

Frequency and Quality of Environmental Audits and Environmental Sustainability in Malaysian Public

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Frequency and Quality of Environmental Audits and Environmental Sustainability in Malaysian Public Institutions: Evidence from Stakeholder and Legitimacy Perspectives

Abstract:

This paper looks into the role of extended audit tasks in ensuring a sustainable reporting system by improving corporate accountability and transparency. To narrow down on the topic of sustainability auditing, it emphasizes the role of sustainability auditing in protecting the interest of the investor and ensuring that the greater and more demanding global Environmental, Social, and Governance (ESG) standards are met. Based on the information of 700 participants in Malaysian institutions of the public both on the national and regional level, the results indicate that the state-level ESG audits are positively linked to increased ESG disclosure, with the frequency of audit being a major contributor. The bigger the public organization, the more likely it is to adopt a sustainability audit. The research paper is relevant to the sustainability assurance literature in that it highlights the necessity of standard and similar sustainability measurement systems. It also proposes an obligatory sustainability audit of bigger entities and encourages the application of artificial intelligence and blockchain technologies to increase the efficiency of the audit, decrease its costs, and improve the financial transparency of the Malaysian setting.

Keywords: *Sustainability auditing, ESG reporting, corporate transparency, regulatory compliance, Malaysia, investor confidence, AI in auditing, blockchain in auditing, financial performance, corporate accountability.*

1. Introduction

The need for a sustainable approach to business practice is now important in the choice of business practice. It requires a business to publish some form of disclosure on the environmental social governance (ESG) framework reporting (Dathe, T. et al., 2022). Sustainability reports, like all other incorporated reports, need to be audited, as the credibility hinges on the fact that, as noted, misstatements, greenwashing, and fraud need to be prevented. Global standards require third-party validation (Ribeiro, M. D. C., & Oliveira, J. 2023). Most scholars like to think that auditing leads to accountability for self-reported sustainability. Janicka, M., & Sajnóg, A. 2022 state that companies who practice self-auditing and provide negative reports on their performance are a rare exception. Organizations that use robust auditing frameworks to clean their reports minimize the risks of false reporting and gain the trust of their investors. The availability of audited reports enables governmental departments and regulators to conduct their governance on business participation in adjusted national and international business goals for sustainability. (Zhang, J. & Wang, Y. 2022). The sustainability reporting practice in Malaysia was accelerated with the enforcement of the Malaysian Code on Corporate Governance (MCCG) alongside Bursa Malaysia's Sustainability Reporting Guidelines.

The frameworks compel listed companies to disclose their ESG performance with emphasis on materiality, stakeholder engagement, and integration with long-term sustainability (Chua, K. T., & Hae-Young, B. 2024). Moreover, the Global Reporting Initiative (GRI) and the Task Force on Climate-related Financial Disclosures (TCFD) influence how Malaysian corporations disclose their activities (Isiaka, A. S. 2022). Also, see Voluntary Sustainability Reporting and Financial Performance: Evidence from Global Reporting Initiative (Alsayegh, M. F., et al., 2020). Audits foster the credibility of sustainable disclosure by the independent verification of ESG data, which integrates to mitigate the misleading information. The system supports businesses to enhance their sustainability initiatives. Auditors exceed mere regulatory compliance in sustainability reporting to value creation by closing performance gaps, which allow firms to properly align sustainability goals and operational execution (Adaui, C. R. L. 2020). External audit services minimize sustainability fraud risk by their verification of corporate sustainability efforts and fraud risk. In the Malaysian market, and for the first time in the literature, independent ESG assurance is being sought (Margerison, J., et al., 2020). Thus, independent assurance is particularly challenging for many businesses, especially small and medium-sized enterprises, to secure.

