Board Attributes and Corporate Sustainability Reporting: A Systematic Review of Literature

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Abstract

The aim of the study is to deliver a detailed systematic review of the literature of the empirical studies conducted in the sphere of analyzing the association between attributes of the board with sustainability/ESG reporting. The study aims to map the literature at international scale to examine emerging trends and information gaps existing in the literature and also to explore the prospective research areas which can be explored by the researchers and experts. The study has used PRISMA method for systematic literature review. From a total of 926 articles retrieved via the Scopus indexed database during the period 2000 to 2025, finally 138 articles were selected for descriptive analysis using the selection criteria given by PRISMA. The findings of the study reveals that there has been a surge in the area especially in the last three years and prominent studies have been cross country studies followed by studies in Asia and Europe with providing ample possibilities for research in emerging economies like Africa and South America. The study also highlights the yearly trends in publication, top most productive journals, authors with the highest citation, widely used board attributes and commonly used research methods. At last the study provides future prospects for scholars, policymakers, regulators in enhancing the board attributes for better sustainability/ESG disclosures by the companies.

Keywords: Sustainability Reporting; Board Attributes; Systematic Literature review; ESG; Disclosures.

1. Introduction

Over the course of recent years, there has been agrowing sustainability reporting by companies to show their commitment towards sustainability efforts, initiatives and objectives. This rising trend itself shows that companies now consider sustainability reporting as a core of their business strategy rather than just a trivial part (Setiani & Novitasari, 2024). The rising pressure on companies to have ESG or sustainability disclosures is because of the worldwide awareness and investors at both national and international level showing interest for ESG disclosures and also the extent to which these disclosures have given financial risk and opportunities to the companies (Nuhu & Alam, 2023; Aydogmus et al., 2022). Investors want to have the information on the manner companies are handling the influence of their societal and environmental engagements also hold them answerable for the same. Improved ESG disclosures by companies lead to improved transparency, good reputation and higher financial gains which in turn lead to better competitiveness and relationships with the stakeholders (Abdelmoneim & El-Deeb., 2024). Companies should have proper ESG disclosures because stakeholders demand the ESG reports. The ESG routine of the company is inclined by certain board characteristics (Nguyen & Nguyen, 2023). Adopting the right ESG framework can guide the companies to align needs of the stakeholders while having long lasting worth by taking care of ESG standards (Ding et al., 2024). Companies can achieve competitive advantage by developing the skills and competencies through ESG/sustainability reports (Bosi et al., 2022). As per the theory of stakeholder, organisations which take care of the interests of not just their shareholders but all stakeholders tend to be more successful and sustainable (Aydogmus et al.,

2022). Corporate Board is pivotal to the company as they are directly involved in formulating policies and taking strategic decisions, hence their role is supreme in aligning sustainability goals with the corporate governance and ensuring enhanced sustainability disclosures. Hence, their attributes too have an impact on governance practices and long term decision making (Ding et al., 2024). Studies done in the past have focused much on the developed countries without much exploration done in developing countries where rules for reporting non financial information are still changing while evaluating impact of attributes of the board on ESG/ sustainability disclosures or reporting still remains to be explored. Moreover the articles on systematic literature review and meta analysis on this topic are very few (Pahuja & Agrawal, 2023). Therefore, the motive of this study is to provide a detailed review of literature on board attributes impacting ESG/ sustainability disclosures for mitigating these gaps. This study will guide the regulators and policymakers who are involved in the task of forming policies and regulations with regard to ESG/ sustainability reporting. This study will also help the corporate to observe the effect that attributes of the board have on ESG/ sustainability performance and how and which attributes need to be strengthened to enhance their sustainability disclosures. Finally this research is an in detailed study of existingliterature on board attributes and ESG/ sustainability reporting which will provide insight into the current trends, gaps in the previous literature and future prospects (Setiani & Novitasari, 2024).

2. Background

Sustainability reporting first emerged in the early 1990s amidst the rising demand for sustainability from corporate and several sections of the society. Hence there was a need to develop a strong framework for sustainability. Major contribution has been of John Elkington when in the year 1994 the 'triple bottom line' approach having 3 dimensions namely "economic prosperity, environmental quality and social justice" of sustainability were given (Elkington., 1997; Turan et al., 2008). With this shift, sustainability or ESG reporting started to develop with many big corporations were producing their sustainability reports. Global Reporting Initiative (GRI) was first universally acceptable reporting standard which was launched the year 1997 which intended to foster accountability and quality of ESG reporting by companies. Now large number of companies adopts GRI standards for preparing their sustainability reports (Kelly., 2022). In the year 2021 IFRS foundation took the initiative of integrating the sustainability reporting standards and other certifying organisations like CDP, CDSB, GRI, IIRC and SASB supported this effort. This was the first ever initiative to provide single unified framework for sustainability reporting (Biswas & Gupta, 2023).

Corporate sustainability reporting is also at times referred to as CSR or triple bottom line reporting which is the reporting of environment, social and economic, performance by the companies in form of reports (Rao et al., 2009; Daisy & Das, 2014). The concept has been used interchangeably with environment for a very long period but over the past few years there has been an extension to it by adding social and economic dimensions. The reason behind this was that, defining sustainability just with environment and without the social and economic dimension might be not be easy (Bozat et al., 2016). Corporate sustainability reporting is an asset to the companies to improve their financial performance not only during stable economic conditions but also during the economic slowdown since investors are giving lot of importance to sustainability reports released by the companies. Companies have a realization that they will not be able to achieve their strategic objectives unless they meet stakeholders' expectations by creating social and environmental value (Bartlett, 2012).

(Almaqtari et al., 2024) states that the responsibility of panel attributes in determining the sustainability presentation of the firms have risen due to the growing concern for environment and dedication to sustainability and several factors like changes in the regulatory and policy framework,

rising awareness towards environment and expectations of the stakeholders. Corporate board being the principal entities for corporate governance and deciding about strategic direction for the firm can affect the sustainability reporting of the company. Their position is significant in deciding about ESG disclosures by the organisation, requiring special expertise to make strategic decision making (Almaqtari et al; 2024). Board effectiveness proves beneficial in reducing self serving conduct of the board members and leads to implementation of sustainable initiative which further results in improved ESG reporting. Companies having diverse board with larger proportion of female members have better sustainability disclosures because they are considered to be more compassionate towards various stakeholders (Lewa et al., 2024). Boards which meet frequently have a chance of discussing sustainability matters and increases ESG reporting. A board with more number of independent directors protects the company from unethical and socially negligent actions and pursues sustainability for lasting gains by the organisation (Disli et al., 2022). The manner of decision gathering and decisions on ESG disclosures can be improved with larger and diverse boards. Larger boards bring in capable people from different background who can deal with variety of issues with greater efficiency (Almaqtari et al; 2024).

