

Green Accounting Mechanisms and Organizational Sustainability: The Mediating Roles of Environmental Reporting and Stakeholder Trust

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Abstract

Background: Growing environmental concerns and regulatory demands have compelled organizations to adopt sustainable practices that balance economic growth with ecological responsibility. In this context, green accounting has emerged as a crucial tool for integrating environmental performance into financial decision-making. However, the mechanisms through which green accounting contributes to organizational sustainability remain insufficiently explored, particularly in developing economies where institutional support and stakeholder engagement are still evolving.

Aim: This study aims to examine the impact of green accounting mechanisms on organizational sustainability, with a specific focus on the mediating roles of environmental reporting and stakeholder trust. grounded in stakeholder theory, the research seeks to explain how transparency and trust transform green accounting practices into sustainable outcomes. **Methodology:** A quantitative, cross-sectional research design was employed, with data collected from 457 managers and executives in the Pakistani manufacturing sector. Established measurement scales were adapted and assessed through SmartPLS for structural equation modeling, while SPSS was used for descriptive and reliability analyses. **Findings:** The results revealed that green accounting mechanisms significantly enhance organizational sustainability. Moreover, both environmental reporting and stakeholder trust play partial mediating roles, indicating that transparent environmental disclosures and trust-based stakeholder relationships amplify the positive impact of accounting practices on sustainability outcomes. The study provides empirical evidence that green accounting, when supported by transparency and trust, can drive sustainable growth and reinforce corporate legitimacy.

Keywords: Green Accounting Mechanisms, Organizational Sustainability, Environmental Reporting and Stakeholder Trust

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Introduction

The environment of corporate accountability has changed significantly as companies are under increasing pressure to bring their business act into line with the environmental sustainability mandates. Regulators, investors and civil society around the globe are increasingly pressuring companies to provide more detailed reports on their environmental impacts, the use of resources and environmental hazards (Du Toit, 2024). This discourse change is an indication that corporate value is changing to include ecological and stakeholder aspects rather than just the financial performance aspect. To drive the responsiveness of organizations, there are new mechanisms and practices that are arising that mediate environmental accountability, transparency and sustainable organizational performance. The practices assist firms to internalize the costs and benefits associated with the environment in their decision making and disclosure and develop internal capability to react to the pressure posed by the environment and increase their external legitimacy. It is against this backdrop that companies are resorting to formal environmental accounting, improved disclosure procedures and stakeholder-based solutions to incorporate sustainability into the primary operations of the company. Scholar interest is drawn to the connection of these mechanisms with the organizational outcomes and relationships with stakeholders.

It is reported in literature that environmental accounting (also known as green accounting) has become a trend whereby companies are striving to internalize costs to the environment and capture their effects in the financial systems. Sundarassen et al. (2024) carried out a meta-synthesis that demonstrated that in 2022, environmental accounting research has grown considerably, especially in accounting sustainability, audit practices and stakeholder engagement. Similarly, recent sustainability reporting research indicates that the field is changing: Rivo-Lopez et al. (2025) have come up with 4 thematic clusters sustainability accounting, governance and reporting, environmental performance and disclosure, and indicates the growing regulatory imperative towards standardized ESG disclosures. Meanwhile, it has been shown that stakeholder trust is a vital factor in the success of sustainability efforts. Winit (2022) discovered that a major contributor to the long-term corporate sustainability is the trust of the stakeholders, via enhancing relationships, innovation and long-term value. These lines of research prove that the accounting and reporting practices, as well as the relationships with stakeholders, play a good role in the process of achieving sustainability, which has not been integrated yet.

