INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ECONOMICS & MANAGEMENT SCIENCES

OPEN ACCESS JOURNAL

Vol 13, Issue 4, (2024) E-ISSN: 2226-3624

Conceptualization of Corporate Environmental Disclosure, Earnings Management, and Board Financial Literacy

Iylia Dayana Mohamed Izwan[a], Norhidayah Azman[b], Nor Balkish Zakaria[c],

[a,b] Management and Science University, Shah Alam, Malaysia, [c]Accounting Research Institute, Universiti Teknologi MARA, Malaysia

To Link this Article: http://dx.doi.org/10.6007/IJAREMS/v13-i4/24205 DOI:10.6007/IJAREMS/v13-i4/24205

Published Online: 24 December 2024

Abstract

This study explores the interconnectedness between Corporate Environmental Disclosure (CED), Earnings Management (EM), and board financial literacy within the context of emerging ASEAN economies. While CED enhances transparency, sustainability, and public trust, its coexistence with earnings manipulation raises concerns about managerial opportunism and financial integrity. Using Stakeholder Theory as a lens, the study highlights the critical role of board financial literacy in mitigating EM and aligning environmental and financial disclosures with stakeholder expectations. Case studies from Malaysia (Sime Darby Plantation), Indonesia (PT Pertamina), Thailand (CP Group), and Vietnam (Vinamilk) provide practical insights, revealing that firms excel in sustainability initiatives but face challenges related to financial irregularities. Financially competent boards emerge as key drivers of ethical governance, improving oversight, reducing agency conflicts, and enhancing reporting quality. The findings underscore the need for robust corporate governance frameworks that integrate financial expertise to balance sustainability goals and financial transparency. This study bridges research gaps by synthesizing literature and proposing a conceptual framework, offering actionable insights for policymakers, corporate leaders, and stakeholders in emerging markets. By addressing CED and EM challenges, firms can strengthen governance practices, build stakeholder trust, and ensure long-term sustainability.

Keywords: Corporate Environmental Disclosure (CED), Earnings Management (EM), Corporate Governance (CG)

Introduction

Corporate environmental disclosure (CED) fosters transparency, accountability, and sustainability with significant economic and societal impacts. Feng et al. (2022) suggest that companies striving to maintain a positive public image often experience improved environmental performance, delivering economic benefits. Similarly, He et al. (2022) argue that sharing environmental data encourages businesses to adopt greener practices, reducing pollution and resource consumption. This improves the local environmental ecosystem and

contributes to the financial welfare of surrounding communities. Enhanced transparency further ensures stronger regulatory compliance, mitigating environmental harm and boosting economic well-being.

However, Beneish (1999) highlights that earnings manipulation can undermine a firm's financial stability and environmental commitments. Poor governance and unethical management practices can lead to economic instability, negatively affecting employees, suppliers, and society while escalating environmental risks. Conversely, companies that adopt sustainable and responsible management practices can improve long-term financial stability, safeguard jobs, and promote economic activity, which aligns with broader sustainability goals. Afaneh et al. (2023) add that environmentally conscious firms improve employee career awareness and adaptability, leading to better organizational performance. On the other hand, earnings manipulation can also influence corporate tax obligations (Wali, 2021). Corporations that meet their tax responsibilities contribute to public funding for infrastructure, social programs, and community development, which enhances societal welfare while addressing environmental concerns.

Addressing these challenges requires effective corporate governance mechanisms, particularly prioritizing financial literacy on boards (Epstein & Rob, 2004). Financially literate boards help prevent financial scandals, fraud, and unethical financial practices that could harm the firm and its environmental responsibilities. Such boards are better equipped to make strategic investment decisions that foster long-term growth, support job creation, and benefit the local economy while enhancing sustainability (Kleffner et al., 2003). Financially competent boards can also manage financial risks effectively, preventing economic downturns that could harm the community and the environment. Recognizing the interplay between sound governance, financial responsibility, and environmental sustainability is key to maximizing positive outcomes for all stakeholders. Furthermore, community stakeholders, civil society organizations, and regulatory agencies are vital in holding firms accountable to ensure their actions align with societal welfare.