3. Review of Literature

As demarcated by World Business Council for Sustainable Development, "sustainability reporting is companies providing information about their economic, environmental and social activities to the stakeholders in form of reports which are public" (Zuo et al., 2012). Past studies reveal that benefit of sustainable reporting by the companies is the voluntary disclosure of how their business operations impact the economic, environmental, and social elements. As a result there will be decline in information asymmetry and transparency in the sustainability activities which will further lead to evaluation of the companies by the investors on basis of their ESG activities and guide them to decide about the companies in which they want to invest their money (Farisyi et al., 2022). The board holds a central position in guiding the organization about financial and non economic disclosures since they are the ones who make strategies and disclosure policies of the company (Nuhu & Alam, 2023).

(Sain & Kashiramka, 2024) showed that banks with higher occurrence of board meetings have exhibited aundesirable association with performance of banks. Banks with more female members on the board has initially shown confident improvement in ESG performance but beyond a limit it has impacted ESG performance unfavorably. (Kartal et al., 2024) revealed that companies with larger and more females on the board have shown more commitment for ESG performance. Other board attributes like size, independence age and participation have been destructively linked with ESG performance. A larger board size and a higher ratio of independent board members correlate positively with enhanced ESG practices disclosure. In contrast, CEO duality and increased female illustration on the board appear to correlate with a reduction in the level of ESG disclosures by the organization. (Husted & de Sousa-Filho, 2019). (Ludwig & Sassen, 2022) systematically reviewed 56 articles to explore the correlation between internal commercial governance mechanisms and corporate sustainability and initiatethat authority factors such as diversity, sustainability committee, concentrated ownership, role of CEO, independence, concentrated ownership have significant impact on long-term corporate responsibility. Separating the role of chair and CEO leads to improved environmental performance whereas presence of independent directors on board influences social performance negatively. Moreover increasing diversity in the panel leads to enhancement in the environmental performance of the company (Naciti, 2019). According to (Githaiga & Kosgei, 2023) East Africa can enhance their sustainable practices and reporting by formulating smaller boards, larger representation of females and self-governing directors on the board and a higher count of board members with financial knowledge. (Buallay & Al-Ajmi, 2020) stated that banks with larger audit committee, board members having greater independence along

with more frequent meetings exert a positive influence on sustainability disclosures. (Ong & Djajadikerta, 2020) reported a positive association between sustainability disclosures with board characteristics of presence of independent directors, more female directors and directors holding directorship of numerous companies.

The study is structured into several segments. First two segments are the introduction and background; third one describes the review of literature; Segment 4 and 5 represents the research questions and methodology; Segment 6 and 7 reveal the research findings along with discussion and conclusion; Last segment addresses the limitations and future prospects.

4. Research Questions

This study tries to find the answers to the following questions:

Q1What are the prevailing trends of the study relating to board attributes influencing ESG/sustainability reporting or disclosures?

Q2 What are the key insights from the existing literature and future research directions?

5. Data and Methodology

5.1 Method

We have used Systematic Literature Review method, since it is a widely used method for analysing the literature of the subject because it can avoid prejudice and subjectivity. Also it can give a detailed analysis of the trends, methodologies and the coverage of the research done already in this field (Mulyana et al., 2023). The purpose of this review is to analysis existing literature so as to find out the gaps which could be used by future researchers. This study will not only provide the researchers with potential research areas but also an insight into influence of board attributes have on ESG/sustainability reporting or disclosures which will eventually help companies in improving their sustainability performance (Pahuja & Agrawal, 2023).

The study has used PRISMA method to conduct systematic review and following procedure is adopted.

- a) Get the copy of PRISMA flow diagram
- b) Select the database and conduct a database search for your topic using string of keywords and time period for which you want the literature
- c) Decide the evaluation and selection criteria which could be the language, relevance to the topic, area of study
- d) Conduct screening of the selected articles on the basis of title and abstract
- e) Do the full assessment of the these articles to remove the ones for which full text is not available
- f) Review the articles which are irrelevant for your research objectives.
- g) Conduct the systematic review of eligible selected articles.

5.2 Selection Process

We started our information search using SCOPUS, which is amongst the largest multidisciplinary abstract and citation database covering journals, books, conference papers across the world(. Articles were selected using the following steps. Articles were searched using a cord of keywords related to the topic of study (Tedja et al., 2024). The keywords which were used to find out the influence of board attributes on ESG/sustainability reporting or disclosures ((TITLE-ABS-KEY("BOARD CHARACTERSTICS*" OR "BOARD ATTRIBUTES*" OR "BOARD*") AND TITLE-ABS-KEY("ESG" OR "SUSTAINABILITY DISCLOSURE" OR "ESG REPORTING). The articles were extracted using these string keywords were 926 which included journal articles, book chapter, review, book, conference. To refine the articles further filter of document type to "articles" and language 'English' was used and we got 757 articles.

Criteria for Inclusion

Articles related to board attributes and Sustainability/ESG disclosure or reporting

Articles published in journals Final publication stage

Articles published in English Language Final publication stage

Articles related to management, business, social sciences, arts and humanities, Economics

Criteria for Exclusion

Articles published in conference paper, book chapter, editorial, reviews

Non English Articles.

Articles not related to the core subject area.

