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Board Characteristics and ESG Disclosure: A Systematic Literature Review

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ABSTRACT

Stakeholders heavily rely on companies' environmental, social, and governance (ESG reports) to assess ESG performance and inform investment decisions. Given the significant influence of boards of directors on ESG disclosure, understanding how board characteristics impact this disclosure is crucial. A systematic literature review of 26 articles from 2012 to 2023, explores the relationship between board characteristics (BC) and ESG disclosure, aiming at identifying the academic trend of the relationship. Notably, 35% of the studies adopt a multi-country perspective, considering country-level factors. The results reveal the application of various theories—stakeholder, agency, legitimacy, resource dependency, signaling, and upper echelons—to explain the relationship. Key board characteristics identified include board size, independence, gender diversity, expertise, the presence of board committees. Research methods, particularly content analysis, are prevalent in the studied articles, with a focus on comprehensive ESG indices covering diverse dimensions. This research makes substantial contributions to the expanding ESG literature by offering valuable perspectives on how BC influence on ESG disclosure and suggesting avenues for future research, including industry comparative studies, the development of new theoretical frameworks, exploration of specific board characteristics, reference to national ESG guidelines, in-depth analysis of particular facets of ESG disclosure, and investigation of government mechanisms' role in the relationship between these variables. Furthermore, the most recent sources including papers from the Covid-19 Pandemic period, constitute the novelty of the research and this study offers valuable guidance for scholars seeking to enhance the understanding of BC and ESG disclosure.

Keywords: Board characteristics; ESG; disclosure; systematic literature review; corporate governance

INTRODUCTION

In 2015, United Nation (UN) proposed 17 Sustainable Development Goals (SDGs) to be reached by 2030, highlighting sustainable development from the environmental, social and economic aspects. However, the COVID-19 pandemic, which spanned from 2020 to 2023, affected all 17 SDGs encompassing the health, economic, social, and environmental issues. Companies are integrating environmental, social, and corporate governance aspects into their corporate strategies to achieve sustainability. Therefore, ESG disclosure is a key initiative to aimed at aligning the value creation activities with SDGs (Khan 2022).

A rising number of investors are incorporating environmental, social, and governance (ESG) disclosures which are considered as dependable metrics for assessing companies' performance, into their investment approaches (Wan et al. 2023). ESG concept first popularly used in the Who Cares Wins report by UN (2004), played a pivotal role in fostering the popularity of ESG investment. Notably, there is a persistent information disparity between companies and stakeholders, particularly in ESG practices. Companies can narrow the information gap by voluntarily reporting ESG strategies and activities, thereby increasing the transparency of ESG practices.

As awareness of ESG issues grows, companies face encouragement and pressure to divulge their sustainability strategies alongside financial information. The motivations for companies to disclose ESG information encompass enhancing firm value, seeking financial benefits, responding to stakeholder expectations, especially investors, fulfilling duties to stakeholders and society, and gaining a competitive advantage (Seow 2023). Additionally, scholars have identified various factors influencing ESG information disclosure, including country-level, firm-level, and individual-level characteristics (Seow 2023). Among these determinants, corporate governance characteristics, particularly board characteristics, being a focal point of heated discussions.

In fact, the level of corporate ESG disclosure is still relatively low despite the increasing attention paid to ESG. The existing researches have found that the board characteristics and the level of ESG disclosure are closely related. The board of directors plays a crucial role in determining strategic direction, executing strategies, and evaluating outcomes. Past research strongly suggests that the composition of the board is closely linked to strategic decision-making, execution, and evaluation (Hambrick 2007). Therefore, the various board influence the decisions-making on the extent of the firm promotes ESG practices and disclosure.

The motivation of this research is to identify the academic trend of the relationship between BC and ESG disclosure (Popov & Makeeva 2022), especially the papers published during Covid-19 Pandemic period. In contrast to the extensive literature reviews on various aspects of ESG disclosure, such as those focusing on ESG disclosure itself (Bosi et al. 2022), its association with firm performance (Huang 2021; Jaafar 2023), and the determinants of ESG disclosure (Seow 2023). This research provides a comprehensive understanding on the relationship between BC and ESG disclosure by systematically identifying, selecting and analyzing the existing empirical studies related to the relationship of BC and ESG disclosure. The study aims to provide answers to the following questions:

RQ 1: What is the relationship between BC and ESG disclosure?
RQ 2: What are the theories that explain the relationship between BC and ESG disclosure?
RQ 3: What are applied research methodologies？
RQ 4: What are the potential avenues for further research?

This research has significantly contributed to the expanding body of literature on ESG in several key ways. Firstly, it conducted a systematic investigation into the influence of BC on ESG disclosure, shedding light on the prevailing research trajectory in this domain, especially involved the articles published during the Covid-19 Pandemic period. Secondly, the study delves into various supporting theories and offers a comprehensive analysis of the relationship between BC and ESG disclosure as identified in existing literature. Lastly, this research uncovers potential areas for further exploration in the existing literature, offering scholars the opportunity to contribute and expand ESG knowledge.

The organization of this study is structured as follows. Section 2 explores the methodological approach employed in this research. Section 3 outlines and discusses the results and findings of the study. In Section 4, the study delves into the literature, addressing issues and identifying potential directions for future research. Finally, Section 5 provides a conclusion for this study, highlighting its findings and acknowledging any identified limitations.

METHODOLOGY

A systematic approach to literature review, namely systematic literature review (SLR), is a method to reduce bias in gathering, evaluating, and combining all existing studies on a particular subject (Chalmers et al. 2002). Compared with traditional or narrative literature reviews, this research is based on a systematic, explicit, and repeatable methodology to identify, assess and synthesize existing literature (Traxler et al. 2020). SLR focuses on gathering literature adhering to predetermined inclusion criteria is essential for addressing a particular research questions and identifying the research gaps (Mengist et al. 2020).

Guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, the research protocol following the methodology proposed by prior research (Behlau et al. 2023) comprises four stages: identification, screening, eligibility, and analysis (see Figure 1). The first phase involves delineating the research scope and selecting appropriate research databases. This study focuses on empirically investigating the association between BC and ESG disclosure, exclusively considering research articles from 2004 which ESG concept firstly introduced in UN till November 2023. Web of Science (WoS) database and Scopus database were chosen due to the recognized reputation in maintaining extensive, high-quality article collections and citations. Keyword combinations were employed in the search functions of both Web of Science database and Scopus database (see Table 1) (Cortés et al. 2023; Aluchna et al. 2023). The emergence of the first article on this research theme was in 2012. Initially, 99 articles were identified, with 25 exclusions due to the duplication.

TABLE 1. Search string used in Scopus & WoS

Database	String
Web of Science	("sustainability report" OR "sustainability disclosure" OR "CSR report" OR "integrated report" OR "ESG report" OR "ESG disclosure" OR "triple bottom line report" OR "TBL report" OR "corporate social responsibility report" OR "global reporting initiative" OR "GRI" OR "international integrated reporting council" OR "IIRC") AND ("BOD characteristics" OR "board of directors characteristics" OR "board characteristics" OR "board attributes")
Scopus	TITLE-ABS-KEY ("sustainability report" OR "sustainability disclosure" OR "CSR report" OR "integrated report" OR "ESG report" OR "ESG disclosure" OR "triple bottom line report" OR "TBL report" OR "corporate social responsibility report" OR "global reporting initiative" OR "GRI" OR "international integrated reporting council" OR "IIRC" AND "BOD characteristics" OR "board of directors characteristics" OR "board characteristics" OR "board attributes")

The second phase involves screening articles for inclusion or exclusion based on specific criteria, either through database assistance or manual screening by the authors. Specifically, English articles, either qualitative or quantitative research, from subject area of business, management and accounting, economics, econometrics and finance are included in the criteria. In contrast, review articles, chapter in book, book, conference preceding written in other languages and other subjects are excluded from the criteria, to avoid confusion and ensure relevancy. Therefore, 7 articles are removed from 74 articles. The remaining 65 articles are examined by screening of the titles and abstract, and then 33 articles are eliminated as they did not fulfill the following requirements. Articles focusing on aspects other than the relationship between BC and ESG disclosure, such as ESG disclosure assurance, ESG performance, ESG investing, the impact of ESG on firm performance, and other corporate governance attributes or solely CEO characteristics were excluded. Additionally, articles concentrating on ESG disclosure in financial industries (e.g., banking, insurance) or non-profit organizations were omitted from this study because of the particularity of industry and organizations.

In the third phase, 26 articles fulfilled all the selection criteria after an in-depth examination of 32 articles based on the pertinence and were considered relevant to this investigation were singled out. The ultimate phase encompassed a meticulous scrutiny, analysis, discourse, and amalgamation of all chosen 26 articles based on four research questions of this study.

FIGURE 1. Systematic literature review research protocol

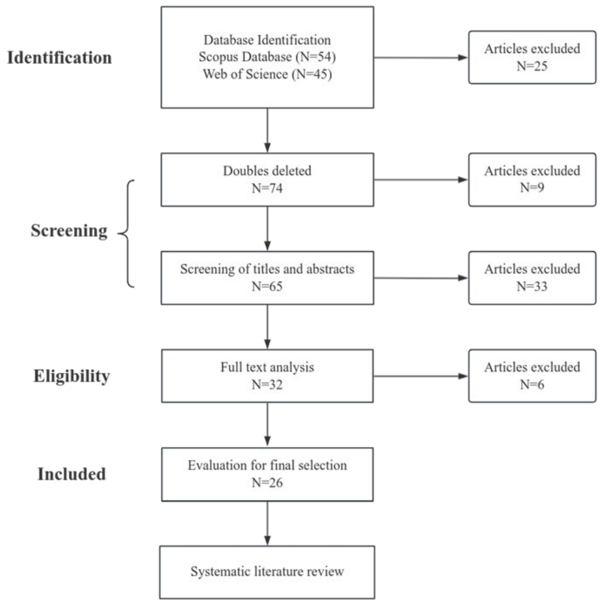

FIGURE 1. Systematic literature review research protocol

RESULTS

BACKGROUND AND SELECTED ARTICLES

Sustainability, Corporate Governance (Bingley), Journal of Management and Governance, and Society and Business Review are the top four journals where literature on the relationship between BC and ESG disclosure is found (see Table A from Appendix A). The top five literature with the highest number of citations are Michelon & Parbonetti (2012), Ahmed (2023), Kumar et al. (2022), Mahmood & Orazalin (2017) and Tibiletti et al. (2020).

This SLR encompassed the articles published in the year 2012 to 2023, within the period of Covid-19 Pandemic. The first published article was in 2012 and an obvious rise can be witnessed since 2020. 22 articles were published between 2020 and 2023， exactly during the Covid-19 Pandemic period, constituting 84.6% of the total articles. Specifically, 8 articles were published in 2022 (see Figure 2). The reason of this growing academic trend to explore the relationship between BC and ESG disclosure may due to more ethical and social issues created by Covid-19 Pandemic and the increasing ESG awareness from the board. This indicates that the research theme has garnered considerable academic interest only recently, implying the opportunities for further research in this area.

