

Stakeholders' Perceptions of Environmental Accounting and Reporting towards Organizational Value

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Abstract: Bangladesh is highly vulnerable to climate change. Stakeholders demand environmental accounting and reporting (EAR) to better understand corporate environmental responsibility and transparency. This study examines factors that influence how EAR contributes to organizational value in climate change adaptation, focusing on stakeholders' perceptions. Data were collected through a self-administered, structured, closed-ended questionnaire covering personal details, background information, and stakeholders' opinions on various aspects of EAR. A total of 500 respondents were selected for interviews using purposive sampling. The sample was narrowed to 400 participants after removing inconsistencies for hypothesis testing. Smart PLS version 4.1.0.0 was used for analysis. The results indicated that stakeholders' perceptions of EAR are significantly influenced by the General Elements of EAR (GEEAR), Management Accounting and Costing of EAR (MACEAR), External Audit and Reporting of EAR (EAREAR), Environmental Excellence toward EAR (EEEAR), and Societal Engagement in EAR (SEEAR). Furthermore, positive perceptions of EAR significantly enhance the organization's goodwill, reputation, financial performance, and environmental sustainability. By effectively managing these factors, a company may also benefit from better financial outcomes, improved environmental sustainability, and a stronger reputation. This study, for the first time, identified the factors affecting stakeholders' perceptions of EAR in relation to corporate performance in Bangladesh. Although EAR is not yet widespread in Bangladesh, stakeholders strongly believe that businesses should disclose environmental data to strengthen corporate environmental governance, accountability, and transparency. Additionally, this study emphasizes the urgency of stakeholders' active participation in EAR practices to address social and environmental responsibility issues.

Keywords: Corporate performance, corporate reputation, environmental accounting, environmental reporting, environmental sustainability, stakeholder perceptions.

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INTRODUCTION

Bangladesh and Climate Vulnerability

Bangladesh is one of the most susceptible nations to climate change worldwide. It persistently endures the ramifications of climate change, such as backwater inundation, coastal erosion, storm surges, and tropical cyclones. Furthermore, a review of years of cyclone data suggests that climate change is responsible for the increasing frequency of cyclones now affecting Bangladesh in the southern Bay of Bengal. Due to its geographical position, flat topography, high population density, poverty, illiteracy, absence of an institutional framework, and other factors, Bangladesh one of the biggest deltas globally is particularly susceptible to natural disasters (Nasreen, Hossain, & Khan, 2023). Bangladesh's economic, social, and physical characteristics are emblematic of the most disaster-prone nations globally. Moreover, the detrimental effects of climate change, including elevated temperatures, increasing sea levels, cyclones, storm surges, salt intrusion, and intense monsoon rains, have exacerbated the nation's overall economic development condition. Recent data reveal that climate change is profoundly affecting the agricultural industry. In Bangladesh, where agriculture underpins lives and livelihoods, the effects of climate change on agriculture pose a significant danger to the nation's food security (Huq, Hugé, Boon, & Gain, 2015). Bangladesh is mostly an agricultural country, with two-thirds of its people engaged in agro-based industries or agriculture. Floods and flash floods, potentially affecting around 80% of Bangladesh's land area, are among the many natural disasters the country endures annually due to climate change and global warming. Tropical cyclones have recently impacted the southern and southeastern regions of the country. The northern and north-western regions of the nation are experiencing extreme temperatures, while the whole coastline area along the Bay of Bengal is afflicted by salt issues (Biswas, 2013).

Environmental Accounting and Reporting

Environmental accounting provides information on environmental performance to both internal and external stakeholders in a business. It is an essential tool for understanding the influence of the natural environment on the economy. Environmental accounting data clarifies the expenses related to pollution and resource depletion, as well as the economic value of natural resources for human well-being (De Beer & Friend, 2006). Recently, businesses, governments, public officials, investors, unions, environmentalists, and others have shown a significant renewed interest in corporate social responsibility and social and environmental accounting. The connection between humanity and the natural environment has been consistently complex (Uddin, Rashid, Hasan, Hossain, & Fang, 2022). The natural environment is both essential to and separate from mankind. Although most scientists agree that humans originated from animals via natural selection, we are progressively modifying and shaping the natural environment through manipulative technology. Consequently, we function as both players and observers, existing inside and beyond the conventional natural domain. Technology can monitor and document the environment and our effects on it while exerting influence. Most companies now face environmental challenges and seek effective methods to disclose and communicate information to the public. A significant difficulty for modern human civilization is environmental degradation. Therefore, adopting environmental accounting is crucial for ecological conservation (Uddin, Khan, & Islam, 2025). The rise of sustainable development as a complex strategy for tackling social and environmental issues is progressively impacting accounting practices. The study's summary shows that good methods in environmental accounting are essential for sustainable development, particularly when it comes to environmental taxes, environmental costs, valuing ecosystem services, costs related to carbon dioxide and water pollution, and the ongoing income from green products.

Environmental Accounting and Reporting for Greater Environmental Governances

Businesses operate in a multifaceted environment. Industry standards and legal requirements must be followed. Producing goods and providing services require resources. Both employees and the community where they operate live in the area. Their activities may also impact the environment. Companies may benefit from corporate environmental accounting to address these issues. In the early 1990s, environmental

accounting and reporting became more important for corporations. Environmental reporting has been extensively researched worldwide, focusing on its role in management decision-making, stakeholder understanding of environmental concerns, and its relevance to company operations. Businesses now recognize the need to disclose qualitative information such as environmental objectives, policies, and compliance, alongside quantitative data like emissions, toxic releases, pollution levels, and financial information (Das, Sen, & Pattanayak, 2008). Larrinaga (2021) examined the function of environmental accounting in adaptive and transformational forms of sustainable governance, with a particular emphasis on how it might support the governance of socio-ecological systems. According to research, environmental accounting in conjunction with adaptive governance will need to re-establish connections between various scales, such as organizations with planetary boundaries, address specific issues in various contexts both inside and outside of the corporation, and reevaluate well-established theories like accountability. Insights for environmental accounting linked to transformational governance may be gained through the investigation of governmental concepts and scientific engagement. Natural catastrophes, tourism, industry, unplanned urbanization, global warming, and rapid population growth have all contributed to environmental problems that have spread worldwide and begun to endanger animal life. Significant national and international restrictions are required for the long-term preservation of ecological balance and sustainability. The system designed to maintain the necessary balance between humans and nature has failed to consider the impact on animal lives. Businesses now have significant obligations. For instance, they have paid environmental expenditures in various ways to prevent environmental contamination, such as waste control systems, filtration systems, recycling techniques, etc., since these expenses also help more businesses realize the importance of environmental protection. When preparing the data needed to inform decisions, establish contacts, and present the phases of the environmental accounting system, one should consider the outcomes of an enterprise's actions regarding its environmental impact (Akdoğan & Hicyorulmaz, 2015).

Why Stakeholder Perceptions Matter?

The idea and practice of corporate environmental reporting gained traction in the early 1990s as a means of promoting corporate governance in general. The majority of early environmental report writers were from polluting industries. The number of businesses disclosing their environmental performance on a national and worldwide scale is steadily increasing, according to recent studies (Kolk, Walhain, & Van de Watteringen, 2001). It is well known that understanding the environment is essential for all parties involved. Due to the sharp rise in environmental regulations, many readers of annual reports are cautious about the possible financial consequences connected to businesses that fail to disclose environmental responsibility. Businesses have begun to take this issue more seriously because of demands from different stakeholders, such as governments, creditors, and investors, for more transparency regarding a company's environmental effects and associated obligations (Das et al., 2008). The public now demands environmental reporting because they are more conscious of the negative effects of business expansion. Various user groups regard annual reports as a primary source of data on an organization's environmental performance. External pressure groups, including environmental ones, have impacted corporate disclosure of environmental information. Uwuigbe and Olusanmi (2013) used the stakeholder theory to investigate how accounting instructors and stakeholders view corporate social and environmental disclosure (CSER) practices. According to Uwuigbe and Olusanmi (2013), accountants' perspectives on corporate social responsibility and environmental disclosure concerns varied. Uwuigbe and Olusanmi (2013) encouraged the government, accounting regulators, and schools to take stronger actions to recognize their responsibilities by creating rules and guidelines that would motivate companies to share information about their environmental impact. Although internal and external environmental audits are becoming more common in society, little is known about the factors that influence stakeholders' adoption of these audits. Darnall, Seol, and Sarkis (2009) assessed the relationship between firms' adoption of environmental audits in various organizational and international contexts and perceived stakeholder influences. The study illustrates the intricate relationship between internal and external stakeholder factors and the implementation of environmental audits. Accordingly, the demands of stakeholders, including educators, practitioners, regulators, students, and legislators, must be considered to

successfully include sustainability education in accounting. Businesses must be held responsible for their sustainable initiatives, and sustainability accounting may help support these efforts. The improvement of business sustainability practices via sustainable accounting education is the main emphasis (Al-Hazaima, Alshurafat, Al Shbail, & Ananzeh, 2024).

