

The relationship between ESG practices and Earnings Quality: a systematic literature review

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Abstract

This study presents a systematic literature review examining the relationship between Environmental, Social, and Governance (ESG) practices and Earnings Quality (EQ). Drawing from 102 peer-reviewed articles published between 2010 and 2024, the review categorizes the findings into three main strands: studies evidencing a negative relationship (suggesting ESG enhances transparency), those finding a positive association (indicating potential opportunistic behaviour), and those with mixed or context-dependent results. The review further analyses moderating factors such as corporate governance and ownership structure. A distinction is made between accrual-based and real earnings management, revealing diverse strategic behaviours across contexts. In addition, the study explores how ESG disclosure quality, assurance mechanisms, and institutional environments shape financial reporting quality. The review identifies theoretical and methodological gaps in the literature and proposes avenues for future empirical research, particularly within the Eurozone, with emphasis on causality and the differential effects of ESG dimensions on financial reporting integrity.

Scope and research design of the Systematic Literature Review

The objective of this systematic review is to analyze studies catering to study the relationship between ESG practices and Earnings Quality. Specifically, it aims to:

- Provide an overview of the most relevant themes and developments linking ESG practices and the dynamic of Earnings Quality featuring extant studies; and
- map gaps in the literature that present opportunities for future empirical work.

To achieve these objectives, this research employs a systematic literature review. This approach is well-suited for highlighting key contributions in a field of study and identifying existing research gaps ((Denyer & Tranfield, 2009; Tranfield et al., 2003). Following the methodology outlined by Denyer & Tranfield (2009) and Tranfield et al. (2003) this study adopts a four-step process to select the articles for review. First, an ad hoc review of the current literature was conducted to identify relevant keywords related to the two primary areas of interest: ESG practices and Earnings Quality. These keywords are presented in Table 1.

Table 1

Keywords

ESG practices	Earnings quality
Environmental, Social and Governance	Earnings Management
Environmental, Social, and Governance disclosure	Real Earnings Management
ESG disclosure	Accrual Earnings Management
ESG performance	Earnings Quality
ESG scores	Discretionary accruals
ESG ratings	Earnings Manipulation
CSR	Accruals quality
CSR disclosure	Accounting quality
Corporate social responsibility (CSR) reporting	Financial statement transparency
Non-financial reporting	Earnings persistence
Integrated reporting	Financial Reporting Quality
Sustainability reporting	Financial Misstatements
Voluntary disclosure	Smoothing
Mandatory disclosure	Conservatism

Subsequently, the keywords were assembled into search phrases used to sift through the abstracts in the Web of Science and Scopus databases. It was consulted also the SSRN database in order to find relevant documents not yet published – one article was included in our findings. This process identified 304 documents, after duplicates (filtered using Mendeley v. 2.120.0) were excluded. Next, the exclusion criteria detailed in Table 2 were applied to eliminate studies not relevant to this review.

Table 2*Criteria and rationales for exclusion*

Criterion	Rationale
Studies outside the scope of accounting and finance that do not focus on ESG disclosure or earnings quality	Some papers have their focus on other topics than ESG disclosure or Earnings Quality or are driven in contexts outside the accounting and finance domain. These papers are excluded to ensure that the final sample contains papers exclusively related to the two areas of the literature that we want to connect
Papers that do not have a focus on the relationship between ESG disclosure and Earnings quality	Papers covering topics that are not directly related to the research goal are deleted

Papers solely focusing on ESG practices or Earnings Quality, as well as those unrelated to the domains of accounting and finance, are excluded to maintain some uniformity in the findings. Additionally, given the extensive body of literature on EQ, studies that do not directly address the central theme of this review are also excluded. As a result, 70 papers were excluded based on the first criterion, and a further 127 were removed based on the second.

In the final step, inclusion criteria are applied to ensure that the papers reviewed meet the following standards:

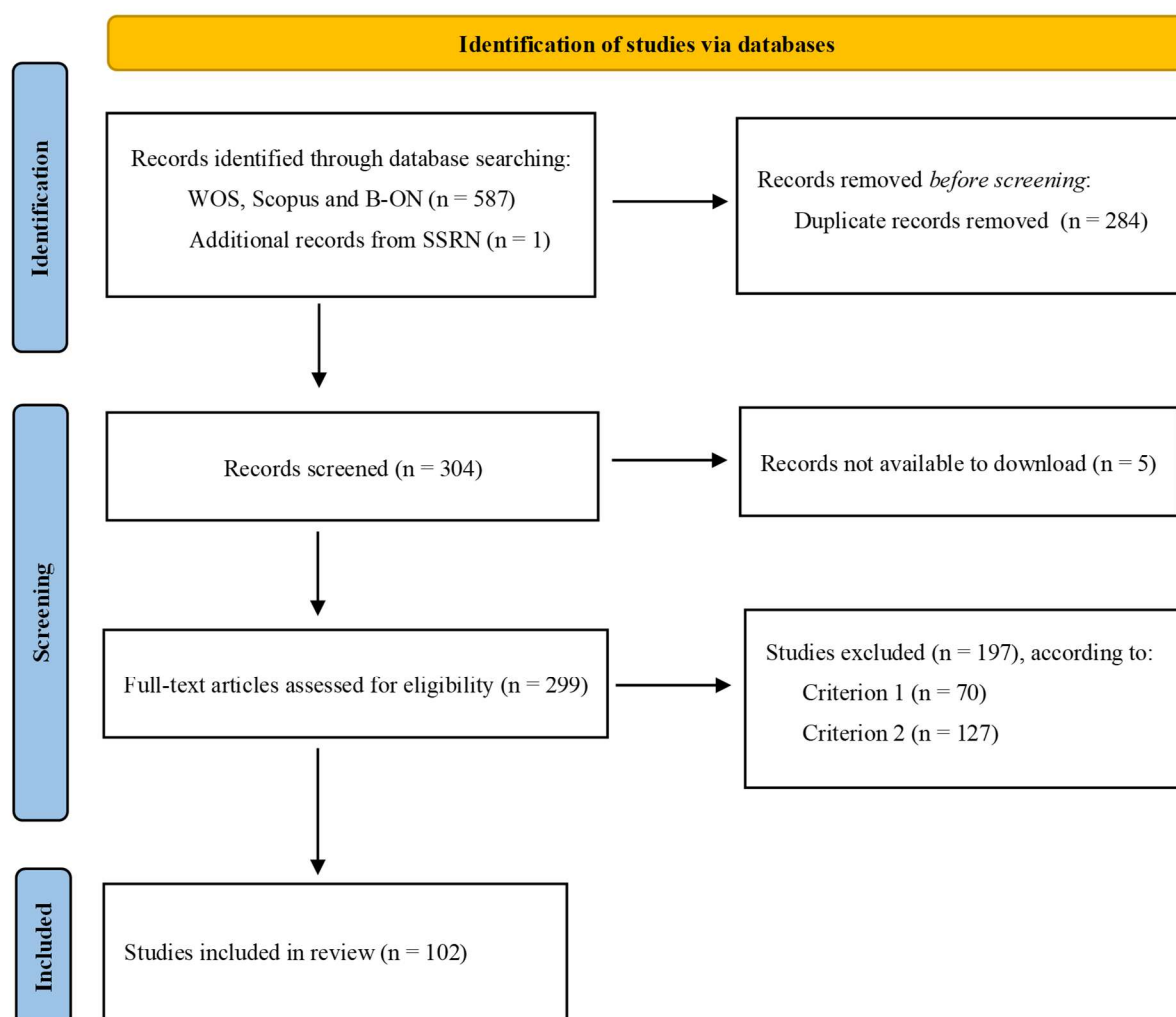
- Present well-defined research questions supported by the literature.
- Clearly state their sample and methodology.
- Provide a thorough discussion of the results.
- Offer a clear contribution to the body of knowledge.

Papers that meet these inclusion criteria form the final set of documents examined in this review. Ultimately, we analyze 102 academic manuscripts that directly address the relationship between ESG practices and EQ. Figure 5 illustrates the flow diagram using PRISMA method (Page et al., 2021) for identification and screening phases. Further details on each of these articles can be found in the Appendix II.

Having established a comprehensive, transparent and replicable methodological framework to ensure the integrity of the review process, the next section starts with a presentation of some indicators from the review followed by the findings, which reveal the complex dynamics of ESG practices in influencing EQ.

Figure 1

Flow diagram for Identification and Screening of studies



1. SYSTEMATIC LITERATURE REVIEW

The most informative journal in our sample is Sustainability, with eleven studies. The Corporate Social Responsibility and Environmental Management comes next with 8 studies, the Journal Of Business Ethics have 4 studies, and Finance Research Letters, Managerial Auditing Journal, Cogent Business and Management, Journal of Financial Reporting and Accounting have 3 studies each. Eight journals count with 2 studies each, and fifty one journals have one study each. The final distribution of studies by journal can be found in Appendix I.

Figure 6 illustrates the growing interest of n° of publications per year between 2010 (1 study) and July of 2024 (18 studies) and Table 3 shows the distribution of studies per data sample, being the majority of the studies focused in China (26 studies) and the USA (14 studies).

Figure 2

Number of publications per year (2010 – 2024 YTD)

Table 3*Distribution of studies per Data Sample*

Data Sample Countries	N° of Studies
18 Asean countries	1
Abu Dhabi	2
Australia	1
Bangladesh	2
Brazil	1
China	26
Egypt	1
European Countries	1
France	1
France and Spain	1
Germany	1
India	3
Indonesia	6
Iran	2
Italy	1
Jordan	3
Kenya	1
Korea	2
Kuwait	1
MENA region	1
Pakistan	1
Portugal	2
Russia	2
Saudi Arabia	4
Several countries	12
South Africa	1
Sri Lanka	2
UK	5
USA	14
Vietnam	1
Total	102

1.1 Relationship between CSR/ESG and Earnings Management

The relationship between corporate social responsibility (CSR), environmental, social, and governance (ESG) disclosures, and earnings management has become a significant focus of academic research. Studies have revealed a complex and multifaceted association, with findings ranging from negative to positive relationships, as well as mixed results influenced by various moderating factors.

1.1.1 Negative relationship

A substantial body of research suggests a negative association between CSR/ESG disclosures and earnings management, indicating that firms with higher CSR/ESG performance or disclosure levels tend to engage less in earnings management practices.

Almahrog et al. (2018) suggested that companies with a higher commitment to CSR activities are less likely to manage earnings through accruals. Building on this, Rezaee & Tuo (2019) reported a positive association between sustainability disclosures and innate earnings quality, coupled with a negative correlation with discretionary earnings quality. This suggests that firms

committed to sustainability reporting may have inherently better earnings quality and are less likely to engage in discretionary earnings manipulation.

In the context of environmental disclosures specifically, Gerged et al. (2020) indicated a negative relationship between Corporate Environmental Disclosure (CED) and Earnings Management (EM) in Kuwait. Rezaee et al. (2020) also focused on the broader concept of CSR and showed that CSR firms in China engage less in accrual earnings management than real earnings management. These findings are consistent with Gong & Ho (2021), who further demonstrated that socially responsible firms engage in fewer earnings management activities overall.

Liao et al. (2019) indicated that CSR scores are negatively associated with fraudulent financial activities, indicating that firms with better CSR performance are less likely to engage in financial fraud. This finding is reinforced by Ehsan et al. (2022), who observed a negative relationship between CSR and earnings management. Velte (2019) contributed further by exploring the relationship between ESG performance and earnings management in German companies. The study revealed that higher ESG performance correlates with lower accruals-based earnings management (AEM), suggesting that companies with better ESG practices are less likely to adjust their earnings through accounting methods to meet certain targets. However, Velte (2019) did not find a significant relationship between ESG performance and real earnings management (REM), indicating that ESG practices might not influence the more tangible aspects of financial management. Among the three pillars of ESG, governance showed the strongest negative impact on AEM, highlighting the critical role of governance practices in promoting transparent financial reporting. Additionally, the study introduced the concept of a bidirectional relationship between ESG performance and earnings management, where ESG influences earnings management and vice versa.

Kumawat & Patel (2022) demonstrated a negative association between ESG disclosures and the cost of capital. This finding aligns with the notion that enhanced transparency through non-financial disclosures can mitigate information asymmetry between firms and investors.

Using a sample of 840 non-financial firms listed on the Saudi Stock Exchange from 2016 to 2021, Hashed & Ghaleb (2023) suggested that CSR reporting reduces real earnings management practices. Similarly, Mao et al. (2024) reported a negative association between ESG performance and earnings management, highlighting the importance of casting a holistic view on ESG performance. Wu et al. (2024) indicated a significant negative correlation between ESG ratings and real earnings management in Chinese firms, further suggesting that firms with stronger environmental and overall ESG performance are less inclined to manipulate earnings.

The key studies that support a negative relationship between CSR/ESG disclosures and earnings management are summarized in Table 4. These studies indicate that firms with stronger CSR/ESG performance tend to engage less in earnings manipulation, providing valuable insights into how ESG practices may enhance financial transparency.

Table 4

Negative Relationship Between CSR/ESG Practices and Earnings Management

Author(s)	Key Finding
Almahrog et al. (2018)	Companies with a higher commitment to CSR activities are less likely to manage earnings through accruals.
Rezaee & Tuo (2019a)	Positive association between sustainability disclosures and innate earnings quality, and negative correlation with discretionary earnings quality.
Liao et al. (2019)	CSR scores are negatively associated with fraudulent financial activities, indicating lower fraud likelihood in firms with better CSR performance.
Velte (2019)	Higher ESG performance correlates with lower accruals-based earnings management (AEM), especially in governance practices. No significant relationship with real earnings management (REM).
Gerged et al. (2020)	Negative relationship between Corporate Environmental Disclosure (CED) and Earnings Management (EM) in Kuwait.
Rezaee et al. (2020)	CSR firms in China engage less in accrual earnings management than real earnings management.
Gong & Ho (2021)	Socially responsible firms engage in fewer earnings management activities overall.
Ehsan et al. (2022)	Negative relationship between CSR and earnings management in firms listed on the Pakistan Stock Exchange.
Kumawat & Patel (2022)	Negative association between ESG disclosures and the cost of capital, reducing information asymmetry between firms and investors.
Hashed & Ghaleb (2023)	CSR reporting reduces real earnings management practices in non-financial firms listed on the Saudi Stock Exchange.
Mao et al. (2024)	Negative association between ESG performance and earnings management, suggesting the importance of a holistic ESG view.
Wu et al. (2024)	Significant negative correlation between ESG ratings and real earnings management in Chinese firms.

1.1.2 Positive relationship

Contrary to the negative relationship findings, a notable subset of studies presents evidence of a positive association between CSR/ESG activities and earnings management, suggesting a more complex and contextual relationship.

Kolsi & Attayah (2018) provide a foundational perspective in this alternative view. Their study of firms in the United Arab Emirates revealed a significant positive correlation between CSR disclosures and abnormal accruals. This finding suggests that socially responsible firms, contrary to expectations, may be more inclined towards managing their reported earnings. Building on this, Jordaan et al. (2018) explored the South African context and discovered that companies with better CSR performance were more likely to engage in earnings management through income-increasing discretionary accruals. This finding extends the geographical scope of this positive relationship, suggesting that the phenomenon may not be limited to a single market or region.