Articles in press

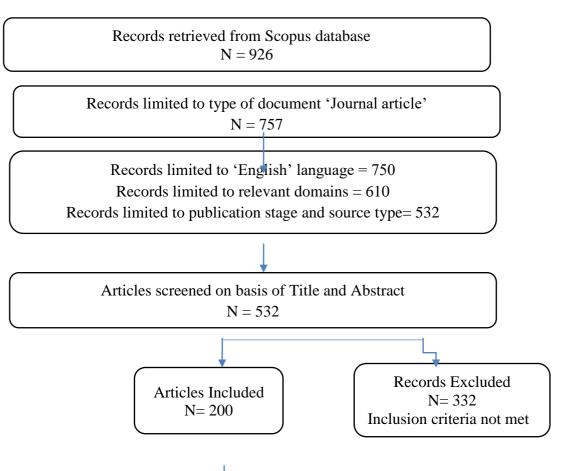
Articles without full text ,ones with just abstract

Articles without proper research methodology Not related to research objectives.

Table 1: Criteria for inclusion, exclusion

5.3 Article Selection Criteria

We screened the articles with their titles and abstract to filter out the articles which don't match the research objectives. We selected the articles in which any of the board traits like board size, individuality, CEO duality, board committees; gender assortment etc with ESG/Sustainability is analysedin order to ensure that the articles provide answers to our research questions. Hence 332 were excluded and 200 articles were chosen since they were matching the objectives of the study. These 200 articles were analysed to find out full text articles using DOI on databases. Finally 138 were selected for systematic analysis after excluding the ones which were not related to the board variables in our study or were not analysing the assembly between board attributes and ESG/Sustainability reportage or disclosures. Figure 1 is the PRISMA flowcharts illustrating the documentation, screening and selection process of the articles for systematic literature review.



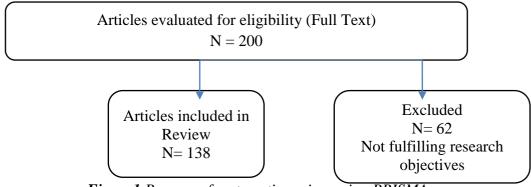


Figure 1 Process of systematic review using PRISMA

6. Research Findings

Detailed analyses of 138 selected articles have been done to discourse the research questions. The study discusses the analysis on trend of publication over the years, the top journals, list of most productive authors, geographical distribution of articles, most cited authors, mostly used board attributes in the articles, research techniques and frequent keywords used in the articles. This segment of the review represents the major findings of the systematic literature review.

6.1 Descriptive analysis

6.1.1 Yearly Publication Trend

The figure 2 represents the dynamic progression in the yearly publication count from the year 2012 to 2025 in Scopus database. During the period of 2000 to 2011 the research on board attributes and ESG reporting has been nil. The very first article was published in the year 2012. Between the years 2016 to 2020 upward trend was seen in the count of published articles, the rationale behind this could be the taking up of SDG's by UN in the year 2015 which motivated the organisations to align themselves with these sustainability goals and also provided new research avenues for the researcher. However decline was seen in year 2020 due to COVID-19 pandemic which may have lead to delay in reviewing process (Benameur et al., 2023). The red line indicated the cumulative total of the articles over the years. We can see a sharp rise in the number of articles from the year 2022 to 2024 with a peak seen in the year 2024 when the numbers of articles published were the highest with 54 articles and cumulative of 105 published articles. In the year 2025 a dip has been seen with 35 articles the reason being some of the articles must still be in progress and year 2025 is yet to finish but when we see the cumulative, the number continues to rise to 137 from 105 in the year 2024. This trend proves that the area of research is liked by many academicians and researchers.

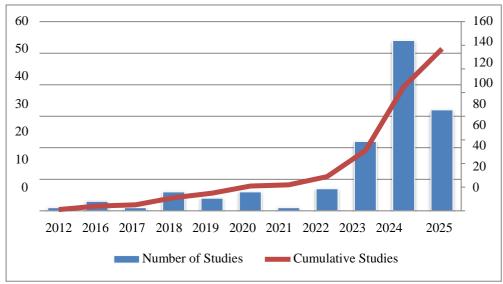


Figure 2: Publication trend per year

6.1.2 Geographical Distribution

The figure 3 represents the percentage distribution of articles on the basis of different regions/countries. Cross country continents have the highest percentage (42%) representing the highest proportion of the count of articles published. The reason for higher cross country collaboration could be the interest of researchers for cross country comparison for this study. Research on board attributes and sustainability reporting have gained momentum in Asian countries like China, Malaysia, Thailand, Japan, India, Sri Lanka holding a second largest share of 31% followed by Europe with a 19% share. The least contributing regions have been Australia and North America with a share of 3% and Africa and South America with 1% share each. The reason for Africa and South America contributing fewer articles could be the non availability of funding and appropriate technological infrastructure for the research and non access to sustainability data (Setyaningsih et al., 2024).

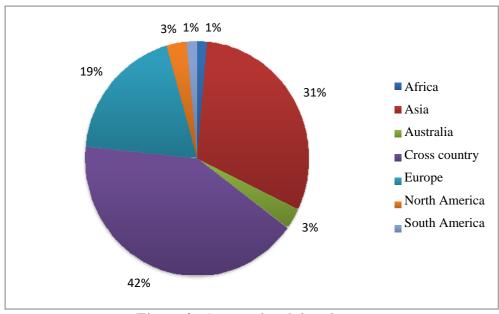


Figure 3: Geographical distribution

6.1.3 Top Influential Journals

The table 2 demonstrates distribution of articles published across leading five journals in the domain of our study. Journal of "Sustainability (Switzerland)" published by MDPI is the leading journal with maximum number of 21 articles surveyed by Journal of "Corporate Social Responsibility and Environmental Management" published by Wiley and journal of Corporate Governance (Bingley) published by Emerald with 13 and 6 articles respectively. The journal with least number of published articles is Journal of "Business Strategy and Development" published by Wiley and "Journal of Cleaner Production" published Elsevier having 5 and 4 articles respectively, which is comparatively low but still considerable

Journal Name	No. of Studies	Publisher
Sustainability (Switzerland)	21	MDPI
Corporate Social Duty and Environmental	13	Wiley
Management		
Corporate Governance (Bingley)	6	Emerald
Business Strategy and Development	5	Wiley
Journal of Cleaner Production	4	Elsevier

Table 2: Top influential journals

6.1.4 Most Cited Author

The table 3 is the representation of articles which have received the highest citation count. The most cited author is (*Michelon & Parbonetti*, 2012) for the article "The effect of corporate governance on sustainability disclosure" with 741 citations followed by (*Ben-Amar et al.*, 2017) on "Board Gender Diversity and Corporate Response to Sustainability Initiatives: Evidence from the Carbon Disclosure Project" with 740 citations. The authors with least citations are (*Zahid et al.*, 2020) and (*Velte*, 2016) with 171 and 189 citations.