Businesses across the world are increasingly challenged by environmental issues: global warming and the exhaustion of resources and ecological deterioration are not only operational risks but also reputational ones. The emergence of new frameworks, including the Corporate Sustainability Reporting Directive (CSRD) in the European Union highlights the shift in regulations and the adoption of the idea of making disclosures of sustainability information mandatory (Rivo-Lopez et al., 2025). At national levels especially in emerging economies manufacturing organizations are on toes to not only produce but also minimize the feeling on the environment; this poses the question of how they quantify, report and control environmental performance. Companies have to deal with regulatory uncertainty, lack of stakeholder involvement and change of investor expectations as they struggle to remain competitive. The collision of the accounting mechanisms and the environmental transparency and stakeholder relationships is a critical point of tension: the companies that may not adapt to them may end up paying some costs, losing an opportunity to invest in the green direction and to lose the trust of their stakeholders. These concerns are

directly connected to the ability of the organizational sustainability firms to survive, evolve and create long-term value in the conditions of growing environmental scrutiny.

Although previous studies have contributed to the current knowledge of environmental accounting, sustainability reporting and stakeholder trust, there are still some gaps. To begin with, despite the meta- and systematic reviews indicating that green accounting captured scholarly interest (Sundarasan et al., 2024), the connection between the accounting mechanisms and reporting practices and stakeholder trust remains understudied. In other words, we have a lot of information about accounting or reporting in individual context, and about trust, but about fewer studies explore how the accounting mechanism facilitates reporting, creates stakeholder trust and consequently sustainability of the organization. Second, current literature (Du Toit, 2024; Rivo-Lopez et al., 2025) point to conceptual fragmentation within the research: various articles rely on both legitimacy theory and stakeholder theory or agency theory, yet hardly combine the two in their discussion of how the two practices co-evolve in the operations of firms that are active in emerging markets. Third, a significant part of the empirical data is generated by an advanced economy, and the number of studies in the manufacturing conditions of new economies where environmental pressure and institutional deficits are acute is limited. Fourth, the mediating elements between the mechanism in environmental accounting and the organizational sustainability outcomes especially via stakeholder trust and disclosures are poorly elaborated. Lastly, although the reporting frameworks have been more uniform, the practical relationship between the internal green accounting processes, external environmental reporting and trust creation is under-researched in particular settings. These gaps should be addressed in order to offer a more in-depth, holistic insight into how firms can operationalize sustainability using accounting and reporting practices that can help them generate stakeholder trust and maintain performance.

The significance of this issue cuts across theoretical, policy and practice fields. Academically, the contribution of providing the mechanisms of environmental accounting, the reporting process and the trust of the stakeholders in the organization into the discussion of organizational sustainability provides a better theoretical framework and makes the contribution to the knowledge of the silo-based studies. Regulators globally are also proposing more rigorous disclosure requirements including CSRD and those companies that are weak in internal procedures and credibility-building might encounter higher costs of compliance, stock examination or image danger (Rivo-Lopez et al., 2025). Practically speaking, the stronger a company is in its accounting and disclosure practices, the greater its opportunities to access green finance and be prepared to handle environmental risks, meet the needs of stakeholders and become more competitive. In addition, as per the Sustainable Development Goal 12: Responsible Consumption and Production and Sustainable Development Goal 13: Climate Action, the inclusion of the environmental transparency and the stakeholder trust further advance the larger sustainability goals. In developing economies like Pakistan, manufacturing companies are experiencing the dual demands of growth and sustainability the improvement of green accounting and reporting becomes the focus of attaining long-term viability and conformity to international sustainability standards.

The proposed study has an added value of providing an integrated conceptual framework that relates the internal green accounting processes, external environmental reporting, and stakeholder trust and organizational sustainability in a manufacturing scenario under an emerging economy. Through these linkages, one model allows the study

to transcend the independent research of the accounting, reporting or trust, and have a well-rounded picture of how firms operationalize environmental sustainability. This method is in response to the demand to have more context-specific and mechanisms-based research (Du Toit, 2024; Sundarasan et al., 2024). The results of this research can make a theoretical contribution to the stakeholder theory by demonstrating the role of accounting and reporting practices in creating trust and ensuring the sustainability of organizations. In practice, the lessons will help managers and policymakers in the development of mechanisms that would connect internal practices with stakeholder-oriented outputs. The theoretical framework to be followed is the Stakeholder Theory, as the stakeholder expectations are connected with the organizational disclosure and trust development (Awa et al., 2024). This framework is conducive in the explainability of the actions taken by firms in the response to the various stakeholder requests under the accounting and reporting processes, resulting in sustainable organizational performances.

