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Antecedents of Pentagon Fraud against Sustainability Reporting and Behavioral Organization as Intervening

Sutrisno Sutrisno*, Syahril Djaddang, Suratno Suratno

Universitas Pancasila, Jakarta, Indonesia. *Email: sutrisnosuhadi495@gmail.com

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ABSTRACT

In recent years, sustainability reporting has become a global necessity to ensure transparency, accountability, and ethical behavior in organizations. However, the increasing prevalence of fraudulent practices, particularly in the context of environmental, social, and governance (ESG) disclosures, presents a critical challenge. This study investigates the antecedents of fraud using the Pentagon Fraud Theory comprising pressure, opportunity, rationalization, competence, and arrogance—and examines the mediating role of organizational behavior on the quality of sustainability reporting in Muhammadiyah and Aisyiyah higher education institutions (PTMA) in Indonesia. This quantitative research applies the structural equation modeling–partial least squares (SEM-PLS) method to analyze data from 116 PTMA respondents, selected through proportional stratified and purposive sampling. The research model integrates fraud factors as exogenous variables, organizational behavior as an intervening variable, and ESG-oriented sustainability reporting as the endogenous variable. The findings reveal that pressure, opportunity, and arrogance significantly influence ESG reporting, both directly and indirectly through organizational behavior. Meanwhile, rationalization and competence did not show a significant direct effect, but competence had a significant impact when mediated by organizational behavior. Organizational behavior itself had a strong positive effect on the quality of sustainability reporting, underscoring its importance as a mediating factor. These results highlight the need for value-based governance systems rooted in ethics, transparency, and Islamic principles, especially in educational institutions. This study contributes to the development of the Pentagon Sustainability Theory and provides strategic recommendations for building an anti-fraud culture that supports responsible ESG reporting.

Keywords: *S*ustainability Reporting, Pentagon Fraud Theory, Organizational Behavior, Environmental, Social, and Governance Disclosures, Higher Education Institutions (PTMA) Indonesia
JEL Classification: M4, G4

1. INTRODUCTION

In recent decades, sustainability issues have become a global focal point as awareness of environmental, social, and governance (ESG) impacts in business and organizations has grown. Sustainability reporting has become one of the important instruments used by organizations to communicate their non-financial performance to stakeholders (Oncioiu et al., 2020). This report not only reflects the organization's responsibility toward the environment and society but also serves as a critical indicator of accountability and transparency in the modern era. By adopting ESG principles, organizations can develop long-term strategies that are not solely profit-oriented but also value social responsibility and sustainability (Berry et al., 2025).

Globally, sustainability reporting initiatives have made significant progress, with various organizations such as the global reporting initiative (GRI), sustainability accounting standards board (SASB), and task force on climate-related financial disclosures (TCFD) providing comprehensive frameworks for ESG reporting. According to KPMG (Business Continuity Management), sustainability reporting has also gained attention from major institutional investors like Blackrock and Climate Action 100+, who encourage companies to integrate sustainability information

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into their annual reports (KPMG, 2020). ESG reporting strategies are closely linked to risk management, operational efficiency, organizational reputation, and competitiveness in the global market (Lindholm and Oyeyemi, 2022; Tang and Higgins, 2022). Sustainability reporting has become a vital instrument in helping organizations set goals, manage risks, and understand long-term value for stakeholders.

Accountability plays a central role in sustainable development, especially through the implementation of global sustainability reporting frameworks such as GRI, SDGs, and ESG. The main challenge is ensuring transparent, participatory, and accountable reporting amidst the complexities of governance and the increasingly urgent need for multi-stakeholder collaboration. In practice, the challenge of accountability faces significant structural and institutional barriers. In many developing countries, governance structures that remain hierarchical limit the participation of non-state stakeholders, ultimately hindering inclusiveness and accountability in the achievement of SDGs (Shulla, 2020). Fragmentation and competition between global standards and local approaches also complicate the verification process and the consistency of sustainability reporting (Pope and Lim, 2020).

The risk of policy shrinking, due to an overemphasis on quantitative indicators, threatens to overlook important qualitative aspects that are harder to measure (Bexell, 2024). Horizontal accountability mechanisms, such as the roles of audit institutions, parliaments, and human rights organizations, are still weak in many countries. However, these mechanisms are essential to ensuring that sustainability is not just a slogan but is genuinely implemented and responsibly practiced (Torelli, 2021). Nevertheless, global standards such as GRI, ESG, and SDGs remain vital instruments in promoting transparency and consistency, as well as enabling cross-organization and cross-country comparisons (Pacheco et al., 2020). Digital transformation and data governance also strengthen sustainability reporting by improving the integrity and efficiency of information management (Simamora and Marbun, 2024).