Focusing on the Saudi Arabian market, two studies have corroborated this positive relationship. Habbash & Haddad (2020) found a positive and significant relationship between CSR and earnings management practices. More recently, Almubarak et al. (2023) examined the relationship in the same context. Their findings indicated that ESG disclosure had a positive and statistically significant effect on earnings management. Importantly, they noted that financial distress enhanced this effect significantly, introducing a potential moderating factor. This positive relationship has been observed in other emerging markets as well. Rahman et al. (2020) reported a significant positive effect of corporate social responsibility reporting on earnings management in the Bangladesh context. Pakawaru et al. (2021) extended this line of inquiry, revealing a positive relationship between CSR disclosure and earnings management in the Indonesian context.

Table 5 provides an overview of the studies that present a positive association between CSR/ESG disclosures and earnings management. These findings suggest that in some contexts, socially responsible firms may still engage in earnings manipulation, indicating a more complex or opportunistic use of ESG practices

Table 5*Positive Relationship Between CSR/ESG Practices and Earnings Management*

Author(s)	Key Finding
Kolsi & Attayah (2018)	Positive correlation between CSR disclosures and abnormal accruals, suggesting that socially responsible firms may engage in earnings management.
Jordaan et al. (2018)	Better CSR performance is associated with earnings management through income-increasing discretionary accruals in South Africa.
Habbash & Haddad (2020)	Positive and significant relationship between CSR and earnings management practices in the Saudi Arabian market.
Rahman et al. (2020)	Significant positive effect of CSR reporting on earnings management in an emerging economy context.
Pakawaru et al. (2021)	Positive relationship between CSR disclosure and earnings management in the Indonesian context.
Almubarak et al. (2023)	ESG disclosure has a positive and statistically significant effect on earnings management in the Saudi Arabian market. Financial distress strengthens this relationship.

1.1.3 Mixed or nuanced findings

While some studies have found clear positive or negative relationships, a significant body of research presents mixed or nuanced findings, highlighting the intricate nature of this association and the importance of contextual factors.

Sun et al. (2010) provided an early perspective on this complexity. Their study found no significant statistical association between various measures of discretionary accruals and environmental disclosure. However, their study did reveal that certain corporate governance attributes affected the relationship between Corporate Environmental Disclosure (CED) and earnings management.

More recently Gerged et al. (2023) provide a comprehensive examination of this complexity. Their study revealed a negative relationship between Corporate Environmental Disclosure (CED) and earnings manipulations. However, they also uncovered heterogeneous effects based on corporate governance structures, finding that certain governance mechanisms moderated the relationship between CED and earnings management.

Dissanayake et al. (2023) add to this unsettled debate by suggesting that firms may use CSR disclosure to conceal managers' opportunistic behavior through earnings management as an entrenchment strategy. However, they also found that robust corporate governance mechanisms significantly constrain such behavior. Clare et al. (2024) posit that corporates listed in the FTSE 350 require sound corporate governance mechanisms to manage ESG practices.

The role of ownership structure is highlighted by Gavana et al. (2017) and Rahman and Zheng (2023). Gavana et al. (2017) suggest that family firms are more likely to use CSR disclosure to mask downward earnings management, especially in instances of negative discretionary accruals. However, this relationship was not significant in non-family firms. Rahman and Zheng (2023) corroborated this nuanced effect, finding that family ownership influences the relationship between CSR and earnings management.

Hong et al. (2022a) introduced another layer of complexity by examining the role of external monitoring and ESG performance. They found that while discretionary accruals are positively associated with analysts' forecast dispersion, greater external monitoring and higher ESG scores mitigated this positive relationship.

Yuan et al. (2022) further elaborated on the role of external factors. They found that ESG disclosure generally reduces corporate financial irregularity risks and mitigates information asymmetry. However, this effect was particularly pronounced under conditions of better internal and external supervision.

Table 6 summarizes the studies that report mixed or nuanced relationships between CSR/ESG disclosures and earnings management. These studies highlight how contextual factors, such as corporate governance mechanisms or ownership structures, may shape the impact of ESG practices on financial reporting.

Table 6

Mixed or Nuanced Findings on the Relationship Between CSR/ESG Practices and Earnings Management

Author(s)	Key Finding
Sun et al. (2010)	No significant association between discretionary accruals and environmental disclosure, but governance attributes affect the CED-earnings management relationship.
Gavana et al. (2017)	Family firms are more likely to use CSR disclosure to mask downward earnings management, especially with negative discretionary accruals. This relationship was not significant for non-family firms.
Yuan et al. (2022)	ESG disclosure reduces corporate financial irregularity risks and mitigates information asymmetry, with stronger effects under better internal and external supervision.
Rahman & Zheng (2023)	Family ownership influences the relationship between CSR and earnings management.
Gerged et al. (2023)	Negative relationship between Corporate Environmental Disclosure (CED) and earnings manipulation, but the effect is moderated by corporate governance structures.
Dissanayake et al. (2023)	CSR disclosure can conceal opportunistic behavior through earnings management, but robust governance mechanisms limit such practices.
Clare et al. (2024)	Corporates listed in the FTSE 350 require sound corporate governance mechanisms to manage ESG practices effectively.
Hong et al. (2022a)	Discretionary accruals are positively associated with analysts' forecast dispersion, but higher ESG scores and external monitoring mitigate this relationship.

1.1.4 Moderating factors

The literature reveals a complex web of moderating factors that influence the relationship between CSR/ESG practices and earnings management:

1.1.4.1 Corporate governance: Ghaleb et al. (2021) demonstrated that board gender diversity negatively relates to real earnings management and moderates the CSR reporting-REM relationship in Jordanian firms. This suggests that female directors enhance the board's monitoring role, thereby improving financial reporting quality in the context of CSR activities. Gerged et al. (2023) uncovered that governance structures, particularly board size and ownership patterns, moderate the relationship between corporate environmental disclosure (CED) and earnings management (EM) in Jordanian firms. Similarly, Dissanayake et al. (2023) revealed that while firms might use CSR disclosure to conceal earnings management, strong corporate governance mechanisms can effectively constrain such behavior. Board composition, especially gender diversity, plays a crucial role. Clare et al. (2024) posit out that it is the attentiveness of the board

of directors to ESG issues that makes the difference in terms of ESG performance, beyond the traditional board measures.

1.1.4.2 Ownership structure: Gavana et al. (2017) and Rahman and Zheng (2023) underlined that family ownership significantly moderates the CSR/ESG-earnings management relationship. Garanina (2024) highlighted the role of state ownership in this relationship.

1.1.4.3 Institutional Environment and Financial Distress: Gong and Ho (2021) observed that the negative relationship between CSR performance and earnings management is particularly strong when CSR activities are under strict supervision. Hoang et al. (2022) discovered that audit quality disciplines earnings management in Chinese firms, with auditors being more tolerant of firms that actively disclose CSR activities, especially among less aggressive earnings manipulators. Almubarak et al. (2023) posit that financial distress enhances the positive effect of ESG disclosure on earnings management.

1.1.4.4 CEO Characteristics and External Factors: Xie et al. (2021) and Zhou et al. (2023) demonstrated how short-selling threats influence both CSR/ESG disclosure and earnings management practices. Erraja et al. (2024) identified that firms with postgraduate and mature CEOs exhibit a stronger negative link between CSR and earnings management.

In conclusion, these studies underscore the complexity of the CSR/ESG-earnings management relationship and caution against overly simplistic interpretations. They emphasize the importance of context-specific analyses and the need for more nuanced regulatory and investment approaches that consider the multifaceted nature of this relationship. Future research could benefit from a more integrated approach that considers multiple moderating factors simultaneously, providing a more comprehensive understanding of the conditions under which CSR/ESG practices are most likely to enhance or potentially compromise financial reporting integrity.

While the moderating factors discussed above provide crucial context for understanding the CSR/ESG-earnings management relationship, it's equally important to consider the specific types of earnings management employed by firms. Different types of earnings management, such as accrual-based and real earnings management, may be influenced differently by CSR/ESG activities and the moderating factors previously discussed. The following section delves into these types of earnings management, examining how they interact with CSR/ESG practices and the implications for financial reporting quality. This analysis will provide a more nuanced understanding of how firms might adjust their earnings management strategies in

response to CSR/ESG pressures and opportunities, considering the various contextual factors explored earlier.

It is worth mentioning that the empirical setup, data availability, and econometric techniques also play an important role in ascertaining the relationship between CSR/ESG practices and earnings management. The diverse findings presented in this review may, in part, be attributed to differences in research methodologies, sample sizes, time periods studied, and the specific measures used for CSR/ESG performance and earnings management. Future research in this field should carefully consider these methodological factors to ensure robust and comparable results across different contexts and time periods.

1.2 Earnings Management Practices

Building on our understanding of the complex relationship between CSR/ESG practices and earnings management, and the various factors that moderate this relationship, it is crucial to examine the specific types of earnings management employed by firms. The literature primarily focuses on two main categories: accrual-based earnings management (AEM) and real earnings management (REM). This distinction has proven vital in unraveling the nuanced interactions between CSR/ESG practices and financial reporting quality. This section aims to address several key questions:

- i. How do CSR/ESG practices differently affect AEM and REM?
- ii. Do firms trade-off between these types of earnings management in response to CSR/ESG pressures?
- iii. How do the moderating factors discussed earlier influence the choice between AEM and REM?

Early studies in this field laid the groundwork for understanding the complex interplay between CSR/ESG and different types of earnings management. Kolsi & Attayah (2018) provided initial insights by examining firms in the United Arab Emirates. Their finding of a positive correlation between CSR disclosures and AEM, but no significant relationship with REM, highlighted the importance of distinguishing between these two types of earnings management in CSR/ESG research. This differentiation became increasingly prominent in subsequent studies, which began to reveal geographical variations in the CSR/ESG-earnings management relationship. Jordaan et al. (2018), focusing on South African companies, found that better CSR performers were more likely to engage in AEM but less likely to use REM. This finding suggested a potential trade-off between different earnings management strategies in response to CSR performance, a theme that would recur in later research.

In the developed market context of Germany, Velte (2019) found that higher ESG performance was associated with lower AEM, with no significant relationship observed for REM. This result suggests that firms may shift from more visible earnings management techniques (AEM) to less detectable ones (REM) as their ESG performance improves.

The geographical scope of research expanded with Rezaee et al. (2020), who studied Chinese firms and found that CSR-oriented companies engaged less in AEM than REM, contrasting with the findings of Jordaan et al. (2018). This result underscored the potential for market-specific effects and highlighted the importance of cross-cultural comparisons in this field of study.

As research in this area progressed, a trend began to emerge, particularly in emerging markets, suggesting a negative relationship between CSR/ESG practices and REM. This pattern was observed by Ghaleb et al. (2021) in Jordan, Liu et al. (2023) in Egypt, Hashed and Ghaleb (2023) in Saudi Arabia, and Wu et al. (2024) in China. These consistent findings across different emerging markets suggest a possible commonality in how CSR/ESG practices influence real activities manipulation in these economic contexts. However, the relationship between CSR/ESG and AEM remained less clear-cut. Rahman & Zheng (2023), for instance, found a positive relationship between CSR and AEM in Chinese listed firms, echoing earlier findings by Kolsi & Attayah (2018) but contrasting with the trend observed for REM. This disparity highlights the complexity of the CSR/ESG-earnings management relationship and the importance of considering both AEM and REM in future research.

The complexity of this relationship extends to studies exploring individual ESG dimensions. Almubarak et al. (2023) noted differential effects of environmental, social, and governance factors on earnings management in Saudi Arabia, although their study did not differentiate between AEM and REM. Similarly, Habib (2023) introduced a unique perspective by exploring the inverse relationship, finding that US firms adopting REM strategies are likely to have lower ESG performance. This finding indicates a bidirectional relationship between earnings management practices and CSR/ESG performance, offering new insights from a developed market context and contrasting with emerging market studies.

Table 7 summarizes the key studies examining the relationship between CSR/ESG practices and earnings management, highlighting the diverse geographical contexts and varying focus on different types of earnings management. This overview helps illustrate the evolution of research in this field and the emerging patterns across different markets.

Table 7*CSR/ESG and Earnings Management Practices*

Author(s)	Context	Key Findings	Type of EM
Kolsi & Attayah (2018)	United Arab Emirates	Positive correlation between CSR disclosures and AEM; No significant relationship with REM	AEM, REM
Jordaan et al. (2018)	South Africa	Better CSR performers more likely to engage in AEM but less likely to use REM	AEM, REM
Velte (2019)	Germany	Higher ESG performance correlates with lower AEM, especially governance practices. No significant relationship with REM	AEM, REM
Rezaee et al. (2020)	China	CSR-oriented companies engaged less in AEM than REM	AEM, REM
Ghaleb et al. (2021)	Jordan	Negative relationship between CSR reporting and REM	REM
Liu et al. (2023)	Egypt	Negative correlation between ESG disclosure and REM	REM
Rahman & Zheng (2023)	China	Positive relationship between CSR and AEM	AEM
Hashed and Ghaleb (2023)	Saudi Arabia	Negative relationship between CSR reporting and REM	REM
Almubarak et al. (2023)	Saudi Arabia	Differential effects of E, S, and G factors on EM; did not differentiate between AEM and REM	EM (not specified)
Habib (2023)	USA	Firms adopting REM strategies likely to have lower ESG performance	REM
Wu et al. (2024)	China	Negative correlation between ESG ratings and REM	REM

In conclusion, the literature reveals a nuanced and context-dependent relationship between CSR/ESG practices and different types of earnings management. Addressing our key questions:

- i. CSR/ESG practices affect AEM and REM differently, often leading to a trade-off between the two.
- ii. Firms do appear to strategically choose between AEM and REM in response to CSR/ESG pressures, though the direction of this choice varies across contexts.
- iii. The moderating factors discussed earlier, such as institutional environment and corporate governance, likely influence these choices, though more research is needed to fully understand these interactions.

While there's a general trend suggesting that higher CSR/ESG credentials are associated with reduced earnings management, particularly REM, the specific effects can vary based on the type of earnings management, the components of ESG considered, and the institutional context.

These varied findings underscore the importance of considering both accrual-based and real earnings management when examining the relationship between CSR/ESG and financial reporting quality, and delving deeper on this relationship.

These findings have important implications for researchers, policymakers, and practitioners. They suggest that a one-size-fits-all approach to understanding or regulating the CSR/ESG-earnings management relationship is likely to be ineffective. Instead, a more nuanced, context-specific approach is necessary.

Future research could benefit from consistently differentiating between these types of earnings management and exploring the potential trade-offs firms make between AEM and REM in response to CSR/ESG pressures and opportunities. Additionally, investigating how the moderating factors identified earlier influence these trade-offs could provide valuable insights into the mechanisms underlying these relationships. Comparative studies between developed and emerging markets could also shed light on how the CSR/ESG-earnings management relationship varies across different economic contexts.

Having examined the earnings management practices and their relationship with CSR/ESG practices, we now turn to the broader impacts of CSR/ESG disclosures on corporate financial practices and market perceptions. This broader perspective will help us better understand the full implications of CSR/ESG practices beyond their influence on earnings management strategies.

1.3 Impact of CSR/ESG Disclosures

1.3.1 Financial Performance and Market Metrics

CSR and ESG disclosures have wide-ranging impacts on various aspects of corporate performance, market behavior, and stakeholder reactions. This section examines these impacts across three main areas: financial performance and market metrics, stakeholder responses, and firm-specific effects. By exploring these interconnected dimensions, we aim to provide a comprehensive understanding of how CSR/ESG disclosures influence corporate outcomes and market dynamics.

Kumawat & Patel (2022) were among the first to examine the relationship between ESG disclosures and the cost of capital. Their study revealed a significant negative association between overall ESG disclosures and the cost of capital, indicating that enhanced ESG disclosures can lead to a reduction in the cost of capital through reduced information asymmetry. This finding aligns with voluntary disclosure theory, suggesting that increased transparency through non-financial disclosures can mitigate information asymmetry between

firms and investors, thereby lowering the cost of capital. However, it's noteworthy that the individual components of ESG disclosures (environmental, social, and governance) were not found to be significantly value-relevant on their own, emphasizing the importance of a holistic approach to ESG reporting.