According to Tombolesi (2023), Small and Medium-sized Enterprises (SMEs) whose barriers to sustainability reporting are decreased due to financial incentives, along with regulation and support subsidies, are audited for sustainability. Value and enact sustainability (social and environmental) audits within an organization. The audits for such social sustainability measures, however, are hindered due to inconsistent criteria. The expense of obtaining independent verification for social sustainability, gaps in professional competency to undertake such audits, and audit resource constraints also emerge as critical blockers for social sustainability audit progress. Lessambo (2018) also examined the root causes of such blockages in social sustainability audit progress. The consequences of such gaps include inefficient and inaccurate ESG (Environmental, Social, and Corporate Governance) audits and evaluations, as well as diminished stakeholder confidence and trust. Therefore, regulatory bodies need to collaborate with auditing and ESG framework development while enhancing

auditor competency and resource support for audit training to address such gaps. Higher education institutions need to implement ESG auditing and training in their curricula, courses, and programs, as Gladilina, I., Hajiyev, et al. (2024) suggest, to aid aspiring auditors. Strengthened law and resource support to curb greenwashing are vital to developing oversight and control procedures for social sustainability auditing.

The consequence of unnecessary staffing in Malaysian agencies has been undeniable in enhancing the monitoring of sustainability disclosures, which then could be followed by the implementation of more robust penalties for the inaccuracies and falsifications in the sustainability disclosures (Pandit, J. M., & Paul, B. 2023). Reliance of the company on third parties for mandatory sustainability assurance should promote the credibility of the sustainability report and minimize fraudulent ESG disclosures.

Companies should evaluate sustainability auditing as part of an auditing framework as well as an integrated approach in risk management and decision-taking. The interface between corporate governance and ESG policies should not be placed on the binder shelf for legal compliance. Through the assignment of ESG sustainability Rezaee, Z., 2017. The integration of AI and blockchain would allow more reliable and efficient auditing around the ESG framework. AI in auditing and increasingly reporting on ESG sustainable performance allows the reporting of inconsistencies, misinformation, and falsifications and the verified true ESG value of the provided performance.

The unique characteristics of blockchain technology facilitate stakeholders' acquisition of accurate and reliable ESG information. Its immutable ledger contributes to the transparency of sustainability disclosure (Hassan, P., Passing, F., & Gómez, J. M., 2023). Malaysian auditors routinely focus on the technological advances and incorporate focused innovations in auditing that could sharpen the accuracy and efficiency if technology is embraced within the sustainability agenda. Rather than implementing dynamic risk mitigations and real-time sustainability monitoring that surge the business case to develop continuous ESG disclosure and live ESG reporting systems, the industry is still shackled with periodic audits. In reporting the progress of the country, the main business focus is to bolster the culture of accountability within corporations that target the advancement of economic objectives of the country with the correlated responsibility of the corporations in attaining long-term sustainability goals. Improving the connection between auditing and sustainability reporting will require ongoing regulatory evolution, enhanced cross-industry collaboration, and ESG competence. For these corporations, the transparency of the reporting will be vital as they will be geared toward achieving global sustainability goals. Together with their investors, auditing professionals, and cross-industry collaboration, Malaysian regulators and businesses will position Malaysia to be a global leader on sustainability governance in support of a global sustainable economy (Adam, M. I. A. B., et al., 2024).

ESG disclosure assessment relies on various checklists and scoring systems built by various agencies, such as Refinitiv and Bloomberg, which assign scores to ESG disclosures. However, these agencies assess the extent and quality of the disclosed information differently (Pyles, M. K. 2020). The difference in the disclosure criteria employed by these various agencies results in a lack of sufficient standardization of ESG reporting across companies and industries. Moreover, the ratings, which are based on public information, are unable to capture the complete picture of the sustainable management practices and qualitative operational elements of the organization (Ateik et al., 2023). Consequently, academic

scholars circle these issues and advocate for the establishment of a unified measurement standard to assess ESG reporting. This document seeks to address the limitations of prior research, which overly relied on rating agencies (Escrig-Olmedo, E., et al., 2019), by proposing a novel ESG disclosure index. This index was constructed based on a comprehensive literature review and considers both the Saudi Arabian and the global standards on ESG reporting (Ali, N. B. M., Ali Hussin, et al., 2025). The proposed index seeks to determine the extent to which Saudi Arabian corporations disclose ESG information. This study provides definitive evidence regarding the various ways (using a self-constructed index) ESG data can be quantified to address the existing gap in the literature on ESG measurement (Ahmad et al., 2025).