Another growing challenge that has received significant attention is the emergence of fraud in sustainability reporting, commonly referred to as ESG fraud. This fraud includes legal violations, data manipulation, and the neglect of ethical principles in report preparation. When sustainability information is presented dishonestly, it not only undermines public trust but also threatens the overall sustainability of the organization (Rahman et al., 2023). The impact of fraud can be seen in the decline in the quality and timeliness of reporting, disruption in profit management, and reduced effectiveness of corporate social responsibility implementation (Wang and Wang, 2023). More broadly, ESG fraud creates substantial social and economic risks and hinders companies' contributions to sustainable development (Wang et al., 2024).

Preventing ESG fraud requires a holistic approach, including strong corporate governance, transparent reporting, external audits. Organizational culture and integrity play a vital role in building a trustworthy reporting system. An organizational culture that emphasizes public interest, continuous improvement, and open leadership encourages transparency across all operational aspects (Selvakumar et al., 2025). These values can be applied through ongoing ethics training and effective whistleblower protection systems (Artyukhov, 2024). Technologies such as blockchain and cloud-based reporting systems are also key tools in maintaining data integrity and reducing the risk of information manipulation (Adeusi et al., 2024).

The synergy between good governance, integrity values, stakeholder involvement, and the adoption of modern reporting technologies will create a more resilient and sustainable accountability ecosystem. In the context of increasing global pressure for transparency and accountability, organizations are required not only to comply with technical reporting standards but also to build ethical, participatory, and responsive systems that address social and environmental dynamics. Strong accountability, based on integrity and transparency, has been positively correlated with improved organizational performance and the achievement of sustainable development goals in a holistic manner (Omolo Awino, 2025).

Fraud cases such as corruption and financial statement manipulation are still rampant in Indonesia, demonstrating weak control systems in various public and private sectors. The main causes are weak internal oversight, low integrity among officials, and the suboptimal implementation of comprehensive internal control systems. Effective fraud prevention efforts require strengthening integrated control systems, improving organizational integrity, and involving responsive reporting mechanisms, such as whistleblowing systems.

The reality of fraud cases in Indonesia highlights concerning phenomena that require serious attention from all stakeholders. Fraud continues to occur in both the public and private sectors, including banking and government, with significant losses and negative impacts on public trust. The financial sector, particularly banking, records hundreds of fraud cases each year, indicating vulnerabilities in the control systems that need to be reinforced (Chhabra Roy and Prabhakaran, 2023). The main causes of fraud identified include weak internal control systems, low integrity of officials, and insufficient effective oversight to identify and prevent fraudulent practices early on.

The challenges of control systems in Indonesia involve various complexities that require a holistic and sustainable approach. Weak internal control systems (ICS) make organizations vulnerable to fraud, while strong ICS have proven effective in reducing fraud risks and maintaining the integrity of financial reports. Internal audits play a crucial role in fraud prevention; however, the quality of audits has not always had a significant impact if not supported by a well-integrated control system. Whistleblowing systems have proven effective in early fraud detection, but their implementation is still uneven across organizations.

Integrity and leadership are crucial factors in preventing fraud, where the integrity of employees and leaders significantly influences the creation of an anti-fraud culture, while competence and leadership have not always been consistently decisive factors. Collaboration between institutions becomes an important element

in strengthening fraud prevention efforts, where fraud prevention efforts will be more effective with synergistic collaboration between supervisory institutions and the implementation of an integrated control framework (Herliana and Kuntadi, 2023). The integration of these various elements requires long-term commitment and a systematic approach to create an organizational ecosystem that is more resilient to fraud risks and capable of building sustainable public trust.

The adoption of sustainability reporting in Indonesia is still dominated by voluntary approaches and is not yet widespread, despite regulations that encourage gradual implementation of this reporting. The level of adoption and the quality of sustainability reporting remain low, with significant variation across industries and companies, requiring systematic efforts to improve the effectiveness and quality of reporting on a national scale.

The status and regulations of sustainability reporting in Indonesia show gradual progress but still require further strengthening. Before mandatory regulations, sustainability reporting in Indonesia was voluntary and only carried out by a small number of companies, particularly those seeking to gain reputational benefits and legitimacy from responsible reporting practices. The POJK 51/2017 regulation began requiring sustainability reporting for public companies, but its implementation has not been consistent across sectors; by 2017, only about 30% of large companies complied with the regulation. Some companies have voluntarily adopted global standards such as the global reporting initiative (GRI), but there is yet to be a comprehensive and binding national regulation for all economic sectors (Mahaini, 2023).