Author	Title of the Paper	Total Citations
Michelon & Parbonetti,2012	"The effect of corporate governance on sustainability disclosure"	741
Ben-Amar et al., 2017	"Board Gender Diversity and Corporate Response to Sustainability Initiatives: Evidence from the Carbon Disclosure Project"	740
Cucari et al., 2017	"Diversity of Board of Directors and Environmental Social Governance: Evidence from Italian Listed Companies"	529
Husted & de Sousa-Filho, 2019	"Board structure and environmental, social, and governance revelation in Latin America"	409
Manita et al., 2018	"Board gender diversity and ESG disclosure: evidence from the USA"	356
Arayssi et al., 2019	"The impact of board conformation on the level of ESG disclosures in GCC Countries"	287
Birindelli et al., 2018	"Composition and activity of the board	255

	of directors: Impact on ESG performance in the banking system"	
Arayssi t al., 2016	"Women on boards, sustainability reporting and firm outcome"	239
Velte, 2016	"Women on management board and ESG performance"	189
Zahid et al., 2020	"Boardroom gender diversity: Suggestions for corporate sustainability disclosures in Malaysia"	171

Table 3: Most cited author

6.1.5 Most productive Author

The figure 4 shows the 10 authors with the highest publication count. According to the findings, *Hashim, Hafiza Aishah* was found to be the most dominant author with 5 published articles followed by *Salleh, Zalailah* with 4 articles, *Jizi, Mohammad; Almaqtari, Faozi A., Alodat, Ahmad Yuosef* with 3 articles each. *Yadav, Priti; Appiagyei, Kwadjo; Donkor, Augustine* having 2 articles each.

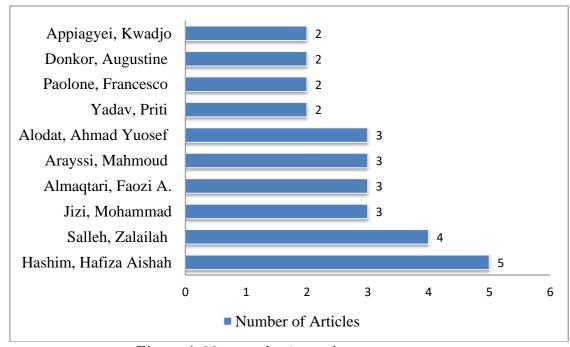


Figure 4: Most productive authors

6.1.6 Distribution of Board Attributes

The figure 5 represents the frequency of different board attributes which are examined in different articles. The frequency is the number of articles which have analysed that particular board attribute. The majorly used board attribute is of board gender diversity which has been analysed in 65 articles, followed by board size, board committees in 36 and 29 articles. Other attributes like independence, ownership, meetings and CEO duality have been studied as an independent variable in 23, 12, 10 and 9 articles respectively. The least studied attributes are board tenure, education and expertise studied in 6, 4 and 4 articles respectively. This shows the trends in the attributes of corporate governance adopted by researchers for studying its impact on sustainability reporting.

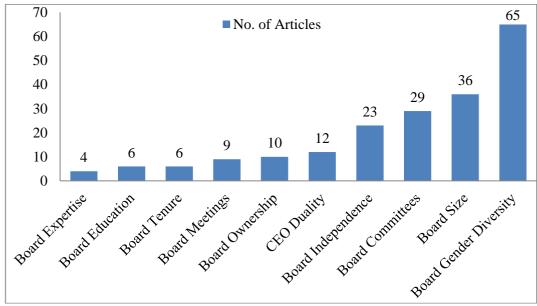


Figure 5: Frequency of board attributes

6.1.7 Sustainability Theories Distribution

The figure 6 is the representation of various sustainability theories which forms the conceptual basis, adopted by different authors to analyze the connection between board attributes and sustainability reportage. The widely used theories are stakeholder, agency and resource dependency. Theory of agency is based on the ideology that there exists an agency connection among the shareholders and directors of the company. Shareholders assign decision making to the directors on the belief that directors will take decisions in their greatest interest; however agency conflicts may arise when directors put their interest forward rather than putting the interest of the shareholders (Hendrastuti & Harahap, 2023). The stakeholder theory aims to generate value for all those stakeholders who are associated with the company and by incorporating sustainability practices into their management can provide enduring growth to the firm (Onbhuddha & Ogata, 2024). Resource dependency theory states that managers should manage their relations with the outsiders strategically who have the access to the resources which are of the essence for the organisation, thus allowing them to successfully align their resource dependency with their sustainability initiatives (Sarkis et al., 2011; Balcioğlu, 2025). Theories like institutional, signalling, stewardship theories are the other ones used while studying the board attributes with sustainability disclosures.

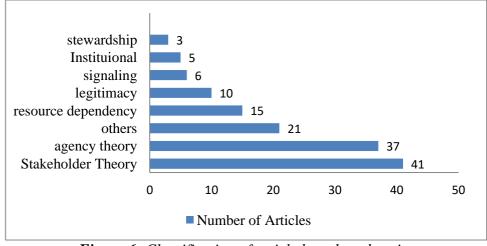


Figure 6: Classification of article based on theories

6.1.8 Research Methods Distribution

The figure 7 gives representation of different research data collection methods used by different studies, which are secondary data/reports/database, content analysis, literature review, interview, surveys and others. The large number of studies has used secondary data, which means most of the researchers have relied on companies' reports, data from databases like Bloomberg, refinitiv, Thomson Reuters Eikon for collecting the data. Another most common method which has been used is content analysis and very few studies have relied on interview, survey, case studies and literature review or SLR or meta analysis as their research technique for data collection thus providing scope to future researchers to fill this gap specifically with regard to SLR, meta and bibliometric analysis.