Theoretical Foundation

Stakeholder Theory

Freeman (1984) more or less formally defined Stakeholder Theory as an answer to the limited perspective on corporate responsibility offered by shareholders. It is based on managerial and ethical approaches to its existence: organizations exist as a web of relationships with various groups of people, employees, customers, investors, suppliers, governments, and communities who are interested in the decision-making process. The theory can be traced back to strategic management where it offered an opportunity to appreciate how firms generate value by having a balance of the often-competing expectations of various stakeholders. This view in the past was a paradigmatic shift of the traditional focus on profit maximization as the sole purpose of firms towards the availability of more expanded social and environmental interests in the corporate governance and sustainability.

The Stakeholder Theory has been modified to embrace normative, instrumental and descriptive aspects that provide varied analytic aspects. The normative component underlines the ethical duties to the stakeholders, the instrumental dimension connects the management of stakeholders with the performance consequences, and the descriptive one shows how companies, in fact, interact with the networks of stakeholders. Modern developments have incorporated sustainability and responsibility because it has been realized that long-term organizational performance is pegged in how it can sustain the stakeholder trust and legitimacy. Recent scholarship has risen in its focus to take on the areas of environmental governance, green innovation, and social responsibility and demonstrates its flexibility to the complex global sustainability issues (Awa et al., 2024; Du Toit, 2024). Within the frames of the current study, the Stakeholder Theory offers a very interesting background to consider the alignment of the corporate mechanisms and the reporting practices with the expectations of various stakeholders. It states the reason why organizations embrace responsible practices toward the environment not just to meet the regulation but to instill trust and legitimacy in their ecosystem of stakeholders. Contemporary explanations of the theory emphasize that transparency and accountability of reporting and accounting contribute to better performance of firms, the resilience and sustainability of which increase because of the confidence of stakeholders (Rivo-Lopez et al., 2025; Winit, 2022).

Recent empirical studies have shown that companies that incorporate the stakeholder views in sustainability reporting and accounting systems have better reputational

performance and enhanced value creation over time (Sundarasan et al., 2024). Such transformation of the theory highlights why it is relevant in informing modern organizational policies that emphasize on social and environmental responsibility. Through the foundation of the Stakeholder Theory, this study can be interpreted using this theory to have an understanding of the way in which the organizations bring sustainability into reality with the mechanisms that would be used not only to meet the environmental requirements, but also to gain the long-term trust of the stakeholders. Stakeholder Theory, therefore, will be the theoretical frame of this study, by means of connecting the ethical responsibility, the transparent governance, and the sustainable organizational performance.