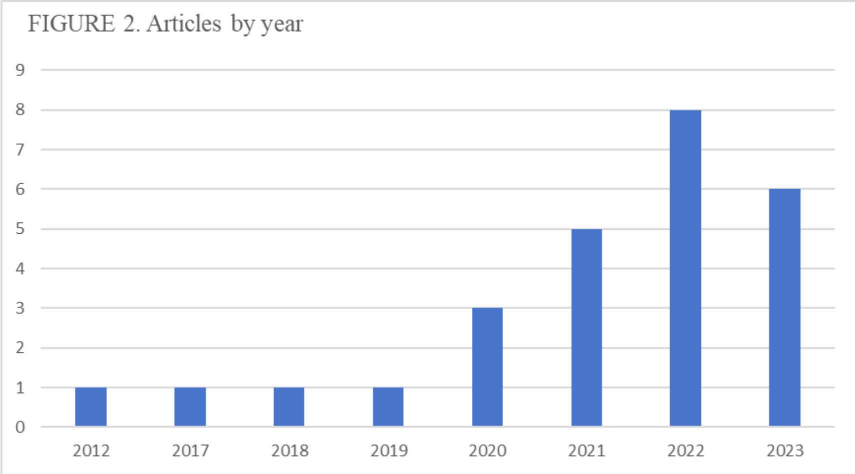

FIGURE 2. Articles by year

Research on the correlation between BC and ESG disclosure has been carried out globally, encompassing both developed and developing economies (see Figure 3). When exploring this relationship, the country-level factor is considered crucial, leading to a prevalence of multi-country studies in the overall research. Researchers commonly opt for cross-country investigations, focusing on regions such as Europe, Southeast Asia, and South Asia. Among individual countries, Malaysia, France, and Nigeria emerge as the most extensively studied, with China, India, Chile, Italy, Australia, New Zealand, and the USA also being subjects of exploration (see Table 2).

The studies advocates for a comprehensive multi-country examination of board characteristic and ESG disclosure, emphasizing the importance of understanding diverse global contexts. Choosing multi-country contexts is motivated by a range of factors. For instance, Europe is chosen as a sample because of the stakeholder-based governance regime and the EU Directive 2014/95/EU are weakly developed regulations regarding non-financial disclosure (Tiron-Tudor et al. 2020). Emerging economic regions including the South Asian countries (Afghanistan, Bangladesh, India, Maldives, Nepal, Pakistan, Sri Lanka, and Bhutan) and the BRICS countries (Brazil, Russia, India, China, and South Africa), which account for a significant portion of the global population and also have a major social and ecological impact on global warming (Bae et al. 2018; Nuhu & Alam 2023). The ASEAN countries (Indonesia, Malaysia, Singapore, Thailand, Philippines, Vietnam) are uniquely situated with an upward trend in ESG reporting, which poses a challenge in bridging environmental sustainability and economic development (Chairina & Tjahjadi 2023).

In tandem with the multi-country approach, the study delves into the specific contexts of individual countries to provide in-depth insights. For instance, Czech Republic, with a unique position between developed and developing contexts, fill the gap in ESG disclosure research in the Central and Eastern Europe region (Balogh et al. 2022). France is a pioneering country with legislation for mandatory social and environmental disclosure and Climate and Resilience Law in 2021 emphasized controlling green-washing behavior (Khaireddine et al. 2020; Mardini & Elleuch Lahyani 2023). South Africa mandate integrated reporting for listed companies since 2010 and is recognized as a global leader in implementing IR requirements (Ahmed 2023). Malaysia is selected for its concentrated efforts in integrated reporting and encouragement through regulatory bodies (Fayad et al. 2022). Voluntary disclosure of CSR reports is encouraged by Chinese government and research interest in understanding determinants of voluntary ESG disclosure in listed Chinese firms is increasing (Zhou 2019). India introduced of national voluntary guidelines, mandatory CSR rules, and Business Responsibility Report (BRR) requirements (Kumar et al. 2022). Sustainability development such as poverty eradication, balanced development, and environmental issues are emphasizes in Saudi Arabia's Vision 2030, and an ESG disclosure reform of Saudi Arabian Stock Exchange companies has been introduced (Tajuddin et al. 2023).

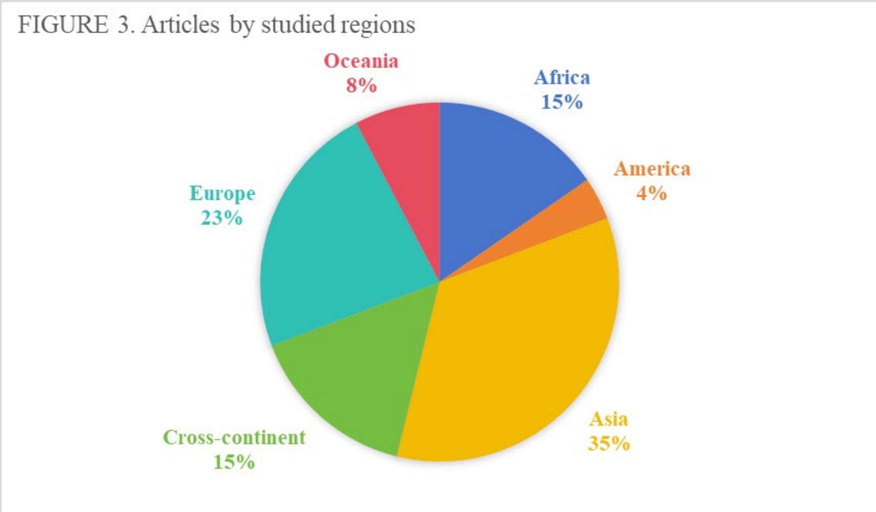

FIGURE. 3 Articles by studied regions

Most studies analysed listed companies from all industries, but some studies focus on a specific industry, such as environmentally sensitive companies (Kumar et al 2022), oil, gas and mining companies (Mahmood & Orazalin 2017), energy industry firms (Nuhu & Alam 2023), and manufacturing firms (Zhou 2019). Mahmood & Orazalin (2017) stated the oil and gas industry, as the mainstay industry of Kazakhstan's economy, is vital to the country's sustainable development. Similarly, the energy companies (Nuhu & Alam 2023) and environmentally sensitive companies (Kumar et al. 2022) report ESG information due to the tremendous pressure from stakeholders.