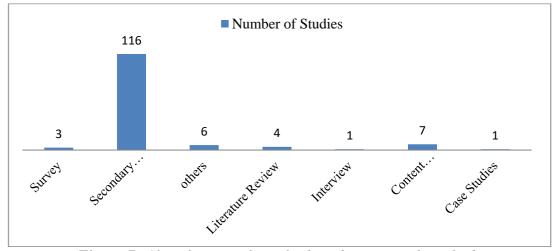


Figure 7: Classification of articles based on research methods

6.1.9 Sample type, Keywords, Control Variables, Methods of Analysis Distribution

The table 4 represents the details regarding the type of paper, type of sample organisations, method of analysis, control variables and frequently used keywords in the articles. Out of the total of 138 papers selected, 4 articles were based on SLR/Meta analysis and rest 134 was empirical studies. Majority of the studies have been done on organisations like listed companies, manufacturing, Fintech, State owned, airlines, consumer goods, family firms etc. to analyse the association between board attributes and sustainability reporting/disclosures. Only 24 papers included banks and others type of organisations. If we discuss the research methods, regression including OLS, Two stage least square method, GMM etc has been the widely used techniques for analyzing the connection between the association between board attributes and sustainability reporting/disclosures. Control variables are commonly used by researchers to manage the effect other variables might have on the key variables of the study, which will as a result avoid inaccuracy in the results (Memon et al., 2024). The frequently used control variables in the studies are, one firm related which are "firms' size, leverage, age, profitability, financial leverage, cash flow, return on assets, growth" and other ones related to board are "board independence, size, CEO duality, CEO tenure, ownership, diversity, board meetings". There is also a word cloud shown in figure 8 which is representing the frequency of keywords in the articles. Corporate governance emerges to be most dominating keyword in the articles followed by ESG performance, ESG, board diversity and so forth. The keyword corporate governance has occurred 49 times with ESG performance having frequency of 29 followed by ESG with 27 occurrences and corporate social responsibility has the lowest occurrence frequency of 11.



Figure 8: Word cloud showing the frequency of keywords

Particulars	Categories with Number of Articles
Type of paper	Empirical-134
	Review-4
Sample organisation	Banks 19
	Companies-115
	Others-4
Analysis method used	Regression- 112
	Others- 26
Control variables used	Firm related- "Firms' size, leverage, age, profitability,
	financial leverage, cash flow, return on assets, growth
	Board related- board independence, size, CEO duality,
	CEO tenure, ownership, diversity, board meetings"
	"a a a a a a a a a a a a a a a a a a a
Frequently used keywords	"Corporate Governance, ESG Performance, ESG, ESG
	Performance, Board Gender Diversity, ESG Disclosure,
	Sustainability, Environmental, Board Of Directors"

Table 4: Information on type of sample, keywords, control variables, method of analysis

7. Discussion and Conclusion

In the changing era, principles of ESG serves a prominent guide for the investors who want to evaluate the companies not only on financial criteria but also on ESG parameters before making any kind of potential investments in terms of debt and equity. Firms are able to draw investments along with access to wider capital resources due to their enhanced sustainability and governance practices (Arhinful et al., 2024). Board of directors are pivotal to the company as they are directly involved in formulating policies and taking strategic decisions, hence their role is supreme in aligning sustainability goals with the corporate governance and ensuring enhanced sustainability disclosures (Ding et al., 2024). The descriptive systematic analysis of 138 articles from Scopus database show a sharp rise in the number of articles from the year 2022 to 2024 with a peak seen in the year 2024 when the numbers of articles published were the highest with 54 articles and total of 105 published articles. In the year 2025 a dip has been seen with 35 articles the reason being some of the articles must still be in progress and year 2025 is yet to finish but we see the cumulative, the number continues to rise to 137 from 105 in the year 2024 which means that the topic is gaining popularity amongst the researchers (Wan et al., 2023). Cross country continents have the highest percentage (42%) representing the largest proportion of the articles published. The reason for higher cross country collaboration could be the interest of researchers for cross country comparison for this

study. Research on board attributes and sustainability reporting have gained momentum in Asian countries like China, Malaysia, Thailand, Japan, India, Sri Lanka holding a second largest share of 31% followed by Europe with a 19% share. Journal of Sustainability (Switzerland) published by MDPI is the leading journal with maximum number of 21 articles followed by Journal of *Corporate* Social Responsibility and Environmental Management published by Wiley and journal of Corporate Governance (Bingley) published by Emerald with 13 and 6 articles respectively. The most cited author is (Michelon & Parbonetti, 2012) for the article "The effect of corporate governance on sustainability disclosure" with 741 citations followed by (Ben-Amar et al., 2017) on "Board Gender Diversity and Corporate Response to Sustainability Initiatives: Evidence from the Carbon Disclosure Project" with 740 citations. The authors with least citations are (Zahid et al., 2020) and (Velte, 2016) with 171 and 189 citations. The majorly used attribute is of board gender diversity which has been analysed in 65 articles, followed by board size in 36 articles, board committees explored by 29 articles. The widely used theories are stakeholder, agency and resource dependency theory. The large number of studies has used secondary data, which means most of the researchers have relied on companies' reports, data from databases like Bloomberg, Refinitiv, Thomson Reuters Eikon for collecting the data. Out of the total of 138 papers selected, 4 articles were based on SLR/Meta analysis and rest 134 was empirical studies. Majority of the studies have been done on organisations like listed companies, manufacturing, Fintech, State owned, airlines, consumer goods, family firms etc. to analyse the relationship between board attributes and sustainability reporting/disclosures. Only 24 papers included banks and others. If we discuss the research methods, regression including OLS, two stage least square method, GMM etc has been the widely used techniques for analyzing the relationship board attributes has with sustainability reporting/disclosures.

Previous literature has primarily focused on the developed countries and not much exploration has been done in developing countries where rules for reporting non financial information are still changing and the role of board attributes on ESG/ sustainability disclosures or reporting still remains the domain which needs to be examined. Moreover the articles on systematic literature review and meta analysis on this topic are very few (Pahuja & Agrawal, 2023; Setiani & Novitasari, 2024). Therefore the purpose of this study is to address these shortcomings by conducting a detailed synthesis of existing literature on board attributes impacting ESG/ sustainability disclosures. This study will provide guidance to the regulators and policymakers who are involved in the task of forming policies and regulations with regard to ESG/ sustainability reporting. This study will also help the corporate to analyse the influence of board attributes on ESG/ sustainability performance and how and which attributes need to be strengthened to enhance their sustainability disclosures. To conclude, this research is an in-depth analysis of literature on board attributes and ESG/ sustainability reporting which will provide insight into the current trends, shortcomings existing in the previous studies and prospects for future research (Setiani & Novitasari, 2024).