1. Literature Review

The transparency and credibility of corporate sustainability information improve with the auditing of sustainability reports, which is why numerous academic studies concentrate on this topic. Since the need for sustainability reporting has become imperative, independent assurance remains a pivotal component of corporate governance. Various studies focus on the development of sustainability auditing along with assessment methodologies and the regulatory frameworks that influence their implementation in different geographical areas, particularly Malaysia. Simnett, Vanstraelen, and Chua (2009) identify the expanding demand for market sustainability assurance services, which increases stakeholders' trust in the information disclosed concerning the ESG. Firms tend to acquire external sustainability guarantees, which improves their reputational standing, and stakeholders perceive them as more responsible, thus asserting the argument for mandatory assurance (Ali et al., 2025). As stated in KPMG (2020), the independent sustainability assurance trend has been growing worldwide as companies are seeking external validation of their sustainability relative to their ESG to attract responsible investors. Independent environmental assurance improves corporate accountability concerning the commitments made in their sustainability reports, thereby enhancing their environmental performance as noted by Moroney, Windsor, and Aw (2012). The regulatory environment surrounding sustainability in Malaysia has been discussed in the studies by Bursa Malaysia (2018) and Jamil, Alwi, and Mohamed (2021).

The Bursa Malaysia sustainability reporting guidelines present a significant step forward in the incorporation of ESG elements into corporate operations. A challenge for the ongoing auditing of corporate sustainability performance is the absence of standard methodologies. Jamil et al. (2021) argue that regulations in highly environmentally and socially impacted industries should promote the quality of sustainability audits. Ahmad Rashid and Gow (2020) are of the opinion that Malaysia must legislatively require independent ESG assurance to effectively combat greenwashing and reduce fraudulent claims on sustainability. While several studies have noted that more companies in Malaysia are practicing sustainability reporting, they are in a difficult position between mandatory compliance and the much higher substantive sustainability disclosure expectations that audits could help close (Mohammed, M., et al., 2024). According to sustainability reporting literature, there are many barriers to auditors assessing sustainability information. It is the interdisciplinary nature of sustainability audits that poses the greatest challenge. It includes the need for scientists specializing in the environment and social governance and in rapidly evolving and complex industries. Research by Deegan and Unerman (2011) illustrates the inconsistency of

the audit practices that arise from the reporting frameworks (GRI, TCFD, SASB) and the different quality and scope audits that result from the divergent auditing criteria.

Maniora (2018) clarifies that the need for improved auditing stems from inconsistent understandings of the reporting standards, which, in turn, accounts for the divergence of corporate sustainability reports across the industry. While recognizing the need for specific ESG-related risk assessment frameworks, it is necessary to note that Maroun (2020) suggests that the still predominant sustainability audit frameworks built on financial audit paradigms need to change. (Adam, M. I. A. B., et al., 2024).

Academic inquiries into the role of advanced technologies in sustainability auditing have increased. In their studies, Alles (2019) and Appelbaum et al. (2017) show how artificial intelligence (AI) and blockchain technologies improve audit precision and identification of discrepancies, thereby augmenting the reliability of ESG reports. Organizations that use blockchain technology can sustain an unalterable record of sustainability data, which increases transparency and reduces intentional fraud. AI analytical tools enhance auditors' productivity in sustainability audits by identifying patterns of greenwashing and discrepancies in ESG disclosures. The study by Tiron-Tudor, Deliu, Farcane, and Dontu (2021) shows how the use of digital tools in auditing minimizes reliance on human input in producing data-based audits. As noted by researchers such as Abdelrahman Adam Abdalla et al. (2024), data analytics enables future performance audits in sustainability predictive analytics, and this results in time-sensitive auditing, which significantly improves assessment methodologies.