The quality and challenges of sustainability reporting in Indonesia face various fundamental issues that require serious attention. The quality of sustainability reporting in Indonesia remains low, especially in terms of clarity, accuracy, and reliability of the information presented to stakeholders The readability of reports is also low, making the information difficult for stakeholders to understand and preventing it from being optimally used for decision-making Factors such as corporate governance, profitability, and company age significantly influence the adoption of reporting and the implementation of assurance sustainability reports. Certain industries, such as banking, demonstrate better reporting levels compared to other sectors, but in general, many companies still do not report independently or with quality.

Efforts and strategies to improve sustainability reporting require a comprehensive and coordinated approach from all relevant stakeholders. There is a need to harmonize reporting standards, strengthen consistent oversight, and provide incentives and institutional pressures to make sustainability reporting a common and quality practice across all sectors. Adjusting to local cultural values and consistent encouragement from regulators and professional associations can accelerate the adoption of broader and higher-quality reporting, thereby contributing optimally to sustainable development in Indonesia. The integration of these efforts is expected to create a more mature and responsive sustainability reporting ecosystem, meeting the needs of national sustainable development.

The financial services authority (OJK) plays a central role in driving the implementation of sustainability policies in Indonesia, particularly through the issuance of financial services authority regulation (POJK) 51/2017, which mandates the reporting of environmental, social, and governance (ESG) factors for financial institutions, issuers, and public companies. This policy aims to strengthen transparency, improve corporate governance quality, and promote sustainable investment in Indonesia's financial market as part of the national commitment to sustainable development.

OJK's role in sustainability policy demonstrates a comprehensive and sustained commitment through various strategic initiatives. OJK initiated the Sustainable Finance Roadmap Phase I (2015-2019) and Phase II (2021-2025) to enhance the understanding and capacity of business players toward a sustainable economy, with POJK 51/2017 serving as a key milestone requiring sustainability reporting. Specifically, POJK 51/2017 mandates financial institutions, issuers, and public companies to prepare and submit sustainability reports to OJK, thereby strengthening transparency and ESG accountability in the financial sector (Ardiana et al., 2025). OJK also encourages the development of environmentally friendly financial products, such as green bonds and green credits, and requires banks to prepare sustainable finance action plans (RAKB) as part of their operational strategies.

The impact and challenges of implementing OJK's ESG policy show varied results and require ongoing evaluation. OJK's ESG reporting policy has raised awareness and adoption of sustainability practices among business players, but the quality and scope of reports still vary and do not fully meet global standards such as the global reporting initiative (GRI). This regulation mostly applies to large companies and issuers, while micro, small, and medium enterprises (MSMEs) have not been actively encouraged to report on sustainability, creating a gap in the scope of implementation (Permatasari and Gunawan, 2023). Another significant challenge is the potential for greenwashing due to the lack of specific indicators and classifications in the regulations, necessitating stronger oversight and law enforcement to ensure the policy's effectiveness in promoting authentic sustainability practices (Chandra and Sacipto, 2022). Ongoing evaluation and refinement of the policy implementation are crucial to ensure the achievement of sustainable development goals in Indonesia's financial sector.

Organizational culture plays a critical role in fostering ethical behavior and sustainability in both the public and private sectors, serving as the foundation that determines how organizational values are translated into everyday operational practices. The main challenge lies in building a culture that truly instills ethical and sustainable values, which is greatly influenced by the quality of leadership, the effectiveness of value communication, and the integration of ethical principles into policies and practices comprehensively and sustainably.

The main challenge in building an organizational culture that supports ethics and sustainability involves several critical, interconnected aspects. Ethical leadership is a fundamental element, where leadership that emphasizes ethics is essential to

shaping an organizational culture that supports ethical behavior and sustainability. However, there is not always a direct link between an ethical culture and a reduction in integrity violations, making the role of leaders crucial in consistently instilling environmental, social, and governance (ESG) values (Zahari et al., 2024). Communication and shared values represent another significant challenge, where organizations must ensure that sustainability and ethical values are communicated effectively and internalized by all members, not only at the surface level (artifacts) but also at the deep assumptions and beliefs. Shifting culture toward a sustainability orientation requires a transformation at the level of values and fundamental assumptions of the organization, which is often difficult and requires consistent long-term commitment.

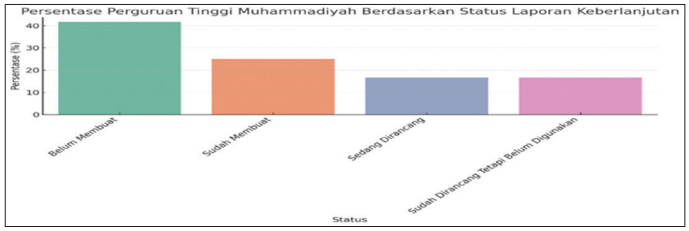
The differences in characteristics between the public and private sectors create unique challenges and approaches to building an ethical and sustainable organizational culture. The public sector tends to focus on democratic governance, public participation, and accountability, with the main challenge being the integration of ethics into bureaucracy and adaptation to global trends. Key factors for success in the public sector lie in sustainable leadership and employee ethos (Zahari et al., 2024). The private sector, on the other hand, places more emphasis on green innovation, corporate social responsibility (CSR), and sustainable profitability, with challenges including balancing ethics with business targets and cultural change. The key factors in the private sector involve ethical leadership, green culture, and effective CSR implementation.