BOARD CHARACTERISTICS

In order to answer QR1, various BC have impact on ESG disclosure, based on the existing studies, encompassing factors such as board size, board gender diversity, board independence, and board meetings (see Figure 4). The impact of these factors on ESG disclosure is diverse. Board independence (Ahmed 2023; Bae et al. 2018; Chouaibi et al. 2022; Githaiga & Kosgei 2023; Khaireddine et al. 2020; Lavin & Montecinos-Pearce 2021; Mardini & Elleuch Lahyani 2023; Ngu & Amran 2021; Nuhu & Alam 2023; Omran et al. 2021; Qaderi et al. 2022; Tiron-Tudor et al. 2020) and board gender diversity (Chairina & Tjahjadi 2023; Chouaibi et al. 2022; Erin et al. 2022; Fayad et al. 2022; Githaiga & Kosgei 2023; Jibril et al. 2022; Khaireddine et al. 2020; Lavin & Montecinos-Pearce 2021; Mahmood & Orazalin 2017; Nuhu & Alam 2023; Qaderi et al. 2022) have consistently demonstrated a positive impact on ESG disclosure. However, contradictory findings suggest that board independence (Chairina & Tjahjadi 2023; Tajuddin et al. 2023; Tibiletti et al. 2020) and board gender diversity (Songini et al. 2022) can negatively influence ESG disclosure.

A positive relationship between board size and ESG disclosure has been supported by numerous studies (Ahmed 2023; Bae et al. 2018; Chouaibi et al. 2022; Erin et al. 2022; Fayad et al. 2022; Formigoni et al. 2021; Mahmood & Orazalin 2017; Nursimloo et al. 2020; Qaderi et al. 2022; Zhou 2019). The statements are commonly supported by stakeholder theory that larger board address more interests from diverse stakeholders improve the quality of sustainability practices. Nevertheless, contrasting results suggest that board size can negatively impact ESG disclosure (Githaiga & Kosgei 2023; Nuhu & Alam 2023; Tajuddin et al. 2023; Tibiletti et al. 2020). Agency theory are applied, since larger boards are less effective in monitoring and decision-making coordination of ESG disclosure. The frequency of board meetings has also been scrutinized, with many researchers finding a positive relationship with ESG disclosure (Fayad et al. 2022; Khaireddine et al. 2020; Kumar et al. 2022; Ngu & Amran 2021; Nuhu & Alam 2023), while others reach a contrary conclusion about this relationship (Ahmed 2023; Omran et al. 2021). Scholars have also examined the impact of board financial expertise on ESG disclosure, with findings varying between a positive impact (Erin et al. 2022; Githaiga & Kosgei 2023) and a negative impact (Ahmed 2023) in different studies. Other board characteristics, such as the presence of an independent non-executive chairman (Chouaibi et al. 2022), community influential members (Michelon & Parbonetti 2012), non-executive remuneration (Qaderi et al. 2022), the education level of board members (Songini et al. 2022), and board tenure (Tiron-Tudor et al. 2020), have shown a positive influence on ESG disclosure. However, Bae et al. (2018) argued that director shareholdings have a negative association with ESG disclosure.

Acknowledging the significant role of board committees in influencing ESG disclosure, several studies have explored the impact of various board committee characteristics. Mahmood and Orazalin (2017) found a positive relationship between the presence of board committees and ESG disclosure. Ahmed (2023) investigated various committee attributes, revealing that ESG disclosure is positively impacted by risk management committee independence but negatively affected by audit committee independence, size, expertise, and meetings, as well as risk management committee expertise, meetings, and size. However, Erin et al. (2022) believed that audit committee size, expertise, and meetings positively impact ESG disclosure. Qaderi et al. (2022) asserted that a sustainability committee positively affects ESG disclosure, while Michelon & Parbonetti (2012) found no significant association between them.

FIGURE 4. Investigated board characteristics

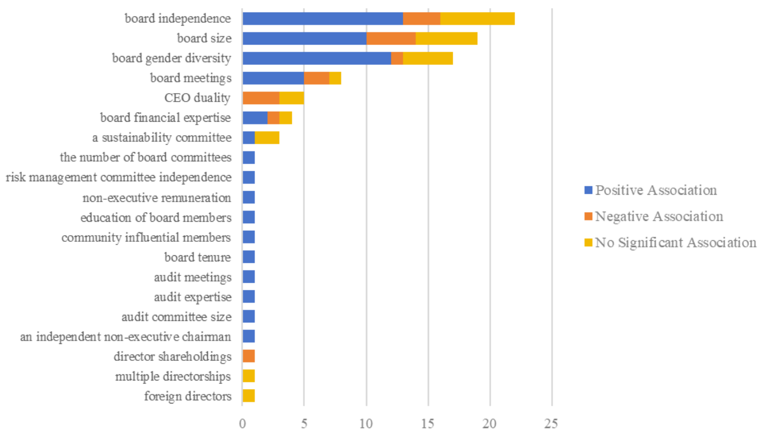

FIGURE 4. Investigated board characteristics

THEORIES

In responding to QR2, while there is not only one universal theory explaining ESG disclosure, numerous theoretical perspectives strongly support research examining the association between BC and ESG disclosure (see Figure 5). These underlying theories fall into two main categories: those explaining disclosures and those supporting board characteristics. Meeting the demands of stakeholders supported by stakeholder theory, and addressing asymmetric information problems to fulfill entrusted responsibilities supported by agency theory and legitimacy theory explain ESG information disclosures and are applicable for investigating BC. From board characteristics perspective, resource dependency theory focuses on gaining a corporate competitive advantage from the board of directors' invisible resources, and upper echelons theory places a strong emphasis on the investigation of Chief Executive Officer (CEO) characteristics.