Moving beyond the cost of capital, Zhang et al. (2024) explored the impact of ESG ratings on stock liquidity. Their findings indicate that ESG ratings improve stock liquidity by attracting market attention from institutional shareholdings, analysts' followings, and online comments by investors. Higher ESG ratings were found to lead to increased market attention and improved corporate transparency, contributing to higher stock liquidity. This effect was particularly pronounced for firms at higher risk from environmental, social, and governance issues, highlighting the importance of ESG ratings in enhancing market performance.

The relationship between ESG practices and analyst behavior was examined by Hong et al. (2022a). Their study suggests that discretionary accruals are positively associated with analysts' forecast dispersion, indicating low information content in discretionary accruals. However, they also discovered that greater external monitoring and higher ESG scores, such as concentrated institutional ownership and positive ESG scores, mitigate the positive relationship between discretionary accruals and analysts' forecast dispersion. This suggests that ESG practices can enhance the information credibility of a firm's disclosure, potentially leading to more accurate analyst forecasts.

In terms of traditional financial performance metrics, Alghizzawi et al. (2022) found a significant positive association between the community and environment dimensions of CSR with both Return on Assets (ROA) and Return on Equity (ROE) in Jordanian firms. Interestingly, they observed that philanthropy had a relatively insignificant impact on ROA and ROE, suggesting that not all aspects of CSR contribute equally to financial performance.

Taking a broader view of firm value, Habib (2023) examined the relationship between earnings management, ESG performance, and Total Enterprise Value (TEV). The study found that firms adopting real earnings management strategies are likely to have lower ESG performance and lower TEV. Conversely, companies implementing ESG strategies tend to have higher TEV and financial performance. This research also highlighted that ESG performance and financial performance mediate the relationship between earnings management strategies and TEV, emphasizing their significance in enhancing firm value.

Garanina (2024) examined how CSR disclosures affect the relationship between earnings management and market value. The study found that firms disclosing more CSR information experience a weaker negative relationship between earnings management and market value,

suggesting that stakeholders positively evaluate a positive CSR image even in the presence of earnings management.

The studies in this section reveal a complex but generally positive relationship between CSR/ESG initiatives and various financial and market metrics. Table 8 bellow summarizes key findings.

Table 8

Financial performance and Market metrics

Author(s)	Key Findings
Kumawat & Patel (2022)	Significant negative association between ESG disclosures and the cost of capital, supporting voluntary disclosure theory
Hong et al. (2022)	Enhanced information credibility and more accurate analyst forecasts linked to ESG practices
Alghizzawi et al. (2022)	Positive associations between certain CSR dimensions and traditional financial metrics like ROA and ROE
Habib (2023)	Positive relationship between ESG strategies and Total Enterprise Value (TEV); ESG performance mediates the relationship between earnings management and TEV
Zhang et al. (2024)	Improved stock liquidity associated with higher ESG ratings, particularly for firms with higher ESG risks
Garanina, 2024	CSR disclosures potentially mitigate the negative impact of earnings management on market value

These findings suggest that while the impacts of CSR/ESG initiatives are multifaceted, they generally contribute positively to various aspects of financial performance and market behavior. However, the heterogeneity in results across different metrics and contexts underscores the need for nuanced approaches in both research and practice.

1.3.2 Market Reactions and Stakeholder Responses

Market reactions and stakeholder responses to CSR and ESG disclosures have emerged as critical research areas, offering insights into the value and impact of sustainability reporting. This body of literature examines both the financial market implications of CSR/ESG practices and broader stakeholder responses, highlighting how these disclosures influence investor behavior, corporate transparency, and market performance.

From a market perspective, CSR/ESG disclosures have been found to significantly influence the cost of capital and firm value. Kumawat & Patel (2022) found a significant negative

association between overall ESG disclosures and the cost of capital, suggesting that enhanced ESG disclosures reduce information asymmetry and lower the cost of capital. This supports the voluntary disclosure theory, which posits that increased transparency through non-financial disclosures can improve investor confidence and reduce capital costs.

The impact of CSR/ESG practices on firm value has been a key area of investigation, with studies revealing nuanced effects across different financial performance metrics. Swarnapali (2020) reported a positive relationship between corporate sustainability reporting and firm market value in Sri Lankan firms, suggesting that investors may be willing to pay a premium for environmentally and socially responsible companies. Building on this, Aqabna et al. (2023) indicated that ESG scores positively impact return on assets (ROA) in the MENA region, even after adjusting for COVID-19 effects. However, they observed an insignificant impact on return on equity (ROE), highlighting the complex nature of ESG's influence on various financial performance indicators.

The behavior of financial analysts provides another perspective on market reactions to CSR/ESG disclosures. Hong et al. (2022a) demonstrated that greater external monitoring and higher ESG scores mitigate the positive relationship between discretionary accruals and analysts' forecast dispersion, thereby enhancing the information credibility of a firm's disclosure. This implies that strong ESG performance can improve the information environment for financial analysts, potentially leading to more accurate forecasts and reduced information asymmetry.

The stock market's reaction to CSR/ESG disclosures has also been examined, with a focus on risk management implications. Reber et al. (2022) found that voluntary ESG disclosure reduces idiosyncratic volatility and downside tail risk in initial public offerings (IPOs), suggesting that ESG disclosure can serve as an effective risk management tool, potentially leading to more stable stock performance.

Beyond financial market participants, CSR/ESG disclosures have been shown to influence the behavior of internal stakeholders. Lu et al. (2018) found that CSR can effectively curb insider trading by alleviating information asymmetry and improving transparency, particularly in non-state-owned enterprises. This indicates that CSR practices can have a significant impact on corporate governance and internal stakeholder behavior.

The reaction of creditors to CSR/ESG disclosures has also been a focus of research. Tan et al. (2020) observed that firms with higher levels of CSR disclosure are more likely to borrow from the public debt market than from the private debt market, and tend to issue public bonds with lower yield spreads and longer maturities. This suggests that CSR disclosure is valued by public

debtholders and can influence a firm's debt financing strategies, potentially leading to more favorable financing terms.

The literature on market reactions and stakeholder responses to CSR/ESG disclosures presents a predominantly positive picture, with some nuances across different stakeholder groups and contexts. These findings, summarized on Table 6, suggest that CSR/ESG disclosures generally elicit positive reactions from various stakeholders, including investors, analysts, and creditors. However, the specific impacts can vary based on the type of stakeholder, the nature of the CSR/ESG disclosure, and the broader market context. Future research could benefit from exploring how different types of CSR/ESG disclosures elicit varying responses from different stakeholder groups, and how these responses evolve over time as sustainability reporting becomes more standardized and widespread.

Table 9

Market Reactions and Stakeholder Responses

Authors	Key findings
Lu et al. (2018)	Positive effects on internal governance, including reduced insider trading in non-state-owned enterprises
Swarnapali (2020)	Positive relationship between corporate sustainability reporting and firm market value in Sri Lankan firms
Tan et al. (2020)	More favorable debt financing terms and increased likelihood of borrowing from public debt markets for firms with higher CSR disclosure
Kumawat and Patel (2022)	Reduced cost of capital associated with enhanced ESG disclosures, supporting voluntary disclosure theory
Hong et al. (2022)	Improved information environment for financial analysts, potentially leading to more accurate forecasts
Reber et al. (2022)	Reduced idiosyncratic volatility and downside tail risk in IPOs associated with voluntary ESG disclosure
Aqabna et al. (2023)	Positive impacts on firm value, particularly on return on assets (ROA), though effects may vary across different financial metrics

1.3.3 Firm-Specific Impacts

1.3.3.1 Financial Performance and Investment Efficiency

Research indicates a positive causal connection between the quality of sustainability disclosures and financial performance. Zhong and Gao (2017), focusing on firms in China, were among the first to observe a significant positive association between CSR disclosure and investment

efficiency, particularly in firms with lower financial reporting quality. Their findings underscored the role of CSR in improving investment decisions in emerging markets. Building on this, Bhuiyan and Nguyen (2019) examined the Australian context, where they demonstrated that firms adhering to higher CSR standards incur lower costs of equity and debt. This suggests that CSR compliance helps mitigate business risks, leading investors and creditors to lower their expected returns. In Sri Lanka, Swarnapali (2020) indicate that corporate sustainability reporting is positively associated with firm market value. This study highlighted that investors are willing to pay a premium for firms that demonstrate strong environmental and social responsibility. In Abu Dhabi, Ellili (2022) further contributed to this understanding by revealing that ESG disclosure enhances transparency, reduces information asymmetry, and improves investment efficiency, particularly in cases of underinvestment and firms with high financial reporting quality. More recently, Aqabna et al. (2023) extended this research to the MENA region, finding that ESG scores positively impact return on assets and show a strong positive correlation with Tobin's Q, reflecting an overall increase in firm value. Finally, Mishra et al. (2024), in their study of Indian firms, suggest that organizations with strong financial performance tend to produce higher-quality sustainability disclosures, which are associated with increased dividend payments, further reinforcing the financial benefits of robust ESG practices.

1.3.3.2 Quality of Financial Reporting and Dividend Policies

Nair et al. (2019) provided early evidence from India, demonstrating that CSR disclosures enhance financial transparency in mandatory disclosure regimes. Their study highlighted that the positive impact of CSR on financial reporting quality is particularly strong in markets with significant retail investor ownership, such as India. Most recently, Gafni et al. (2024) examined the U.S. market and found that high ESG ratings enhance the quality of financial reporting, particularly through increased earnings persistence, without compromising the overall quality of financial reporting. Their findings reinforce the notion that strong ESG practices contribute to both improved financial transparency and the quality of corporate disclosures.

1.3.3.3 Risk Management and Firm Value

ESG disclosure benefits risk management by reducing firm-specific crash risk. Pereira da Silva (2022) found a negative association between ESG disclosure and crash risk, with ESG practices reducing information asymmetry and agency conflicts. This effect was more pronounced in developed countries compared to emerging markets.

1.3.3.4 Contextual Factors: Country-Level and External Events

The level of CSR disclosure can vary based on country-level factors. De Villiers and Marques (2016) found that firms in countries with greater investor protection, democracy, and effective governance tend to disclose higher levels of CSR. Moreover, higher levels of CSR disclosure were associated with higher share prices, especially in countries with stronger governance structures.

Recent research by A. F. Rahman et al. (2024) demonstrated the value relevance of both ESG and earnings quality, indicating their importance for investor and stakeholder decision-making. Notably, during the COVID-19 pandemic, users shifted their focus from ESG information to earnings quality information, reflecting changing priorities in times of crisis.

The literature consistently demonstrates the multifaceted impacts of CSR and ESG disclosures on firm performance, market behavior, and stakeholder relations. These disclosures generally enhance transparency, reduce information asymmetry, improve investment efficiency, lower financing costs, and contribute to overall firm value. However, the strength and nature of these relationships can vary based on firm characteristics, country-level governance, and external events.

Having explored the wide-ranging impacts of CSR/ESG disclosures on financial performance, market metrics, and firm-specific outcomes, it is crucial to understand what drives companies to engage in these disclosure practices in the first place. The motivations behind CSR/ESG disclosures can significantly influence their quality, extent, and ultimate impact on corporate behavior and stakeholder perceptions. Therefore, we now turn our attention to examining the determinants and motivations for CSR/ESG disclosure. This exploration will provide valuable context for interpreting the complex relationship between these disclosures and financial reporting quality, as well as shed light on the strategic considerations that shape corporate sustainability reporting practices.

1.4 Determinants and motivations for CSR/ESG disclosure

Understanding the determinants and motivations for CSR and ESG disclosure is crucial for interpreting the complex relationship between these disclosures and financial reporting quality. This section explores the multifaceted set of factors driving firms to engage in CSR/ESG disclosure, ranging from strategic considerations to institutional pressures. By examining these drivers, we can gain insights into why firms choose to disclose CSR/ESG information and how these motivations might influence the quality and extent of their disclosures.

Early research in this field highlighted the role of financial performance in motivating CSR disclosure. Brizolla and Klann (2019) demonstrated that companies with good reputations

engaging in voluntary environmental disclosures tend to improve their financial performance in subsequent periods. This observation suggests that anticipated financial benefits can be a key motivator for CSR disclosure, emphasizing the potential for CSR reporting to create value for firms.

Managerial incentives have emerged as another significant determinant of CSR disclosure practices. García-Sánchez et al. (2020) revealed insights into the role of managerial entrenchment in CSR disclosure, observing that entrenched managers are more likely to decouple CSR disclosure from actual CSR performance. This finding highlights the potential for CSR disclosures to be used opportunistically, rather than as a genuine reflection of corporate social performance, underscoring the importance of considering managerial motivations in analyzing CSR reporting practices.

Institutional factors, such as regulatory environment and market development, also play a crucial role in shaping CSR/ESG disclosure practices. Shen et al. (2021) identified that companies with higher CSR scores tend to exhibit higher accounting conservatism in China. They pinpointed investor attention and analyst coverage as primary channels through which CSR promotes accounting conservatism, suggesting that market pressures can motivate both CSR disclosure and conservative accounting practices. This highlights the interconnectedness of CSR reporting and broader financial reporting practices.

Ownership structure has been recognized as a crucial factor in shaping CSR/ESG disclosure. Pramono et al. (2023) established a positive association between family ownership and environmental disclosure, mediated by high-quality financial reporting and the appointment of independent board members. This suggests that family-owned firms may have unique motivations for CSR disclosure, possibly related to preserving socioemotional wealth or maintaining a positive family reputation. The study highlights the interplay between ownership structure, corporate governance, and CSR reporting practices.

External pressures, particularly those related to executive compensation, can significantly influence CSR/ESG disclosure. D. Zhang et al. (2023) uncovered a significant positive correlation between the executive pay gap and ESG disclosure in China's A-share listed firms. They posit that improving the executive salary gap is a strategic choice to enhance ESG disclosure, possibly as a way to justify high executive compensation. This finding underscores the complex relationship between corporate governance practices and CSR/ESG reporting.

Market pressures, particularly the threat of short-selling, have emerged as an interesting motivator for environmental disclosure. Zhou et al. (2023) discovered that corporate environmental investment increases in response to short-selling threats, especially in firms with

greater financial opacity and lower institutional ownership. This suggests that firms may use environmental investments and disclosures as a risk management tool in response to market pressures, highlighting the strategic nature of CSR/ESG reporting decisions.

In conclusion, the determinants and motivations for CSR/ESG disclosure are multifaceted, encompassing both internal factors (such as ownership structure and managerial incentives) and external pressures (including regulatory requirements, market forces, and stakeholder expectations). This complex interplay of factors shapes both the extent and the authenticity of CSR/ESG disclosures. Understanding these drivers is crucial for interpreting the relationship between CSR/ESG disclosure and financial reporting quality, as they can significantly influence reporting practices and outcomes.

Future research could benefit from exploring how these various motivations interact and potentially conflict, shaping the overall landscape of corporate social and environmental reporting. Such research could provide valuable insights for policymakers seeking to design effective CSR/ESG reporting frameworks, for corporate decision-makers aiming to optimize their sustainability reporting strategies, and for stakeholders seeking to interpret and utilize CSR/ESG disclosures effectively.

1.5 CSR/ESG disclosure in specific contexts

Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) disclosures have been extensively studied in various contexts, revealing complex relationships with financial reporting, firm performance, and market behavior. These relationships are often influenced by factors such as ownership structure, institutional environment, and market characteristics, leading to diverse outcomes across different settings.