Strategies and implications for building an ethical and sustainable organizational culture require a holistic and integrated approach. The integration of ethical values through strengthening ethics policies, regular training, and open communication is crucial for building a culture that supports ethical behavior and sustainability. The role of CSR and green culture has been shown to promote responsible behavior both inside and outside the organization, creating a positive, sustainable impact. Employee involvement in decision-making and the development of organizational values strengthens the ethical and sustainability culture, as it creates a sense of ownership and a stronger commitment to the organization's values. The integration of these various strategies requires long-term commitment and a systematic approach to create sustainable cultural change that has a positive impact on the overall performance of the organization.

Muhammadiyah and Aisyiyah higher education institutions (PTMA) spread across Indonesia and Malaysia continue to face similar challenges. Of the 163 PTMA institutions, only about 25% have prepared sustainability reports, while the rest have either not implemented them or are still in the planning stages (Rahayu et al., 2022). The low adoption rate is due to limited human resources, low understanding of ESG concepts, and the absence of formal requirements from higher education regulators.

Figure 1 above presents a bar chart depicting the percentage of sustainability reporting status among various Muhammadiyah Higher Education Institutions (PTMA). In this visualization, the category "Not Yet Created" dominates with approximately 41.67%, indicating that nearly half of the surveyed institutions

Figure 1: Number of PTMA based on Sustainability Report Status



Source: Data processed by the author, 2025

have not yet started the process of preparing sustainability reports. The category "Already Created" ranks second with 25%, showing that some institutions have already prepared and are utilizing the report as part of their sustainable governance practices.

Meanwhile, the other two categories, "In Progress" and "Created but Not Yet Used," each account for 16.67%, reflecting that some institutions are in the transitional phase toward implementation. Thus, this chart provides a clear visual depiction that most Muhammadiyah universities are still in the early stages of adopting sustainability reporting, with significant opportunities to accelerate and enhance capacity in this area.

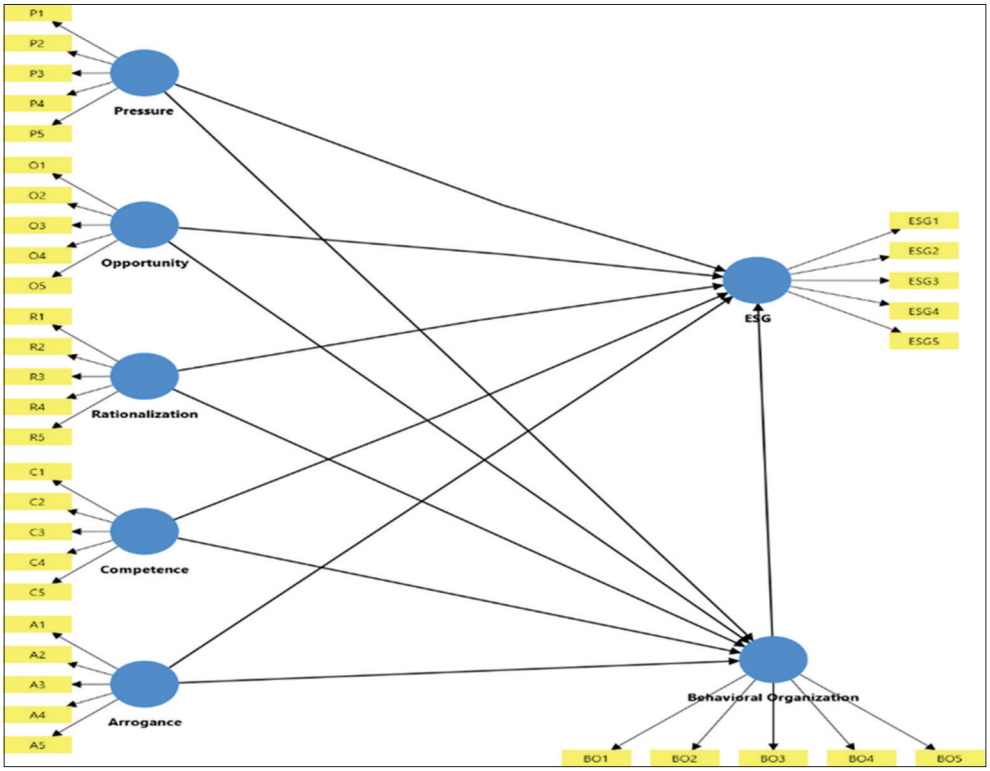
As Islamic institutions, PTMA have a moral and spiritual responsibility to uphold the principles of justice, transparency, and sustainability in accordance with the values of amar ma'ruf nahi munkar (QS. Ali Imran: 104). In this context, sustainability reporting is not merely a technical report but a reflection of the organization's integrity aligned with Islamic values.