A wide range of stakeholders benefit significantly from strong governance, financial transparency, and environmental responsibility. Investors and shareholders gain access to accurate, transparent information, enabling better decision-making and increasing shareholder value (Loock, 2012). Consumers increasingly value environmentally responsible business practices, fostering stronger brand loyalty. Employees benefit through job stability, professional growth, and skill development supported by reliable financial management and reporting. Suppliers can assess firms' financial health to build stronger partnerships, while regulators and government agencies rely on precise reporting to ensure compliance. Firms that embrace transparent environmental projects enjoy enhanced reputations within their communities, providing a competitive edge that attracts investors, customers, and skilled professionals (Aragon et al., 2020). Transparent reporting further aids in identifying and managing risks efficiently, contributing to a company's resilience and long-term prosperity.

Significance of Study and Research Gap

This study addresses critical gaps in understanding the interconnectedness of CED, earnings management (EM), and board financial literacy. Although existing research highlights the individual importance of these components, limited studies explore their

collective influence within emerging ASEAN economies. Furthermore, empirical studies focusing on industries like Malaysian plantations, Indonesian banking, and Vietnamese manufacturing remain sparse. This paper bridges this gap by synthesizing literature to propose a conceptual framework, emphasizing the role of board competency in mitigating earnings manipulation while enhancing transparency and sustainability. This study is significant as it provides a foundation for future empirical research and delivers actionable insights for policymakers, corporate leaders, and stakeholders in emerging markets.

The Shift Toward Sustainability and Environmental Disclosure

Over the past few decades, global business practices have increasingly emphasized sustainability and corporate responsibility. The prominence of these concerns, particularly since the 1990s, highlights the growing importance of environmental issues in corporate disclosure (Hussain et al., 2023; Abbas, Ahmad-Zaluki & Mehmood, 2023). Environmental disclosure, as a response to increasing societal awareness, reflects the intricate relationship between business activities and their environmental consequences (Djalilov & Hartwell, 2023; Rouf & Siddique, 2023). Advocacy organizations such as Greenpeace, Friends of the Earth Europe, and the World Wide Fund for Nature have raised awareness about environmental risks, fostering a broader social consciousness about sustainability and equity (Parks, Della Porta & Portos, 2023).

Atkinson (1996), identifies three factors driving this transition. First, a steady rise in environmental awareness since the 1970s has gained momentum, leading to widespread support for sustainable development. Second, there is a growing demand for transparency, with the public asserting its right to access information about government and corporate environmental practices. Third, regulatory approaches have evolved from rigid enforcement to incentives encouraging firms to improve their environmental performance. With growing public concern about climate change and environmental risks, corporate environmental disclosure has become an essential tool for fostering accountability and transparency (Wang et al., 2023; Hussain et al., 2023).

CED allows companies to share information about their environmental impacts, policies, and initiatives, demonstrating their commitment to sustainability (Anthony & Morrison-Saunders, 2023). It highlights firms' efforts to mitigate environmental footprint while aligning corporate goals with societal expectations. Akhter et al. (2023) emphasize that transparent disclosure enhances accountability, requiring firms to justify their actions and uphold environmental preservation, thereby building stakeholder trust and credibility.

Environmental Disclosure in Malaysia

Through regulatory mandates, Malaysia has demonstrated a strong commitment to corporate accountability and sustainability. In the 2007 budget, the Malaysian government announced that all publicly listed firms must disclose their sustainability initiatives (Malaysian Government, 2006). This directive was integrated into Bursa Malaysia’s reporting guidelines, reinforcing the nation’s alignment with global sustainability objectives, such as the United Nations Sustainable Development Goals.