As the community's awareness of environmental issues has increased, environmental challenges in Bangladesh have also grown recently. Bangladesh has implemented several regulations, such as the "Environmental Conservation Act, 1995," "Environmental Conservation Rules, 2023," "Solid Waste Management Rules, 2021," and "Air Emission Control Rules, 2022," to protect the environment and reduce the impact of business operations on environmental degradation. These regulations have established a platform to require corporate EAR among Bangladeshi companies. Many Bangladeshi multinational corporations have already begun reporting on environmental challenges, according to recent studies. Despite this progress, Bangladeshi businesses do not disclose sufficient environmental information; most companies do not recognize the importance of including environmental data and concerns in their annual reports. This may be due to operations managers not being oriented to the significance of environmental accounting in strategic decision-making. Additionally, stakeholder involvement has historically not included environmental accounting, which could be a contributing factor. To enhance transparency and accountability regarding environmental conservation, stakeholders are advocating for the inclusion of EAR in companies' annual corporate reports.

Accordingly, the following research questions have been raised:

- i. What factors are shaping stakeholder perceptions of EAR practice in Bangladesh?
- ii. What is the perception of stakeholders about EAR Practices in Bangladesh?
- iii. What impact does stakeholders' perception of EAR practices have on financial performance, environmental sustainability, and corporate goodwill and reputation?

This study will identify the factors affecting stakeholders' perceptions of EAR in relation to corporate performance in Bangladesh and will improve knowledge regarding stakeholder participation in EAR practices. Additionally, this study will contribute to understanding how stakeholder engagement and participation influence organizational performance and ensure environmental sustainability.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Stakeholder Perceptions Regarding EAR

Recently, businesses, governments, public officials, investors, unions, environmentalists, and others have shown a marked resurgence of interest in social and environmental accounting (SEA) and corporate social responsibility (CSR). Although there is broad consensus that CSR and SEA are important topics, many organizations have differing perspectives on these areas (Brown & Fraser, 2006). Additionally, the demands of stakeholders, including educators, practitioners, regulators, students, and legislators, must be considered to successfully include sustainability education in accounting. This study examines their impact on the integration process, even if previous research represents their distinct perspectives. Businesses must be held responsible for their sustainable activities, and sustainability accounting may assist with this (Al-Hazaima et al., 2024). Uwuigbe and Olusanmi (2013) identify a notable deficiency in the study concerning corporate social and environmental disclosure, particularly the absence of studies examining the perspectives of non-managerial stakeholders on this practice. Uwuigbe and Olusanmi (2013), using stakeholder theory, investigated the attitudes of stakeholders and accounting educators toward CSER practices in Nigeria. The findings indicated heterogeneity in accountants' attitudes about corporate social and environmental disclosure concerns. The paper promotes the implementation of more proactive measures by the government, accounting regulatory bodies, and academia to recognize their responsibilities. This will be achieved by the issuance of policy statements and standards that will either mandate or encourage organizations to disclose environmental information that is essential to their operations. Adedayo Jamiu, Oyerinde, and Adewole (2024) look at how key groups such as miners, local residents, government officials, and accountants view environmental accounting in the Ife/Ijesa areas where solid minerals are produced, focusing on their priorities and concerns.

As crucial steps for sustainable mining operations, the report suggests inclusive policy creation, community-engaged monitoring, and tax incentives for environmental compliance, infrastructure investments, and open financial audits.

Despite the importance of stakeholder understanding for EAR, several relevant works have been conducted worldwide, as discussed above. The discussion clearly demonstrates the use of various approaches to study stakeholder perception. Sometimes, it is conducted as part of the accounting curriculum for environmental accounting, and other times, it examines the viewpoint of pressure group stakeholders in the pollution business. Stakeholder perception is, above all, a significant driving force behind environmental accounting reporting.

Stakeholder Perceptions Regarding EAR in Bangladesh

In a developing nation like Bangladesh, [Islam and Dellaportas \(2011\)](#) conducted a study to determine accountants' opinions on environmental and corporate social accounting and reporting methods. Although the results indicate that accountants have favorable views on these practices, no efforts have been made to advance them, as the ICAB has not taken any discernible action. In the context of Bangladesh, a developing nation, [Belal and Roberts \(2010\)](#) investigated the opinions of a wide range of non-managerial stakeholders. According to the majority of interviewees, corporate social reporting in Bangladesh is mostly cosmetic and is evolving in response to challenges from global markets. They also voiced concerns that enforcing stringent CSR rules too soon might have unforeseen repercussions, including a rise in corruption, given Bangladesh's social, political, and economic circumstances. The results show that many agree on the need for mandatory corporate social reporting checked by outside parties, based on the ideas of the public's right to know, complete information, and relevance, all tied to transparency and accountability to stakeholders. However, some interviewees strongly criticized the current process of imposing social accounting codes and standards on developing countries, arguing that it ignores the significant local socio-economic context. In a developing nation setting, [Hossain, Alam, Hecimovic, Alamgir Hossain, and Choudhury Lema \(2016\)](#) focused on how non-managerial stakeholders perceive the obstacles to CSER procedures. The report also examines ongoing projects that various stakeholders, including the government, NGOs, and regulators are working on. According to the study's conclusions, the main obstacles to CSER practices in Bangladesh are politics and corruption, lack of coordination, insufficient government efforts, and inadequate legal enforcement. The survey also revealed that different stakeholder groups were unaware of the significance of CSER in promoting sustainable development. Currently, various stakeholders are making limited but expanding efforts to improve CSER procedures. In addition, [Kamal \(2018\)](#) looked at how Bangladeshi stakeholders perceived social audits. [Belal \(2006\)](#) investigated how stakeholders in Bangladesh viewed corporate social reporting, or CSR.

Although much research on the topic and stakeholder opinions on EAR procedures are valued globally, Bangladesh currently has no such studies. Studies conducted in Bangladesh have evaluated managers' and accountants' perceptions of stakeholders in social reports or corporate social reporting.

Factors Affecting Stakeholders' Perceptions of EAR

Regulators

[Yuliarini, Othman, and Ismaila \(2017\)](#) looked into how Environmental Accounting (EA) is practiced in places where there are no standard EA guidelines or where accounting rules focus more on principles than strict rules. The study's findings reveal a synchronic pattern that establishes connections between regulators (both environmental and accounting) and internal management, specifically: (a) management integration in environmental activities within business operations that enhances value; (b) sustainability concerning legal compliance and product enhancement; (c) risk reduction through updated data; (d) funding under the most reliable conditions; and (e) mutual commitment. Additionally, [Dragomir and Anghel-Ilcu \(2011\)](#) offered a comparative analysis of environmental accounting systems, corporate reporting, and International Financial Reporting Standards (IFRS). Empirical data supports the problem known as "reporting inertia," which describes a method of corporate environmental reporting whereby corporations repeatedly use standardized

words and paragraphs to convey almost identical financial information annually across extended durations. Consequently, this research proposes the following hypotheses.

H₁: The general elements of EAR relating to regulation significantly improve stakeholders' perceptions of EAR.