Interestingly, various studies show that fraudulent practices can undermine the credibility of sustainability reports (Wafiroh and Wuryaningsih, 2024). One theoretical approach relevant to explaining the motivation behind fraud is the Pentagon Fraud Theory, which includes five elements: Pressure, opportunity, rationalization, competence, and arrogance. These five elements illustrate that fraud is influenced not only by control systems but also by individual behavior and values within the organization.

In this case, organizational behavior becomes an important element that can bridge the impact of fraud on the quality of sustainability reporting. A good organizational culture is believed to prevent fraudulent practices and enhance transparency (Sharma and Aggarwal, 2022). Organizational behavior reflects how individuals, groups, and organizational structures interact and influence overall organizational performance. In the context of sustainability reporting, organizational behavior can strengthen or weaken the institution's commitment to values of integrity and accountability.

In the GRI 205 reporting standards, it is explicitly stated that organizations must disclose anti-fraud policies, including controls for corruption and bribery risks, which serve as indicators of institutional integrity. Therefore, understanding the relationship between the antecedents of fraud and sustainability reporting, with organizational behavior as an intervening variable, is crucial for comprehensively explaining the dynamics of sustainability reporting.

Figure 2: Partial least squares measurement model



Source: SmartPLS, processed by the author, 2025

However, scientific studies examining the relationship between Pentagon Fraud, sustainability reporting, and organizational behavior in the context of higher education, particularly in higher education institutions (PTMA), are still very limited. Most studies focus on the corporate sector and only examine fraud from the perspective of internal control systems. Thus, there is an important research gap to be filled: Examining the role of fraud and organizational behavior in shaping sustainability reporting with integrity, particularly in PTMA environments with strong ethical and religious values.

This study introduces the original concept of the Pentagon Sustainability Theory, an extension of the Pentagon Fraud Theory, adapted to the context of sustainability reporting in higher education based on Islamic values. The theory integrates five dimensions of fraud (pressure, opportunity, rationalization, competence, and arrogance) with organizational behavior as a controlling mechanism to prevent distortions in sustainability reporting. It offers a new causal model, where fraud is seen as a risk antecedent and organizational behavior mediates its impact on sustainability reporting. This approach, which focuses on the role of organizational culture and ethics in sustainability reporting, is particularly novel in the higher education sector. Additionally, the study contributes to the development of behavioral accounting theory and strengthens value-based governance practices in higher education, especially in the context of transparency and sustainability.

This study aims to analyze the impact of antecedent fraud based on the Pentagon Fraud Theory on sustainability reporting, with organizational behavior as an intervening variable, in the context of Muhammadiyah and Aisyiyah higher education institutions (PTMA) in Indonesia. Specifically, it seeks to evaluate how pressure, opportunity, rationalization, competence, and arrogance affect sustainability reporting and organizational behavior, as well as how organizational behavior influences sustainability reporting. Additionally, the study will examine the indirect effects of these antecedent fraud elements on sustainability reporting through organizational behavior in PTMA environments.

This study aims to contribute to both theoretical and practical fields. Theoretically, it enriches the literature on nonprofit accounting and higher education by applying the Pentagon Fraud Theory to sustainability reporting and develops a theoretical model integrating organizational behavior as an intervening variable, a topic rarely empirically studied. It also addresses the gap in fraud and sustainability reporting research, which has primarily focused on the corporate sector. Practically, the research benefits PTMA and other higher education institutions by providing a basis for strengthening transparent and accountable sustainability reporting systems, assisting regulators in formulating sustainability reporting policies aligned with Islamic ethical values, and helping educational leaders understand the importance of organizational culture in preventing fraud and enhancing institutional accountability.