Corporate sustainability disclosures reflect companies' efforts to meet stakeholders’ growing expectations regarding environmental performance (Wan Mohammad, Zaini & Md

Kassim, 2023). Firms that voluntarily disclose environmental data can assess and mitigate operational impacts while addressing stakeholders' demands for accountability. This proactive approach enhances regulatory compliance, builds trust, and strengthens corporate reputations. Transparent environmental reporting also helps firms identify and manage environmental risks, minimizing adverse impacts and ensuring long-term financial viability. This paper aims to conceptualise the corporate environmental disclosure on earnings management and the role of board financial literacy.

ASEAN Case Studies on CED and Corporate Governance

Case 1: Malaysia – Sime Darby Plantation

Sime Darby Plantation Berhad, a leading agribusiness firm in Malaysia, has been recognized for its comprehensive sustainability disclosures, particularly within its 2017–2022 Sustainability Reports. The company reports on carbon emissions, reforestation initiatives, and responsible resource management. For instance, Sime Darby reduced greenhouse gas emissions by over 6% in 2021 compared to 2018 baseline levels. Its reforestation projects have also restored over 4,000 hectares of degraded land as part of its sustainability commitments.

However, allegations arose in 2020 regarding overstated financial earnings, which sparked concerns about earnings management (EM) practices. Critics argued that the emphasis on CED may have overshadowed financial irregularities. Nevertheless, the company's financially literate board has taken measures to enhance governance, with 70% of its board members holding financial or risk management qualifications. This oversight has enabled Sime Darby to rebuild stakeholder trust, aligning corporate objectives with sustainability and financial transparency.

Case 2: Indonesia – PT Pertamina

PT Pertamina, Indonesia's state-owned oil and gas giant, has made significant strides in environmental disclosure to address rising stakeholder pressure and global climate concerns. The company's 2020 Sustainability Report revealed a 5% reduction in greenhouse gas emissions compared to 2017 and investments exceeding USD 2.3 billion in renewable energy initiatives such as geothermal power and biofuels by 2021. Pertamina also introduced energy conservation strategies that resulted in energy savings of approximately 10% across its major operations.

Despite these achievements, the firm faced accusations in 2019 of earnings manipulation to mask losses caused by declining oil prices. Pertamina's board responded by bolstering its financial governance practices, appointing five board members with financial expertise in 2020. These financially literate leaders implemented stricter reporting frameworks, aligning the company's environmental and financial reporting with stakeholder expectations for increased transparency.

Case 3: Thailand – Charoen Pokphand Group

Charoen Pokphand Group (CP Group), Thailand's leading conglomerate in the agricultural and food sector, has championed environmental sustainability through innovative disclosure practices. By 2022, the company reduced water consumption in its

operations by 25% compared to 2016 levels and achieved waste recycling rates of over 90% across its facilities. CP Group also committed to achieving carbon neutrality by 2030, with 50% of its energy supply sourced from renewable sources by the end of 2021.

However, analysts raised concerns about the company's financial reporting, particularly during 2018–2020, when CP Group reported consistent revenue growth despite volatile market conditions. There were suspicions that earnings management practices were employed to maintain investor confidence. The company's financially competent board, with eight out of twelve members possessing financial or accounting expertise, has since strengthened internal controls and enhanced the credibility of both financial and environmental reporting.

Case 4: Vietnam – Vinamilk

Vinamilk, Vietnam's largest dairy producer, has positioned itself as a leader in corporate environmental responsibility. By 2021, the company reduced its carbon footprint by 15% compared to 2016 and achieved a 20% improvement in energy efficiency across its manufacturing facilities. Vinamilk's supply chain sustainability programs included partnerships with over 6,000 local farmers, ensuring eco-friendly production practices and waste reduction. Its 2022 Sustainability Report highlighted these successes, earning widespread recognition from stakeholders.

Despite these efforts, Vinamilk faced scrutiny in 2019 over inconsistencies in its financial statements. Concerns emerged regarding understated liabilities and overstated profits during a period of aggressive expansion. In response, Vinamilk's board, comprising 60% members with financial backgrounds, implemented reforms to strengthen financial oversight. These measures included adopting international financial reporting standards (IFRS) and enhancing board-level monitoring of earnings management. The board's financial expertise has been pivotal in aligning CED with accurate financial disclosures, restoring investor and stakeholder confidence.