Accounting Information Users

Environmental reporting (ER) and environment-related management accounting (EMA) were studied by [Bouten and Hoozée \(2013\)](#) in response to environmental disruptions such as new environmental regulations, increased green consumption, and societal demands for responsible behavior. [Bouten and Hoozée \(2013\)](#) demonstrated that ER-EMA interactions influence disruption change trajectories. Understanding the emergence of a cyclic relationship also depends on the severity of environmental disturbances, top management commitment, and the presence of an environmental champion. The findings suggest that ER-EMA interactions can either facilitate or impede organizational greening efforts. Additionally, the United Nations Division for Sustainable Development established the Expert Working Group on "Enhancing Government's Role in Advancing Environmental Management Accounting (EMA)" in collaboration with various governmental and non-governmental entities. The group's objectives include promoting EMA through publications, pilot initiatives, and establishing an international forum for dialogue on governmental EMA promotion. This study contributes to the development of relevant theories.

H₂: The management accounting and costing of EAR significantly improve stakeholders' perceptions of EAR.

Environmentalist and Pressure Group

[Gray \(2000\)](#) conducted an assessment of contemporary and recent advancements in social and environmental reporting and auditing. [Gray \(2000\)](#) emphasizes that high-quality information verification is critical for its trustworthiness and capacity to promote openness and accountability. [Gray \(2000\)](#) presents three themes: the need to clarify language in social and environmental 'audits,' the existing deficiencies in attestation processes, and the considerable yet unactualized potential provided by professional accounting and auditing education and training. The study finishes by advocating for a significant re-evaluation of accounting education and training. Later on, [Hichri \(2023\)](#) demonstrated a favorable and strong correlation between audit qualities and integrated reporting. Environmental auditing has a favorable and substantial influence on integrated reporting. [Hichri \(2023\)](#) identified a positive and substantial correlation between environmental auditing and audit quality. This study advances the following hypotheses.

H₃: The EAR's external audit and reporting significantly improve stakeholders' perceptions of EAR.

Organizations towards Quality

[Sahay \(2004\)](#) indicates that environmental reporting, with few exceptions, is disorganized and lacks comparability. While several industrial sectors and specific units are undertaking commendable efforts, the reports seem to prioritize publicity over the dissemination of environmental data and statistics. [Sahay \(2004\)](#) promotes and incentivizes high-quality environmental reporting and exemplary environmental performance to achieve environmental excellence. The Capacity Building for Integrated Environmental Assessment and Reporting Training Manual delineates a range of potential stakeholders, including governments, businesses, NGOs, media, religious organizations, universities, trade unions, youth groups, indigenous peoples' groups, political party representatives, unaffiliated citizens, and marginalized or disenfranchised individuals. This approach will positively enhance environmental performance toward achieving environmental excellence. Thus,

H₄: The environmental excellence towards EAR significantly improves stakeholders' perceptions of EAR.

Societal Engagement in EAR

However, achieving sustainable development requires both active citizen involvement and successful government policy. Campaigns to raise public awareness are among the most important of these. [Durbin and Filer \(2021\)](#) examined the contribution of public awareness initiatives to the advancement of sustainable

development. Durbin and Filer (2021) investigate how these programs might successfully influence public attitudes and actions in support of sustainability objectives. These campaigns are essential in promoting social change because they educate and increase public awareness of the value of sustainable behaviors. Additionally, environmental issues are dynamic and complex, necessitating open, adaptable decision-making that considers a range of viewpoints and expertise. Stakeholder involvement in environmental decision-making has thus been increasingly sought after and incorporated into national and international policy. Practitioners and stakeholders, despite the many advantages touted for participation, have grown increasingly disillusioned when these promises fail to materialize. There is evidence that stakeholder engagement may improve the quality of environmental choices by taking into account more thorough information inputs, even if few of the claims made have been tested. However, the kind of procedure that led to the judgments has a significant impact on the quality of those decisions. A grounded theory analysis of the literature is then used to identify eight characteristics of best practice participation. It is maintained that a mindset that prioritizes empowerment, equality, trust, and learning must serve as the foundation for stakeholder engagement. Participation should be considered as early as feasible and at every stage of the process, representing relevant stakeholders in a methodical manner. Combining local and scientific information can provide a more thorough understanding of intricate and dynamic socio-ecological systems and processes. This information may also be used to assess whether local and technological solutions to environmental issues are suitable. To create organizational cultures that can support processes where objectives are negotiated and results are unavoidably unclear, stakeholder engagement must be institutionalized (Reed, 2008). Dhar, Sarkar, and Ayittey (2022) found that companies that pollute a lot have improved their ability to develop sustainably by using green accounting; there is a strong positive link between how well these companies share information about their social responsibility and their sustainable development abilities; and the way green accounting helps these companies can be positively influenced by the quality of their social responsibility information. Scholtz, Burger, and Zita (2016) investigate the effect of a social media campaign on employees' environmental consciousness at a higher education institution (HEI). Scholtz et al. (2016) also informed the staff members about environmental management issues and recommended solutions. Surveys and interviews were carried out at regular intervals throughout the campaign to gauge the expansion of environmental awareness and to get input on the advantages and challenges of the initiative. The results indicated that the campaign was beneficial in many ways, especially in raising awareness of environmental issues. Accordingly,

H₅: The societal engagement towards EAR significantly improves stakeholders' perceptions of EAR.

Impact of Stakeholders' Perceptions

Stakeholders' Perceptions of EAR and Organizational Goodwill and Reputation

According to Godschalk (2008), an organization must use environmental accounting if it makes financial sense. The implementation of environmental accounting may require resources. As a result, a firm has to balance the costs and advantages. Environmental management accounting, environmental accounting, environmental reporting, and environmental financial auditing are the four components of corporate environmental accounting that are covered by Godschalk (2008). There is a discussion of the possible advantages that each of these components may provide. Implementing various aspects of business environmental accounting may offer several benefits. While some advantages enhance stakeholder relations and legitimacy, others improve internal efficiency and competitive advantage. Furthermore, by applying the theoretical foundations of legitimation through impression management, source credibility bias, perceived trust, and ideology, Lee and Sweeney (2015) expanded on previous capital market and environmental accounting research by evaluating the impact of discretionary environmental accounting narratives on jurors' assessments of punitive damage awards. In a court case about a company's environmental wrongdoing, Lee and Sweeney (2015) showed that (1) jurors give lower punitive damage awards to a company that shares information on its website about its plans to improve environmental practices; (2) how sensitive the industry is to environmental issues affects the link between this information and the jurors' damage award decisions; and (3) this effect is influenced by how much trust jurors have in the company's management. Additionally, it was discovered that the political beliefs of the jurors have an impact on the evaluations of punitive damages judgments; liberal juries tend to impose

awards that are somewhat greater than those of conservative jurors. Additionally, the difficulties that multinational corporations in various sectors confront as a result of internal, external, and natural environmental issues are examined by [Kyei-Baffour \(2024\)](#). It highlights how important environmental accounting is becoming, especially in light of new sustainability criteria. The study emphasizes that companies dealing with environmental pressures incur expenses, and because of their influence on wealth maximization, it is critical that stakeholders, particularly shareholders, be aware of these expenses. According to [Kyei-Baffour \(2024\)](#), environmental accounting is similar in how businesses affect the environment, even if there isn't a single, widely recognized definition for it. The paper emphasizes the importance of environmental costs while acknowledging the phenomenon's developmental phases. It claims that issues pertaining to the natural environment are closely related to a company's ability to survive. Numerous studies have shown that stakeholders' favorable opinions of environmental accounting have several beneficial effects on a company's values, goodwill, and reputation. In the context of Bangladesh, it is crucial to understand how stakeholders' favorable opinions of environmental accounting impact the organization's reputation and goodwill.

H₆: Stakeholders' perception of EAR has a significant positive impact on organizational goodwill and reputation.

Stakeholders' Perceptions of EAR and Firms Financial Performance

Most environmental reports provided by corporations regarding their performance do not focus on financial aspects. The influence of environmental disclosures on business performance has been the subject of conflicting findings in prior empirical research conducted in industrialized nations. [Malarvizhi and Matta \(2016\)](#) observed no significant association between the degree of environmental disclosure and company performance. [Van der Laan, Van Ees, and Van Witteloostuijn \(2008\)](#) built on management's stakeholder theory by adding concepts from sociology's resource dependency theory and psychology's prospect choice theory to show that there is agreement about the positive relationship between a company's social actions and its financial success. [Van der Laan et al. \(2008\)](#) looked at two new ideas about how corporate social responsibility relates to financial success and provided initial evidence on how these ideas apply to two accounting performance measures. [Festus and Akinselure \(2017\)](#) show a significant correlation between the return on equity of the selected listed oil and gas businesses and environmental disclosure. According to [Fasua and Osifo \(2020\)](#), there is a statistically significant negative correlation between Environmental Accounting (EA) and Earnings per Share (EPS), and a statistically significant positive correlation between EA and Return on Assets (ROA) and Net Profit Margin (NPM). Here, there are both positive and negative correlations between the firms' overall performance and environmental accounting reporting procedures. Thus, we are interested in the relationship between an organization's environmental performance and the positive perceptions regarding environmental accounting and reporting of its stakeholders.