Early research in this field highlighted the relationship between CSR and auditing practices. Carey et al. (2017) revealed a positive association between voluntary CSR reporting and audit fees in China, with non-state-owned enterprises showing lower audit fees and less earnings management when they have higher-rated CSR performance. This finding underscores the potential impact of CSR practices on financial oversight and reporting quality.

The strategic use of CSR disclosures has been observed in some contexts. Muttakin et al. (2015) noted that in Bangladesh, managers might use CSR disclosures strategically, manipulating earnings through income-increasing discretionary accruals when providing more CSR disclosures. This observation highlights the potential for CSR reporting to be used as a tool for earnings management in certain institutional environments.

The influence of CSR/ESG extends to various aspects of corporate finance. Tan et al. (2020) demonstrated that firms with higher levels of CSR disclosure are more likely to borrow from the public debt market and enjoy more favorable debt contract terms. This suggests that CSR disclosure can have tangible benefits in terms of access to capital and financing costs.

Zadeh (2021) illustrated that firms with high environmental and social (E&S) transparency have more stable dividend payouts and higher corporate payouts, especially for firms with high information asymmetry and weak governance. This finding aligns with the work of Eliwa et al. (2021), who uncovered that better ESG performance and disclosure are associated with a lower cost of debt, particularly in the environmental dimension.

Ownership structure plays a crucial role in CSR engagement and its effects. Cho & Ryu (2022) observed that firms with higher managerial ownership are more actively involved in CSR activities in Korea. However, Al Natour et al. (2022) identified that family-controlled firms in the UK showed a weaker sustainability reporting-information asymmetry nexus compared to non-family-controlled firms. These findings highlight the importance of considering ownership structure when analyzing CSR/ESG practices and their impacts.

The relationship between CSR/ESG and financial reporting has been a subject of particular interest. Xi & Xiao (2022) established a negative relationship between corporate environmental disclosure (CED) and earnings management in China, suggesting that firms heavily engaged in CED are less likely to manipulate their earnings and more conservative in their accounting decisions. Similarly, Garanina and Kim (2023) observed that companies with higher CSR disclosure tend to adopt more conservative practices in the Russian context, noting that state ownership moderates this relationship. CSR/ESG practices have also been linked to firm risk. Reber et al. (2022) noted that voluntary ESG disclosure reduces idiosyncratic volatility and downside tail risk in IPOs. However, Prakosa et al. (2022) determined that real earnings management, which can be related to CSR practices, leads to increased idiosyncratic risk for companies, contrary to the belief that it might lower risk.

Recent research has delved into the factors influencing CSR disclosure itself. Wedari & Shafadila (2022) uncovered that in Indonesia, company size significantly affects CSR web disclosure, while other factors like public share ownership and board characteristics do not show significant associations. This underscores the importance of considering local contexts when examining CSR practices and their determinants. The relationship between CSR and financial performance metrics has also been explored. Y. Zhang et al. (2023) demonstrated that CSR positively influences earnings persistence, especially when considering the moderating role of operational efficiency. This finding suggests that CSR practices may contribute to more

stable and predictable financial performance over time. Most recently, Al Barrak & Kouaib (2024) reported that corporate sustainable management significantly reduces both accruals-based and real earnings management practices in Saudi firms, further emphasizing the potential of CSR/ESG practices to enhance financial reporting quality.

The varied impacts of CSR/ESG disclosures across different contexts raise important questions about the optimal approach to regulating these disclosures. The following section explores the ongoing debate between mandatory and voluntary CSR/ESG disclosure regimes, considering how the context-specific findings we've examined might inform policy decisions in this area.

1.6 Mandatory vs. Voluntary CSR/ESG Disclosure

The debate surrounding mandatory versus voluntary CSR/ESG disclosures has gained significant traction in recent years, with researchers exploring the impacts of these disclosure regimes on various aspects of corporate performance and market dynamics. This body of research provides valuable insights into the effects of different disclosure approaches on financial reporting quality, stock price informativeness, and the cost of capital.

Voluntary CSR reporting has been associated with certain benefits, particularly for firms with superior CSR performance. Dhaliwal et al. (2011) found that companies initiating voluntary CSR reports experienced a reduction in their cost of equity capital, attracted dedicated institutional investors, and saw increased analyst coverage. These benefits were most pronounced for firms with superior CSR performance, suggesting that voluntary disclosure can serve as a signaling mechanism for high-quality CSR practices. However, the study also revealed that poor CSR performers might face an increase in their cost of equity capital upon disclosure, highlighting the potential risks of voluntary reporting for underperforming firms. Rezaee & Tuo (2017) expand on this by investigating the relationship between voluntary non-financial disclosures and firms' ESG performance. They find a two-directional association between non-financial disclosures and sustainability performance, demonstrating that forward-looking non-financial disclosures are associated with improved ESG performance in subsequent years. Conversely, better sustainability performance in the current year is linked to increased disclosures of historical non-financial information in year-end reports. Moreover, the study highlights the importance of earnings quality in influencing the level of voluntary disclosure, suggesting that firms with higher earnings quality are more likely to engage in comprehensive non-financial disclosures, thereby reducing information asymmetry.

On the other hand, the introduction of mandatory CSR disclosure policies, particularly in emerging markets like China, has provided a natural experiment to examine the effects of compulsory reporting. Fan et al. (2023)) observed that mandatory CSR disclosure significantly improved the quality of earnings management among Chinese A-share listed companies. This mandatory approach enhanced external regulation effectiveness and reduced the manipulative space for managerial discretion, ultimately leading to increased information transparency and improved investment efficiency. Similarly, X. Wang et al. (2018) documented a significant decrease in earnings management, as measured by absolute discretionary accruals, following the implementation of mandatory CSR reporting in China. This effect was more pronounced for firms with lower analyst coverage, suggesting that mandatory disclosure may be particularly beneficial in improving the information environment for less scrutinized companies.

However, the impact of mandatory CSR disclosure is not uniformly positive across all dimensions of market efficiency. Guo et al. (2022) found that the introduction of mandatory CSR reporting in China led to a decrease in stock price informativeness and an increase in information asymmetry between investors and managers. This counterintuitive finding suggests that mandatory disclosure may sometimes lead to information overload or create opportunities for strategic disclosure that obscures rather than clarifies a firm's true performance. Importantly, firms with well-developed corporate governance mechanisms and reliable CSR report narratives were better able to mitigate these negative impacts, indicating the importance of quality and governance in mandatory reporting.

The study by P. Wang et al. (2021) contributes to this debate by investigating the impact of mandatory CSR disclosure on share price responses to earnings announcements in China. Using a difference-in-differences analysis, they found that mandatory CSR reporting significantly improves market responses to earnings news, evidenced by an increase in the earnings response coefficient (ERC) and a decline in post-earnings announcement drift (PEAD). This finding suggests that mandatory CSR reporting helps reduce information asymmetry between firms and investors, particularly in firms with lower financial reporting quality and those operating in CSR-sensitive industries. The study also emphasizes the role of CSR disclosure quality, finding that firms with higher-quality CSR reports and better CSR performance experience more pronounced improvements in market reactions.

Overall, the comparison between mandatory and voluntary CSR/ESG disclosure regimes reveals a complex picture. While voluntary disclosure can serve as an effective signaling mechanism for high-performing firms, it may expose weaker performers to higher costs of capital. Conversely, mandatory disclosure enhances overall financial reporting quality and

reduces earnings management but may also lead to decreased stock price informativeness if not accompanied by robust governance practices and high-quality disclosures. As Rezaee & Tuo (2017) argue, the interplay between voluntary disclosures and firm performance is bidirectional, underscoring the importance of strategic non-financial disclosure practices.

These findings suggest that policymakers and corporate leaders should consider a nuanced approach to CSR/ESG disclosure, potentially combining elements of both voluntary and mandatory reporting. Future research could benefit from exploring the long-term impacts of different disclosure regimes across various market contexts and investigating how the quality and content of disclosures, rather than just their presence or absence, influence market outcomes and corporate behavior.

While mandatory and voluntary disclosure regimes offer distinct advantages, their effectiveness often depends on the institutional and regulatory environment in which firms operate. As the next section will explore, national, cultural, and industry-specific contexts significantly shape the impact of CSR/ESG disclosures.

1.7 Institutional Context and Regulatory Environment

The institutional context and regulatory environment play pivotal roles in shaping the nature, extent, and impact of CSR and ESG disclosures. This body of literature explores the differences between mandatory and voluntary disclosure regimes and examines variations in CSR/ESG practices across diverse national and industry contexts.

The debate surrounding mandatory versus voluntary CSR/ESG disclosure has been a central focus of research, yielding mixed findings. X. Wang et al. (2018) observed that firms subject to mandatory CSR disclosure in China exhibited a significant decrease in absolute discretionary accruals post-policy implementation, suggesting enhanced financial reporting quality. However, Guo et al. (2022) presented a contrasting perspective, noting that mandatory CSR disclosure in China led to decreased stock price informativeness and increased information asymmetry between investors and managers. These divergent findings underscore the complexity of implementing mandatory disclosure regimes and highlight the need for nuanced understanding of their impacts.

The effectiveness of mandatory disclosure appears to be contingent upon various contextual factors. Fan et al. (2023) found that mandatory CSR information disclosure significantly improves the quality of firms' earnings management in China, enhancing external regulation effectiveness and reducing the scope for managerial discretion. This aligns with earlier research

by Dhaliwal et al. (2011), which demonstrated that firms initiating CSR reports, particularly those with superior CSR performance, tend to experience a reduction in the cost of equity capital. These findings collectively suggest that well-implemented mandatory disclosure regimes can potentially enhance transparency and financial reporting quality.

The specific institutional context of different countries significantly influences CSR/ESG practices and their outcomes. Garanina and Kim (2023) revealed that in Russian companies, state ownership has a significantly negative impact on the association between CSR disclosure and accounting conservatism. This highlights the unique challenges in contexts where state ownership is prevalent and underscores the importance of considering ownership structures in CSR/ESG research.

In the Middle Eastern context, Al Barrak and Kouaib (2024) found that corporate sustainable management significantly reduces both accrual-based and real earnings management practices in Saudi indexed firms. This suggests that sustainability-oriented organizations in this region tend to mitigate earnings management activities, possibly due to the influence of religious and cultural factors. Such findings emphasize the need to consider cultural and religious contexts when examining the impact of CSR/ESG practices.

Industry-specific contexts also play a crucial role in shaping CSR/ESG outcomes. Eliwa et al. (2021) demonstrated that ESG performance and disclosure have significant negative associations with the cost of debt, with the environmental dimension being particularly important in the credit evaluation process. This suggests that the relevance of different ESG dimensions may vary across industries and types of financial stakeholders, highlighting the need for industry-specific analyses in CSR/ESG research.

The banking sector, in particular, presents its own unique dynamics. Kolsi et al. (2023) found that banks with higher ESG performance scores are less likely to engage in income-increasing practices through abnormal loan loss provisions, with the governance and social pillars being particularly effective in mitigating earnings management practices. This underscores the importance of sector-specific studies in understanding the nuanced impacts of CSR/ESG practices.

In conclusion, the extant literature reveals that the impact of CSR/ESG disclosures is heavily influenced by the institutional and regulatory environment in which firms operate. While mandatory disclosure regimes generally seem to enhance reporting quality, their effectiveness depends on various contextual factors. The specific national, cultural, and industry contexts play crucial roles in shaping both the nature of CSR/ESG disclosures and their impact on financial reporting and firm performance. Future research could benefit from more comparative

studies across different institutional contexts to better understand how regulatory environments and cultural factors interact with CSR/ESG practices, thereby providing more nuanced insights for policymakers and corporate decision-makers. Again, this requires a deeper dive into the relationship at hand.

While national and institutional contexts shape the effectiveness of CSR/ESG disclosures, a critical question remains: How do these disclosures affect corporate transparency and information asymmetry? In the following section, we delve into the role of CSR/ESG disclosures in reducing information gaps and improving financial reporting quality.

1.8 Information asymmetry and transparency

The relationship between CSR/ESG practices and information asymmetry is a key aspect of the broader discourse on corporate transparency and financial reporting quality. Understanding how these disclosures influence market behavior and stock price informativeness is essential to assessing their overall impact on corporate governance and investor relations.

Dhaliwal et al. (2012) provided foundational insights into this relationship, demonstrating that the issuance of standalone CSR reports is associated with lower analyst forecast error. This effect is particularly pronounced in countries with a stakeholder-oriented approach and in firms with more opaque financial disclosure, suggesting that CSR reporting can complement financial disclosure in reducing information asymmetry. Building on this work, Grewal et al. (2021) showed that firms disclosing more sustainability information identified by the Sustainability Accounting Standards Board (SASB) exhibit higher stock price informativeness. However, they noted that the disclosure of non-SASB information does not contribute to price informativeness, highlighting the importance of materiality in sustainability disclosures.

The quality and quantity of environmental disclosures play a significant role in reducing information asymmetry. Wendai et al. (2022) found that more voluntary environmental information disclosure can lead to a reduction in the cost of equity capital for Chinese firms in heavy pollution industries. This finding aligns with the work of C. Zhang et al. (2024), who demonstrated that higher ESG ratings lead to increased market attention and improved corporate transparency, contributing to higher stock liquidity. These studies collectively underscore the potential for well-executed CSR/ESG disclosures to enhance market efficiency and reduce information barriers. Approaching the issue from a different angle, Zadeh et al. (2023) reported that higher levels of CSR transparency lead to lower corporate cash holdings, especially for firms with high information asymmetry, low financial reporting quality, and weak governance. This relationship suggests that CSR transparency can act as a monitoring and

insurance-like mechanism on corporate cash holdings. Furthermore, Ho et al. (2024) showed that good CSR practices minimize asymmetric financial reporting issues, enhancing financial report comparability and attracting market supervision. This improvement in the information reporting environment facilitates better understanding by external investors and minimizes information asymmetry.

The readability of CSR reports emerges as another important factor in shaping the information environment. Ren & Yao (2024) found that earnings management has a significant negative correlation with the readability of Chinese CSR reports. Complementing this finding, Ndegwa (2024) showed that sustainability reporting significantly increases the readability of financial statements and moderates the relationship between board diversity, earnings management, and financial statement readability. These studies highlight the importance of clear and accessible CSR/ESG disclosures in enhancing overall corporate transparency.

The impact of CSR practices extends to specific aspects of financial reporting quality. Pereira et al. (2023) revealed that environmental reporting has a higher positive impact on earnings persistence than debt, indicating its role in improving financial reporting quality. This finding underscores the importance of environmental sustainability reporting in particular.

The governance aspect of ESG also plays a crucial role in information asymmetry. Hamrouni et al. (2022) found that while environmental disclosure positively impacts information asymmetry, board characteristics such as gender diversity and independence can moderate this relationship. Their study highlighted the complex interplay between CSR disclosure, board characteristics, and information asymmetry.

While CSR/ESG disclosures play a significant role in reducing information asymmetry and enhancing transparency, the quality and assurance of these disclosures are equally important in determining their impact on financial reporting practices. The following section explores how CSR/ESG disclosure quality and assurance practices influence overall corporate reporting and transparency.

1.9 CSR/ESG Disclosure Quality, Assurance, and Financial Reporting Quality

The quality of Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) disclosures, their assurance, and their relationship to overall financial reporting quality form a critical nexus in understanding the impact of sustainability practices on corporate transparency and accountability. This body of literature reveals a complex interplay between these elements, offering insights into how sustainability practices influence and are influenced by broader corporate reporting mechanisms.