Literature also emphasizes the necessity for auditors to improve their understanding of the various dimensions of ESG. Unlike traditional financial audits, the role of a sustainability auditor extends to assessing non-financial metrics related to the environment, human rights, and ethical governance within organizations. When sustainability audits integrate financial audits effectively and the ESG professionals are included in the audit planning, the results are of superior quality (Aljounaidi et al., 2024). The research of Pflugrath, Roebuck, and Simnett (2011) reported that auditors providing training geared toward ESG deliver more reliable and detailed assurance, enabling organizations to prevent deceptive sustainability claims from being communicated to the public.

Furthermore, the current research has limited evidence on how this variable affects corporate financial performance, investor confidence, and profitability. It is particularly pertinent to investigate whether mandatory regulations are more effective than self-imposed assurance mechanisms in auditing. The implementation of AI, blockchain, and big data in the Malaysian auditing industry is not well researched. The research on the effectiveness of auditing standards and their compliance with the law in Malaysia is also underdeveloped. The need for sustainability audits in all business sectors is evidenced by the need to balance research on stakeholder confidence and affordable solutions for sustainability audits in the audit process for SMEs.

3. Foundation Theories

3.1 Stakeholder Theory

This study analyzes how stakeholder theory enhances transparency, accountability, and responsible governance within Malaysian public institutions. According to Freeman (1984), stakeholder theory posits that organizations must address the certainties of various groups,

including stakeholders, authorities, investors, and the public, to maintain their validity and operational success. Sustainability auditing draws on this theory to elucidate why organizations engage in voluntary disclosure of auditable sustainability (Environment, Social, and Governance (ESG) criteria) information to stakeholders. In this context, Malaysian sustainability audits seek to bridge the trust gap between organizations and their stakeholders, especially in the context of growing ethical and environmental governance standards in Malaysia. This theory is useful in this study because of the growing pressure on organizations from diverse stakeholders (e.g., regulators, investors, and the public) to implement and prioritize fully transparent and auditable ESG criteria governance practices.

3.2 Legitimacy Theory

To maintain the public's validity perception, organizations satisfy social norms and respond to regulatory frameworks (Suchman, 1995). Responding to societal and governmental pressures, public institutions enact sustainability audits and ESG reporting frameworks. With the sustainment of audits at appropriate intervals, sufficiency to align operational audits to MCCG national standards and audits to the GRI and TCFD global standards, institutions, and the risk of exposure to greenwashing, and attain market legitimation. The establishment of sustainability audit theories creates impactful interdependencies, under which both institutional transparency and environmental performance are positively transformed (Shaban, O. S., & Zarnoun, R. S. 2024). Based on these frameworks, the research findings about the effect of audit frequency on sustainability performance, which we discussed, are explained theoretically along with the challenges of implementation. This theory helped to show how public institutions align with societal norms and regulatory expectations. Within Malaysia's context, institutions undergo coercive pressures from regulatory bodies, like Bursa Malaysia and MCCG, and normative pressures from global reporting standards, like GRI and TCFD.

3.3 Frequency of Environmental Audits

The empirical results are counterintuitive in respect of depicting the existence of a negative relationship between the quality of environmental audits and environmental sustainability outcomes within Malaysian public institutions. referenced by Bebbington & Larrinaga (2024) and Lawal et al. (2024) In terms of the Stakeholder Theory, this result implies that very technical and compliance-driven audit processes can lead to institutional priorities being focused on the meets and fits of formal audit demands by regulatory bodies and governmental agencies instead of the substantive environmental concerns of more widely distributed stakeholders such as citizens and local communities. Quality audits may require a lot of documentation, sophisticated tools, and discipline that consume organizational resources and managerial time and hence constrain the ability of institutions to initiate timely and practical environmental initiatives (Gong et al., 2024; Xia, 2024).