H₇: Stakeholders' perception of EAR has a significant positive impact on firms' financial performance.

Stakeholders' Perceptions and Organizational Environmental Sustainability

[Goes, Fatima, Santos Jhunior, and Boaventura \(2023\)](#) provide an example of the connection between managing for stakeholders and corporate environmental sustainability. Employing a managing-for-stakeholders strategy may simultaneously motivate businesses to reduce their environmental impact. To strengthen ties with their stakeholders, this strategy may also encourage enterprises to be more transparent and proactive about environmental issues, according to [Goes et al. \(2023\)](#). Everything from stakeholder collaboration and value creation to the company's overall performance could be affected by this. Finally, [Goes et al. \(2023\)](#) propose a novel approach to integrating stakeholder management with business sustainability, outlining avenues for future research and practical applications. Perceived sustainability from a stakeholder perspective has three characteristics, according to [Lee \(2020\)](#): strength, scale, and mobilizability. In addition, he lays out a plan on how to rethink sustainability indicators in communication. People are more inclined to buy a brand that they see as strong and mobilizable ([Lee, 2020](#)). Magnitude negatively impacts perceived value. [Lee \(2020\)](#) adds to the existing body of knowledge by developing a paradigm for comprehending the three aspects of perceived sustainability and by assessing the results of sustainable communication. According to [Pelozo, Looock, Cerruti, and Muyot \(2012\)](#), sustainability is becoming an integral part of a company's reputation, which is often

considered its most valuable asset. Numerous stakeholders, including customers, investors, workers, and purchasing managers, regard sustainability as a critical component when making decisions. Businesses are better equipped to include sustainability messages in popular communications when they incorporate sustainability into their corporate culture and operations.

According to earlier research, stakeholders have a favorable opinion toward environmental accounting and its effects on the organization's environmental sustainability and conservation. However, in the context of Bangladesh, it is necessary to understand how stakeholders' favorable impressions have affected an organization's environmental sustainability.

H₈: Stakeholders' perception of EAR has a significant positive impact on organizational environmental sustainability.

Although there is sufficient research on this topic worldwide, stakeholders' perceptions, both domestically and internationally, are seen as a significant influence on EAR procedures. However, how do stakeholders in Bangladesh perceive EAR practices, what variables shape this view, and how does it impact the organization's value system? Thus far, no such research has been conducted on this topic. We have located a few studies that examine the perception of EAR among Bangladeshi accountants.

The following goals are suggested by this study to close this research gap:

- i. Determining the elements that influence how stakeholders in Bangladesh view EAR procedures.
- ii. Assessing the perceptions of "EAR Practices" across Bangladeshi stakeholders.
- iii. Determine how financial performance, environmental sustainability, and business goodwill and reputation are affected when stakeholders' perceptions of EAR practices are considered.

MATERIALS AND METHODS

Primary Data, Questionnaire Development, Sample Size, and Sampling Procedure

Cross-sectional surveys were implemented as the primary methodology for data acquisition. We obtained the respondents' data by conducting a questionnaire survey from January to March 2025. Many experts were consulted, and the most recent research was reviewed prior to the questionnaire's development. Prior to completing the final questionnaire, we conducted an initial survey. The questionnaire included personal profiles, socio-demographic characteristics, and respondents' perspectives on the General Elements of EAR (GEEAR), Management Accounting and Costing of EAR (MACEAR), External Audit and Reporting of EAR (EAREAR), Environmental Excellence toward EAR (EEEAR), Societal Engagement in EAR (SEEAR), Stakeholders' Perception of Environmental Accounting and Reporting (SPEAR), Organizational Goodwill and Reputation (OGR), Organizational Financial Performance (OFP), and Organizational Environmental Sustainability (OES).

We supplemented the survey with topic-specific questions. The participants' verbal consent was obtained before administering the survey questionnaire. As previously stated, we will not share their information with anyone else and will use it only for research purposes. The importance of protecting the privacy and identification of the respondents was stressed to uphold the study's ethical standards. There were 500 people who took part in the survey, representing a wide range of interests, including regulators, the public, consumers, lenders, environmentalists, journalists, lawyers, and more. We discovered that several of the responses did not correspond when we examined the data. We tested our hypothesis by filtering responses from 400 people. Since non-probability convenience sampling was readily available and straightforward to implement, we used it to choose respondents.

While non-probability convenience sampling is used to select respondents due to its simplicity and accessibility for data collection, this may hinder the generalizability of the study findings on a broader scale. Therefore, this feature is considered a limitation of the study. The questionnaire survey also emphasizes relevant skills, expertise, and experience. In this study, participants rated their level of agreement on a five-point Likert scale: 5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree, and 1 for strongly disagree.

Instrument Development

The authors developed the assessment tools and revised the relevant material to guarantee the study's content validity. [Hair Jr, Matthews, Matthews, and Sarstedt \(2017\)](#) reported that they employed a five-point Likert scale to evaluate the attributes under consideration. Respondents were able to express their level of agreement or disagreement using this scale. The purpose of this study was to evaluate how stakeholders perceive EAR (SPEAR). The five indicators used in this assessment were GEEAR, MACEAR, EAREAR, EEEAR, and SEEAR. Each indicator consisted of three to five components. OFP, OES, and OGR were the three primary metrics utilized to assess SPEAR's impact on corporate measure. This study employed three to four indicators for each concept: OGR, OFP, and OES. [Table 1](#) displays the information.

Table 1: Details of Instrument Regarding Perceptions of Regulators on EAR

Construct	Statement on general elements of EAR (GEEAR)
GEEAR ₁	The general elements of EAR will uphold stakeholder understanding.
GEEAR ₂	Environmental and sustainability impact evaluations must include EAR.
GEEAR ₃	The EAR's involvement with environmental audit is vital for stakeholder confidence.
Construct	Statement on management accounting and costing of EAR (MACEAR)
MACEAR ₁	The EAR framework should account for energy consumption, costs, waste management, pollution, and disposal.
MACEAR ₂	The EAR framework should include recycling, packaging, and containers, as well as engagement with life-cycle assessment.
MACEAR ₃	The EAR framework should include budgeting and performance appraisals, as well as investment and investment appraisals.
Construct	Statement on external audit and reporting of EAR (EAREAR)
EAREAR ₁	The EAR framework should include environmental spending and commitments.
EAREAR ₂	The EAR framework should include statutory audit implications.
EAREAR ₃	In financial statements, the EAR framework should include environmental reporting.
EAREAR ₄	The EAR framework should engage stakeholders for day-to-day improvement of the EAR practice.
EAREAR ₅	The EAR framework should include separate environmental reporting.
Construct	Statement on environmental excellence towards EAR (EEEAR)
EEEAR ₁	Organizations must prepare an EAR action plan.
EEEAR ₂	Organizations must organize their structure and employment, including representation on the EAR board.
EEEAR ₃	To contribute to environmental programs and advance the green agenda, organizations must initiate the process.
Construct	Statement on societal engagement in EAR (SEEAR)
SEEAR ₁	The EAR practice must have options of societal engagement
SEEAR ₂	EAR framework needs to take a greater awareness campaign.
SEEAR ₃	EAR framework must have options for stakeholders' participation.
Construct	Statement on stakeholders' perception of environmental accounting and reporting (SPEAR)
SPEAR ₁	GEEAR enhance SPEAR
SPEAR ₂	MACEAR ensure greater SPEAR
SPEAR ₃	EAREAR enhance SPEAR
SPEAR ₄	EEEAR positively affects the SPEAR.
SPEAR ₅	SEEAR positively affects the SPEAR.
Construct	Statement on Organizational Goodwill and Reputation (OGR)
OGR ₁	SPEAR positively enhances organizational goodwill.
OGR ₂	SPEAR enhances a brand's reputation.
OGR ₃	SPEAR enhances organizational acceptance.
OGR ₄	SPEAR boosts brand acceptance.
Construct	Statement on Organizational Financial Performance (OFP)
OFP ₁	SPEAR positively impacts organizational ROA.
OFP ₂	SPEAR positively impacts organizational ROE.
OFP ₃	SPEAR positive impacts organizational EPS.