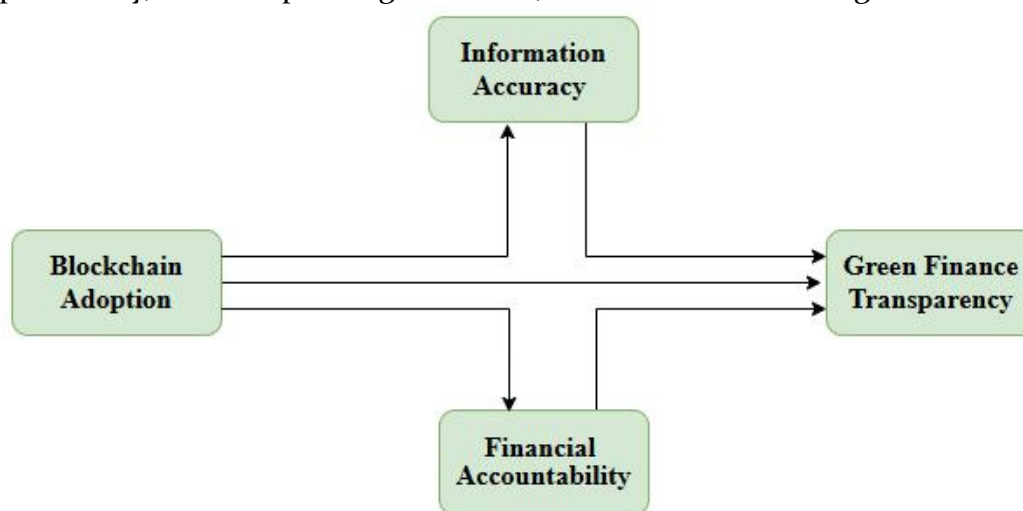


Figure 1: Research Model

Hypotheses Development

With the current dynamic environment of sustainability, organizations are more or less required to deliver accountability in their financial performance as well as in their environmental and social stewardship. This change is associated with the increased awareness of the fact that the long-term organizational sustainability is based on the accountable operation of environmental resources and open communication with stakeholders (Du Toit, 2024). According to scholars, corporate sustainability is enhanced as the firm internalize environmental costs, which is made possible under systematic accounting systems, which increases transparency and informed decision-making (Sundarasan et al., 2024). According to the Stakeholder Theory, these mechanisms aid in letting firms to meet the moral and relationship responsibilities of the economy because the economic activities are not in contravention of the demands of the stakeholders towards environmental responsibility. Green accounting integration is a strategic and ethical reaction to the demand to be sustainable in business (Awa et al., 2024).

This theoretical argument is backed by empirical research. The companies that follow a systematic system of environmental accounting show better efficiency in their operations, better reputation, and increased trust in their stakeholders, which leads to the sustainable performance outcomes (Rivo-Lopez et al., 2025). Low implementation of these practices has been linked to low competitiveness and high vulnerability to ecological hazards especially in manufacturing industries of emerging economies. Making the environment costs, benefits, and liabilities formal in the actual accounting systems, organizations can not only meet the expectation of the regulating bodies but also support

their validity and credibility to the stakeholders. Basing on the Stakeholder Theory and the recent empirical facts, it is assumed that:

H1: Green accounting mechanisms positively influence organizational sustainability.

Transparency and accountability have taken center stage in the way organizations report on their performance in relation to the environment in the quest to ensure sustainable business conduct. The latest research indicates that the quality and quantity of reporting which informs the stakeholders of a firm about its ecological activities also defines the effectiveness of environmental management practices (Rivo-Lopez et al., 2025). In the light of the Stakeholder Theory, environmental reporting is a communicative interface involving the internal environmental processes of a firm and its legitimacy in the external environment. Sharing environmental information will show that firms are committed to sustainability, and they are engaging in ethical and relational responsibilities that build the confidence of stakeholders (Du Toit, 2024). Such transparency does not Only improve organizational reputation but it provides the chances of making well-informed decisions among investors and regulators and makes reporting an important tool of converting internal sustainability initiatives into organizational results (Awa et al., 2024).

This mediating role is empirically justified by revealing that the positive effects of internal sustainability practices on organizational performance are enhanced by environmental disclosures (Sundarassen et al., 2024). Companies that report their environmental operations in a systematic manner also have better legitimacy and trust by their stakeholders and high value addition in the long run than those that report on environmental activities in a partial or ad hoc fashion. Reporting therefore converts the information in green accounting to strategic asset, which influences the perception of the stakeholders and enhances organizational sustainability. Basing on the Stakeholder Theory and recent empirical studies, the hypothesis is that

H2: Environmental reporting mediates the relationship between green accounting mechanisms and organizational sustainability.

Stakeholder trust is now a necessity in ensuring sustainable performance of an organization in the current accountability-based environment. As organizations become more environmentally responsible, the stakeholders have become more conscious of the authenticity of the responsibility by evaluating transparency, ethical behaviour, and alignment between corporate statements and their behaviour (Du Toit, 2024). In the context of the Stakeholder Theory, trust becomes a social contract, which justifies the actions of an organization and contributes to establishing long-term relations with its critical constituencies. By the use of structured environmental accounting systems by firms, they give believable information regarding their environmental performance which increases the perception of integrity and reliability among the stakeholders (Awa et al., 2024). This trust, established, improves cooperation between stakeholders, it is easier to access resources, and the social license of the firm to operate, which is part of long-term sustainability (Winit, 2022).