The case studies highlight the interplay between Corporate Environmental Disclosure, earnings management, and board financial literacy. While firms like Sime Darby, Pertamina, CP Group, and Vinamilk have demonstrated leadership in sustainability reporting, challenges related to earnings management persist. Financially literate boards have played a crucial role in ensuring transparency, strengthening governance frameworks, and aligning corporate practices with stakeholder expectations.

Literature Review

Corporate Environmental Disclosure, Earnings Management, and Board Financial Literacy from Stakeholder Theory

Stakeholder Theory emphasizes that corporations should consider the expectations and interests of all stakeholders rather than focusing solely on shareholders (Freeman, 1984). In the context of Corporate Environmental Disclosure (CED), firms adhering to this theory provide environmental information to meet the needs of stakeholders such as investors, consumers, employees, and regulators (Mukhtar et al., 2023). CED serves as a means of addressing the diverse expectations of stakeholders regarding the environmental impact of

corporate activities. By promoting transparency and accountability, organizations can ensure they align with stakeholder demands and address environmental concerns.

Stakeholder Theory also underlines the need for businesses to be mindful of their financial reporting, as stakeholders depend on precise and unbiased information to assess the company's performance. A management team that pursues aggressive financial strategies risks losing stakeholder trust, including investors, employees, and regulators who expect reliable and transparent financial data (Jan et al., 2021). Companies that embrace stakeholder-centric practices safeguard their credibility by emphasizing ethical financial reporting, which maintains confidence among those reliant on such information (Moridu, 2023).

Board financial literacy is important in ensuring that environmental and financial disclosures align with stakeholders' expectations. Boards with strong financial acumen enhance the credibility of reporting by mitigating conflicts of interest, reducing managerial opportunism, and ensuring high-quality disclosures (Al Frijat et al., 2023). Financially literate boards are better positioned to uphold transparency, accountability, and ethical conduct, reinforcing trust among stakeholders, including employees, shareholders, and regulators. Viewed through the lens of Stakeholder Theory, the interplay between CED, earnings management (EM), and board financial literacy highlights how these factors collectively influence the organization's ability to meet stakeholder needs while maintaining good governance practices.

Corporate Environmental Disclosure and Earnings Management

Corporate social responsibility (CSR) plays a central role in fulfilling the needs of various stakeholders. Internal stakeholders, such as employees, are more dedicated to achieving company goals, while external stakeholders contribute positive perceptions that benefit the organization. Companies integrating environmental, social, and governance (ESG) principles tend to outperform industry averages, as these practices enhance their competitiveness and profitability (Kachalov & Finogenova, 2023). CED communicates the environmental effects of corporate activities and provides stakeholders with essential information for decision-making (Utomo et al., 2020; Baalouch et al., 2019). Recent research highlights the importance of CED as a cornerstone of sustainability reporting, demonstrating its significance in corporate transparency and accountability (Lin & Qamruzzaman, 2023; Garcia-Sánchez et al., 2020). CED, therefore, involves disclosing a firm's environmental performance, operations, and related financial impacts arising from managerial decisions (Belhaj & Damak Ayadi, 2011).

Stakeholder Theory stresses that firms must balance financial and social goals, avoiding practices such as earnings management (EM) that could undermine stakeholder trust (Jensen, 2001). Managers often resort to earnings management when they perceive a need to meet profitability targets while projecting an image of environmental responsibility (Kim et al., 2012). Mahrani and Soewarno (2018) observed that CSR activities can have a positive relationship with EM, as managers may manipulate earnings to improve profits while demonstrating environmental performance. However, CSR disclosure can increase operational costs, reducing profitability and potentially triggering EM to offset stakeholder concerns (Mahrani & Soewarno, 2018; Gargouri et al., 2010).