FIGURE 5. Applied theory

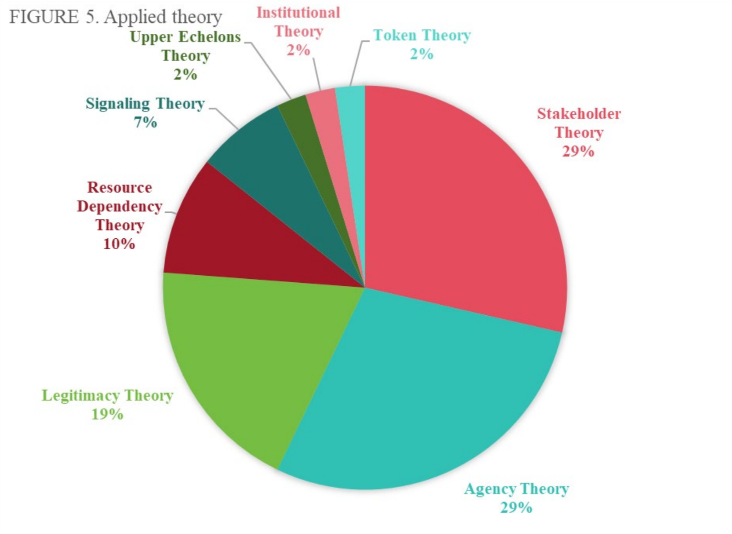

FIGURE 5. Applied theory

54% of the articles cited more than one theory in their research, recognizing the intricacy of the subject that cannot be adequately addressed by relying on a single theory. Among these theories, three most commonly referenced theories are stakeholder theory, agency theory, and legitimacy theory.

Stakeholder theory underpins ESG disclosure (Ahmed 2023), emphasizing meeting societal expectations (Khaireddine et al. 2020; Ngu & Amran 2021; Erin et al. 2022; Mardini & Elleuch Lahyani 2023; Tajuddin et al.

2023). ESG reports prioritize stakeholder engagement and responsiveness, addressing core issues for organizational legitimacy (Michelon & Parbonetti 2012; Nursimloo et al. 2020). The theory asserts that boards are crucial in balancing stakeholder interests and disseminating information for enhanced legitimacy (Michelon & Parbonetti 2012; Ngu & Amran 2021). Integrating sustainability into business strategy is advocated for long-term survival, managing conflicting stakeholder interests through corporate disclosure, ESG practices, and risk management policies (Ngu & Amran 2021). Larger, diverse boards are seen as beneficial for improving sustainability practices, aligning with stakeholder theory (Mahmood & Orazalin 2017; Nursimloo et al. 2020; Songini et al. 2022). Board diversity, in terms of expertise and independence, supports governance mechanisms for sustainability (Mahmood & Orazalin 2017; Tiron-Tudor et al. 2020; Nuhu & Alam 2023). Stakeholder theory suggests frequent board meetings to navigate complex ESG reports, with diverse expertise enhancing the quality of disclosed information (Ngu & Amran 2021). Gender diversity is viewed as beneficial for stakeholder engagement and annual report reliability within the stakeholder theory framework (Nursimloo et al. 2020).

Agency theory underscores the positive link between well-governed firms and quality disclosure, attributing the role to boards in mitigating agency problems and enhancing ESG disclosure practices (Ahmed 2023; Githaiga & Kosgei 2023; Chouaibi et al. 2022; Fayad et al. 2022; Kumar et al. 2022; Chairina & Tjahjadi 2023). Good corporate governance, under agency theory, improves internal control, curtails opportunistic management behavior, and elevates disclosure quality (Chairina & Tjahjadi 2023). Boards act as a control mechanism aligning manager and shareholder interests, aiming to reduce agency and transaction costs without compromising transparency (Khaireddine et al. 2020; Omran et al. 2021; Qaderi et al. 2022).

The theory suggests that larger boards may lower agency costs through increased engagement in socially responsible activities and diverse input into ESG practices (Fayad et al. 2022; Chairina & Tjahjadi 2023). However, there's a debate on the effectiveness of board size according to agency theory, with some arguing that smaller boards are more effective in monitoring and decision-making coordination (Khaireddine et al. 2020; Qaderi et al. 2022; Githaiga & Kosgei 2023). Board independence is deemed crucial for effective monitoring, with higher proportions of independent directors expected to enhance control and objective performance assessment (Zhou 2019; Kumar et al. 2022; Tibiletti et al. 2020). Female board members, regular meetings, and appropriate director remuneration are seen as measures to limit opportunistic behavior, improve monitoring, and strengthen disclosure, all in line with the principles of agency theory (Omran et al. 2021; Fayad et al. 2022; Kumar et al. 2022; Qaderi et al. 2022).

Legitimacy theory underscores that integrating governance practices with ESG disclosure enhances a company's credibility and legitimacy with stakeholders (Chouaibi et al. 2022). Firms strategically disclose information to secure credibility, guided by regulatory frameworks and social factors (Balogh et al. 2022). Corporate disclosure policies aim to align with diverse stakeholder expectations, claiming legitimacy by demonstrating adherence to social norms and preventing legitimacy crises (Khaireddine et al. 2020; Ngu & Amran 2021; Kumar et al. 2022; Erin et al. 2022; Githaiga & Kosgei 2023). A larger board, according to this perspective, brings expertise for better sustainability disclosure, contributing to accountability and legitimacy (Kumar et al. 2022). The materiality determination process serves as a strategy to bridge the perceived legitimacy gap, while external directors act as balancing mechanisms for objective decision-making aligned with shareholder and stakeholder interests (Ngu & Amran 2021).

METHODOLOGIES OF ESG DISCLOSURE

ESG reporting, departing from traditional economic-focused reporting, prioritizes economic, social, and environmental sustainability (Nursimloo et al. 2020). Categorized into strategic, financial, environmental, and social information, ESG disclosure serves both investors and a broader range of stakeholders (Michelon & Parbonetti 2012). It enables companies to assess sustainability impact, ensure transparent risk disclosure, and meet stakeholders' demands for a comprehensive understanding of non-financial aspects (Tajuddin et al. 2023). Adoption of ESG reporting integrates sustainability into strategic planning, fostering a cultural shift. Adams' framework outlines a five-step process for contributing to Sustainable Development Goals (Adams 2017; Ahmed 2023). Few studies focus on specific ESG dimensions, like carbon performance, measured through scopes (Mardini & Elleuch Lahyani 2023). Materiality, a crucial threshold, identifies significant topics, guided by GRI guidelines and materiality analysis for prioritizing sustainability topics in reports (Ngu & Amran 2021).