Based on the Legitimacy Theory, one of the legitimacy-seeking mechanisms that may be embraced by the public institutions is high-quality environmental audits. In this regard, audit quality is a pseudo-instrument to show that it is complying with regulatory requirements and global reporting standards and not a tool to positively impact the environment. Symbolic compliance can lead to a situation whereby institutions focus on perfection of audit rather than environmental performance; hence, the negative relationship is observed. The elicited

finding highlights the need to strike the right balance between both technical audit rigor and operational feasibility to make sure that audit quality can translate into a real sustainability deliverables cycle (Rakipi & D'Onza, 2024; Zhao et al., 2024).

3.4 Quality of Environmental Audits

In public institutions, environmental assessments are conducted based on a certain degree of precision, a wide-ranging approach, and dependability for a successful outcome. The determinants of high-quality audits rest on the employment of sophisticated methodologies and tools, coupled with meticulous methodical documentation (Ghorbaniyan et al., 2024; Tan, Chan, et al., 2024). These aspects ensure that results yield actionable outcomes that provide targeted solutions to remediate operational and environmental deficiencies. Based on the theoretical framework, audit quality engages a direct correlation with the depth of assessment undertaken, culminating in positive environmental outcomes as well as better compliance with the regulations (Jarboui and Moalla, 2024; Kolsi and Al-Hiyari, 2024; Li et al., 2024).

4 Methodology

This study investigates sustainability auditing in Malaysian public institutions, and the research employed a quantitative explanatory design (Cozens et al., 2023; Mahdi, 2023). Structural Equation Modelling (SEM) was used to analyze the relationships contained in the theoretical framework, for which SmartPLS software was employed (Cozens et al., 2023; Mahdi, 2023). This approach enabled the study to analyze the constructs in the proposed hypotheses and establish both direct and indirect relationships (Hichri, 2023; Kaup et al., 2023; Weirich & Turner, 2023).

The sample for this study included 700 individuals from public sector organizations dealing with environmental management at both the regional and national levels. The individuals included members of the organizations' management, environmental auditors, and operational staff, and so captured a wide range of perspectives and responsibilities. The sample was designed so that there was a balance of organizations that varied in the frequency and quality of their environmental audits, enabling a meaningful balance in demographic composition; 52% of the sample were men, and 48% were women.

Structured questionnaires based on the works of Ferreira et al. (2024), Wambwa et al. (2023), and Wu et al. (2024) and incorporating latent and observed variables were used as the data collection tool. The structured questionnaires were divided into several sections.

Table 1: Constructs: Latent and Observed Variables

Variable	Latent Variables	CODE	Observed Variables	Question
External indicators	Frequency of Environmental Audits	FA1	Number of Audits	How often are environmental audits conducted in your institution?
		FA2	Completed Audits	How often are the scheduled environmental audits fully completed?
		FA3	Planned Audits	How often are environmental audits planned in a timely manner?
	Quality of Environmental Audits	QA1	Regulatory Compliance	How often do audits ensure compliance with environmental regulations?
		QA2	Tools Used	How often are specialized tools used during environmental audits?
		QA3	Technical Report	How often do audits generate detailed technical reports?
Internal indicators	Institutional Transparency	IT1	Public Reports	How often are audit results published and accessible to the public?
		IT2	Citizen Perception	How often do citizens perceive transparency in the environmental processes of your institution?
		IT3	Process Clarity	How often are audited processes clear and understandable for relevant parties?
	Environmental Sustainability	ES1	Waste Reduction	How often have audits promoted waste reduction in the institution?
		ES2	Efficient Resource Use	How often do audits contribute to the efficient use of resources like water or energy?
		ES3	Controlled Emissions	How often do audits foster control of pollutant emissions?
		ES4	Ecosystem Conservation	How often do audits promote actions contributing to ecosystem conservation?

Note: Prepared by the authors.