Conversely, environmentally responsible managers are less likely to manipulate earnings, prioritising accurate financial reporting to maintain stakeholder confidence (Gerged et al., 2020). CED can thus serve as a mechanism to address stakeholder pressure and expectations, aligning corporate behavior with sustainability goals (Patten & Trompeter, 2003). However, some studies reveal contrasting outcomes; for instance, Prior et al. (2008) found that EM positively influences CSR activities. Similarly, Brahmana et al. (2018), studying Malaysian firms, reported that CED positively correlates with EM. Managers who anticipate scrutiny often use environmental disclosures to mask earnings manipulation, thereby reducing suspicion (Julianto & Sjarief, 2016).

Corporate governance mechanisms help mitigate the risk of managerial opportunism, which is often linked to earnings management. Effective governance practices reduce agency conflicts by aligning managers' interests with stakeholders' expectations (Panda & Leepsa, 2017). Managers may engage in EM to safeguard their positions, particularly when responding to pressures from investors or regulators. EM has been identified as an agency cost exacerbating the conflict between managers and stakeholders, underscoring the need for stronger governance oversight (Sun et al., 2019). Aligning stakeholder interests with board oversight reduces agency problems and associated costs (Jensen & Meckling, 1976). Board independence and directors' expertise are pivotal in mitigating managerial self-interest and ensuring accurate financial reporting (Hassan & Ahmed, 2012).

Financial Competency and Earnings Management

Board and executive financial competency is vital for maintaining financial integrity and minimizing EM. Financially skilled Chief Executive Officers (CEOs) are key in overseeing financial processes and implementing robust accounting practices to enhance reporting quality (Zouari et al., 2015; Baatwah et al., 2015). Jiang et al. (2013) found that CEOs with financial expertise improve earnings data quality and mitigate trends of real EM. Such expertise enables CEOs to identify irregularities, enhancing overall transparency and accuracy in financial reporting. In their study, Baatwah et al. (2015) noted a negative correlation between CEO financial competency and EM, highlighting how CEOs with financial backgrounds are better equipped to prevent manipulation.

Corporate governance (CG) practices, when coupled with board financial literacy, further restrict EM. Good governance reduces agency costs by ensuring that management prioritizes transparency and ethical conduct (Kumari & Pattanayak, 2017). Board competency, particularly directors with diverse expertise, strengthens oversight, curbing opportunistic managerial behavior and promoting effective governance (Chtourou, 2001). Ghazalat et al. (2017), in their study of firms listed on the Amman Stock Exchange, reported a negative association between board competency and EM. They argued that directors with robust financial skills are more adept at monitoring managerial actions and controlling earnings.

Financially competent boards, therefore, play a critical role in ensuring sound governance practices by monitoring financial reporting, assessing risks, and holding management accountable. By enhancing transparency and mitigating EM, board financial literacy contributes to ethical corporate practices, benefiting stakeholders and reinforcing trust.

Methodology

This study adopts a conceptual approach rooted in a comprehensive review of existing literature on corporate environmental disclosure (CED), earnings management (EM), and board financial literacy. The research synthesizes empirical evidence from prior studies, focusing on key factors such as ownership structure, board characteristics, competitive position, and audit quality.

The methodology integrates insights from diverse contexts, particularly on industries in ASEAN countries, including the Malaysian plantation sector, Indonesian banking industry, Thai agriculture, and Vietnamese manufacturing firms. These sectors were chosen due to their relevance in addressing sustainability, governance challenges, and financial reporting practices within emerging markets.

This study relies on secondary data sources, including academic journal articles, industry reports, government publications, and corporate sustainability disclosures. The synthesis of existing studies enables the development of a conceptual framework to explore the interplay between CED, EM, and board financial literacy. Through this theoretical lens, the study evaluates the role of corporate governance mechanisms in mitigating earnings manipulation while fostering transparency and accountability.