OFP4	SPEAR impacts organizational TCI.
OFP5	SPEAR impacts organizational overall financial strength.
Construct	Statement on Organizational Environmental Sustainability (OES)
OES1	SPEAR enhances organizational environmental conservation.
OES2	SPEAR enhances organizational environmental accountability.
OES3	SPEAR enhances organizational environmental responsiveness.

Source: Developed by Researcher.

Sample Size Determination

The target population of the study's respondents is unspecified. The formula for determining sample size for an unknown population size (n) was established by Cochran (1977) as follows:

$$n = (Z^2 pq)/e^2 \quad (1)$$

Where

n = the sample size.

z = 1.96 is the standard normal value associated with the specified confidence level (95%).

e = 0.05 is the acceptable margin of error.

p = 0.5 is the projected fraction of a characteristic potentially existing in the population.

q = 1-p is the estimated fraction of an attribute potentially absent in the population.

The value of n is obtained using Equation 1 as follows:

$$n = (Z^2 pq)/e^2 = ((1.96)^2 (0.5)(0.5))/(0.05)^2 = 384.16 \approx 385$$

In the event that any selected respondents are unable to complete the questionnaire survey, the researchers have set up a 30% reserve sample. There are five hundred (500) people who have responded to this survey. The entirety of Bangladesh is the selected study area. We found several disparities in the questionnaire responses after data analysis. We evaluated our hypothesis after filtering the responses from 400 individuals. The study used a five-point Likert scale; a score of five meant strongly agree, a score of four meant agree, a score of three meant neutrality, a score of two meant disagree, and a score of one meant strongly disagree.

Justification of using PLS-SEM

Many justifications for using PLS-SEM have been carefully examined in the methodological literature. Given PLS-SEM's rapid rise in the accounting field, a thorough defense of its choice over competing strategies is required. We used the PLS-SEM approach because of its ability to assess latent constructs and estimate multiple dependent relationships between variables simultaneously.

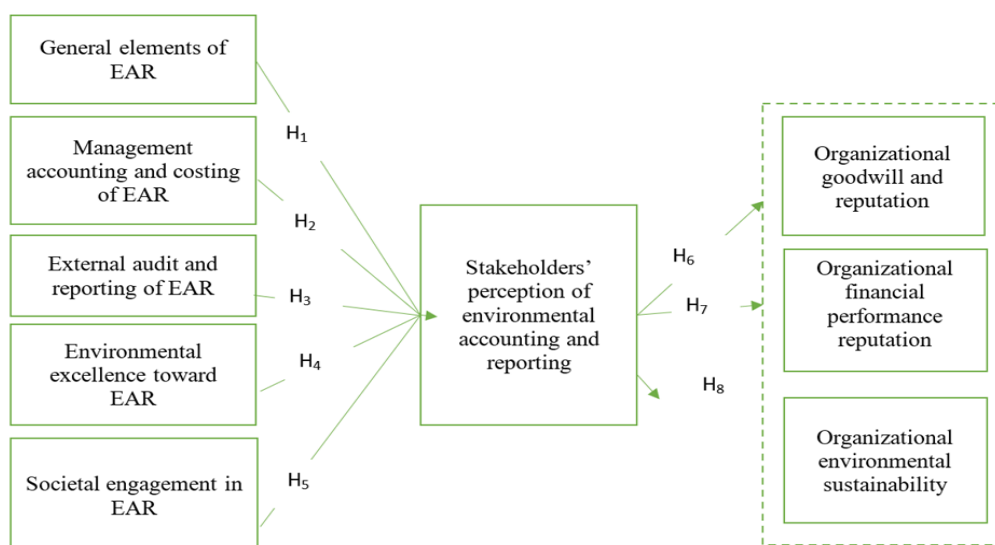


Figure 1: Conceptual framework

Figure 1 illustrates the conceptual framework of the study demonstrates the factors that could shape stakeholders' perceptions of EAR. Furthermore, the figure explores how stakeholders' perceptions of EAR impact organizational corporate measures such as goodwill and reputation, financial performance, and environmental sustainability.

Statistical Analysis

Prior to conducting the PLS-SEM analysis, we recorded the data in SPSS 25 for statistical analysis and correlation assessment. SMART PLS 4.0, a comprehensive tool for structural equation modeling (SEM), was used to evaluate the hypotheses.

ANALYSIS, RESULTS, AND DISCUSSION

Empirical Results (Respondent's Demographic Profile)

Table 2 displays the demographic distribution of participants according to different attributes. 33.75% of the population is female, and 66.25% of the population is male. Additionally, the majority of participants 40% of the total sample are in the age range of 31 to 40. Furthermore, a sizable majority of people 48.75% have a master's, MPhil, or PhD degree. Participants belong to various stakeholder groups, including regulators (5%), the general public (41.25%), customers (15.5%), environmentalists (3.75%), journalists (2.5%), lawyers (6.25%), lenders (8.75%), suppliers (4.75%), and others (12.25%).

Table 2: Respondent's Demographic Profile

Details		Frequency	Percent
Gender	Male	265	66.25
	Female	135	33.75
	Less 30	45	11.25
Age	31-40	160	40
	41-50	118	29.5
	51-60	35	8.75
	Above 60	42	10.5
	Honors	195	48.75
Educational Qualification	Masters, MPhil, PhD	110	27.5
	Professional Degree	45	11.25
	Others	50	12.5
	Regulators	20	5
Mode of Stakeholders	General public	165	41.25
	Customer	62	15.5
	Environmentalism	15	3.75
	Journalist	10	2.5
	Lawyers	25	6.25
	Lenders	35	8.75
	Suppliers	19	4.75
	Others	49	12.25

Source: Survey Data.

Measurement Model

A second-generation method for structural equation modeling data processing is partial least squares structural equation modeling (PLS-SEM) (Hair et al., 2021). When there is little theory to support a particular explanation, Vinzi, Lauro, and Amato (2005) suggest using PLS-SEM to examine cause-and-effect relationships. Due to its numerous benefits, the PLS-SEM approach was employed in some studies (Chin, 1998), whereas the covariance technique was used in others. In some cases, reflective measures show how certain constructs relate to the specified assessment items (Hanafiah, 2020). Verifying the indicators' dependability and

consistency, as well as their reliability and interrelationships, is crucial for evaluating the reflective measurement model (Sarstedt, Hair Jr, & Ringle, 2023). To assess the trustworthiness of indicators, we square the external loadings on reflective structures. This measurement allows us to infer the degree to which the latent variable correlates with its observable indicators (Hair et al., 2021).

Factor Loading

The factor loading values represent the reliability of each construct indication. A factor loading value of at least 0.7 is required for approval (Hair et al., 2021; Kim, Ku, Kim, Park, & Park, 2016). Nonetheless, the constructs' measurements are reliable due to the large outer loadings for all indicators and the close relationship between them and the associated latent components. All reflective structures have outer loadings that are higher than the suggested threshold of 0.700, as shown in Table 3.

Cronbach's Alpha

Three different tests were used to carefully evaluate the measurement model's dependability: composite reliability (CR), Dijkstra's PLSc reliability (DPR), and Cronbach's alpha (CA) (Hair Jr et al., 2017; Kaya, Abubakar, Behraves, Yildiz, & Mert, 2020). We use Cronbach's alpha to assess the scales' dependability. The dependability coefficient of Cronbach's alpha usually ranges from 0 to 1. A reliability value of 0.80 or above indicates an excellent scale, while a coefficient of 0.70 is considered acceptable. An exploratory coefficient of 0.60 is sufficient. As shown in Table 3, the findings indicate that all measures have remarkable measurement reliability, above the suggested criterion of 0.7 (Hair, Risher, Sarstedt, & Ringle, 2019; Rahman, 2023). Both Cronbach's alpha (CA) and composite reliability (CR) demonstrate impressive magnitudes. The model accurately captures the latent constructs.