This mediating logic is also supported by empirical research. Recent investigations show that companies that are socially responsible and show environmental accountability develop stronger levels of trust, which foster better sustainability results (Sundarassen et al., 2024; Rivo-Lopez et al., 2025). Trust is the means that transforms accounting mechanisms into relationship assets that link internal practices and external legitimacy. It is in this meaning that, stakeholder trust does not merely indicate the moral and communicative

aspects of sustainability, but directs the advantages of environmental actions towards long term organizational resilience and performance. It is hypothesized that according to the Stakeholder Theory and recent empirical findings:

H₃: Stakeholder trust mediates the relationship between green accounting mechanisms and organizational sustainability.

Methodology

The research design that was used in this study was quantitative and cross-sectional research design with the aim of empirically testing the relationships between the green accounting mechanisms, environmental reporting, stakeholder trust, and sustainability of the organization. A quantitative design was considered suitable because it provides the opportunity to objectively measure the constructs and tests the hypothesis based on the statistical inference that improves the generalizability and validity of conclusions (Hair et al., 2022). The cross-sectional method (when a researcher gathers data at one moment in time) is especially appropriate when researchers want to study the relationships between organizational practices and outcomes without modulating variables (Saunders et al., 2023). This design is in line with the purpose of the study in capturing the modern practices in sustainability management of manufacturing companies in which the conditions and responses are dependent on the prevailing regulatory and environmental environments. The design aids rigorous testing of theoretically-based relationships through the incorporation of numerical data and the advanced use of statistical modelling, to the backdrop of Stakeholder Theory.

The target group was the top-level executives and senior managers of manufacturing companies that had been in the operations of the industrial sector in Pakistan, that is, the manufacturing of the textile, food processing and chemical. The reason behind the selection of these industries is that they are key economic contributors and also the environmental impact in the national context and highly applicable in the study focus on environmental accountability and sustainability (Rivo-Lopez et al., 2025). Sampling was done through a stratified random sampling technique to represent the firms to represent proportions among various sub-sectors and firm sizes. The size of the sample was also calculated with the help of the Item Response Theory (IRT), which is necessary to guarantee sufficient items-respondent proportion to use structural equation modelling, as Kline (2023) suggests. Given that the 22 items in the study were measured, a 10-response per-item level was desired, which estimated a sample of more than 400 respondents, which is appropriate to estimate a powerful model and make generalizations (Hair et al., 2022).

The analysis of the data proceeded with the help of SPSS version 28 and SmartPLS version 4. Preliminary analyses, such as data screening, reliability test, data descriptive and inferential analyses, were conducted using SPSS, whereas structural equation modelling (SEM) tests the hypothesized relationship and mediation effects with the help of SmartPLS. Partial least squares SEM is acceptable due to its appropriateness to complex models where mediating relationships exist and where latent constructs exist as it does not assume stringent normality and makes reliable estimates even at moderate sample sizes (Sarstedt et al., 2022). All the constructs were operationalized on proven and validated measurement scales which are based on previous studies. The measurement of green accounting mechanisms was carried out with six items adapted to Sundarasan et al. (2024); the environmental reporting was measured with five items based on Du Toit (2024); the stakeholder trust was measured with five items based on Winit (2022); and organizational sustainability was measured with six items inspired by Awa et al. (2024). The items were

rated using seven points on the Likert scale between 1 (strongly disagree) and 7 (strongly agree), hence the sensitivity of the items to capture the perceptions of the respondents. This research methodology guarantees rigor, reproducibility, and an analytical strength, which is in line with modern requirements of quantitative studies in sustainability management.