The absence of primary data collection ensures that the study remains focused on building and advancing theoretical knowledge. By analyzing current research trends and empirical findings, the paper contributes to bridging gaps in understanding the impact of financial literacy on corporate governance and sustainability practices. The proposed conceptual model provides a foundation for future empirical research and practical implementation, offering insights for policymakers, corporate leaders, and stakeholders.

Thematic Findings

Themes	**Key Concepts**	**Discussion**
Corporate Environmental Disclosure (CED)	- Enhances transparency and accountability. - Encourages sustainability practices. - Boosts public trust and economic well-being.	CED serves as a critical tool for aligning corporate behavior with societal and environmental goals. Companies adopting CED can reduce environmental harm, gain regulatory approval, and improve stakeholder relationships. Case studies (e.g., Sime Darby and Pertamina) show CED practices fostering sustainability and trust.
Earnings Management (EM)	- Earnings manipulation affects financial stability. - EM undermines credibility and leads to stakeholder distrust. - EM may coexist with CED as a cover for financial irregularities.	While CED highlights environmental responsibility, some companies may engage in EM to mask financial issues. Instances from CP Group and Vinamilk demonstrate how financial irregularities can occur even when CED practices are robust, emphasizing the need for governance to address this conflict.
Board Financial Literacy	- Financially literate boards ensure high-quality disclosures. - Reduces	Financial expertise among board members is essential for ethical financial

Themes	Key Concepts	Discussion
	managerial opportunism and EM. - Strengthens governance and risk assessment.	reporting and oversight. Case studies indicate that financially competent boards (e.g., Pertamina and Sime Darby) implement reforms to mitigate earnings manipulation, restore transparency, and align CED practices with stakeholder expectations.
Stakeholder Theory	- Firms must meet stakeholder expectations (investors, employees, regulators). - Balances environmental and financial priorities. - Ethical reporting reinforces stakeholder trust.	Stakeholder Theory underpins the importance of balancing diverse interests. Companies with strong CED and governance frameworks address stakeholder concerns about environmental impact and financial performance, enhancing their reputation and competitiveness.
ASEAN Industry Insights	- Malaysia: Sime Darby Plantation – robust sustainability reporting but financial scrutiny. - Indonesia: PT Pertamina – renewable energy investments with financial governance challenges. - Thailand: CP Group – carbon neutrality goals but concerns of EM. - Vietnam: Vinamilk – eco-friendly practices with financial inconsistencies.	The ASEAN case studies illustrate the interplay of CED, EM, and board governance in real-world scenarios. While firms excel in sustainability initiatives, challenges such as financial inconsistencies and earnings manipulation persist, highlighting the need for stronger governance oversight.

The relationship between Corporate Environmental Disclosure (CED) and Earnings Management (EM) reveals a complex interplay where firms' sustainability initiatives can sometimes mask financial irregularities. While CED is crucial for promoting transparency and accountability, some firms may strategically use environmental disclosures to divert attention from earnings manipulation. For instance, cases like Sime Darby Plantation and Charoen Pokphand Group (CP Group) illustrate that, despite strong sustainability commitments, financial scrutiny revealed inconsistencies in earnings reporting. These scenarios highlight the dual nature of CED, where its positive impacts coexist with underlying risks related to managerial opportunism.

Board financial literacy emerges as a critical factor in mitigating EM and ensuring accurate financial and environmental reporting. Financially competent boards enhance governance frameworks by reducing managerial self-interest and opportunistic behavior. Case studies such as PT Pertamina in Indonesia and Vinamilk in Vietnam demonstrate how boards with strong financial acumen implemented reforms to address financial irregularities and align reporting practices with stakeholder expectations. These financially literate boards were pivotal in restoring transparency and credibility, reinforcing the need for expertise in corporate governance structures.