Composite Reliability

Composite reliability is a better way to assess convergent validity in a reflective paradigm than Cronbach's alpha. Because Cronbach's alpha may either overstate or underestimate reliability, it cannot always precisely reflect a scale's true dependability. The composite reliability ranges from 0 to 1, with 1 representing faultless estimated reliability. In an exploratory model, composite reliabilities should be at least 0.6 (Chin, 1998; Hock, Ringle, & Sarstedt, 2010). According to Henseler, Ringle, and Sarstedt (2015), a confirmatory model's composite reliability should be at least 0.70, while Daskalakis and Mantas (2008) state that a reliability of 0.80 or above is considered appropriate for confirmatory research. All reflective paradigms have higher levels of internal consistency and dependability, as shown by the composite reliability scores for each construct in Table 3.

Average Variance Extracted (AVE)

The convergent and divergent validity of a test may be evaluated using the AVE statistic. The average variance extracted (AVE) reveals the typical degree to which each underlying component shares variation in a reflective model. For a model to be deemed acceptable, its average variance extracted (AVE) must exceed 0.5 (Chin, 1998; Hock & Ringle, 2010). Table 3 demonstrates that the AVE values for all indications surpass 0.50.

Table 3: Results for Reflective Measurement Models

Variables	Item	Convergent validity		Internal consistency reliability	
		Loading > 0.70	AVE > 0.50	Cronbach's alpha > 0.60	CR > 0.60
General Elements of EAR	GEEAR1	0.977			
	GEEAR2	0.971	0.955	0.977	0.985
	GEEAR3	0.984			
Management Accounting and Costing of EAR	MACEAR1	0.950			
	MACEAR2	0.945	0.841	0.904	0.941
	MACEAR3	0.852			
External Audit and Reporting of EAR	EAREAR1	0.874			
	EAREAR2	0.872	0.920	0.931	0.947

Environmental Excellence towards EAR	EAREAR3	0.892	0.783	0.957	0.972
	EAREAR4	0.890			
	EAREAR5	0.896			
	EEEEAR1	0.920			
	EEEEAR2	0.980			
Societal Engagement in EAR	EEEEAR3	0.976	0.847	0.911	0.943
	SEEAR1	0.946			
	SEEAR2	0.936			
Stakeholders Perception on Environmental Accounting and Reporting	SEEAR3	0.878	0.861	0.959	0.969
	SPEAR1	0.946			
	SPEAR2	0.930			
	SPEAR3	0.949			
	SPEAR4	0.926			
Organizational Goodwill and Reputation	SPEAR5	0.886	0.940	0.979	0.984
	OGR1	0.990			
	OGR2	0.989			
	OGR3	0.970			
Organizational Financial Performance	OGR4	0.927	0.843	0.953	0.964
	OFP1	0.872			
	OFP2	0.936			
	OFP3	0.947			
	OFP4	0.915			
Organizational Environmental Sustainability	OFP5	0.919	0.687	0.797	0.868
	OES1	0.750			
	OES2	0.886			
	OES3	0.845			

Source: Reliability and validity tests by using Smart PLS 4.1.0.0.

Discriminant Validity

We used a wide variety of criteria to carefully assess discriminant validity, a crucial part of construct validity. [Fornell and Larcker \(1981\)](#) listed the following criteria: the cross-loadings criterion, the heterotrait-monotrait (HTMT) ratio of correlations, and the Fornell-Larcker criterion. These comprehensive evaluations determine how distinct one idea is from another in terms of empirical evidence. For each latent variable, we examined for inconsistencies with the other variables using the Fornell-Larcker criterion. According to [Vinzi, Chin, Henseler, and Wang \(2010\)](#) and [Hair Jr et al. \(2017\)](#), this technique guarantees discriminant validity. Every construct must have square roots that are larger than the correlations between them in order to meet the Fornell-Larcker criterion for average variance extracted (AVE). In addition, there can be no cross-loadings with other constructs; instead, the factor loading of each indicator in the model must be greater than the cross-loading requirement. Those along the diagonal are consistently greater than those off the diagonal, as seen in [Table 4](#). This data provides support for the hypothesis that the model has good discriminant validity.

Table 4: Discriminant validity – Fornell-Larcker criterion

	EAREAR	EEEEAR	GEEAR	MACEAR	OES	OFP	OGR	SEEAR	SPEAR
EAREAR	0.885								
EEEEAR	0.143	0.959							
GEEAR	-0.055	-0.012	0.977						
MACEAR	0.087	0.104	0.352	0.917					
OES	-0.132	0.05	0.068	0.022	0.829				
OFP	0.054	0.095	0.293	0.154	0.391	0.918			
OGR	0.288	0.248	0.204	0.299	-0.059	0.57	0.969		
SEEAR	0.113	0.096	0.041	0.066	0.079	0.183	0.096	0.92	
SPEAR	0.202	0.176	0.262	0.345	0.143	0.294	0.333	0.155	0.928

Note: Bold diagonal numbers are the square roots of AVE.

Source: Discriminant validity test by using Smart PLS 4.1.0.0.

To ensure discriminant validity, we used the HTMT, which stands for heterotrait-monotrait ratio of correlations. This ratio captures the degree of similarity between two or more qualities and measurements of the same attribute (Hair Jr, Hult, Ringle, & Sarstedt, 2016). Hair et al. (2019) suggest that the HTMT ratio should be significantly lower than the cutoff values of 0.90 or 0.85. All of the criteria for discriminant validity have been satisfied, as shown in Table 5 of the HTMT test. This outcome demonstrates discriminant validity, clearly distinguishing each thought from the others. The highest HTMT value ever recorded is 0.871, according to Gold, Malhotra, and Segars (2001), which is lower than the minimal criterion of 0.90. The measurement approach demonstrated its ability to accurately measure the target variable. Our evaluation method is more convincing after this thorough investigation of discriminant validity, which also indicates that the constructs faithfully represent different aspects of the main theoretical ideas.

Table 5 Discriminant Validity: Heterotrait-Monotrait Ratio (HTMT) Matrix

	EAREAR	EEEAR	GEEAR	MACEAR	OES	OFP	OGR	SEEAR	SPEAR
EAREAR									
EEEAR	0.15								
GEEAR	0.059	0.047							
MACEAR	0.09	0.116	0.374						
OES	0.178	0.075	0.111	0.051					
OFP	0.072	0.104	0.304	0.164	0.457				
OGR	0.303	0.258	0.199	0.302	0.076	0.602			
SEEAR	0.121	0.097	0.064	0.072	0.092	0.191	0.098		
SPEAR	0.206	0.181	0.271	0.369	0.164	0.304	0.321	0.163	

Source: Discriminant validity test by using Smart PLS 4.1.0.0.

Structural Model

According to Hair et al. (2019), multicollinearity should be thoroughly evaluated using the Variance Inflation Factor (VIF) before this assessment. Table 6 shows that the VIF values, which vary between 1 and 1.266, are well below the crucial threshold of 3. This finding strengthens the dependability and robustness of our investigation by confirming that multicollinearity is not a problem. To ensure the study findings are reliable and consistent, the researchers thoroughly examined the significance of the various PLS-SEM outcomes using the Smart PLS 4.1.0.0 tool.