Path Coefficients for Latent Variables from Table 1

This table presents the path coefficients for relationships between the latent variables identified in Table 1 (Frequency of Environmental Audits, Quality of Environmental Audits, Institutional Transparency, and Environmental Sustainability)

Table 1 shows the relationship between latent and observed variables, which are evaluated using certain survey questions. External indicators, which include frequency and quality of environmental audits, are assessed through the number of audits conducted, adherence to regulations, and technical documentation. The internal indicators include institutional transparency and environmental sustainability, which are represented by public reporting,

waste reduction, and conservation of ecosystems. These questions provide the data required to evaluate institutional performance on these variables. The defined organization has an unambiguous relationship between the abstract components and the concrete outcomes that can be quantified.

4.1. Model Convergence

The evaluative study focused on sustainability audits in Malaysian public institutions confirmed convergence in the structural equation model for the reliability and stability of the model. In accordance with the specified limit of 300 iterations, the SmartPLS algorithm converged in the 12th iteration. Consequently, within the different time intervals, the estimated divergent parameters reached a stable point. Convergence analysis shows that the model accurately reflects the latent variable relationships of the environmental audit frequency and quality with the institution's transparency and sustainability of the environment. Empirical data supports the structure of the model, considering the rapid convergence and stable output it provided for hypothesis testing.

4.2 Ethical Aspects

The research study highlighted the complete ethical standards to ensure the research validity and credibility. During the design, data collection, and data analysis phases, the study placed the ethical considerations at the forefront and achieved this by observing the respective guidelines on research ethics at the national and international standards. The research prioritization was the protection of the respondents' rights, their privacy, and their dignity, all of which were to be safeguarded for the quality of the research to be maintained. The study respondents provided informed consent to participate in the research prior to data collection. The respondents were fully informed of the study aims, their role in the study, the measures in place to ensure confidentiality and anonymity, and the right to withdraw. They all were provided guarantees of protective counter-identification of their responses to the study so that their identities were traced. The code-response system allowed for counter-identification protection and was in place to create a system where the study participants were assured that they could express their concerns without fears of adverse consequences.

Ethical principles additionally steered the researchers in the handling and analysis of the data. Data that was securely stored to prevent unauthorized access was used solely for the purpose of the study. The study employed rigorous statistical methods to reduce bias, which found objective results that precisely reflected the relationships among the variables under analysis. The researcher maintained full disclosure regarding any possible conflicts prior to the research while upholding total academic integrity.

5. Results and Discussions

Table 2: Construct Validity and Reliability

Variable	Cronbach's Alpha	Rho A	Composite Reliability	Average Variance Extracted (AVE)
Environmental Sustainability	0.802	0.944	0.869	0.634
Frequency of Environmental Audits	0.818	0.895	0.892	0.737
Institutional Transparency	0.898	0.984	0.935	0.829
Quality of Environmental Audits	0.84	0.967	0.898	0.748

Note: Prepared by the authors.

Path Coefficients for Latent Variables from Table 2

This table presents the path coefficients for relationships between the latent variables evaluated in Table 2 (Frequency of Sustainability Audits, Quality of Environmental Audits, Institutional Transparency, and Environmental Sustainability)

The table assesses construct validity and reliability based on Cronbach's Alpha, rho A, Composite Reliability (CR), and Average Variance Extracted (AVE). Every variable satisfies the requirements of Cronbach's Alpha ≥ 0.70 , CR ≥ 0.70 , and AVE ≥ 0.50 which shows the constructs have strong reliability, internal consistency, and convergent validity.

Table 3: Discriminate Validity

Variable	Environmental Sustainability	Frequency of Environmental Audits	Institutional Transparency	Quality of Environmental Audits
Environmental Sustainability	0.796	0.476	0.413	0.349
Frequency of Environmental Audits	0.476	0.859	0.757	0.885
Institutional Transparency	0.413	0.757	0.911	0.725
Quality of Environmental Audits	0.349	0.885	0.725	0.865

Note: Prepared by the authors.

The table delineates discriminant validity as per the Fornell-Larcker criterion. The diagonal values (square root of AVE) exceed the off-diagonal values (inter-construct correlations). This vividly illustrates that each construct diverges from the other, as each construct possesses greater variance with its indicators than with its definitional others.