To answer QR RQ3, all 26 studies employ a quantitative research methodology. Among these articles, 17 studies employed content analysis, transforming qualitative information of annual reports or ESG reports into quantitative information, to assess the quality of ESG disclosure. A comprehensive ESG checklist is employed to gauge quality, assigning equivalent scores to each indicator based on adherence to criteria, where a higher total score indicates higher quality of ESG reports. ESG disclosure quantity is measured on a binary scale, with a score for the presence of each content element and 0 otherwise (Michelon & Parbonetti 2012; Mahmood & Orazalin 2017; Bae et al. 2018; Khaireddine et al. 2020; Nursimloo et al. 2020; Tiron-Tudor et al. 2020; Omran et al. 2021; Fayad et al. 2022; Kumar et al. 2022; Qaderi et al. 2022; Ahmed 2023; Tajuddin et al. 2023; Jibril et al. 2022).

Several research studies utilize scoring systems to evaluate the quality of sustainability reporting practices, relying on categorical variables and benchmarks. Specifically, a score of 0 indicates the absence of disclosure, and a higher score corresponds to a higher quality of reporting (Formigoni et al. 2021; Balogh et al. 2022; Songini et al. 2022; Githaiga & Kosgei 2023). In terms of ESG indexes, the content, composing of 5 to 178 elements, includes environmental, social, economic disclosure (Michelon & Parbonetti 2012; Mahmood & Orazalin 2017; Bae et al. 2018; Nursimloo et al. 2020; Formigoni et al. 2021; Kumar et al. 2022; Githaiga & Kosgei 2023; Tajuddin et al. 2023), strategic disclosure (Michelon & Parbonetti 2012), energy disclosure (Jibril et al. 2022), governance disclosure (Khaireddine et al. 2020; Balogh et al. 2022) and voluntary ethics disclosure (Khaireddine et al. 2020), background, assurance and reliability, content, and form (Fayad et al. 2022; Qaderi et al. 2022), overview and business mode, opportunities and risks, governance and strategy, performance, general preparation and presentation (Tiron-Tudor et al. 2020; Omran et al. 2021; Songini et al. 2022; Ahmed 2023), capitals (Tiron-Tudor et al. 2020; Songini et al. 2022; Ahmed 2023), and outlook (Tiron-Tudor et al. 2020; Songini et al. 2022) based on GRI, IR guidelines or prior literature.

Number of research utilizes categorical variables aligned with a specified benchmark, which assigns corresponding scores to evaluate the quality of ESG reporting practices. Various dimensions of ESG reporting including the presence of a ESG report, external assurance, materiality matrix, and stakeholder engagement are examined on a binary scale (Tibiletti et al. 2020). The presence of non-audit firm assurance in a report corresponds to a basic score, and an even higher score is assigned with the audit firms' assurance (Erin et al. 2022). The assessment of ESG report disclosure quality involves three dimensions: clarity, brevity, and reliability (Chairina & Tjahjadi 2023). To assess materiality disclosure in sustainability reporting, the study utilized the materiality and relevance disclosure index. The materiality disclosure index is calculated by counting the occurrences of terms such as "materiality" or "material" and dividing it by the number of pages per report; the relevance disclosure index is assigned scores ranging from 0 to 5 to evaluate the degree to which a report reveals information about the materiality determination process (Ngu & Amran 2021). Zhou (2019) also used categorical variables to assess voluntary ESG disclosure by assigning 1 point for the existence of a voluntary ESG report for each year and no points otherwise.

The remaining studies directly utilize data from databases, such as the Corporate Governance Vision and Strategy (CGVS) score from the Thomson Reuters ASSET4 database, ranging from 0 to 100, reflecting a corporate performance in integrating ESG aspects into its vision and strategy (Chouaibi et al. 2022), and the ESG disclosure score indicators sourced from the Bloomberg database providing a comprehensive assessment of a company's ESG performance, align with the GRI standards (Lavin & Montecinos-Pearce 2021; Nuhu & Alam 2023). Mardini and Elleuch Lahyani (2023) utilizes carbon disclosure score sourced from the Carbon Disclosure Project (CDP) database involved both quantitative and qualitative aspects to gauge voluntary carbon disclosure quality.

DISCUSSION

FUTURE RESEARCH

Although the existing studies have done thorough research on the relationship between BC and ESG disclosure, there are still some areas can be explored for future study, responding to QR 4. Various industries exhibit different levels of ESG disclosure, influenced by societal and stakeholder pressures. Previous studies selected the sample region to investigate the relationship of BC and ESG disclosure due to the large population, increasing awareness of ESG and newly released regulations. Additionally, some studies concentrating on one industry, especially focused on environmentally sensitive companies (Kumar et al. 2022), oil, gas and mining companies (Mahmood & Orazalin 2017), energy industry firms (Nuhu & Alam 2023) due to the tremendous pressure from stakeholders and its importance of the country's future. In consideration of the mentioned rationales for selecting specific regions and industries, it is noteworthy that the existing literature offers limited insights into industries receiving substantial governmental support or policy endorsements. Furthermore, a scarcity of research exists pertaining to comparative analyses between industries which can reveal novel perspectives on ESG disclosure, particularly in the context of contrasting sectors that benefit from explicit policy support and those operating without such support.