8. Limitations and Future Research Directions

There are several limitations of our study. Firstly, the data has been gathered from Scopus database for analysis, there are other databases like Web of science which could be incorporated for widened scope of analysis. Secondly, the selection of data was limited to English language and subject areas of management, business, social sciences, arts and humanities due to which certain relevant papers would be missing from our analysis. Thirdly, the study covers the period from 2000 to 2025 as a result some valuable insights could be missing from prior studies. The future research can incorporate all these missing gaps of our study in their research. They can widen the scope of their analysis by including other databases, non English language journals, expanded subject areas and other dimensions of board attributes which might be missing from the current systematic analysis. There are limited numbers of studies done to examine the impact of board attributes on

sustainability reporting in Asian economies, family firms, and gulf countries and emerging markets. Also there is limited literature on cross country comparisons between developing and developed countries. Future research can focus on these unexplored areas and can expand their scope of research.

REFERENCES

- [1] Abdelmoneim, Z., & El-Deeb, M. S. (2024). BOD characteristics and their impact on the link between ESG disclosure and integrated reporting disclosure quality: A study of Egyptian non-financial firms. *Future Business Journal*, *10*(1), 18. https://doi.org/10.1186/s43093-023-00297-y
- [2] Abu Khalaf, B. (2024). Impact of board characteristics on the adoption of sustainable reporting practices. *Cogent Business & Management, 11*(1). https://doi.org/10.1080/23311975.2024.2391563
- [3] Almaqtari, F. A., Elsheikh, T., Hashim, H. A., & Youssef, M. A. E.-A. (2024). Board attributes and environmental and sustainability performance: Moderating role of environmental teams in Asia and Europe. *Sustainable Futures*, 7, 100149. https://doi.org/10.1016/j.sftr.2023.100149
- [4] Almaqtari, F., Elsheikh, T., Tawfik, O. I., & Youssef, M. A. E.-A. (2022). Exploring the Impact of Sustainability, Board Characteristics, and Firm-Specifics on Firm Value: A Comparative Study of the United Kingdom and Turkey. *Sustainability*, *14*(24), 16395. https://doi.org/10.3390/su142416395
- [5] Amin, A., ur Rehman, R., Ali, R., & Mohd Said, R. (2022). Corporate Governance and Capital Structure: Moderating Effect of Gender Diversity. *SAGE Open*, 12(1). https://doi.org/10.1177/21582440221082110
- [6] Arayssi, M., Dah, M., & Jizi, M. (2016). Women on boards, sustainability reporting and firm performance. *Sustainability Accounting, Management and Policy Journal*, 7(3), 376–401. https://doi.org/10.1108/SAMPJ-07-2015-0055
- [7] Arayssi, M., Jizi, M., & Tabaja, H. H. (2019). The impact of board composition on the level of ESG disclosures in GCC countries. *Sustainability Accounting, Management and Policy Journal*. Advance online publication. https://doi.org/10.1108/SAMPJ-05-2018-0136
- [8] Arhinful, R., Mensah, L., & Owusu-Sarfo, J. S. (2024). Board governance and ESG performance in Tokyo stock exchange-listed automobile companies: An empirical analysis. *Asia Pacific Management Review*, 29(4), 397–414. https://doi.org/10.1016/j.apmrv.2024.11.001
- [9] Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG performance on firm value and profitability. *Borsa Istanbul Review*, 22, S119–S127. https://doi.org/10.1016/j.bir.2022.11.006
- [10] Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. *Quantitative Science Studies*, *1*(1), 377–386. https://doi.org/10.1162/qss_a_00019
- [11] Balcıoğlu, M. (2024). Sustainable Development and Resource Dependence Theory: In C. Şeker, A. Kaya, & N. Bahçelerli (Eds.), *Advances in Business Strategy and Competitive Advantage* (pp. 109–128). IGI Global. https://doi.org/10.4018/979-8-3693-8337-7.ch006
- [12] Ben-Amar, W., Chang, M., & McIlkenny, P. (2017). Board gender diversity and corporate response to sustainability initiatives: Evidence from the Carbon Disclosure Project. *Journal of Business Ethics*, 142(2), 369–383. https://doi.org/10.1007/s10551-015-2759-1
- [13] Benameur, K. B., Mostafa, M. M., Hassanein, A., Shariff, M. Z., & Al-Shattarat, W. (2024). Sustainability reporting scholarly research: A bibliometric review and a future research agenda. *Management Review Quarterly*, 74(2), 823–866. https://doi.org/10.1007/s11301-023-00319-7
- [14] Birindelli, G., Dell'Atti, S., Iannuzzi, A. P., & Savioli, M. (2018). Composition and Activity of the Board of Directors: Impact on ESG Performance in the Banking