The ASEAN case studies provide valuable insights into CED, EM, and governance dynamics within emerging markets. Sime Darby in Malaysia reported significant sustainability achievements, including a 6% reduction in greenhouse gas emissions, yet faced challenges

related to overstated financial gains. Similarly, PT Pertamina invested over USD 2.3 billion in renewable energy but faced allegations of earnings manipulation. In Thailand, CP Group reduced water usage by 25% and aimed for carbon neutrality by 2030 but encountered concerns regarding consistent revenue growth amidst volatile market conditions.

Lastly, Vinamilk in Vietnam demonstrated leadership in sustainability by improving energy efficiency by 20% but faced scrutiny over understated liabilities during a period of aggressive expansion. These case studies underline the critical balance needed between sustainability goals and financial transparency while showcasing the challenges faced by firms in emerging economies.

From a theoretical perspective, Stakeholder Theory emphasizes the importance of aligning corporate practices with the expectations of diverse stakeholders, including investors, employees, regulators, and society. Firms must balance environmental and financial goals to maintain stakeholder trust and legitimacy. Effective CED and financially literate governance ensure that firms address stakeholder concerns while promoting ethical behavior and long-term stability. The case studies exemplify this alignment, demonstrating that strong governance mechanisms can reduce EM, improve financial oversight, and foster transparency.

While CED offers significant benefits in enhancing transparency and sustainability, its effectiveness is contingent on sound governance practices, particularly financial literacy at the board level. The ASEAN case studies highlight both progress and persistent challenges, underscoring the need for robust frameworks to address financial inconsistencies. Aligning environmental responsibility with ethical financial reporting remains essential for firms to build stakeholder trust and achieve long-term success.

Conclusion

This study conceptualizes the relationship between corporate environmental disclosure (CED), earnings management (EM), and board financial literacy, particularly in the context of ASEAN industries. By synthesizing evidence from diverse sectors—Malaysian plantations, Indonesian banking, Thai agriculture, and Vietnamese manufacturing—the study highlights how financially literate boards play a crucial role in ensuring high-quality disclosures and mitigating managerial opportunism.

The findings underscore the importance of sound corporate governance in promoting transparency and accountability, ensuring that environmental initiatives align with stakeholder expectations. Effective board oversight reduces earnings manipulation and enhances stakeholder trust, corporate reputation, and long-term sustainability.

Theoretical Implications

Theoretically, this study extends stakeholder theory by emphasizing the interplay between CED, EM, and board financial literacy. It demonstrates how these factors collectively address stakeholder expectations, aligning financial and environmental goals. The conceptual framework proposed bridges existing knowledge gaps, highlighting how board competency fosters ethical corporate governance while advancing sustainability objectives.

Managerial Implications

For management practitioners, this study offers actionable insights into the importance of board financial literacy. Companies should prioritize appointing directors with strong financial backgrounds to enhance oversight, ensure accurate reporting, and align environmental initiatives with financial performance. Transparent reporting frameworks can improve investor confidence, mitigate regulatory risks, and strengthen firms' competitive positioning.

In addition, managers must strike a balance between environmental commitments and financial performance. By adopting robust corporate governance mechanisms, firms can address agency conflicts, reduce earnings manipulation, and meet stakeholder demands for sustainability. Policymakers and regulatory bodies are encouraged to strengthen disclosure requirements and provide incentives for businesses to prioritize both financial integrity and environmental responsibility.

Acknowledgement
The authors would like to acknowledge the support from the Accounting Research Institute (HICoE) of Universiti Teknologi MARA and the Malaysian Ministry of Higher Education.

References

Abbas, Y. A., Ahmad-Zaluki, N. A., & Mehmood, W. (2023). Community and environment disclosures and IPO long-run share price performance. *Journal of Financial Reporting and Accounting*.

Akhter, F., Hossain, M. R., Elrehail, H., Rehman, S. U., & Almansour, B. (2023). Environmental disclosures and corporate attributes, from the lens of legitimacy theory: A longitudinal analysis on a developing country. *European Journal of Management and Business Economics, 32*(3), 342–369.