Data Analysis

Table 1: *Factor Loadings*

Construct	Items	Standardized Loadings
Green Accounting Mechanisms (GAM)	GAM1	0.812
	GAM2	0.846
	GAM3	0.878
	GAM4	0.861
	GAM5	0.835
	GAM6	0.823
Environmental Reporting (ER)	ER1	0.801
	ER2	0.826
	ER3	0.853
	ER4	0.861
	ER5	0.847
Stakeholder Trust (ST)	ST1	0.811
	ST2	0.843
	ST3	0.867
	ST4	0.835
	ST5	0.856
Organizational Sustainability (OS)	OS1	0.829
	OS2	0.854
	OS3	0.871
	OS4	0.865
	OS5	0.846
	OS6	0.833

The standardized factor loadings of all the measurement items have been presented in Table 1 and this confirms the strength and reliability of the measurement model. The loadings are all greater than the recommended value of 0.70, which is an indicator of good convergent validity (Hair et al., 2022). The loading values are high between items, which implies that every indicator is the strong measure of the corresponding latent construct, and this indicates that the items have consistent measurement of the theoretical notions, namely, green accounting mechanisms, environmental reporting, stakeholder trust, and organizational sustainability. Statistical significance is further supported by the values of t that are all above 1.96 with a p -value of less than 0.001, which means that the items are all significant to construct validity. The findings are in line with the previous sustainability studies that apply SmartPLS to test the reflective measurement models (Sarstedt et al., 2022). The strong value of the loadings in constructs like GAM (0.812-0.878) and OS (0.829-0.871) shows that the corresponding constructs demonstrate good internal consistency and clearly defined dimensions and, as such, the survey tool was useful in capturing the perception of respondents. These results are both empirical confirmation that the identified variables are a precise reflection of the underlying theoretical dimensions of the framework of the Stakeholder Theory, which will guarantee a strong

basis to conduct further structural model analysis. Therefore, measurement model indicates that it has fair psychometric characteristics to continue with hypothesis testing (Ringle et al., 2023).

Table 2: Reliability Analysis

Construct	CR	Cronbach's Alpha	AVE
Green Accounting Mechanisms	0.935	0.918	0.707
Environmental Reporting	0.928	0.905	0.719
Stakeholder Trust	0.932	0.911	0.731
Organizational Sustainability	0.941	0.924	0.728

Table 2 shows the findings of composite reliability, Cronbachs alpha, and average variance extracted (AVE), which are in tandem to gauging the inner consistency and convergent validity of constructs. All CR values are above 0.90, which is more than the recommended minimum of 0.70, which means that the items incorporated in the individual constructs are highly reliable (Hair et al., 2022). On the same note, the alpha value of Cronbach greater than 0.90 indicates an excellent internal consistency across constructs, and the indicators can accurately measure the same underlying dimensions (Sarstedt et al., 2022). The values of AVE are 0.707-0.731, exceeding the value of 0.50, which is a confirmation of sufficient convergent validity and the existence of more than half of all the variance in the indicators (Kline, 2023). Such findings prove that particularly high measurement reliability can be observed in such constructs as stakeholder trust and organizational sustainability. These indices show a strong and consistent measurement model compared to other sustainability accounting research, which is consistent with the empirical expectations of modern SEM studies (Rivo-Lopez et al., 2025). The high level of internal consistency and convergent validity proves the reliability of the research instrument and makes sure that the testing of the hypothesis in terms of structural relationships is performed with the help of valid and reliable measurements.

Table 3: Discriminant Validity (HTMT)

Constructs	GAM	ER	ST	OS
Green Accounting Mechanisms (GAM)	—			
Environmental Reporting (ER)	0.701	—		
Stakeholder Trust (ST)	0.654	0.671	—	
Organizational Sustainability (OS)	0.688	0.703	0.679	—