Al-Shaer (2020) provides foundational evidence for the positive relationship between CSR reporting quality and financial transparency. Their study found that firms with high-quality sustainability reports are significantly and negatively associated with earnings management metrics, suggesting that robust CSR reporting reflects a broader commitment to transparent financial practices. This finding aligns with the earlier work of Martínez-Ferrero et al. (2015), who observed that companies with high financial reporting quality tend to disclose high-quality CSR information. These studies collectively indicate a mutually reinforcing relationship between financial and non-financial reporting quality, underscoring the interconnected nature of corporate disclosure practices.

The assurance of sustainability reports adds another layer of complexity to this relationship. Meqbel et al. (2024) revealed that firms engaging in earnings management tend to acquire sustainability assurance reports to enhance legitimacy. However, they also found that the presence of a Corporate Social Responsibility (CSR) committee mitigates the symbolic use of sustainability assurance. This finding emphasizes the importance of internal governance structures in ensuring the authenticity of CSR practices and disclosures, highlighting the role of organizational factors in shaping the quality and credibility of sustainability reporting. Tuo et al. (2023) further explored the broader implications of sustainability reporting on the financial auditing process. They found that sustainability reporting can act as a signal to auditors, reducing information asymmetry and mitigating estimation risk. Their observation that auditors are more lenient with reporting firms, especially those with low litigation risk, suggests that sustainability reporting influences not only internal reporting practices but also external auditing processes.

The quality of ESG performance itself also plays a significant role in financial reporting quality. García-Sánchez & García-Meca (2017) found that CSR practices in banks enhance earnings quality by improving earnings persistence and cash flow predictability, especially in countries with higher levels of investor protection and bank regulation. This finding suggests that the impact of CSR on financial reporting quality is moderated by the institutional environment, highlighting the importance of considering contextual factors in CSR/ESG research. However, not all studies present a uniformly positive picture of the relationship between ESG performance and financial reporting quality. Tohang et al. (2024) found that ESG performance is positively associated with discretionary accruals and negatively related to innate earnings quality in the digital industry in Asia. This finding highlights the potential for ESG practices to have different effects across industries and regions, underscoring the need for nuanced, context-specific analyses in this field of research.

Adding another dimension to this discussion, Kammoun & Khoufi (2023) examined the relationship between ESG performance, conditional conservatism, and audit fees. They found that conditional conservatism has a significant negative effect on audit fees, but this effect is mitigated when ESG performance is considered in combination. This study further emphasizes the complex interactions between ESG performance, financial reporting practices, and external auditing processes.

In summary, the extant literature suggests a complex interplay between CSR/ESG disclosure quality, assurance practices, and overall financial reporting quality. While high-quality CSR/ESG disclosures generally seem to be associated with better financial reporting practices, this relationship is influenced by factors such as internal governance structures, external assurance, industry context, and the broader institutional environment. Future research could benefit from exploring how these various factors interact to shape the overall quality and reliability of corporate reporting, both financial and non-financial. Such research could provide valuable insights for policymakers, corporate decision-makers, and stakeholders seeking to enhance the transparency and accountability of corporate sustainability practices.

Having examined the quality and assurance of CSR/ESG disclosures and their relationship to financial reporting, we now turn to the broader question of how overall CSR/ESG performance relates to financial reporting quality. This analysis will help us understand whether the link between sustainability practices and financial transparency extends beyond mere disclosure to encompass a company's actual ESG performance.

1.10 CSR/ESG Performance and Financial Reporting Quality

The relationship between Corporate Social Responsibility (CSR)/Environmental, Social, and Governance (ESG) performance and financial reporting quality has emerged as a complex and nuanced area of study. Scholarly research across various contexts and industries has yielded diverse findings, highlighting the multifaceted nature of this relationship.

A substantial body of literature suggests a positive association between CSR/ESG performance and financial reporting quality. High-quality CSR disclosures have been consistently linked to improved earnings quality, enhanced accounting conservatism, and increased financial statement transparency (T. C. Hoang et al., 2019; Martínez-Ferrero et al., 2015; Pereira et al., 2021). This positive relationship is particularly pronounced in contexts with strong institutional frameworks, such as those characterized by robust investor protection and stringent bank regulation (García-Sánchez & García-Meca, 2017).

The quality of environmental disclosures has been specifically linked to improved financial reporting. Alipour et al. (2019) found a significant positive relationship between corporate environmental disclosure quality (EDQ) and earnings quality (EQ) in Iran, emphasizing the importance of regulating corporate reporting and setting minimum standards for environmental disclosures. Their work highlights how non-financial reporting can positively influence financial information quality, particularly through improved accrual quality.

Corporate governance mechanisms play a crucial role in this relationship. Wild & Wild (2023) found that firms with superior CSR consciousness exhibit greater disclosure transparency, a relationship further accentuated by effective governance. Clare et al. (2024) provided additional insights, revealing that board characteristics, particularly board size and connectedness, are associated with better ESG outcomes. This suggests that well-connected and diverse boards may enhance both ESG performance and financial reporting quality through improved oversight. However, the landscape is not uniformly positive. Some studies have uncovered potential negative impacts of CSR/ESG performance on financial reporting quality. In certain contexts, higher ESG ratings have been associated with increased discretionary accruals and reduced accounting conservatism (Shen et al., 2021; Tohang et al., 2024). These findings raise critical questions about the potential for CSR/ESG disclosures to be used opportunistically (Amarna et al., 2024; Pratiwi & Siregar, 2019).

The relationship extends to various financial metrics, with studies finding significant correlations between ESG disclosure and indicators such as cash holdings, cost of debt, and cost of equity (Amarna et al., 2024; Saleh et al., 2023). This suggests that CSR/ESG performance may significantly influence a firm's financial strategies and market interactions. Interestingly, the causal direction of this relationship is not always clear. (Bose & Yu, 2023) found evidence of a unidirectional relationship where changes in earnings quality drive changes in CSR performance, adding another layer of complexity to our understanding.

The impact of CSR/ESG performance extends beyond traditional financial metrics. Zhang et al. (2024) found that while ESG performance may provide information that reduces goodwill impairment, it can also potentially divert resources from crucial processes like M&A integration.

It's important to note that these relationships are not universal across all markets and contexts. Some studies have failed to find significant associations in certain environments (de Souza et al., 2019), underscoring the importance of considering contextual factors.

In conclusion, the relationship between CSR/ESG performance and financial reporting quality is characterized by complexity and context-dependence. While substantial evidence supports a

positive association, conflicting findings highlight the need for nuanced interpretation. As CSR and ESG considerations gain prominence, further research is needed to fully understand their implications for financial reporting practices, corporate governance, and stakeholder decision-making in an increasingly complex global business environment.

1.11 Conclusion

The systematic review of literature on the relationship between Corporate Social CSR/ESG practices and financial reporting quality reveals a complex and nuanced landscape. This body of research demonstrates that the impact of CSR/ESG initiatives on corporate financial practices, market behavior, and stakeholder responses is multifaceted and context-dependent.

A significant strand of research indicates a positive association between CSR/ESG performance and financial reporting quality. Studies across various contexts have linked high-quality CSR disclosures to improved earnings quality, enhanced accounting conservatism, and increased financial statement transparency (Hoang et al., 2019; Martínez-Ferrero et al., 2015; Pereira et al., 2021). This positive relationship appears particularly pronounced in environments characterized by strong institutional frameworks, such as robust investor protection and stringent regulatory oversight (García-Sánchez & García-Meca, 2017).

The quality of environmental disclosures has been specifically associated with improved financial reporting practices. For instance, Alipour et al. (2019) demonstrated a significant positive relationship between corporate environmental disclosure quality and earnings quality in the Iranian context. Such findings underscore the potential for non-financial reporting to positively influence the quality of financial information, particularly through enhanced accrual quality.

Corporate governance mechanisms emerge as crucial moderators in the CSR/ESG-financial reporting quality relationship. Wild & Wild (2023) found that firms with superior CSR consciousness exhibit greater disclosure transparency, an effect amplified by effective governance structures. This aligns with the findings of Clare et al. (2024), who highlighted the role of board characteristics, particularly size and connectedness, in fostering better ESG outcomes and, by extension, improved financial reporting quality.

However, the literature also reveals potential negative impacts of CSR/ESG performance on financial reporting quality. Some studies have associated higher ESG ratings with increased discretionary accruals and reduced accounting conservatism in certain contexts (Shen et al., 2021; Tohang et al., 2024). These findings raise important questions about the potential for

CSR/ESG disclosures to be used opportunistically, highlighting the need for careful scrutiny of sustainability reporting practices (Amarna et al., 2024; Pratiwi & Siregar, 2019).

The relationship between CSR/ESG practices and financial reporting extends beyond traditional metrics, influencing various aspects of corporate financial strategy. Studies have found significant correlations between ESG disclosure and indicators such as cash holdings, cost of debt, and cost of equity (Amarna et al., 2024; Saleh et al., 2023). These findings suggest that CSR/ESG performance may significantly shape a firm's financial strategies and market interactions.

Interestingly, the causal direction of the CSR/ESG-financial reporting quality relationship is not always clear. Bose & Yu (2023) provided evidence of a unidirectional relationship where changes in earnings quality drive changes in CSR performance, adding another layer of complexity to our understanding of this dynamic.

The impact of CSR/ESG performance on financial reporting practices appears to be moderated by various contextual factors, including institutional environment, industry characteristics, and firm-specific attributes. This contextual dependence is evidenced by studies that have failed to find significant associations in certain environments (de Souza et al., 2019), underscoring the importance of considering market-specific and firm-specific factors in analyzing the CSR/ESG-financial reporting quality relationship.

In conclusion, while substantial evidence supports a positive association between CSR/ESG practices and financial reporting quality, the conflicting findings and contextual variations highlight the need for nuanced interpretation. As CSR and ESG considerations continue to gain prominence in corporate strategy and stakeholder expectations, further research is needed to fully understand their implications for financial reporting practices, corporate governance, and stakeholder decision-making in an increasingly complex global business environment.

1.12 Future Research Avenues

The systematic literature review highlights several important research avenues that are vital for advancing the understanding of the relationship between ESG practices and earnings quality, especially in the Eurozone context.

One of the most prominent areas for future research involves exploring the causal relationship between ESG practices and earnings quality. While numerous studies have examined the correlation between these variables, the question of whether ESG disclosures genuinely lead to better earnings quality or if firms with superior financial reporting quality are more likely to engage in comprehensive ESG reporting remains unresolved (Rezaee & Tuo, 2019; Mishra et

al., 2024). Future studies could adopt more advanced econometric techniques to distinguish between correlation and causation, addressing one of the core ambiguities in the existing literature. Understanding this causal pathway will provide essential insights into whether ESG practices directly contribute to improving financial transparency, which is critical for both academics and practitioners.

Velte (2019) underscores the importance of investigating the bidirectional relationship between ESG performance and earnings management. This suggests that future research should explore not only how ESG practices influence earnings management but also how earnings management behaviors may affect a company's ESG performance. Investigating this reciprocal relationship will offer a more comprehensive understanding of the dynamic interplay between ESG and financial reporting practices.

Another significant research avenue concerns the role of corporate governance mechanisms in moderating the relationship between ESG practices and earnings quality. Corporate governance attributes, such as board independence, gender diversity, and audit committee effectiveness, have been highlighted as potential moderators that could either amplify or diminish the positive effects of ESG on financial reporting quality (Garanina & Kim, 2023; Rezaee et al., 2020; Borralho et al., 2022). Velte (2019) particularly encourages the inclusion of corporate governance variables in future research on ESG and earnings management, suggesting areas such as sustainable management compensation or gender diversity as key variables to investigate. These suggestions align with the growing focus on governance factors in fostering transparency and sustainability within corporate structures.

Additionally, there is a growing interest in sector-specific analyses to understand how the relationship between ESG practices and earnings quality may differ across industries. Studies have suggested that certain sectors, especially those with significant environmental and social impacts, might display stronger or weaker relationships between ESG and earnings quality (Zhang et al., 2024; Kolsi et al., 2023; Tohang et al., 2024). Future research could focus on industry-level analyses, providing a deeper understanding of how the dynamics between ESG and financial reporting quality play out in sectors such as manufacturing, finance, and energy, where ESG factors are particularly salient.

Another key area for exploration is the differential impact of the individual dimensions of ESG - environmental, social, and governance - on earnings quality. Several studies have indicated

that each ESG component may affect earnings management practices differently (Pereira et al., 2021; Hong, 2020; Zhang et al., 2024). For example, the environmental dimension may have a more pronounced impact in industries with high environmental risks, while the governance component could be more influential in sectors with complex regulatory requirements. Future research could disaggregate ESG dimensions to offer a more nuanced analysis of how each aspect contributes to earnings quality, which would be valuable for both academics and policymakers.

Velte (2019) also emphasizes the importance of incorporating real earnings management (REM) into research designs. Future studies should focus on how ESG performance affects both accrual-based earnings management (AEM) and REM, providing a more comprehensive view of how companies may use different earnings management strategies in response to ESG pressures. This will deepen our understanding of how firms may shift from one form of earnings manipulation to another, especially in light of increased ESG scrutiny.

Moreover, the strategic use of ESG reporting for earnings management has emerged as a critical concern in the literature. While ESG is often associated with enhanced transparency and reduced earnings manipulation, some studies suggest that firms may exploit ESG disclosures for opportunistic reasons, such as masking poor financial performance or engaging in "greenwashing" (Amarna et al., 2024; Hong, 2020; Rezaee & Tuo, 2019). This presents an important area for future research, as investigating how companies might use ESG practices to obscure earnings management could reveal both the limitations and risks of ESG initiatives. By examining how firms may manipulate their ESG reporting to improve their public image without making substantive improvements to their financial reporting practices, future studies could offer crucial insights into the darker side of ESG practices.

Lastly, future research should also examine the broader implications of ESG practices on market behavior and investor perceptions. Studies have increasingly linked ESG practices with stock price informativeness, market liquidity, and investor behavior, yet much remains to be explored in this domain (Amarna et al., 2024; Mishra et al., 2024). Understanding how investors react to firms' ESG practices, and whether these disclosures influence investment decisions, could provide valuable insights into how firms can optimize their ESG strategies to improve investor relations and market performance.

The findings of this review should be interpreted with caution due to inherent limitations in the research methodology employed. While the systematic review method is rigorous, elements of subjectivity persist in the definition of keywords, search strings, and selection criteria. These factors critically shape the scope of the study and determine the selection of papers for review. To enhance the robustness of our results, alternative research methods could be considered. For example, meta-analysis could be employed as a methodological approach to synthesize findings across studies, facilitating the derivation of more definitive conclusions. This method would help in systematically combining results and addressing potential biases introduced by the subjective elements of the review process.