2. METHODOLOGY

2.1. Research Design

This study is a quantitative research employing structural equation modeling - partial least square (SEM-PLS) to examine both direct and indirect relationships among latent variables in

Figure 3: Measurement model after revision

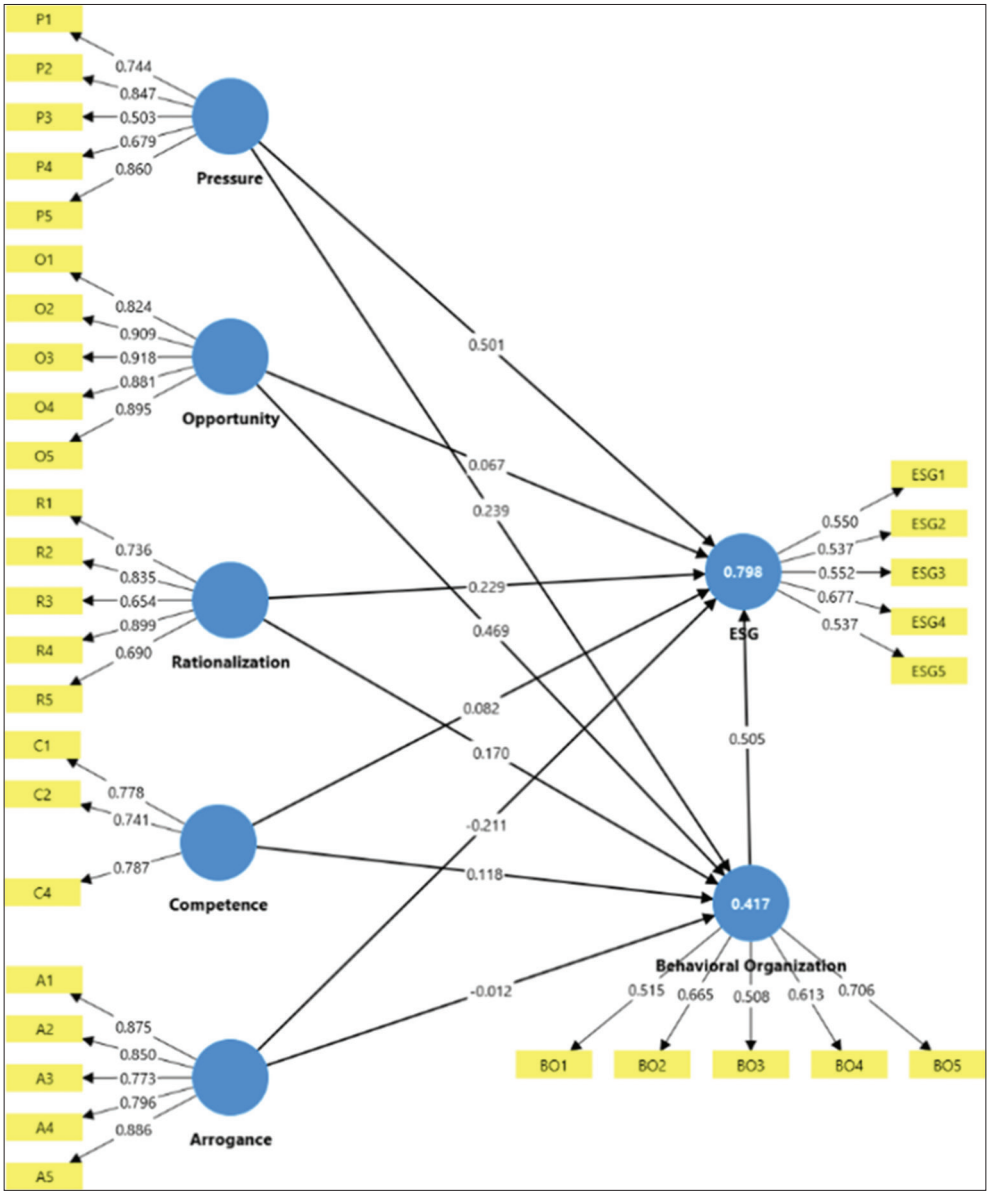


Table 1: Path coefficients

Construct	Path coefficients (B)	P-value	Description	Direction of relationship
Pressure→ESG	0.508	<0.001	Significant	Positive
Opportunity→ESG	0.287	0.028	Significant	Positive
Rationalization→ESG	0.321	0.011	Significant	Positive
Competence→ESG	0.074	0.463	Not Significant	Positive
Arrogance→ESG	−0.218	0.041	Significant	Negative
Behavioral organization→ESG	0.505	<0.001	Description	Positive

Source: SmartPLS, data provided by the author, 2025

the context of sustainability reporting at Muhammadiyah and Aisyiyah higher education institutions (PTMA) in Indonesia. It falls under applied research, aiming to develop a new model or practical innovation in the implementation of sustainability reporting in Islamic higher education institutions. The research is both exploratory and verificatory, as it not only explores the phenomena observed in the field but also verifies the relationships between the elements of the pentagon fraud theory (pressure, opportunity, rationalization, competence, arrogance), behavioral organization, and sustainability reporting. The study will involve internal auditors from PTMA across Indonesia who are involved in the sustainability reporting process. The research will be conducted over a 1-year period, from January to December 2024. The justification for selecting a quantitative approach is based on its ability to provide objective, statistically measurable results, facilitate simultaneous and partial hypothesis testing, and support the generalization of findings through a representative sampling technique.