Theoretical Model

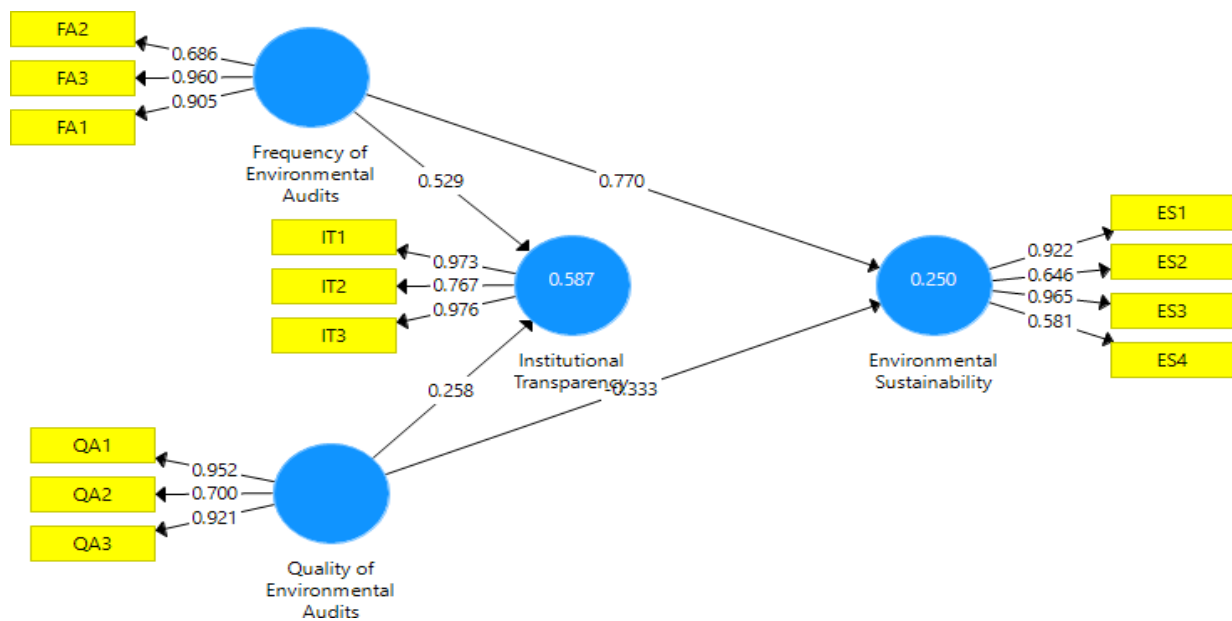


Figure 1. Relationship between Variables in a Reflective Model

The structural model outlines the relationships amongst the latent variables Frequency of Sustainability Audits, Quality of Environmental Audits, and the Institutional Transparency and Environmental Sustainability built through their observable indicators. Results indicate the frequency with which a company undertakes sustainability audits directly influences Institutional Transparency (0.529) and Environmental Sustainability (0.770) to a considerable degree. Quality of Environmental Audits showed a lesser positive effect on Institutional Transparency (path coefficient = 0.258) and at the same time negatively influences Environmental Sustainability (path coefficient = -0.333). Most variables of the outer model performed well and showed strong indicator loading as demonstrated by FA2 (Completed Audits), which achieved a loading of 0.960, and IT1 (Public Reports) at 0.973. Environmental sustainability indicators, particularly ES1 (Waste Reduction, loading = 0.922) and ES3 (Controlled Emissions, loading = 0.965), score strongly, demonstrating high loading values. Variable Institutional Transparency exercises considerable predictive power, as demonstrated by an R² of 58.7%, whereas Environmental Sustainability demonstrates moderate predictive power with an R² of 25%. Although the model illustrates the frequency of sustainability audits significantly influences the outcomes, the environmental audit quality does not, as the model suggests, and requires further research.