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APPENDIX I - DISTRIBUTION OF STUDIES BY JOURNAL

Journal Title	N° of Studies
Abacus	1
Accounting And Business Research	1
Accounting And Finance	1
Accounting Horizons	1
Accounting Research Journal	1
Accounting Review	2
Advances In Accounting	1
Asian Journal Of Accounting Research	1
Asian Review Of Accounting	1
Asia-Pacific Journal Of Accounting And Economics	1
Australasian Business, Accounting And Finance Journal	2
Borsa Istanbul Review	1
Brazilian Business Review	1
Business And Society Review	1
Business Ethics, Environment And Responsibility	1
Business Strategy And The Environment	1
Cogent Business And Management	3
Cogent Social Sciences	1
Corporate Governance (Bingley)	2
Corporate Social Responsibility And Environmental Management	7
Critical Perspectives On Accounting	1
Emerging Markets Finance And Trade	1
Environment, Development And Sustainability	1
Environmental Quality Management	1
Environmental Science And Pollution Research	2
Finance Research Letters	3
Global Business Review	1
Global Finance Journal	1
Heliyon	1
International Journal Of Accounting And Information Management	1
International Journal Of Advanced And Applied Sciences	1
International Journal Of Business	1
International Journal Of Business Innovation And Research	1
International Journal Of Economics And Business Research	1
International Journal Of Finance & Economics	1
International Journal Of Law And Management	1
International Journal Of Managerial Finance	2
International Journal Of Sustainable Development And Planning	1
International Review Of Economics & Finance	1
Journal Of Accounting And Organizational Change	1
Journal Of Accounting In Emerging Economies	1
Journal Of Applied Accounting Research	1
Journal Of Asia Business Studies	1
Journal Of Asian Finance, Economics And Business	1
Journal Of Business Ethics	4
Journal Of Cleaner Production	2
Journal Of Contemporary Accounting And Economics	1
Journal Of Family Business Management	1
Journal Of Financial Reporting And Accounting	3
Journal of Global Responsibility	1
Journal Of Governance And Regulation	1
Journal Of International Accounting Research	1
Journal Of International Accounting, Auditing And Taxation	1
Journal Of Sustainability Science And Management	1
Kybernetes	1
Managerial And Decision Economics	1
Managerial Auditing Journal	3
Pacific Basin Finance Journal	2
Plos One	1
Research In International Business And Finance	1
Resource And Energy Economics	1
Review Of Accounting And Finance	1
Revista Espanola De Financiacion Y Contabilidad	1
Social Responsibility Journal	2
South African Journal Of Economic And Management Sciences	1
SSRN	1
Sustainability	11
Total	102

APPENDIX II - EMPIRICAL STUDIES ON CSR/ESG PRACTICES AND EARNINGS QUALITY

Author(s)	Journal	Methodology	Data/sample	Motivation	Main research findings
Hashed & Ghaleb (2023)	Cogent Business and Management	Two-stage least square regression analysis to investigate CSR impact on real earnings management and financial reporting quality.	840 firm-year observations of non-financial firms listed on Saudi Stock Exchange from 2016 to 2021.	Investigate impact of sustainability reporting on real earnings management practices and financial reporting quality in Saudi market.	CSR reporting reduces real earnings management practices. Institutional ownership negatively impacts REM and strengthens the relationship between CSR reporting and REM.
Al Barrak & Kouaib (2024)	Sustainability	Employed pooled ordinary least squares regression.	37 non-financial Saudi indexed firms from 2018 to 2022.	Investigate impact of Corporate Sustainable Management on Earnings Management practices in Saudi Arabian firms.	Corporate sustainable management significantly reduces both accruals-based and real earnings management practices in Saudi indexed firms.
Al Natour et al. (2022)	Sustainability	Generalized Method of Moments (GMM) model to analyze the relationship between sustainability reporting and information asymmetry (IA)	641 UK firms listed on FTSE All-Share Index during 2010-2017, totaling 2058 firm-year observations.	Investigate relationship between sustainability reporting and information asymmetry in family and non-family-controlled firms.	Negative relationship between sustainability reporting and information asymmetry. Family-controlled firms showed weaker sustainability reporting-IA nexus compared to non-family-controlled firms.
Alghizzawi et al. (2022)	Cogent Business and Management	SPSS used for descriptive analysis.	200 observations of 100 service and industrial Jordanian companies listed on Amman Stock Exchange.	Examine relationship between CSR performance and firm performance in Jordanian companies.	Significant positive association between community and environment dimensions of CSR with both ROA and ROE. Philanthropy had relatively insignificant impact on ROA and ROE.
Alipour et al. (2019)	Journal of Asia Business Studies	Used panel data regression to examine association between corporate environmental disclosure quality and earnings quality.	107 Iran non-financial firms listed on Tehran Stock Exchange between 2011 and 2016.	Investigate relationship between corporate environmental disclosure quality and earnings quality in emerging market like Iran.	Significant positive relationship between corporate environmental disclosure quality and earnings quality. Improving quality of non-financial information positively influences quality of financial information.
Almahrog et al. (2018)	Journal of Financial Reporting and Accounting	Used content analysis and disclosure index to measure CSR level. Earnings management measured based on discretionary accruals.	UK FTSE 350 index data during 2008-2010, focusing on non-financial companies. Final sample of 515 firm-year observations.	Explore relationship between CSR activities and extent of earnings management practices in large UK companies.	Companies with higher commitment to CSR activities are less likely to manage earnings through accruals. Levels of community, employees, environment, and products negatively related to extent of earnings management.

Almubarak et al. (2023)	Sustainability	Used discretionary accruals to measure earnings management. ESG disclosure assessed based on environmental, social, and governance scores.	304 company-year observations from listed companies in Saudi Arabia for 2014-2021.	Investigate association between ESG disclosure and earnings management levels in listed companies in Saudi Arabia.	ESG disclosure had positive and statistically significant effect on earnings management. Financial distress enhanced this effect significantly.
Al-Shaer (2020)	Business Strategy and the Environment	Ordinary least squares (OLS) regression and propensity score matching (PSM) to analyze the data, using various measures for sustainability and financial reporting quality	FTSE 350 listed firms from 2007 to 2018, focusing on large UK companies	Investigate association between sustainability reporting quality and post-audit financial reporting quality.	firms producing high-quality sustainability reports are significantly and negatively associated with earnings management, indicating improved post-audit financial reporting quality.
Amarna et al. (2024)	Corporate Social Responsibility and Environmental Management	Applied fixed effects panel data analysis to 1659 firm-year observations. Used ESG disclosure score from Refinitiv Eikon database.	1659 firm-year observations of 177 European companies from 2010 to 2019.	Investigate impact of ESG disclosure on cost of financing, focusing on relationship between ESG disclosure and cost of debt and equity financing.	ESG disclosure has negative relationship with cost of debt and positive association with cost of equity. Real earnings management moderates relationship between ESG disclosure and COD/COE.
Aqabna et al. (2023)	Sustainability	Employed random effect estimation method and GMM regression for robustness.	661 firm-year observations from 2007 to 2021 in MENA region.	Investigate relationship between CSR and firm performance in MENA region, focusing on how earnings management moderates this relationship.	ESG scores positively impact return on assets in MENA region, even after adjusting for COVID-19. CSR has insignificant positive impact on financial performance, but ESG has strong positive link with Tobin's Q.
Bhuiyan & Nguyen (2019)	Social Responsibility Journal	Used multivariate regression analysis to investigate association between CSR and cost of equity and cost of debt.	Sample of 230 Australian listed firms from 2004 to 2016, totaling 1,763 firm-year observations.	Investigate impact of CSR on cost of equity and cost of debt in Australian listed firms.	Firms complying with higher CSR affect both COE and COD negatively, indicating CSR disclosure reduces financing cost. Positive association between leverage and CSR compliance.
Borralho et al. (2022)	Journal of Cleaner Production	Used Generalized Method of Moments estimator to address endogeneities. Utilized discretionary accruals as proxy for earnings management.	243 listed companies from France and Spain, with ESG data available for 1062 companies from 2009 to 2018.	Investigate how different components of ESG disclosure individually impact earnings management in family versus non-family firms.	ESG disclosure alleviates information opaqueness and improves transparency. Family firms show higher discretionary accrual mean values than non-family firms.
Bose et al. (2023)	ABACUS	Examined causal link between CSR performance and earnings quality using Granger causality analysis.	17,959 firm-year observations from 2,896 unique US firms from 1992 to 2013.	Explore relationship between CSR performance and earnings quality, focusing on causal link and impact on cost of equity capital.	Positive association between earnings quality and CSR performance. Changes in earnings quality cause changes in firm's CSR performance, indicating unidirectional relationship.

Brizolla & Klann (2019)	Environmental Quality Management	Used descriptive, document-based, and quantitative methodology. Employed panel data regression for data analysis.	400 companies divided into two groups, covering period from 2010 to 2014.	Evaluate influence of environmental expenditures and environmental disclosure on quality of accounting information in publicly traded companies.	Companies with good reputations disclosing environmental information through voluntary disclosures tend to improve financial performance in subsequent periods. Environmental expenditures negatively related to earnings management levels.
Carey et al. (2017)	Journal of Contemporary Accounting and Economics	Used Heckman selection approach and propensity score matching procedure to address endogeneity concerns.	Chinese listed firms from 2008 to 2013, with final sample of 7,341 observations including 909 firm-years of voluntarily issued stand-alone CSR reports.	Examine motivations behind voluntary CSR reporting in China, focusing on strategic use by non-state-owned enterprises.	Positive association between voluntary CSR reporting and audit fees in China. Non-SOEs with higher-rated CSR performance associated with lower audit fees and less earnings management.
Cho & Ryu (2022)	Sustainability	Multi-regression analyses	3061 firm-year observations from non-financial enterprises listed on KOSPI from 2013 to 2017.	Investigate impact of managerial ownership on CSR engagement in Korean public companies.	Firms with higher managerial ownership more actively involved in CSR activities. Firms engaged in earnings management less likely to conduct CSR activities as managerial ownership increases.
Clare et al. (2024)	SSRN	Used econometric analysis, system GMM estimator, and instrumental variables to address endogeneity concerns.	FTSE-350 companies between 2012 and 2022, focusing on board characteristics and ESG performance.	Investigate correlation between professional capital of Non-Executive Directors and ESG performance in FTSE-350 listed companies.	Board connectedness significantly impacts company's overall ESG score. Larger boards with more diverse expertise tend to have better ESG performance. Female directors play significant role in enhancing ESG performance.
de Souza et al. (2019)	Brazilian Business Review	Used content analysis to extract CSR disclosure items. Employed pooled OLS regression models for multivariate analysis.	252 different firms, resulting in unbalanced panel of 1,181 firm-years from 2012 to 2016 in Brazil.	Investigate relationship between CSR disclosures and financial reporting quality in Brazilian context.	No relationship found between CSR disclosures and financial reporting quality proxies. Results remained consistent across different measures and estimations.
De Villiers & Marques (2016)	Accounting and Business Research	Used ordered logit regression models to examine association between country institutional variables, firm-level variables, and CSR disclosure levels.	1227 observations from 366 firms from top 500 European firms during 2007-2010.	Investigate predispositions for CSR disclosure based on country-level and firm-level factors.	Firms in countries with greater investor protection, democracy, and effective governance tend to disclose higher levels of CSR. Higher levels of CSR disclosure associated with higher share prices.
Dhaliwal et al. (2011)	Accounting Review	Used lead-lag approach with two-stage regressions to address endogeneity and self-selection issues.	294 firms issuing 1,190 standalone CSR reports during 1993-2007 in U.S.	Investigate impact of CSR disclosure on cost of equity capital.	Firms with superior CSR performance enjoy reduction in cost of equity capital after initiating CSR reports, attracting dedicated

					institutional investors and analyst coverage.
Dhaliwal et al. (2012)	Accounting Review	Utilized regression analysis to examine relationship between CSR disclosure and analyst forecast accuracy.	7,779 CSR reports from public firms across 49 countries during 1994-2007.	Examine relationship between nonfinancial information disclosure and analyst forecast accuracy.	Issuance of stand-alone CSR reports linked to lower analyst forecast error, especially in countries with stakeholder-oriented approach and firms with more opaque financial disclosure.
Dissanayake et al. (2023)	Asian Journal of Accounting Research	Used quantitative approach with multivariate regression analyses.	1,054 firm-years from listed firms on Colombo Stock Exchange.	Investigate whether managers use CSR disclosures to conceal opportunistic behavior through earnings management.	Firms use CSR disclosure to conceal managers' opportunistic behavior through earnings management. Corporate governance mechanisms significantly constrain such behavior.
Ehsan et al. (2022)	Managerial and Decision Economics	Used two-stage least square and pooled ordinary least square regressions for empirical analysis.	1600 firm-year observations from 14 industrial sectors in Pakistan from 2009 to 2018.	Investigate relationship between CSR and earnings management among manufacturing firms in Pakistan.	Negative relationship between CSR and earnings management, indicating firms committed to CSR are driven by long-term perspective.
Eliwa et al. (2021)	CRITICAL PERSPECTIVES ON ACCOUNTING	Pooled OLS Regressions	6,018 firm-year observations from non-financial firms in 15 EU countries from 2005 to 2016.	Examine whether lending institutions reward firms for ESG performance and disclosure by lowering cost of debt capital.	ESG performance and disclosure have significant negative association with cost of debt. Environmental dimension of ESG performance has significant negative impact on cost of debt.
Ellili (2022)	Corporate Governance (Bingley)	Multiple Regression analyses	Companies traded on Abu Dhabi Securities Exchange and Dubai financial market during 2010-2019.	Investigate impacts of ESG disclosure and financial reporting quality on investment efficiency in UAE.	Positive relationship between ESG disclosure, financial reporting quality, and investment efficiency, particularly significant in underinvestment and high FRQ sub-samples.
Erraja et al. (2024)	Business and Society Review	Used two-step dynamic panel data approach and GMM estimations to address issues like heteroskedasticity and endogeneity.	1,980 Chinese firm-year observations from Shenzhen and Shanghai stock markets between 2013 and 2017.	Examine relationship between CSR performance, CEO characteristics, and earnings management in China.	Negative relationship between CSR performance and discretionary accruals. Firms with postgraduate and mature CEOs exhibit stronger negative link between CSR and earnings management.
Fan et al. (2023)	Sustainability	Used Difference-in-Differences method and propensity score matching to analyze impact of mandatory CSR disclosure on earnings management.	8527 observations of Chinese listed companies from 2006 to 2013.	Investigate impact of mandatory CSR disclosure policies on quality of earnings management in listed firms in China.	Mandatory CSR disclosure significantly improves quality of firms' earnings management, enhancing external regulation effectiveness and reducing manipulative space for managerial discretion.