Table 6: VIF Values

VIF	
EAREAR -> SPEAR	1.044
EEEAR -> SPEAR	1.037
GEEAR -> SPEAR	1.154
MACEAR -> SPEAR	1.17
SEEAR -> SPEAR	1.023
SPEAR -> OES	1
SPEAR -> OFP	1
SPEAR -> OGR	1

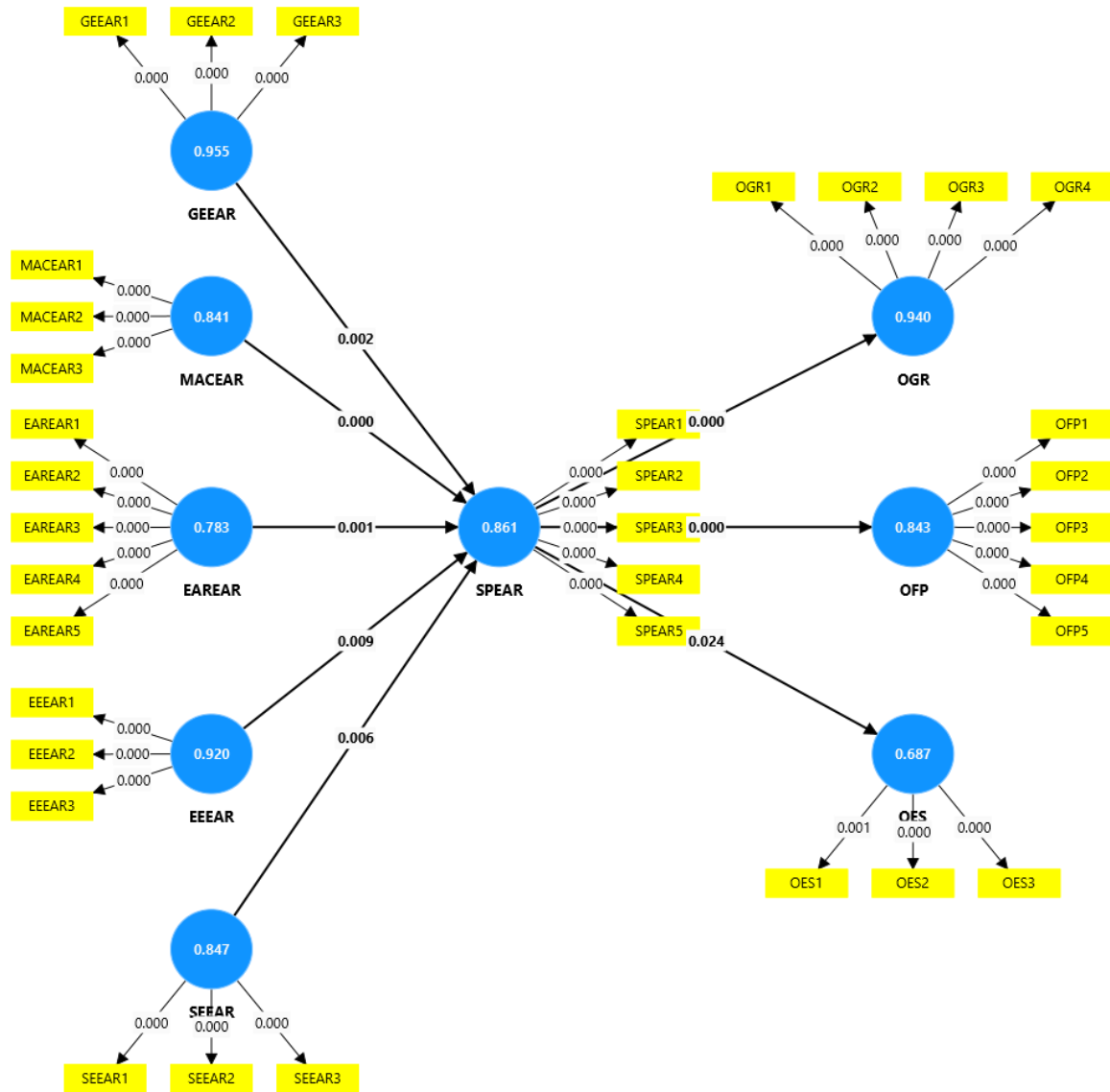


Figure 2: Model resolution by SmartPLS using PLS algorithm

Figure 2 shows the structural models used in this study.

Table 7: Summary of the Results

Path	Estimates (β)	Standard deviation (SD)	T statistics ($ O/STDEV $)	p values	Result
GEEAR -> SPEAR	0.181	0.058	3.112	0.00	H ₁ : Accepted
MACEAR -> SPEAR	0.248	0.066	3.769	0.00	H ₂ : Accepted
EAREAR -> SPEAR	0.161	0.048	3.381	0.00	H ₃ : Accepted
EEEAR -> SPEAR	0.12	0.046	2.615	0.00	H ₄ : Accepted
SEEAR -> SPEAR	0.102	0.037	2.774	0.00	H ₅ : Accepted
SPEAR -> OGR	0.333	0.058	5.725	0.00	H ₆ : Accepted
SPEAR -> OFP	0.294	0.077	3.828	0.00	H ₇ : Accepted
SPEAR -> OES	0.143	0.063	2.251	0.02	H ₈ : Accepted

Source: PLS algorithm and Bootstrapping test by using Smart PLS 4.1.0.0.

The PLS analysis shows that stakeholders better understand EAR because of the general rules about EAR related to regulation ($\beta=0.181$, $p<0.00$), as seen in Table 7. This result supports the hypothesis (H₁) that using

general EAR parts, such as understanding stakeholders, evaluating environmental and sustainability effects, and performing environmental audits, significantly improved stakeholder perceptions of EAR.

Stakeholders' opinions of EAR are considerably and favorably improved by MACEAR ($\beta = 0.248$, $p < 0.00$). The result confirms the hypothesis (H_2) that MACEAR broadens stakeholders' viewpoints on EAR.

Additionally, stakeholders' opinions of EAR are positively correlated with the EAR's external audit and reporting ($\beta = 0.161$, $p < 0.00$). The research findings support hypothesis (H_3), which states that stakeholders' positive views on EAR are significantly enhanced by the EAR's external audit and reporting.

EEEAR positively and significantly influences SPEAR, which aims for environmental sustainability ($\beta = 0.120$, $p < 0.000$). The results support hypothesis H_4 , which states that stakeholders' favorable opinions of EAR are significantly enhanced by environmental excellence concerning EAR with regard to environmental sustainability.

According to the research, SPEAR was statistically significantly impacted by SEEAR ($\beta = 0.102$, $p > 0.000$). Contrary to the hypothesis (H_5), the findings show that SEEAR statistically substantially improves stakeholders' views of EAR.

The research discovered that SPEAR had a substantial and positive influence on OGR ($\beta = 0.333$, $p < 0.00$). The results validate the hypothesis (H_6) that SPEAR has a beneficial effect on the level of OGR.

OFP is statistically significantly improved by SPEAR ($\beta = 0.294$, $p < 0.00$). The results validate the hypothesis (H_7), suggesting that stakeholders' perceptions of EAR significantly enhance the financial performance of businesses.

According to the research, OES was greatly enhanced by SPEAR ($\beta = 0.143$, $p < 0.00$). This data supports the hypothesis (H_8) that SPEAR significantly influences OES.

Results Discussion

GEEAR, MACEAR, EAREAR, EEEAR, SEEAR, SPEAR, OGR, OFP, and OES are all factors that can be better understood with the help of PLS-SEM analysis. By implementing GEEAR, MACEAR, EAREAR, EEEAR, and SEEAR, organizations can improve their OGR, OFP, and OES by increasing the likelihood that stakeholders will have a positive impression of their EAR.

According to the results, there is a strong and positive correlation between GEEAR and SPEAR. Based on the results of this study, businesses that use GEEAR procedures tend to have higher SPEAR levels. Based on these results, GEEAR-focused businesses are more likely to be sustainability reporting and environmental accounting trailblazers. For those involved, such information is crucial. The findings also demonstrated that stakeholders can benefit from utilizing general EAR components, such as stakeholder knowledge, regular checks for environmental and sustainability impacts, and environmental audits to maintain standards, particularly in relation to their perspective on EAR. The study's conclusions align with those of [Senn and Giordano-Spring \(2020\)](#), which asserted that inadequate regulatory guidance restricts environmental disclosure. Furthermore, [Bracci and Maran \(2013\)](#) demonstrated that the constraints of accounting regulation hinder the "internalization" of environmental externalities and fail to facilitate a proactive environmental system. Our research results are also consistent with this.