- System. Sustainability, 10(12), 4699. https://doi.org/10.3390/su10124699
- [15] Bosi, M. K., Lajuni, N., Wellfren, A. C., & Lim, T. S. (2022). Sustainability Reporting through Environmental, Social, and Governance: A Bibliometric Review. *Sustainability*, *14*(19), 12071. https://doi.org/10.3390/su141912071
- [16] Bozat, Z. A., Topdemir, A., & Gazi, I. (2016). Building corporate reputation with sustainability and universities. *SosyalEkonomikAraştırmalarDergisi*, *16*(32), 286–302. https://www.researchgate.net/publication/339044150_BUILDING_CORPORATE_REPUTATI ON_WITH_SUSTAINABILITY_AND_UNIVERSITIES
- [17] Buallay, A., & Al-Ajmi, J. (2019). The role of audit committee attributes in corporate sustainability reporting: Evidence from banks in the Gulf Cooperation Council. *Journal of Applied Accounting Research*, 21(2), 249–264. https://doi.org/10.1108/JAAR-06-2018-0085
- [18] Choudhury, K. S., Ahmed, J. U., & Laskar, N. (2022). Impact of corporate governance attributes on sustainability reporting: Evidence from India. *Indonesian Journal of Sustainability Accounting and Management*, 6(2), 326–336. https://doi.org/10.28992/ijsam.v6i2.690
- [19] Chow, K. Y., Alfan, E., & Mustapha, M. Z. (2024). Sustainability committee and environmental, social and governance (ESG): A systematic literature review. *International Journal of Business and Society*, 25(2), 484–508. https://doi.org/10.33736/ijbs.7603.2024
- [20] Chytis, E., Eriotis, N., & Mitroulia, M. (2024). ESG in business research: A bibliometric analysis. *Journal of Risk and Financial Management*, 17(10), 460. https://doi.org/10.3390/jrfm17100460
- [21] Cucari, N., Esposito De Falco, S., & Orlando, B. (2017). Diversity of board of directors and environmental social governance: Evidence from Italian listed companies. *Corporate Social Responsibility and Environmental Management*. Advance online publication. https://doi.org/10.1002/csr.1452
- [22] da Cunha, Í. G. F., Policarpo, R. V. S., de Oliveira, P. C. S., et al. (2025). A systematic review of ESG indicators and corporate performance: Proposal for a conceptual framework. *Future Business Journal*, 11, 106. https://doi.org/10.1186/s43093-025-00539-1
- [23] Daisy, & Das, N. (2014). Sustainability reporting frameworks: Comparative analysis of global reporting initiatives and Dow Jones sustainability index. *International Journal of Science and Technology*, 3(1), 55–66. https://www.researchgate.net/publication/373842657_Global_Reporting_Initiative_Global_Scenario_A_Comparative_Study_of_Different_Sustainability_Frameworks
- [24] Ding, H., Wang, Z., Xu, H., & Lin, Z. (2024). A Study on the Impact of Board Characteristics on the Environmental, Social, and Governance (ESG) Responsibilities of Listed Companies—Evidence from Chinese Listings. *Sustainability*, *16*(23), 10490. https://doi.org/10.3390/su162310490
- [25] Disli, M., Yilmaz, M. K., & Mohamed, F. F. M. (2022). Board characteristics and sustainability performance: Empirical evidence from emerging markets. *Sustainability Accounting, Management and Policy Journal*, *13*(4), 929–952. https://doi.org/10.1108/SAMPJ-09-2020-0313
- [26] DistillerSR. *PRISMA methodology for systematic review* [Blog post]. Retrieved May 12, 2025, from https://www.distillersr.com/resources/systematic-literature- reviews/prisma-methodology-for-systematic-review
- [27] Elkington, J. (1997). Cannibals with forks: The triple bottom line of 21st century business. Oxford: Capstone Publishing.
- [28] Farisyi, S., Musadieq, M. A., Utami, H. N., & Damayanti, C. R. (2022). A Systematic Literature Review: Determinants of Sustainability Reporting in Developing Countries. *Sustainability*, *14*(16), 10222. https://doi.org/10.3390/su141610222
- [29] Githaiga, P. N., & Kosgei, J. K. (2023). Board characteristics and sustainability reporting: A

- case of listed firms in East Africa. *Corporate Governance: The International Journal of Business in Society*, 23(1), 3–17. https://doi.org/10.1108/CG- 12-2021-0449
- [30] Hendrastuti, R., & Harahap, R. F. (2023). Agency theory: Review of the theory and current research. *JurnalAkuntansiAktual*, 10(1), 85. https://doi.org/10.17977/um004v10i12023p085
- [31] Husted, B. W., & Sousa-Filho, J. M. D. (2019). Board structure and environmental, social, and governance disclosure in Latin America. *Journal of Business Research*, 102, 220–227. https://doi.org/10.1016/j.jbusres.2018.01.017
- [32] Kartal, M. T., Taşkın, D., Shahbaz, M., Kılıç Depren, S., & Korkut Pata, U. (2024). Effects of Environment, Social, and Governance (ESG) Disclosures on ESG Scores: Investigating the Role of Corporate Governance for Publicly Traded Turkish Companies. *Journal of Environmental Management*, 368, 122205. https://doi.org/10.1016/j.jenvman.2024.122205
- [33] Khaw, T. Y., Amran, A., & Teoh, A. P. (2024). Factors influencing ESG performance: A bibliometric analysis, systematic literature review, and future research directions. *Journal of Cleaner Production*, 448, 141430. https://doi.org/10.1016/j.jclepro.2024.141430
- [34] Kijkasiwat, P., Hussain, A., & Mumtaz, A. (2022). Corporate Governance, Firm Performance and Financial Leverage across Developed and Emerging Economies. *Risks*, *10*(10), 185. https://doi.org/10.3390/risks10100185
- [35] Lewa, E. M., Gatimbu, K. K., & Kariuki, P. W. (2024). Board attributes and sustainability reporting of selected listed nonfinancial firms in anglophone Sub- Saharan African countries: A multinomial logistic regression. *Heliyon*, *10*(9), e29824. https://doi.org/10.1016/j.heliyon.2024.e29824
- [36] Lim, T. (2024). Environmental, social, and governance (ESG) and artificial intelligence in finance: State-of-the-art and research takeaways. *Artificial Intelligence Review*, 57, 76. https://doi.org/10.1007/s10462-024-10708-3
- [37] Ludwig, P., & Sassen, R. (2022). Which internal corporate governance mechanisms drive corporate sustainability? *Journal of Environmental Management*, 301, 113780. https://doi.org/10.1016/j.jenvman.2021.113780
- [38] Manita, R., Bruna, M. G., Dang, R., & Houanti, L. (2018). Board gender diversity and ESG disclosure: Evidence from the US. *Journal of Applied Accounting Research*, 19(4), 00–00. https://doi.org/10.1108/JAAR-01-2017-0024
- [39] Martiny, A., Taglialatela, J., Testa, F., & Iraldo, F. (2024). Determinants of environmental social and governance (ESG) performance: A systematic literature review. *Journal of Cleaner Production*, 456, 142213. https://doi.org/10.1016/j.jclepro.2024.142213
- [40] Memon, M. A. (2024). Control Variables: A Review and Proposed Guidelines. *Journal of Applied Structural Equation Modeling*, 8(2), 1–14. https://doi.org/10.47263/JASEM.8(2)01
- [41] Michelon, G., & Parbonetti, A. (2012). The effect of corporate governance on sustainability disclosure. *Journal of Management and Governance*, 16(3), 1–33. https://doi.org/10.1007/s10997-010-9160-3
- [42] Mulyana, G., Utami, H. N., Hidayat, K., & Mawardi, K. (2023). Systematic Literature Review (SLR): Implementation of Corporate Sustainability on Company Performance. In A. F. Wijaya, F. Amin, & M. Iqbal (Eds.), *Proceedings of the Fifth Annual International Conference on Business and Public Administration (AICoBPA2022)* (Vol. 764, pp. 308–319). Atlantis Press SARL. https://doi.org/10.2991/978-2-38476-090-9 25
- [43] Naciti, V. (2019). Corporate governance and board of directors: The effect of a board composition on firm sustainability performance. *Journal of Cleaner Production*, 237, 117727. https://doi.org/10.1016/j.jclepro.2019.117727
- [44] Nguyen, L. T. M., & Nguyen, P. T. (2023). The board profiles that promote environmental, social, and governance disclosure–Evidence from S&P 500 firms. *Finance Research Letters*, 55, 103925. https://doi.org/10.1016/j.frl.2023.103925