Afaneh, J. A. A., Al Doghan, M. A., Aliane, N., & Abdelwahed, N. A. A. (2023). Green HRM practices and quality of corporate performance: The avenues towards green business. *Journal of Law and Sustainable Development, 11*(11), e1666.

Anthony, S. J., & Morrison-Saunders, A. (2023). Analysing corporate forest disclosure: How does business value biodiversity? *Business Strategy and the Environment, 32*(1), 624–638.

Aragòn-Correa, J. A., Marcus, A. A., & Vogel, D. (2020). The effects of mandatory and voluntary regulatory pressures on firms' environmental strategies: A review and recommendations for future research. *Academy of Management Annals, 14*(1), 339–365.

Beneish, M. D. (1999). The detection of earnings manipulation. *Financial Analysts Journal, 55*(5), 24–36.

Brahmana, R. K., Tan, M. Y., & You, H. W. (2018). Corporate environmental disclosure and earning management. *International Journal of Green Economics, 12*(3–4), 308–321.

Djalilov, K., & Hartwell, C. A. (2023). The spirit is willing, but the institutions are weak: Disclosure of corporate social responsibility and the financial sector in transition. *Eurasian Business Review, 13*(2), 385–427.

Feng, Y., Akram, R., Hieu, V. M., & Hoang Tien, N. (2022). The impact of corporate social responsibility on the sustainable financial performance of Italian firms: Mediating role of firm reputation. *Economic Research-Ekonomska Istraživanja, 35*(1), 4740–4758.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.

Gerged, A. M., Al-Haddad, L. M., & Al-Hajri, M. O. (2020). Is earnings management associated with corporate environmental disclosure? Evidence from Kuwaiti listed firms. *Accounting Research Journal, 33*(1), 167–185.

He, Z., Cao, C., & Feng, C. (2022). Media attention, environmental information disclosure and corporate green technology innovations in China's heavily polluting industries. *Emerging Markets Finance and Trade, 58*(14), 3939–3952.

Hussain, M. J., Tian, G., Ashraf, A., Khan, M. K., & Ying, L. (2023). Chief executive officer ability and corporate environmental sustainability information disclosure. *Business Ethics, the Environment & Responsibility, 32*(1), 24–39.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360.

Kim, Y., Park, M. S., & Wier, B. (2012). Is earnings quality associated with corporate social responsibility? *Accounting Review, 87*(3), 761–796.

Kleffner, A. E., Lee, R. B., & McGannon, B. (2003). The effect of corporate governance on the use of enterprise risk management: Evidence from Canada. *Risk Management and Insurance Review, 6*(1), 53–73.

Loock, M. (2012). Going beyond best technology and lowest price: On renewable energy investors' preference for service-driven business models. *Energy Policy, 40*, 21–27.

Mahrani, M., & Soewarno, N. (2018). The effect of good corporate governance mechanism and corporate social responsibility on financial performance with earnings management as mediating variable. *Asian Journal of Accounting Research, 3*(1), 41–60.

Mukhtar, S., Sattar, A., & Talib, N. (2023). Environmental disclosure and stakeholder theory. *International Journal of Sustainability Management and Accounting*.

Patten, D. M., & Trompeter, G. (2003). Corporate responses to political costs: An examination of the relation between environmental disclosure and earnings management. *Journal of Accounting and Public Policy, 22*(1), 83–94.

Parks, L., Della Porta, D., & Portos, M. (2023). Civil society organizations and advocacy networks: Global environmental challenges. *Journal of Civil Society, 19*(2), 234–250.

Wan Mohammad, W. M. A., Zaini, R. M., & Md Kassim, A. A. (2023). Environmental disclosure and sustainability reporting practices in Malaysia. *International Journal of Environmental and Sustainability Studies, 18*(2), 112–128.

Wali, S. (2021). Earnings management and tax obligations in emerging economies. *Journal of Business and Taxation, 12*(4), 211–225.

Wang, Z., Zhang, J., & Ullah, B. (2023). Environmental disclosure, firm performance and earnings quality. *Journal of Cleaner Production, 382*, 135015.