Stakeholder theory, agency theory, legitimacy theory, resource dependency theory, signaling theory, upper echelons theory, institutional theory and token theory solely or mixed explained the relationship between ESG disclosures and BC. To be specific, stakeholder theory posits that boards play a crucial role in balancing stakeholder interests and enhancing organizational legitimacy by disseminating information (Michelon & Parbonetti 2012; Ngu & Amran 2021). The board serves as a control mechanism aligning manager and shareholder interests, aiming to mitigate agency and transaction costs without compromising transparency to stakeholders supported by agency theory (Khaireddine et al. 2020; Omran et al. 2021; Qaderi et al. 2022). Legitimacy theory emphasizes that integrating governance practices with ESG disclosure enhances a company's legitimacy in society, creates a faithful image of its operations and prevents legitimacy crises (Chouaibi et al. 2022; Tajuddin et al. 2023; Khaireddine et al. 2020; Kumar et al. 2022; Ngu & Amran 2021). The adoption of other existing theoretical frameworks such as token theory and institutional isomorphism theory to investigate the influence of other board characteristics on ESG disclosure can be investigated for future research. Furthermore, given the absence of a single theory or a set of theories that comprehensively explain the impact of all board characteristics on ESG disclosure, there is potential value in constructing a new theoretical framework for this purpose.

In determining ESG disclosure, the role of the board of directors has garnered scholarly attention. Board size, gender diversity, independence, and meetings play significant roles. While some studies indicate negative relationships between board independence (Chairina & Tjahjadi 2023; Tajuddin et al. 2023; Tibiletti et al. 2020) gender diversity (Songini et al. 2022), board meetings (Khaireddine et al. 2020; Ngu & Amran 2021; Kumar et al. 2022; Fayad et al. 2022; Nuhu & Alam 2023) and ESG disclosure, most support a positive correlation. Board size yields mixed results, with stakeholder theory suggesting a positive impact (Mahmood & Orazalin 2017; Nursimloo et al. 2020; Songini et al. 2022) and agency theory indicating a negative effect (Khaireddine et al. 2020; Qaderi et al. 2022; Githaiga & Kosgei 2023). Additional board characteristics, such as the presence of an independent non-executive chairman (Chouaibi et al. 2022), community influential members (Michelon & Parbonetti 2012), non-executive remuneration (Qaderi et al. 2022), education level (Songini et al. 2022), and board tenure (Tiron-Tudor et al. 2020) have been explored, albeit with limited research. Therefore, future investigations could delve into these and other detailed attributes of board, such as board voluntary turnover and board career experience. Furthermore, although the examination of the simultaneous roles of chairman and CEO (Zhou 2019; Mardini & Elleuch Lahyani 2023; Tibiletti et al. 2020) has been scrutinized, there is a need for further investigation into multiple positions held by board members, such as the overlap between chairman and founder, and the amount of directorships held by independent directors.

Regarding board committees, the presence of committees, particularly the audit committee, positively influences ESG disclosure (Mahmood & Orazalin 2017). However, studies on audit committee size, expertise, and meetings yield mixed results. Ahmed (2023) explored the attributes of risk management committees and identified an adverse association between the expertise, meetings, size of the risk management committee, and ESG disclosure. The sustainability committee has shown a positive association with ESG disclosure (Qaderi et al. 2022). However, limited research explores the age and tenure of committee members and the content of committee meetings. Additionally, beyond audit committees, risk management committees, and sustainability committees, it is advisable to investigate other committees such as strategy committees and nomination committees.

ESG reporting, including environmental, social, economic, strategic, energy, corporate governance, and voluntary ethics disclosure dimensions (Michelon & Parbonetti 2012; Nursimloo et al. 2020), meets stakeholders' demands for a comprehensive understanding of non-financial aspects (Tajuddin et al. 2023) and contributes to SDGs (Ahmed 2023). Most studies explored the ESG disclosure as a whole, but only limited literature focused narrowly on specific dimensions. Mardini and Elleuch Lahyani (2023) explored carbon disclosure, assessing a corporate performance in managing carbon emissions based on CDP. Ngu and Amran (2021) emphasized the significance of materiality as a reporting threshold in ESG reporting, recognizing major stakeholders and crucial topics through a materiality matrix. Carbon disclosure, materiality disclosure and disclosures of other aspects can be further investigated.

A majority of studies employ content analysis of annual reports or ESG reports as the primary method for evaluating the quality of ESG disclosure. The studies commonly employ a comprehensive ESG index to assess quality, assigning scores by utilizing a binary scale or scoring systems to each indicator based on adherence to criteria (Michelon & Parbonetti 2012; Mahmood & Orazalin 2017; Bae et al. 2018; Khaireddine et al. 2020; Nursimloo et al. 2020; Tiron-Tudor et al. 2020; Omran et al. 2021; Formigoni et al. 2021; Jibril et al. 2022; Balogh et al. 2022; Songini et al. 2022;Fayad et al. 2022; Kumar et al. 2022; Qaderi et al. 2022; Ahmed, 2023; Tajuddin et al. 2023; Githaiga & Kosgei 2023). Different dimensions of ESG reporting, such as external assurance, materiality matrix, and stakeholder engagement, are examined using categorical variables aligned with specified benchmarks (Zhou 2019; Tibiletti et al. 2020; Erin et al. 2022; Ngu & Amran 2021; Chairina & Tjahjadi 2023).

Other studies utilize external databases, such as the CGVS score, the ESGD score indicators from Bloomberg, and the carbon disclosure scores from CDP database to assess ESG disclosure (Lavin & Montecinos-Pearce 2021; Chouaibi et al. 2022; Nuhu & Alam 2023; Mardini & Elleuch Lahyani 2023). Qualitative methodology, such as interviews, or a mixed-methods approach combined qualitative and quantitative methodology can be considered to employ to investigate this relationship, while all 26 studies adopt a quantitative methodology. Furthermore, existing research predominantly relies on the GRI or IR guidelines as ESG index's references; however, national ESG guidelines can be considered as references because utilizing domestic ESG guidelines as a reference is advantageous as they are rooted in the local context and economic landscape, providing a more nuanced reflection of corporate performance in fulfilling social responsibilities.

Few studies introduce moderating and mediating factors in the relationship between BC and ESG disclosure. Sustainability commitment has been identified as a moderating variable, influencing the proportion of female directors and the quality of sustainability reports (Chairina & Tjahjadi 2023). The presence of a sustainability committee is shown to positively affect ESG disclosure and moderate the BC and ESG disclosure relationship

(Qaderi et al. 2022). Future research could explore government regulations, such as government subsidy, fiscal or taxation regulations because ESG reports are significantly influenced by government policies, and it is crucial to investigate whether they play a moderating or mediating role in the relationship between BC and ESG disclosure.