- [45] Nuhu, Y., & Alam, A. (2024). Board characteristics and ESG disclosure in energy industry: Evidence from emerging economies. *Journal of Financial Reporting and Accounting*, 22(1), 7–28. https://doi.org/10.1108/JFRA-02-2023-0107
- [46] Onbhuddha, R., & Ogata, S. (2024). The influence of stakeholder on a company's sustainable practice: Insights from the Japanese perspective. *Journal of Cleaner Production*, 436, 140402. https://doi.org/10.1016/j.jclepro.2023.140402
- [47] Ong, T., & Djajadikerta, H. G. (2018). Corporate governance and sustainability reporting in the Australian resources industry: An empirical analysis. *Social Responsibility Journal*, *16*(1), 1–14. https://doi.org/10.1108/SRJ-06-2018-0135
- [48] Pahuja, S., & Agrawal, A. (2023). Board Attributes and Corporate Social Responsibility: A Systematic Literature Review and Future Research Perspectives. *Indian Journal of Corporate Governance*, *16*(1), 108–138. https://doi.org/10.1177/09746862231170429
- [49] Rao, S. S., Mock, T. J., & Srivastava, R. P. (2009). Sustainable development, corporate sustainability reporting and assurance: An overview. *Indian Accounting Review*, *13*(2), 1–18. https://www.researchgate.net/publication/260980616_Sustainable_Development_Corporate_Sustainability_Reporting_and_Assurance_An_Overview
- [50] Sain, A., & Kashiramka, S. (2024). Do corporate governance mechanisms and ESG disclosures improve bank performance and stability in an emerging economy? *Journal of Advances in Management Research*, 21(4), 530–555. https://doi.org/10.1108/JAMR-12-2022-0253
- [51] Sarkis, J., Zhu, Q., & Lai, K. (2011). An organizational theoretic review of green supply chain management literature. *International Journal of Production Economics*, 130(1), 1–15. https://doi.org/10.1016/j.ijpe.2010.11.010
- [52] Setiani, E. P., & Novitasari, B. T. (2024). Exploring the Impact of Board Attributes on ESG Scores of Indonesian Companies. *Nominal Barometer Riset Akuntansi Dan Manajemen*, *13*(1), 131–143. https://doi.org/10.21831/nominal.v13i1.72362
- [53] Setyaningsih, S., Widjojo, R., & Kelle, P. (2024). Challenges and opportunities in sustainability reporting: A focus on small and medium enterprises (SMEs). *Cogent Business & Management*, 11(1), 2298215. https://doi.org/10.1080/23311975.2023.2298215
- [54] Sharma, A., Kaushik, K., Awasthy, P., & Gawande, A. (2022). Leveraging text mining for trend analysis and comparison of sustainability reports: Evidence from Fortune 500 companies. *American Business Review*, 25(2), 416–438. https://doi.org/10.37625/abr.25.2.416-438
- [55] Tedja, B., Al Musadieq, M., Kusumawati, A., & Yulianto, E. (2024). Systematic literature review using PRISMA: Exploring the influence of service quality and perceived value on satisfaction and intention to continue relationship. *Future Business Journal*, *10*(1), 39. https://doi.org/10.1186/s43093-024-00326-4
- [56] Trifu, A., Smîdu, E., Badea, D. O., Bulboacă, E., & Haralambie, V. (2022). Applying the PRISMA method for obtaining systematic reviews of occupational safety issues in literature search. *MATEC Web of Conferences*, 354, 00052. https://doi.org/10.1051/matecconf/202235400052
- [57] Turan, F. K., Scala, N., Kamrani, A., & Needy, K. L. (2008, May). Organizational sustainability: A new project portfolio management approach that integrates financial and non-financial performance measures. In J. Fowler & S. Mason (Eds.), *Proceedings of the 2008 Industrial Engineering Research Conference*.
- [58] Utami, E. R., Atika, A., Murti, C. D., Widiastuti, H., Rahmawati, E., &Kresnawati, E. (2025). Linking integrated or sustainability reporting to SDGs: A systematic literature review. *Journal of Financial Reporting and Accounting*. Advance online publication. https://doi.org/10.1108/JFRA-08-2024-0519
- [59] Velte, P. (2016). Women on management board and ESG performance. *Journal of Global Responsibility*, 6(1). https://doi.org/10.1108/JGR-01-2016-0001

- [60] Wan, G., Dawod, A. Y., Chanaim, S., & Ramasamy, S. S. (2023). Hotspots and trends of environmental, social and governance (ESG) research: A bibliometric analysis. *Data Science and Management*, 6(2), 65–75. https://doi.org/10.1016/j.dsm.2023.03.001
- [61] Zahid, M., Ur Rahman, H., Ali, W., Khan, M., Alharthi, M., Qureshi, M. I., & Jan, A. (2020). Boardroom gender diversity: Implications for corporate sustainability disclosures in Malaysia. *Journal of Cleaner Production*, 244, 118683. https://doi.org/10.1016/j.jclepro.2019.118683
- [62] Zuo, J., Zillante, G., Wilson, L., Davidson, K., & Pullen, S. (2012). Sustainability policy of construction contractors: A review. *Renewable and Sustainable Energy Reviews*, 16(6), 3910–3916. https://doi.org/10.1016/j.rser.2012.03.011