
Indonesian Journal of Sustainability Accounting and Management		C	4	2.22
International Journal of Disclosure and Governance	2	B	8	4.44
International Journal of Accounting and Information Management	2	B	6	3.33
International Journal of Accounting, Auditing and Performance Evaluation	2	C	1	0.55
International Journal of Business and Society		C	2	1.11
International Journal of Finance and Economics	3		1	0.55
International Journal of Financial Studies		B	1	0.55
International Journal of Managerial and Financial Accounting	2	B	2	1.11
International Journal of Managerial Finance	2	A	2	1.11
International Review of Economics and Finance		A	1	0.55
International Review of Financial Analysis	3	A	2	1.11
Investment Management and Financial Innovations		B	1	0.55
Journal of Accounting and Public Policy	3	A	1	0.55
Journal of Accounting Auditing and Finance		A	1	0.55
Journal of Accounting in Emerging Economies	2	B	3	1.66
Journal of Applied Accounting Research	2	B	4	2.22
Journal of Applied Corporate Finance	2	A	1	0.55
Journal of Banking and Finance	3		1	0.55
Journal of Business Finance and Accounting	3		1	0.55
Journal of Contemporary Accounting & Economics	2	A	1	0.55
Journal of Corporate Finance	4	A*	6	3.33
Journal of Financial Regulation and Compliance	1		1	0.55

(*continued*)

Table A1

Source	ABS ranking	ABDC ranking	No. of Papers	% of total data sets
Journal of Financial Reporting and Accounting		C	1	0.55
Journal of International Accounting, Auditing and Taxation	3	B	1	0.55
Journal of International Financial Markets, Institutions and Money	3	A	1	0.55
Journal of Islamic Accounting and Business Research	1	C	1	0.55
Journal of Multinational Financial Management	2	B	1	0.55
Journal of Risk and Financial Management		B	4	2.22
Journal of Sustainable Finance & Investment	1		3	1.66
Management and Accounting Review		C	1	0.55
Managerial Auditing Journal	2	A	2	1.11
Managerial Finance	1	B	1	0.55
Meditari Accountancy Research	1	A	6	3.33
Pacific Accounting Review	1	B	4	2.22
Pacific-Basin Finance Journal	2	A	1	0.55
Research in International Business and Finance	2	B	1	0.55
Review of Accounting and Finance	2	B	1	0.55
Social and Environmental Accountability	1	B	1	0.55
Sustainability Accounting, Management and Policy Journal	2	B	7	3.88
Total			180	100.0

Source: Authors' own work

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