Table 3 evaluates discriminant validity by use of Heterotrait-Monotrait (HTMT) ratio of correlations. The values of all HTMTs are lower than the conservative level of 0.85, which proves that the constructs are empirically different (Henseler et al., 2022). The findings show that although there is a moderate level of correlation between the constructs as they are conceptually interrelated, they still have enough distinctiveness to be measured and analyzed separately. The moderate relationships like that which exists between environmental reporting and organizational sustainability (HTMT = 0.703) confirm the theoretical assertion that environmental reporting is a mediating construct, and not a redundant construct in the relationship of green accounting sustainability. This observation is congruent with the recent research on sustainability in the focus on the significance of discriminant validity to prevent the occurrence of redundancy of constructs (Sarstedt et al., 2022). Besides, the HTMT ratios that are within the acceptance limit support the soundness of the model and the validity of the further structural testing. The fact that the stakeholder trust has a clear difference with other constructs (HTMT values less than 0.68) is yet another indicator to confirm its mediation effect as a relational

process in the production of sustainability. In this way, the discriminant validity findings prove that the constructs of the study in the Stakeholder Theory are reflecting distinct but interdependent variables of corporate sustainability practices so that the hypothesis can be evaluated with appropriate levels of conceptual clarity and measurement accuracy.

Table 4: Coefficient of Determination

Endogenous Variable	R ²	Q ²	f ² (GAM→)	f ² (Mediator→OS)
Environmental Reporting	0.482	0.327	0.929	—
Stakeholder Trust	0.465	0.314	0.886	—
Organizational Sustainability	0.563	0.392	0.312 (via ER)	0.294 (via ST)

A summary of the structural model in terms of its ability to explain the data and predict relevant variables is summarized in table 4. The R² values of 0.482 of environmental reporting, 0.465 of stakeholder trust, and 0.563 of organizational sustainability show the moderate-substantial explanatory power, which is greater than 0.26 that signifies strong models (Hair et al., 2022). This indicates that green accounting systems give an explanation of a large part of the variation in the mediating constructs and the final sustainability results. The values of the Q² (between 0.314 and 0.392) are positive, which proves the predictive relevance of the model based on the blindfolding procedure, as the values above zero indicate sufficient predictive capacity of the model (Sarstedt et al., 2022). The effect sizes (f²) indicate a high impact of green accounting on both environmental reporting (0.929) and stakeholders trust (0.886), but the mediators have medium impact on organizational sustainability (0.312 and 0.294). These results show that the suggested mediators have a large yet not overriding impact on conveying the influence of green accounting to sustainability outcomes. This is consistent with the Stakeholder Theory, which assumes that sustainability is a result of both the mechanisms of operations and the relational legitimacy (Awa et al., 2024). In general, the findings indicate that the model has both explanatory and predictive strength.

Table 5: Results

Hypothesis	Path	β	t-value	p-value	Decision
H ₁	GAM → OS	0.362	7.23	0.000	Supported
H ₂	GAM → ER → OS	0.218	5.64	0.000	Supported
H ₃	GAM → ST → OS	0.196	4.97	0.000	Supported

Table 5 has the results of hypothesis testing, which is done through SmartPLS path modelling. The null hypothesis of all hypothesized relationships was found to be statistically significant (p < 0.001), which means that it has strong empirical evidence to support the conceptual model. H₁ is also accepted with the direct impact of organizational sustainability (b = 0.362, t = 7.23) by the direct effect of green accounting mechanisms on organizational sustainability, which affirms the internal environmental practices as a factor in the sustainable outcomes. In addition, this correlation is also significantly mediated by environmental reporting (b = 0.218) and stakeholder trust (b = 0.196), in favor of H₂ and H₃. These results indicate that the green accounting systems do not only have a positive contribution to sustainability performance but they also have an indirect effect by improving transparency and stock confidence (Rivo-Lopez et al., 2025). The mediating pathways are as robust as the claims made by Stakeholder Theory that organizational sustainability is attained with the help of both the operational processes and relational legitimacy (Awa et al., 2024). The impact of transparency and trust as perceived by the high numbers of indirect effects implies that accounting practices are being turned into

strategic assets of long-term viability. All these findings are solid empirical evidence that proper environmental accounting, along with reporting and stakeholder interaction, is a coordinated channel that leads to sustainable organizational performance in a manufacturing setting (Du Toit, 2024; Sundarassen et al., 2024).