Gafni et al. (2024)	Finance Research Letters	Used linear model with panel data and included various variables to assess impact of ESG ratings on financial reporting quality.	U.S.-listed companies from 2012 to 2022.	Investigate whether companies exploit increased investor focus on nonfinancial ESG performance to divert attention from poor financial reporting.	High ESG ratings do not compromise financial reporting quality. ESG ratings positively impact value relevance of earnings and book value.
Garanina (2024)	Journal of Accounting in Emerging Economies	Employed panel data analysis on 223 publicly listed Russian firms from 2012-2018.	223 publicly listed Russian firms from 2012-2018.	Explore relationship between earnings management, firm value, CSR disclosure, and state ownership in Russian companies.	Firms disclosing more CSR information experience weaker negative relationship between earnings management and market value. State-owned companies show even weaker negative effect.
Garanina & Kim (2023)	Journal of International Accounting, Auditing and Taxation	Used panel data analysis of 223 publicly listed Russian companies for 2012-2017.	223 publicly listed Russian companies for 2012-2017.	Investigate relationship between CSR disclosure and accounting conservatism in Russian context.	Companies with higher CSR disclosure tend to have more conservative financial reporting practices. State ownership has negative moderating effect on this association.
García-Sánchez & García-Meca (2017)	Corporate Social Responsibility and Environmental Management	Used instrumental variable methods embedded in GMM to address endogeneity issues.	877 observations from 159 banks across 9 countries for 2004-2010.	Investigate impact of CSR practices on earnings quality in banks.	CSR practices in banks enhance earnings quality by improving earnings persistence and cash flow predictability, especially in countries with higher levels of investor protection and bank regulation.
García-Sánchez et al. (2020)	Corporate Social Responsibility and Environmental Management	Applied various panel data regression models, using dynamic panel estimator based on generalized method of moments.	3,594 companies from 31 stock indices over 10 years from 2007 to 2016.	Explore relationship between managerial entrenchment, CSR, and earnings management.	Negative association between CSR performance and earnings management strategies. Managerial entrenchment significantly moderates relationship between CSR performance and earnings management.
Gavana et al. (2017)	Sustainability	Used panel GLS regression approach with firm-level clustering, time, and industry fixed effects.	226 non-financial, family, and non-family listed firms for 2006-2015.	Investigate how family firms use CSR disclosure in relation to earnings management.	Family firms more likely to use CSR disclosure to mask downward earnings management, especially in instances of negative discretionary accruals.
Gerged et al. (2023)	International Journal of Finance & Economics	Used Generalized Method of Moments estimator to address endogeneities. Conducted multivariate regression analyses.	100 Jordanian listed firms from 2010 to 2014, resulting in 500 firm-year observations.	Investigate how internal corporate governance mechanisms moderate relationship between corporate environmental disclosure and earnings management practices.	Negative relationship between corporate environmental disclosure and earnings management in Jordan. Internal corporate governance mechanisms have moderating effects on CED-EM nexus.
Gerged et al. (2018)	Accounting Research Journal	Used fixed-effects estimation to examine association between	300 observations from non-financial firms listed on	Explore relationship between corporate environmental	Significant negative relationship between Corporate Environmental

		corporate environmental disclosure and earnings management.	Kuwaiti stock exchange from 2010 to 2014.	disclosure and earnings management in Kuwait.	Disclosure and Earnings Management in Kuwait.
Ghaleb et al. (2021)	Cogent Business and Management	Used content analysis to measure CSR reporting and ordinary least square regression to examine relationships.	475 firm-year observations listed on Amman Stock Exchange during 2011-2016.	Investigate relationship between CSR reporting, board gender diversity, and real earnings management in Jordan.	CSR reporting significantly and negatively associated with real earnings management. Board gender diversity negatively and significantly related to REM.
Gong & Ho (2021)	Asia-Pacific Journal of Accounting and Economics	Used generalized method of moments approach to model endogeneity of CSR. Constructed indices for real earnings management.	3,409 firm-year observations from Chinese firms listed on SHSE and SZSE from 2009 to 2015.	Investigate whether CSR mitigates or exacerbates managerial short-termism, using earnings management as proxy.	Socially responsible firms engage in less earnings management activities, indicating less managerial short-termism, especially when CSR activities are under strict supervision.
Grewal et al. (2021)	Journal of Business Ethics	Multiple Regression analyses	1291 unique firms with 11,334 firm-year observations. Matched sample of 467 firms after coarsened exact matching.	Examine financial materiality of sustainability disclosures.	Firms disclosing more SASB-identified sustainability information show higher stock price informativeness. Disclosure of non-SASB information does not contribute to price informativeness.
Guo et al. (2022)	Research in International Business and Finance	Used Propensity Score Matching approach and Difference-in-Differences model.	5130 firm-year observations, with 1600 in treatment group and 3530 in benchmark group, analyzing Chinese firms from 2006-2011.	Explore association between CSR disclosure and Idiosyncratic Volatility using quasi-natural experimental approach.	Mandatory CSR disclosure in China led to significant decrease in stock price informativeness and increase in information asymmetry between investors and managers.
Habbash & Haddad (2020)	Social Responsibility Journal	Used content analysis to extract CSR disclosure items. Employed multivariate analysis using pooled OLS regression models.	225 observations from Saudi public firms listed on Saudi Stock Exchange over 2015-2016 period.	Investigate relationship between earnings management and CSR in Saudi Arabia.	Positive and significant relationship between CSR and earnings management practices in Saudi Arabia.
Habib (2023)	Environment, Development and Sustainability	Used PLS-SEM algorithm for analysis, regression techniques like OLS, robust standard errors, bootstrapping, GLS.	1,540 firm-year observations from 308 U.S. firms during 2016-2020.	Explore impact of real earnings management and ESG performance on firm's financial performance and total enterprise value.	Firms adopting real earnings management strategies likely to have lower ESG performance and total enterprise value. Companies implementing ESG strategies tend to have higher total enterprise value and financial performance.
Hamrouni et al. (2022)	JOURNAL OF APPLIED ACCOUNTING RESEARCH	Used system generalized method of moments estimators to address endogeneity issues in panel data analysis.	64 firms from SBF 120 index over 2008-2016 period.	Investigate relationship between CSR disclosure, information asymmetry, and board characteristics in French firms.	Environmental disclosure positively impacts information asymmetry, while social disclosure has no effect. Gender diversity and board independence negatively influence opacity index.

Hendijani Zadeh et al. (2023)	International Journal of Managerial Finance	Used ordinary least squares estimators to analyze panel of S&P 500 index companies from 2012-2018.	Balanced panel dataset of S&P 500 index companies over 2012-2018 period.	Investigate impact of CSR transparency on corporate cash holdings.	Higher level of CSR transparency leads to lower corporate cash holdings, especially for firms with high information asymmetry, low financial reporting quality, and weak governance.
Ho et al. (2024)	Revista Espanola de Financiacion y Contabilidad	Multiple Regression analyses	Data from Chinese listed companies from 2010 to 2018, with final sample of 4,835 firm-year observations.	Examine relationship between Corporate Social Responsibility and Financial Reporting Comparability.	Good CSR practices minimize asymmetric financial reporting issues, enhancing financial report comparability and attracting market supervision.
Hoang et al. (2022)	Asian Review of Accounting	Used Probit estimator to observe effect of audit quality on earnings management behavior.	11,305 firm-year observations from Chinese stock market from 2001 to 2019.	Investigate impact of audit quality on earnings management to beat earnings targets in Chinese listed firms, considering firms' CSR practices.	Audit quality disciplines earnings management to beat earnings targets in Chinese firms. Auditors more tolerant to firms actively disclosing CSR activities, especially among less aggressive earnings manipulators.
Hoang et al. (2019)	Emerging Markets Finance and Trade	Used OLS regression with heteroscedasticity robust standard errors to analyze effect of earnings quality on corporate social disclosure.	133 firms listed on Ho Chi Minh and Hanoi stock exchanges for 2010 sample.	Investigate impacts of family entities on environmental disclosure, focusing on mediating roles of earnings management and board independence.	Positive relationship between earnings quality and corporate social disclosure in Vietnamese listed firms. State ownership weakens relationship between earnings quality and corporate social disclosure.
Hong et al. (2022)	Sustainability	Measured discretionary accruals using three models: Jones model, modified Jones model, and performance-matched model.	Data from CRSPCompustat Merged-Fundamentals Annual file for domestic primary stocks listed on NYSE, AMEX, and NASDAQ exchanges between 1991 and 2020.	Address mixed evidence related to information content in discretionary accruals by investigating relationship between discretionary accruals and analysts' forecast dispersion.	Discretionary accruals positively associated with analysts' forecast dispersion. Greater external monitoring and higher ESG scores mitigate positive relationship between discretionary accruals and analysts' forecast dispersion.
Hong (2020)	International Journal of Economics and Business Research	Used regression analyses using Ball and Shivakumar (2006), Basu (1997), and Khan and Watts (2009) models.	3,972 firm-year observations from companies listed on Korea Exchange from 2010 to 2016.	Investigate relationship between sustainability management and accounting conservatism in Korean companies.	Companies with higher ESG ratings exhibit lower accounting conservatism. Higher ESG rating corresponds to lower conservatism in Korean companies listed on Korea Exchange from 2010 to 2016.
Jordaan et al. (2018)	South African Journal of Economic and Management Sciences	Multiple Regression analyses	214 company-years from 100 South African companies for 2008, 2011, and 2013.	Investigate association between CSR performance, CSR disclosure, and earnings management of South African companies.	Companies with better CSR performance more likely to engage in earnings management through income-increasing discretionary

					accruals, but less likely to engage in real earnings management.
Kammoun & Khoufi (2023)	Journal of Financial Reporting and Accounting	Used ordinary least square estimator for panel data analysis to examine effect of conditional conservatism on audit fees.	3,767 firm-year observations from 14 EU countries over 2006-2019 period.	Investigate impact of conditional conservatism on audit fees and how firm's engagement in sustainable practices moderates this relationship.	Conditional conservatism has significant negative effect on audit fees. Firms engaging in ESG actions pay higher audit fees.
Kolsi et al. (2023)	Environmental Science and Pollution Research	Used two proxies for earnings management: abnormal loan loss provisions and EM to meet threshold of reporting small positive profit or avoiding losses.	1763 bank-year observations from 394 US commercial banks from 2010 to 2019.	Investigate relationship between ESG performance and earnings management practices in US commercial banks.	Banks with higher ESG performance scores less likely to engage in income-increasing practices through abnormal loan loss provisions. ESG performance effectively mitigates earnings management practices for US banks.
Kolsi & Attayah (2018)	International Journal of Business Innovation and Research	Multiple Regression analyses	34 listed companies over five-year period from 2010 to 2014 in UAE.	Investigate relationship between socially responsible firms and earnings management practices.	Positive relationship between abnormal accruals and level of CSR disclosures. No relationship found between CSR disclosures and real manipulation proxies.
Kumawat & Patel (2022)	GLOBAL BUSINESS REVIEW	Adopted Panel-Corrected Standard Error approach for main analysis.	177 listed companies from NSE 500 over 10-year period from 2011 to 2020, with total of 1,770 firm-year observations.	Investigate value relevance of ESG disclosures in terms of reducing cost of capital through mitigating information asymmetry.	Negative association between ESG disclosures and cost of capital. Overall ESG disclosures have more influence on firms' cost of capital than individual components.
Liao et al. (2019)	ACCOUNTING AND FINANCE	Used two-step Heckman correction regression and Generalised Method of Moments estimation.	2,742 firm-year observations from Chinese firms listed on Shanghai or Shenzhen stock exchanges from 2009 to 2014.	Investigate impact of CSR on corporate financial fraud in China.	CSR scores negatively associated with fraudulent financial activities. Firms with higher CSR scores less likely to commit financial reporting fraud.
Liu et al. (2023)	Heliyon	Used two-stage regression analysis to investigate relationship between real earnings manipulation and ESG disclosure.	370 firm-year observations from top 100 active Egyptian firms listed on Egyptian Exchange for 2013-2018.	Investigate relationship between real earnings manipulation and ESG disclosure within Egypt's emerging capital market.	Real earnings manipulation practices negatively correlated with ESG disclosure in Egyptian listed firms. Managerial ownership moderates this relationship.
Lu et al. (2018)	Sustainability	Multiple regression method of panel data with fixed effects	818 listed companies, containing total of 3362 samples from China.	Investigate relationship between CSR and insider trading in Chinese listed companies.	CSR and insider trading exhibit significant negative correlation. Non-state-owned enterprises show significant suppression of insider trading through CSR.
Lv et al. (2022)	Environmental Science and	panel data analysis through the propensity matching	4390 A-share listed companies in EHPis	Investigate impact of mandatory and voluntary disclosure of	Degree of environmental information disclosure in CSR reports significantly reduces cost of

	Pollution Research	score (PSM) model and fixed-effect model	operating in China between 2010 and 2018.	environmental information on equity financing costs.	equity capital. Higher quality CSR reports positively impact equity capital costs.
Mao et al. (2024)	Corporate Social Responsibility and Environmental Management	Used Heckman two-stage selection model and considered alternative variable definitions to ensure robustness of findings.	6073 firm-year observations across nine different industries in China from 2009 to 2021.	Investigate effect of ESG performance on earnings management under different levels of ESG rating divergence.	Negative association between ESG performance and earnings management. ESG rating divergence positively moderates relationship between accruals-based earnings management and ESG performance.
Martínez-Ferrero et al. (2015)	Corporate Social Responsibility and Environmental Management	Used Tobit method for panel data to analyze relationship between financial reporting quality and CSR information disclosure.	747 international listed non-financial companies from 25 countries for period 2002-2010.	Analyze relationship between financial reporting quality and quality of CSR information disclosed by companies.	Companies with high financial reporting quality tend to disclose high-quality CSR information. Conservative companies, those with high accruals quality, and those with less earnings management tend to report high-quality financial and CSR information.
Meqbel et al. (2024)	Corporate Social Responsibility and Environmental Management	Used logit regression for panel data. Conducted sensitivity analyses to enhance robustness of findings.	2972 firm-year observations of non-financial firms listed on STOXX Europe 600 during 2012-2018.	Investigate relationship between earnings management and sustainability assurance, and moderating effect of CSR committee.	Firms engaging in earnings management tend to acquire sustainability assurance reports to enhance legitimacy. Presence of CSR committee mitigates symbolic use of sustainability assurance.
Mishra et al. (2024)	Journal of Accounting and Organizational Change	Utilized Generalized Method of Moments to analyze data from 2013 to 2019.	99 listed Indian firms within S&P Bombay stock exchange 500 index from 2013 to 2019.	Explore dynamic relationship between sustainability disclosure quality and financial performance within mandatory disclosure frameworks.	Positive causal connection between sustainability disclosure quality and financial performance. Lower R&D spending associated with higher quality sustainable disclosures.
Muttakin et al. (2015)	Managerial Auditing Journal	Multiple regression analyses	580 firm year observations from 135 non-financial companies listed on Dhaka Stock Exchange from 2005 to 2009.	Explore relationship between CSR disclosures and earnings quality in emerging economy like Bangladesh.	Managers manipulate earnings through income-increasing discretionary accruals when providing more CSR disclosures. Companies in export-oriented industries disclose more CSR activities, resulting in transparent financial reports.
Nair et al. (2019)	Pacific Basin Finance Journal	Employed instrumental variable two-stage least squares regression approach.	363 observations from firms listed on Bombay Stock Exchange from 2014 to 2017.	Investigate role of CSR disclosure in enhancing financial transparency in India under mandatory disclosure regime.	CSR disclosure improves financial transparency during mandatory disclosure regimes. Ownership by retail investors strengthens association between CSR disclosure and financial transparency.

Ndegwa (2024)	Corporate Governance (Bingley)	Used panel data regression analysis to investigate moderating effect of sustainability reporting on relationship between board diversity, earnings management, and readability of financial statements.	36 Kenyan-listed companies from 2016 to 2020, totaling 180 firm-year observations.	Investigate moderating effect of sustainability reporting on relationship between board diversity, earnings management, and readability of financial statements.	Increased board diversity significantly improved readability of financial statements. Sustainability reporting significantly increased readability of financial statements and moderated relationship between variables.
Pakawaru et al. (2021)	Journal of Asian Finance, Economics and Business	Used multiple linear regression analysis to examine relationship between CSR disclosure and earnings management.	48 observations from 16 mining firms listed on Indonesia Stock Exchange from 2016 to 2018.	Investigate bidirectional relationship between CSR disclosure and earnings management in mining companies.	Positive relationship between CSR disclosure and earnings management. CSR disclosure is part of management strategy in conducting earnings management.
Pereira et al. (2023)	Sustainability	Used multiple linear regression with panel data to test hypotheses.	31 Portuguese companies with 153 observations over period from 2016 to 2020.	Investigate impact of environmental sustainability disclosure and indebtedness on quality of earnings in Portuguese firms.	Environmental sustainability reporting and debt positively affect earnings persistence, with environmental reporting having higher positive impact than debt.
Pereira et al. (2021)	International Journal of Advanced and Applied Sciences	Applied multiple linear regression using panel data.	30 Portuguese-listed firms from 2015 to 2017.	Investigate impact of environmental sustainability information disclosure on accounting conservatism in Portuguese-listed firms.	Higher environmental sustainability information disclosure enhances conservative accounting practices. Companies with high environmental information disclosure tend to be more conservative in accounting decisions.
Prakosa et al. (2022)	Journal of Governance and Regulation	Multiple regression analyses	123 companies listed under manufacturing industry of Indonesia Stock Exchange covering 2016-2019 period.	Investigate relationship between earnings management, CSR disclosure, and idiosyncratic risk.	Use of Real Earnings Management leads to increased idiosyncratic risk for companies, contrary to belief that it might lower risk.
Pramono et al. (2023)	Cogent Social Sciences	Multiple Regression analyses	82 non-financial firms listed on Indonesia Stock Exchange that consistently joined PROPER program from 2014 to 2017, totaling 328 observations.	Investigate impacts of family entities on environmental disclosure, focusing on mediating roles of earnings management and board independence.	Family ownership has positive association with environmental disclosure, mediated by high-quality financial reporting and appointment of independent board members.
Pratiwi & Siregar (2019)	International Journal of Business	Employed regression analysis to test hypotheses related to influence of CSR and political connections on tax avoidance and earnings management practices.	851 companies-year for tax avoidance and 936 companies-year for earnings management from Indonesian listed companies from 2014 to 2016.	Investigate relationship between CSR, political connections, tax avoidance, and earnings management practices.	CSR has positive effect on tax avoidance, real earnings management, and aggregate earnings management practices. Political connections do not significantly moderate effect of CSR on tax avoidance and earnings management practices.