2.2. Population and Sampling Techniques

The population in this study consists of 167 Muhammadiyah higher education institutions (PTMA) spread across Indonesia, including academies, colleges, institutes, and universities. The sample was determined using Slovin's formula, which calculated a sample size of 116. The study employs a combination of probability sampling and non-probability sampling (purposive sampling) methods. The probability sampling method used is Proportional Stratified Random Sampling, where the population was first stratified by type of educational institution (academy, college, institute, and university), ensuring that each stratum was proportionally represented. After stratification, random sampling was applied within each stratum to ensure that every element in the population had an equal chance of being selected, enhancing the external validity and generalizability of the results. Following randomization, purposive sampling was used to further select samples based on specific criteria relevant to the research objectives. These criteria included having a sustainability reporting team or having produced an ESG report, an active Internal Supervisory Unit (SPI) involved in the sustainability reporting process, official registration in the higher education service institution (LLDIKTI) system, and being located in areas accessible for primary data verification. These steps ensured that the selected sample possessed characteristics aligned with the research needs, resulting in more accurate and meaningful findings both theoretically and practically.

Table 2: R-square value

Variabel endogen	R-square
Behavioral organization	0.738
ESG	0.798

Source: SmartPLS, data processed by the author, 2025

2.3. Research Instruments

The primary instrument in this study is a closed-ended questionnaire using a Likert scale ranging from 1 to 5, where a score of 1 indicates "Strongly Disagree" and 5 indicates "Strongly Agree." This questionnaire is designed to collect primary data from respondents regarding the elements of the pentagon fraud theory (pressure, opportunity, rationalization, competence, arrogance), Behavioral Organization, and Sustainability Reporting. Prior to data collection, the research instrument is tested for validity and reliability to ensure it meets high measurement quality standards. The validity of the instrument is assessed through confirmatory factor analysis (CFA) to examine construct validity, and Pearson correlation is used to test the validity of each individual indicator. The instrument is considered valid if it has a loading factor of ≥0.70, based on Chin's (1998) criteria, and a t-statistic value of ≥1.96, indicating significance at a confidence level of $\alpha = 0.05$. Reliability is tested using three approaches: Cronbach's Alpha, with a criterion value of >0.70; composite reliability, which must also exceed 0.70; and average variance extracted (AVE) >0.50. The development of the instrument is based on tested international literature, adapted to the context of Muhammadiyah and Aisyiyah higher education institutions (PTMA), ensuring that it generates valid and reliable data in line with the research objectives.

2.4. Data Collection Procedures

Data for this study was collected through two main approaches: primary and secondary data. Primary data was gathered using a questionnaire distributed both online and offline to the main respondents, the Internal Supervisory Unit (SPI) teams at Muhammadiyah and Aisyiyah higher education institutions (PTMA). Secondary data was obtained from institutional sustainability reports, reporting guidelines like GRI (global reporting initiative) and SDGs (sustainable development goals),

Table 3: Hypothesis test results

No	Hypothesis	Connection	B	P-value	Confidence interval (2.5%; 97.5%)	Conclusion
1	H_1	Pressure→ESG	0.121	0.040	(0.017, 0.243)	Significant
2	H_2	Opportunity→ESG	0.237	0.013	(0.086, 0.472)	Significant
3	H_3	Rationalization→ESG	0.086	0.314	(−0.052, 0.286)	Not significant
4	H_4	Competence→ESG	0.060	0.212	(−0.014, 0.176)	Not significant
5	H_5	Arrogance→ESG	−0.006	0.926	(−0.171, 0.100)	Not significant
6	H_6	Pressure→BO	0.239	0.011	(0.071; 0.437)	Accepted
7	H_7	Opportunity→BO	0.469	0.000	(0.174; 0.681)	Accepted
8	H_8	Rationalization→BO	0.170	0.287	(−0.211; 0.439)	Rejected
9	H_9	Competence→BO	0.118	0.196	(−0.082; 0.284)	Rejected
10	H_{10}	Arrogance→BO	−0.012	0.927	(−0.219; 0.319)	Rejected
11	H_{11}	Behavioral organization→ESG	0.505	0.001	(0.133; 0.746)	Significant