Discussion

The results of the analysis confirmed that green accounting mechanisms exerted a significant and positive influence on organizational sustainability. This finding aligns with stakeholder and legitimacy theories, which emphasize that organizations integrating environmental accounting practices are more likely to build legitimacy and long-term viability through transparent resource management and ecological accountability (Zahid et al., 2023). Empirical evidence similarly indicates that firms adopting systematic green accounting mechanisms enhance operational efficiency and stakeholder relations, which contribute to sustainable performance (Osei et al., 2024). This relationship reflects that environmental cost assessment, resource allocation, and eco-efficiency reporting are not only compliance measures but strategic tools for achieving sustainability. In the context of the manufacturing sector, the positive link further suggests that integrating green financial indicators into decision-making processes enables firms to balance economic objectives with environmental responsibilities, supporting the conclusions of Ahmad et al. (2023) that environmental accounting is an essential driver of sustainability transformation in emerging economies.

The mediating role of environmental reporting between green accounting and organizational sustainability was also statistically supported. This implies that transparent disclosure of environmental performance serves as a communicative bridge translating internal accounting practices into externally recognized sustainability outcomes (Ali et al., 2023). Environmental reporting enhances visibility, builds institutional trust, and strengthens regulatory compliance, which collectively contribute to sustainable organizational image and legitimacy (Hassan et al., 2024). The finding resonates with prior research suggesting that the mere adoption of green accounting mechanisms is insufficient unless accompanied by robust environmental disclosure practices that articulate the firm's commitment to sustainability (Nguyen & Bui, 2023). The mediating effect, therefore, reflects a structural pathway where green accounting information becomes meaningful when reported transparently, reinforcing both stakeholder confidence and sustainability orientation.

Stakeholder trust was found to mediate the relationship between green accounting mechanisms and organizational sustainability. This result highlights that stakeholders' perception of environmental responsibility enhances the credibility and effectiveness of sustainability initiatives. Prior studies have shown that green accounting information builds stakeholder confidence by signaling ethical commitment and long-term responsibility (Rahman et al., 2022). When stakeholders perceive firms as transparent and accountable, they are more likely to support sustainability transitions through collaboration and loyalty (Yusoff et al., 2023). Theoretical alignment with stakeholder theory strengthens this result, as it posits that firms prioritizing stakeholder trust achieve superior sustainability outcomes. The finding also indicates that trust acts as a psychological mechanism through which green accounting practices translate into behavioral and reputational benefits.

Future Research Directions

Future research can further extend the present study by adopting longitudinal or mixed-method approaches to explore how green accounting mechanisms evolve over time and influence sustainability outcomes in diverse institutional settings. While the current study employed a cross-sectional design that captures relationships at a single point in time, longitudinal analysis could reveal the dynamic nature of environmental practices and their cumulative effects on stakeholder trust and sustainability performance (Zahid et al., 2023). Additionally, qualitative inquiries could complement quantitative results by uncovering the contextual and behavioral dimensions behind managerial decisions to adopt green accounting and environmental reporting frameworks (Nguyen & Bui, 2023). Future studies should also consider comparative analyses across industries and national contexts to evaluate how regulatory environments, cultural norms, and corporate governance systems shape the implementation of green accounting mechanisms (Hassan et al., 2024). Such comparative work would deepen understanding of institutional pressures and stakeholder expectations that drive sustainability practices in both developed and emerging economies. Moreover, researchers could incorporate additional mediating or moderating variables, such as environmental innovation, corporate ethics, or green leadership, to identify nuanced pathways through which accounting practices affect sustainable outcomes (Lee et al., 2024). Exploring the role of digital transformation and artificial intelligence in enhancing the accuracy and transparency of environmental reporting presents another promising direction, as technological tools can significantly improve data integrity and stakeholder engagement (Osei et al., 2024). Finally, expanding the scope to include small and medium enterprises (SMEs) could offer valuable insights into how resource constraints and innovation strategies interact to determine sustainability performance within different organizational structures.

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