Rahman et al. (2020)	Journal of Sustainability Science and Management	Used two-step dynamic panel data approach and GMM estimations. Conducted supplementary analyses to ensure robustness of research outcomes.	270 listed banking companies in Bangladesh from 2009 to 2017.	Examine relationship between CSR reporting and earnings management in banking sector of Bangladesh.	Significant positive effect of CSR reporting on earnings management. Shariah compliant banks provide more CSR information and maintain superior financial reporting quality.
Rahman & Zheng (2023)	Journal of Family Business Management	Used Ordinary Least Squares regression to explore relationship between CSR and earnings management.	Chinese listed companies from Shanghai Stock Exchange for 2010-2020 period, including 41 family enterprises and 39 non-family enterprises.	Investigate relationship between CSR and earnings management in Chinese listed firms, focusing on how family ownership influences this relationship.	CSR significantly and positively affects accrual-based earnings management but does not affect real earnings management. Family ownership influences positive relationship between CSR and accrual-based earnings management.
Rahman et al. (2024)	Australasian Business, Accounting and Finance Journal	Used panel data research design to observe investor reactions to ESG information and earnings quality.	353 firm-years from companies listed on Indonesia Stock Exchange during 2012 to 2022 period.	Investigate value relevance of ESG and earnings quality of companies listed on Indonesia Stock Exchange.	ESG and earnings quality found to have value relevance. ESG had negative impact on value relevance of earnings but positive impact on value relevance of book value.
Reber et al. (2022)	Journal of Business Ethics	Employed propensity score matching to create balanced subset of ESG-disclosing and non-ESG-disclosing IPOs for comparative analysis.	1312 IPOs listed on NYSE, NASDAQ, or AMEX between 2002 and 2018.	Investigate relationship between ESG disclosure and idiosyncratic risk in Initial Public Offerings.	Voluntary ESG disclosure reduces idiosyncratic volatility and downside tail risk in IPOs. ESG disclosure significantly reduces idiosyncratic risk, particularly downside tail risk.
Ren & Yao (2024)	PLoS ONE	Used panel data analysis of 5083 Chinese non-financial listed companies from 2010 to 2019. Employed multiple linear regression to investigate impact of earnings management on readability of Chinese CSR reports.	5083 Chinese non-financial listed companies from 2010 to 2019, resulting in 14,393 valid observations.	Investigate relationship between earnings management and readability of Chinese CSR reports.	Earnings management has significant negative correlation with readability of Chinese CSR reports. Manipulation of ESG disclosures can be used as form of earnings management.
Rezaee et al. (2020)	Global Finance Journal	Multiple Regression analyses	2,580 firms and 14,807 firm-year observations from Chinese listed firms from 2009 onwards.	Investigate association between CSR and earnings quality in Chinese listed firms.	CSR firms engage in accrual earnings management less than real earnings management. State-owned enterprises in China less likely to engage in earnings manipulation.
Rezaee & Tuo (2019)	Journal of Business Ethics	Multiple regression analyses	35,110 firm-year observations between 1999 and 2015, with 1180 firm-year observations releasing sustainability reports.	Explore association between quantity and quality of sustainability disclosures and earnings quality.	Positive association between sustainability disclosure quality and both innate and discretionary earnings quality. Sustainability disclosure quantity positively correlated with innate earnings quality but negatively correlated with discretionary earnings quality.

Rezaee & Tuo (2017)	Advances in Accounting	Used panel GLS regression approach with firm-level clustering, time, and industry fixed effects.	580 firm-year observations from 2010, collected from four technology and research-heavy industries in United States.	Investigate management incentives for disclosing voluntary non-financial information and its association with firms' ESG sustainability performance.	Non-financial disclosures positively associated with ESG sustainability performance. Firms with better earnings quality and lower proprietary costs tend to release more non-financial disclosures.
Saleh et al. (2023)	Business Ethics, Environment and Responsibility	Used two-stage least squares approach to address potential endogeneity concerns. Created instrumental variable related to endogenous component of ESG score.	797 companies listed on financial markets across 19 European countries, with data spanning from 2013 to 2019.	Investigate potential influence of ESG disclosure on cash holdings, explore role of earnings management as mediating factor.	ESG disclosure has significant negative correlation with cash holdings. Earnings management practices partially mediate relationship between ESG disclosure and cash holdings.
Shen et al. (2021)	KYBERNETES	Multiple regression analyses	China CSR Score data for years 2010-2018.	Explore association between CSR performance and accounting conservatism, focusing on corporate ethical value and culture.	Companies with higher CSR scores tend to exhibit higher accounting conservatism. Investor attention and analyst coverage identified as primary channels through which CSR promotes accounting conservatism.
Silva (2022)	BORSA ISTANBUL REVIEW	Used instrumental variable regressions to address endogeneity concerns. Employed heteroskedastic robust standard errors clustered by firm for statistical inference.	Global sample of listed firms from 44 countries over period of 2007-2019.	Investigate how ESG disclosure influences firm-specific crash risk by reducing opacity and information asymmetry.	ESG disclosure has negative association with firm-specific crash risk. Impact of ESG disclosure on crash risk more pronounced in developed countries compared to emerging markets.
Sun et al. (2010)	Managerial Auditing Journal	Employed ordinary least square regression.	245 UK non-financial firms for financial year ended on March 2007.	Examine association between corporate environmental disclosure and earnings management.	No significant statistical association between various measures of discretionary accruals and environmental disclosure. Some corporate governance attributes affect relationship between CER and earnings management.
Swarnapali (2020)	International Journal of Law and Management	Used regression analyses on panel data to examine relationship between sustainability reporting and firm market value, as well as earnings quality.	220 companies listed on Colombo Stock Exchange in Sri Lanka during 2012-2016, resulting in 880 firm-year observations.	Explore consequences of corporate sustainability reporting in emerging market, specifically in Sri Lanka.	Corporate sustainability reporting has positive relationship with firm market value. Sustainability disclosure negatively associated with income-increasing earnings management and positively associated with high-quality earnings.
Tan et al. (2020)	Accounting Horizons	Used instrumental variables approach and conducted two-stage	3,692 loans from 1,119 firms and 2,112 bonds from 472 firms from 2005 to 2013.	Investigate impact of CSR disclosure on firms' choices	Firms with higher levels of CSR disclosure more likely to borrow from public debt market than from

		least squares regressions to address endogeneity concerns.		between public and private debt financing.	private debt market. CSR disclosure positively influences design of debt contracts in public debt market.
Tohang et al. (2024)	Australasian Business, Accounting and Finance Journal	Multiple regression analyses	316 firm-year data from 2018 to 2021 from 79 publicly traded telecommunications service firms in Asia.	Explore link between ESG performance and earnings quality in digital industry in Asia.	ESG performance positively associated with discretionary accruals and negatively related to innate earnings quality in digital industry in Asia.
Tuo et al. (2023)	International Journal of Accounting and Information Management	Used logistic regression model to examine impacts of sustainability reporting on auditors' conservatism.	625 observations from firms in GRI database experiencing financial distress.	Investigate impact of corporate sustainability on auditors' overall judgment.	Firms that disclose sustainability reports are less likely to face bankruptcy. Sustainability reporting firms exhibit larger discretionary accruals.
Velte (2019)	Journal of Global Responsibility	Used correlation and regression analysis to assess impact of ESG performance on accruals-based and real earnings management.	548 firm-year observations from companies listed on German Prime Standard for 2011-2017.	Explore influence of ESG performance on earnings management within German capital market.	Higher ESG performance correlates with lower accruals-based earnings management. No significant relationship found between ESG performance and real earnings management.
Wang et al. (2021)	Journal of International Accounting Research	Used difference-in-differences analysis to assess impact of mandatory CSR reporting on market responses to earnings news.	15,442 firm-year observations from all A-share listed firms on Shanghai and Shenzhen exchanges over 2004-2018 period.	Examine impact of mandatory CSR reporting on market responses to earnings news.	Improvement in market responses to earnings news after mandatory adoption of CSR disclosure regulation in China. Positive impact more pronounced among firms with lower financial reporting quality.
Wang et al. (2018)	Journal of Business Ethics	Used quasi-natural experiment to analyze impact of mandatory CSR reporting on firms' financial reporting quality in China.	11,619 observations representing 1888 unique firms from Chinese A-share listed companies from 2003 to 2012.	Investigate impact of mandatory CSR reporting on earnings management.	Mandatory CSR disclosure firms in China showed significant decrease in absolute discretionary accruals post-policy, indicating reduced earnings management.
Wedari & Shafadila (2022)	International Journal of Sustainable Development and Planning	Used content analysis of CSR web disclosure and OLS regression to analyze impact of company size on CSR web disclosure.	94 consumer sector companies listed on Indonesia Stock Exchange in 2020.	Investigate factors affecting CSR web disclosure and its relationship with financial statement quality.	Company size has significant effect on CSR web disclosure. No association found between public share ownership, board characteristics, profitability, and leverage on CSR web disclosure.
Wild & Wild (2023)	Journal of Financial Reporting and Accounting	Used regression analysis, including interactions, to test relation between CSR ratings and disclosure transparency.	12,708 firm-year observations spanning from 1991 to 2013.	Investigate relationship between corporate social responsibility and disclosure transparency.	Firms more conscious of CSR tend to exhibit higher transparency in financial statements. Firm size moderates this relation, while enhanced governance accentuates it.

Wu et al. (2024)	Finance Research Letters	Multiple regression analyses	15,658 company-year observations from Chinese-listed companies from 2009 to 2021.	Examine impact of ESG ratings on real earnings management in Chinese firms.	ESG ratings have significant negative correlation with real earnings management in Chinese firms. Factors like internal control quality and external supervision enhance negative impact of ESG ratings on REM.
Xi & Xiao (2022)	Managerial Auditing Journal	Used panel data analysis to estimate relationship between corporate environmental disclosure, accrual-based earnings management, real earnings management, and accounting conservatism.	1,619 observations from Chinese listed firms between 2015 and 2019.	Investigate relationships among corporate environmental disclosure, earnings management, and accounting conservatism in Chinese listed firms.	Negative relationship between corporate environmental disclosure and earnings management. Positive relationship between corporate environmental disclosure and accounting conservatism.
Xie et al. (2021)	RESOURCE AND ENERGY ECONOMICS	Used difference-in-difference methodology to examine influence of short sales on corporate environmental disclosure strategies.	All Chinese listed companies during period of 2007-2016.	Investigate how short-selling threats influence corporate environmental disclosure strategies.	Pilot firms experienced larger increase in hard disclosures and larger decrease in soft disclosures after short selling deregulation. Short selling negatively associated with soft disclosures.
Yuan et al. (2022)	Journal of Cleaner Production	Multiple regression analyses	7143 observations from Chinese A-listed firms from 2010 to 2020.	Investigate impact of ESG disclosure on financial irregularities and explore moderating role of internal and external supervision.	ESG disclosure reduces corporate financial irregularity risks and mitigates information asymmetry, especially under better internal and external supervisory conditions.
Zadeh (2021)	International Journal of Managerial Finance	Used Tobit regression models to estimate influence of ES transparency on firm-level payouts.	2,822 firm-year observations from 354 unique S&P 500 index firms between 2012 and 2019.	Investigate how firm's environmental and social transparency influences corporate payout policies.	Firms with low levels of E&S transparency adjust dividend payouts quicker than firms with high levels of E&S transparency. Positive relationships exist between E&S transparency and higher corporate payouts.
Zhang et al. (2024)	International Review of Economics & Finance	Multiple regression analyses	3171 firm-years from Chinese A-share firms from 2016 to 2022.	Investigate impact of ESG ratings on stock market performance, particularly focusing on China's stock market dynamics.	ESG ratings improve stock liquidity by attracting market attention and enhancing corporate transparency. Higher ESG ratings lead to increased market attention and improved corporate transparency.
Zhang et al. (2023)	Corporate Social Responsibility and Environmental Management	Used panel data from China's A-share listed firms between 2012 and 2020. Employed Heckman's two-stage regression analysis to address sample selection bias.	5128 unbalanced panel data entries from 852 listed firms in China from 2012 to 2020.	Investigate impact of executive pay gap on ESG disclosure in China.	Significant positive correlation between executive pay gap and ESG disclosure in China's A-share listed firms. Real earnings management plays partial mediating role.

Zhang et al. (2024)	Finance Research Letters	Used data from Chinese A-share listed companies from 2011 to 2022. Utilized China Securities Index ESG rating index to measure ESG performance.	14,393 valid observations from Chinese A-share listed companies from 2011 to 2022.	Investigate relationship between ESG performance and goodwill impairment in Chinese A-share listed companies.	ESG performance provides incremental information that reduces magnitude of goodwill impairment, but also crowds out resources for M&A integration. Manipulation of ESG disclosures can be used as form of earnings management.
Zhang et al. (2023)	Sustainability	Used multivariate regression method based on panel data analysis to test research hypotheses.	714 firm-year observations from 2014 to 2020, covering 7 years for companies listed on Tehran Stock Exchange.	Investigate impact of corporate social responsibility on earnings persistence for companies listed on Tehran Stock Exchange.	Corporate social responsibility positively influences earnings persistence, especially when considering moderating role of operational efficiency. Relationship between CSR and earnings persistence with moderating role of financing costs found to be insignificant.
Zhong & Gao (2017)	Review of Accounting and Finance	Multiple regression analyses	6,546 firm-year observations from Chinese listed firms on Shanghai and Shenzhen Stock Exchanges from 2010 to 2013.	Investigate impact of CSR disclosure on firm-level investment efficiency in China.	Significant positive association between CSR disclosure and investment efficiency in Chinese listed firms post-mandatory disclosure, especially for firms with lower financial reporting quality.
Zhou et al. (2023)	Pacific Basin Finance Journal	Used difference-in-differences approach to analyze impact of short-selling threats on corporate environmental investment.	14,632 firm-year observations from Chinese A-share firms in heavily polluting industries from 2003 to 2019.	Investigate whether short-selling threats influence managers' environmental decisions, particularly focusing on environmental investment in heavily polluting firms.	Corporate environmental investment increases in response to short-selling threats in threatened firms, especially in those with greater financial opacity and lower institutional ownership.