Table 4. Path Coefficients

Path			Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Statistics (O/STDEV)	P Values
Frequency of Environmental Audits	->	Environmental Sustainability	0,770	0,768	0,226	3,406	0,001
Frequency of Environmental Audits	->	Institutional Transparency	0,529	0,530	0,165	3,212	0,001
Quality of Environmental Audits	->	Environmental Sustainability	-0,333	-0,310	0,231	1,438	0,001
Quality of Environmental Audits	->	Institutional Transparency	0,258	0,267	0,161	1,604	0,109

Note: Prepared by the authors.

Results indicated an increase in the frequency of sustainability audits results in an increase in environmental sustainability (0.770, $p=0.001$) and institutional transparency (0.529, $p=0.001$). An explanation worth considering is that, despite the potential for the analysis-requiring inconsistencies and adverse factors during implementation, the quality of sustainability audits may represent an adverse, albeit weak, correlation to (-0.333, $p=0.001$) environmental sustainability. It seems that audit quality and its relational components do not enact any meaningful contribution to transparency enhancement (0.258, $p=0.109$) according to the model. Research results established audits as a core determinant, while recent studies confirmed this aspect through their findings on the effects of audit quality.

1. Conclusion:

The undertaken research determines the impact of the regularity of audits on the attainment of environmental sustainability. The specified audits have an upsurging positive impact on environmental audits with a path coefficient of 0.770 ($p=0.001$). The path coefficient demonstrates that environmental audits positively affect the adjustments made to activities on a regular basis. The established path coefficient of 0.770 on the frequency of audits within a predetermined duration indicates that predictable audits positively impact the attainment of a predetermined environmental sustainability. The positive impact of regular audits within a period enables stakeholders to facilitate the frequency of audits in their strategic environmental management processes. The openness of an entity or institution improves significantly with an increase in interval audits, which is seen within the path coefficient of 0.529 ($p = 0.001$). From the established path coefficient of 0.859, interval audits directly impact the internal control mechanisms, suggesting improvement on the trust placed on the institution or entity. This research establishes that the frequency of audits positively impacts the institutional trust of stakeholders, suggesting that audits be made available to the public in a consolidated report to improve transparency on the environmental audits performed.

A path coefficient of -0.333 ($p = 0.001$) indicated strong negative results concerning the relationship between the quality of a sustainability audit and environmental sustainability. The strong quality representation indicated by the AVE of 0.748 shows elevated standards; however, these findings exemplify a situation where the complex steps associated with high standards may inhibit execution or limit the adoption of certain recommendations. The relationship, therefore, does not advance the field because it demonstrates the need for the integration of highly technical standards for environmental audits with a more pragmatic approach to process design if the desired environmental results are to be achieved. In the

same assessment of environmental audits, a path coefficient of 0.258 with an AVE of 0.911 demonstrates a positive sizeable relationship with institutional transparency, albeit to a moderate degree.

2. Recommendations

To further enhance its sustainability ecosystem, the Malaysian government should, through its relevant agencies, set sustainability auditing as a reporting standard requirement for large corporations and instead provide incentives for corporations that adopt assurance services. Uniform ESG assurance framework systems should encourage standardization across various industrial sectors. Costly sustainability audits could be subsidized and financed through government subsidies, tax deductions, and the use of digital audit tools (e.g., artificial intelligence and blockchain) for efficiency and operational effectiveness. The accounting and auditing profession's regulatory bodies and the auditing profession should design and implement focused and specialized sustainability auditing training programs to meet the demand for competent ESG assurance providers across all sectors. Corporates should publish comprehensive, standalone, independent ESG reports, which would balance trust and investor transparency to foster genuine partnerships with their stakeholders. ESG audit robust reliability could be enhanced through sustainable transparency blockchain systems, while AI systems should analyze the data to detect sustainability risks. These proposals should improve compliance with ESG reporting and enhance trust among investors in sustainable reporting. Future research should focus on the impact of sustainability audits, cope with documentation costs for small to medium enterprises, and shed light on regional collaboration within ASEAN on sustainability audits. These suggested measures will promote a responsible and open corporate sector in all of Malaysia.

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