LIMITATIONS

This research concentrates on articles published in English and excludes studies available in languages other than English. Additionally, this analysis is limited to articles present in the Scopus and Web of Science databases. The personal biases of the authors may have played a role in the selection of studies. Despite efforts to use comprehensive search terms, there is a possibility that some articles related to the topic may have been unintentionally overlooked.

CONCLUSION

The research employs a Systematic Literature Review to identify empirical articles specifically addressing the nexus between BC and ESG disclosure. A total of 26 articles, spanning from 2012 to November 2023, were pinpointed through searches in Scopus and WoS databases. It is worth noting that 22 articles have been published since 2020, with 8 articles specifically in 2022. Malaysia, France, and Nigeria emerged as the top three countries studied. Three most frequently applied theories among all articles are stakeholder theory, agency theory and legitimacy theory.

Within these 26 articles, a comprehensive exploration of the impact of various board characteristics, such as board size, board independence, board gender diversity, and board expertise, on ESG disclosure was undertaken. The discourse on issues pertaining to the relationship between BC and ESG disclosure unveils numerous opportunities for future research. These prospects encompass industry comparative studies, the introduction or construction of new theoretical framework, exploration of the nuanced impact of specific board characteristics, the utilization of national ESG guidelines as references, in-depth examination of a particular aspect of ESG disclosure, and the investigation of the role of government mechanism in the relationship between these two variables.

This study contributed to contemporary research by three aspects, the reflection of the current research trajectory in this field; a comprehensive analysis of the relationship between BC and ESG disclosure and various supporting theories; and an elaboration of potential areas for further exploration. In terms of the implication to practice, this SLR summarised the impact of different BC on ESG disclosure with more ESG issues raised during Covid-19 Pandemic period. Therefore, policymakers can formulate the regulations relating to BC in order to improve the ESG disclosure. From the academic perspective, the application of token theory in analysing this relationship is very limited and could be explored more in future studies. However, the limitations of this study still exist including language, database, and comprehensiveness of search terms.

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APPENDIX A

TABLE A. Articles by authors, publishers, samples, regions and citation

Authors & Year	Publishers	Samples	Regions	Citation
Michelon & Parbonetti (2012)	Journal of Management and Governance	57 listed firms in Europe and USA in 2003	Europe and USA	537
Mahmood & Orazalin (2017)	Journal of Cleaner Production	oil, gas and mining Kazakhstan listed firms during 2010-2013	Kazakhstan	65
Bae et al. (2018)	Sustainability	88 listed firms in Bangladesh, India, and Pakistan in 2009 and 2016	Bangladesh, India, and Pakistan	53
Zhou (2019)	Applied Economics	Chinese listed manufacturing firms during 2010-2016	China	29
Khaireddine et al. (2020)	Society and Business Review	82 French listed firms during 2012-2017	France	29
Nursimloo et al. (2020)	Corporate Governance (Bingley)	top 50 New Zealand listed firms in 2016 and 2017	New Zealand	18
Tibiletti et al. (2020)	Corporate Social Responsibility and Environmental Management	200 Italian listed firms in 2016, 2011 and 2008	Italy	56
Tiron-Tudor et al. (2020)	Sustainability	61 European companies on the IIRC website during 2013–2017	Europe	6
Formigoni et al. (2021)	Social Responsibility Journal	274 Brazilian listed companies and 98 Spanish companies during 2010-2016	Brazil, Spain	15
Lavin & Montecinos-Pearce (2021)	Sustainability	General Price Index firms during 2015–2019	Chile	14
Ngu & Amran (2021)	Asian Journal of Business and Accounting	113 largest listed companies in 2016	Malaysia	7
Omran et al. (2021)	Journal of Applied Accounting Research	top 50 Australian listed companies during 2014-2017	Australia	11
Balogh et al. (2022)	Society and Business Review	100 largest Czech Republic companies in 2018	Czech Republic	9
Chouaibi et al. (2022)	EuroMed Journal of Business	253 European firms during 2010-2019	Europe	24
Erin et al. (2022)	Sustainability Accounting, Management and Policy Journal	120 Nigerian listed firms during 2013-2018	Nigeria	20
Fayad et al. (2022)	Cogent Economics and Finance	64 Malaysian firms during 2017-2020	Malaysia	3
Jibril et al. (2022)	Journal of Chinese Economic and Foreign Trade Studies	49 non-financial Nigerian listed firms during 2016-2020	Nigeria	3
Kumar et al. (2022)	Management of Environmental Quality	53 environmentally sensitive Indian listed firms during 2015-2019	India	78
Qaderi et al. (2022)	Sustainability	all listed Malaysian firms applied IR strategy during 2017-2020	Malaysia	9

Songini et al. (2022)	Journal of Management and Governance	212 IR reports during 2013-2016	Anglo Saxon countries, Europe and other countries	26
Ahmed (2023)	Meditari Accountancy Research	75 South African listed firms during 2013-2021	South Africa	185
Chairina & Tjahjadi (2023)	Economies	154 ASEAN listed firms during 2015-2019	Indonesia, Malaysia, Singapore, Thailand, Philippines, Vietnam	53
Githaiga & Kosgei (2023)	Corporate Governance (Bingley)	79 East African listed firms during 2011-2020	East Africa	9
Mardini & Elleuch Lahyani (2023)	Studies in Economics and Finance	120 French listed firms during 2010-2021	France	0
Nuhu & Alam (2023)	Journal of Financial Reporting and Accounting	126 BRICS listed energy industry firms during 2010-2019	Brazil, Russia, India, China, South Africa	0
Tajuddin et al. (2023)	Arab Gulf Journal of Scientific Research	top 50 Saudi Arabian listed firms during 2017-2019	Saudi Arabia	0