Statistical analysis also shows a positive correlation between MACEAR and SPEAR. The results indicate a greater commitment to EAR in the daily operations of companies using MACEAR. Better tracking of energy use, expenses, waste management, pollution, disposal, recycling, packaging, and containers may result from MACEAR's efforts. It may also encourage more individuals to participate in budgeting, performance reviews, investment appraisals, and life-cycle assessments. According to our study, businesses that use MACEAR are more inclined to engage in environmentally conscious practices. They may be able to improve their brand, appeal to clients who are environmentally sensitive, and achieve their sustainability goals if this happens. Finally, stakeholders have a more favorable impression of EAR as a result of this work. The findings of our study corroborated and validated the conclusions reached by [Alewine and Stone \(2013\)](#), which examined the impact on attention and investment of integrating environmental data into a sustainability balanced scorecard (SBSC) and the structuring of environmental accounting information. Additionally, [Pires, Alves, and Fernandes \(2023\)](#) found that decision-makers' satisfaction with management accounting information increases when there is a

strong alignment between environmental uncertainty, the use of broad-scope and timely management accounting information, and the application of management accounting methods. These findings also align with the results of our investigation.

Evidence from the study also points to a favorable and statistically significant correlation between the two variables. This indicates that stakeholders have a more positive impression of EAR when businesses consistently employ EAREAR methods, which enhance environmental results. Organizations need an all-encompassing environmental management strategy to tackle environmental spending and commitments, statutory audit effects, environmental disclosures, stakeholder engagement in daily EAR practice improvements, and separate environmental reporting. The study's findings validated and reinforced the conclusions of [Darnall et al. \(2009\)](#), which indicated that the utilization of internal, external, and combined environmental audits is increasingly prevalent in society; however, there is limited understanding of the stakeholder influences related to their application, primarily because prior research has regarded them as a homogeneous management practice. An EEEAR and SPEAR positive correlation was found, which is statistically significant. According to this study, operational SPEAR levels tend to be higher in companies that prioritize EEEAR activities. To improve stakeholder morale and engagement, it is recommended that EEEAR be promoted. This entails establishing the EAR action plan, establishing the green agenda evolution, helping to coordinate and staff environmental efforts, and ensuring that the EAR board is represented. The study's findings, corroborated with the study by [Zaman Mir and Shiraz Rahaman \(2011\)](#), presented a stakeholder analysis of environmental management techniques and a two-dimensional performance framework (economic and environmental) aimed at achieving environmental excellence.

There is a positive and statistically significant relationship between SEEAR and SPEAR, according to the research. According to the findings, companies that prioritize SEEAR are more likely to have a strong dedication to environmental responsibility. Businesses that prioritize SEEAR will certainly receive accolades for their eco-consciousness. Engaging in social activities, launching awareness campaigns, and involving stakeholders are all instances of this kind of behavior. These factors have the potential to improve a company's reputation and entice environmentally concerned buyers and financiers. As a result, stakeholders perceive EAR favorably. The study's findings corroborated and affirmed the research conducted by [Bellucci, Simoni, Acuti, and Manetti \(2019\)](#) which elucidates how sustainability reporting and stakeholder engagement processes function as mechanisms of dialogic accounting (DA), a critical accounting approach that facilitates stakeholder expression and examines the impact of dialogic interactions on the content of sustainability reports.

In addition, the research reveals a positive and statistically significant relationship between OGR and SPEAR. A solid reputation and widespread support from key constituencies are hallmarks of EAR-first companies, according to the findings. A better reputation, more trust from customers, investors, and communities, and more positive feelings and acceptance of the brand could result from the corporation taking more responsibility for its environmental, social, and governance (ESG) activities. Stakeholder participation and support for sustainability initiatives may both increase with higher EAR. The study's results corroborate those of [Afum et al. \(2021\)](#), who examined the synergistic impact of internal environmental management (IEM) and green human resource management (GHRM) on corporate reputation (CR), environmental performance (EP), and financial performance (FP). The research concluded that there is a positive and statistically significant relationship between SPEAR and OFP. Businesses that use EAR practices are more likely to increase their ROA, ROE, EPS, and TCI. According to the results of this research, EAR techniques can boost financial results. The study's findings confirmed those of [Emmanuel and Ifeanyichukwu \(2021\)](#) identified the impact of environmental accounting on corporate profitability and valuation, and found that while environmental cost reporting greatly affects return on equity, its impact on net profit margin, return on equity, and Tobin's Q is influenced by firm size, board size, length of time listed on the PSE, and geographic location.

The findings demonstrate the relationship between OES and SPEAR. They claim that encouraging EAR may help the company become more eco-conscious by raising levels of environmental responsiveness, accountability, and conservation efforts inside the company. The study's results, corroborated by [Rahman and Islam \(2023\)](#), demonstrated that green accounting significantly enhances both energy efficiency and environmental performance. Furthermore, energy efficiency largely mediates the connection between green accounting and environmental performance. The research indicated that economic, environmental, and social

practices of green accounting significantly enhance energy efficiency and environmental performance, with environmental practices exerting the greatest influence.

CONCLUSION

Environmental sustainability in all activities is essential to ensuring environmental governance. Businesses should concentrate their environmental, social, and governance initiatives on improving the environment and reducing any environmental risks and hazards from their daily activities. Through the provision of regular reports, environmental EAR cover activities and projects meant to lessen environmental impacts and advance environmental sustainability across the business's operations, supply chain, and interactions with staff, clients, and communities. Stakeholders are seen as an essential component for guaranteeing EAR. Since it is closely related to the successful implementation of EAR practices at the corporate level, how stakeholders see EAR is a crucial research subject. In addition to financial success, organizational commitment to environmental governance is another factor used to assess performance. Accordingly, this study aimed to determine what factors shape the stakeholders' perceptions of EAR. This research also assessed the perceptions of stakeholders regarding EAR and the impact of SPEAR on environmental sustainability, financial performance, and business reputation and goodwill. Results were derived via the PLS-SEM method. The results shed light on the complicated causal relationships between these factors and provide useful information for improving stakeholders' views of EAR and fostering environmental sustainability. Following are some of the factors that, according to the PLS-SEM analysis, greatly improved the way stakeholders perceived EAR: EAR's general elements, EAR's management accounting and costing, EAR's external audit and reporting, EAR's environmental excellence, and EAR's societal engagement. The results also showed that stakeholders' views on SPEAR positively impacted the business's financial performance, environmental sustainability, and reputation and goodwill.

Policy Implication

The results of this study have both significant theoretical and managerial implications.

Theoretical Contribution

This study examines, for the first time in Bangladesh, how EAR's key elements including management accounting and costing, external audit and reporting, environmental excellence, and societal engagement significantly improve stakeholders' perceptions of environmental accounting and reporting. As a result, the findings will add to the existing knowledge. Additionally, this study indicates that stakeholders' views on environmental reporting and accounting influence financial performance measures such as return on assets (ROA), return on equity (ROE), total comprehensive income (TCI), earnings per share (EPS), environmental sustainability, and the business's reputation and goodwill. Therefore, management can approach environmental issues from a different theoretical perspective. Finally, developing countries might use this study as a guide to better understand how various stakeholders perceive EAR.

Managerial Implications

Organizations, especially those in coastal regions like Bangladesh, may learn a lot about effective management of GEEAR, MACEAR, EAREAR, EEEAR, and SEEAR from this research. Through the application of effective strategies for GEEAR, MACEAR, EAREAR, EEEAR, and SEEAR, organizations can improve SPEAR, according to this study. Successful stakeholder management in EAR has the potential to improve a company's image, bottom line, and long-term viability. In the long run, these findings will boost the company's reputation and image. The results of the research could therefore be useful in advocating for these elements.

Second, the study demonstrates the synergistic effects of GEEAR, MACEAR, EAREAR, EEEAR, SEEAR, and SPEAR on environmental improvement. Managers may include these ideas in their sustainability initiatives to enhance their effect on environmental performance.

Lastly, the study emphasizes the need for SPEAR, GEEAR, MACEAR, EAREAR, EEEAR, and SEEAR. Managers may use the study's results to view sustainable management as an integrated system rather than a collection of separate operations if they aim to maintain a positive public image, reputation, financial success, and environmental protection.

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INSTITUTIONAL REVIEW BOARD STATEMENT: The Ethical Committee of the Institute of Bangladesh Studies, University of Rajshahi, Bangladesh has granted approval for this study on 06 October 2025 (Ref. No. IBS/E-23/25/690).

TRANSPARENCY: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

COMPETING INTERESTS: The authors declare that they have no competing interests.

AUTHORS' CONTRIBUTIONS: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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