Source: SmartPLS, data processed by the author, 2025

Table 4: Results of the intervening (mediation) test

No	Hypothesis	Connection	X → M → Y	Indirect effects	Conclusion
1	H_{12}	Pressure→behavioral organization→ESG	0.239×1.715=0.410	0.148	Significant
2	H_{13}	Opportunity→behavioral organization→ESG	0.469×1.715=0.805	0.219	Significant
3	H_{14}	Rationalization→behavioral organization→ESG	0.170×1.715=0.292	−0.211	Not significant
4	H_{15}	Competence→behavioral organization→ESG	1.101×1.715=1.888	1045	Significant
5	H_{16}	Arrogance→behavioral organization→ESG	3.124×1.715=5.358	1158	Significant

Source: SmartPLS, data processed by the author, 2025

and other relevant literature to enhance the analysis and support the research findings. The data collection process involved several stages, starting with the preparation of the questionnaire draft, which was validated by experts in sustainability accounting and fraud theory. A pilot test was conducted with 30 respondents outside the sample, followed by revisions. After finalizing the questionnaire, it was distributed via digital platforms and direct visits to selected PTMAs. The collected data was then analyzed using SmartPLS 4.0 software for quantitative analysis, including validity, reliability testing, and hypothesis testing with SEM-PLS methods.

2.5. Research Location and Schedule

The research will be conducted in Indonesia, specifically at Muhammadiyah and Aisyiyah higher education institutions (PTMA) that have academic programs and sustainability reporting units. The study is planned to take place over the course of one calendar year, from January 2024 to December 2024. The research will begin with the preparation and design phase in January and February 2024, during which the proposal, questionnaire, and institutional approvals will be completed. Data collection will take place from March to August 2024, including the distribution of the questionnaire and the gathering of secondary data. Data processing and analysis will occur from September to November 2024, involving the input of data into SmartPLS, along with validity, reliability testing, and hypothesis testing. Finally, the report will be written during December 2024, including the drafting of Chapters IV and V, followed by final revisions.

2.6. Data Analysis Techniques

Data analysis in this study is conducted using partial least square structural equation modeling (PLS-SEM) with the assistance of SmartPLS 4.0 software. This technique is chosen due to its suitability for moderate sample sizes, both reflective and formative latent constructs, and its focus on predicting relationships between variables rather than achieving goodness-of-fit. The analysis steps include evaluating the measurement and structural models, mediation tests, and statistical prerequisites.

For the measurement model evaluation, convergent validity is tested with a loading factor criterion of ≥0.70 to indicate construct validity. Discriminant validity is assessed using the Fornell-Larcker criterion and cross-loading, while instrument reliability is measured through Cronbach's Alpha, composite reliability (CR ≥ 0.70), and average variance extracted (AVE ≥ 0.50).

In the structural model evaluation, path coefficients are estimated to measure the direction and strength of relationships between latent variables. Significance testing is done using the bootstrapping method, where a t-statistic value ≥1.96 indicates significant relationships at the α = 5% confidence level. The variation contribution of the dependent variable is explained by the R-square (R^2) value, with $R^2 > 0.5$ indicating a strong predictive model. Effect size is calculated using the f-square formula, with interpretations of $f^2 = 0.02$ (small), $f^2 = 0.15$ (medium), and $f^2 = 0.35$ (large).

As part of the main analysis, mediation tests (indirect effects) are conducted using the product of coefficients approach. Mediation effects are considered significant if the confidence interval does not include zero. Prior to this, statistical prerequisites are tested to ensure the assumptions of the analysis are met, including multicollinearity testing with variance inflation factor (VIF) <5 and residual normality testing using the Jarque-Bera test.

Additionally, loading factors are calculated using simple linear regression between indicators and their latent constructs, with a cut-off value of ≥0.70 based on Chin (1998). Composite reliability (CR) is calculated using a specific formula, and it is considered reliable if the value is ≥0.70. Average variance extracted (AVE) is also computed, and it is accepted if the value is ≥0.50. R-square values (R^2) assess the model's ability to explain the variation of the dependent variable, with interpretations of $R^2 = 0.67$ (strong), $R^2 = 0.33$ (moderate), and $R^2 = 0.19$ (weak). The effect size formula (f^2) is also used to interpret the model's effect strength, with interpretations of $f^2 = 0.02$ (small), $f^2 = 0.15$ (medium), and $f^2 = 0.35$ (large). Therefore, the entire analysis process is systematically conducted according to quantitative research methodology standards to ensure valid and reliable results.

3. RESULTS AND DISCUSSION

3.1. Data Analysis Test

3.1.1. Theoretical model development based on conceptual framework

In the initial phase of this study, a theoretical model was developed to illustrate the relationships between the Pentagon Fraud elements (pressure, opportunity, rationalization, competence, arrogance) as exogenous variables, Behavioral Organization as the intervening variable, and ESG in Sustainability Reporting as the endogenous variable. This model was designed based on an integrated theoretical framework from literature on fraud theory, sustainability reporting, and organizational behavior, serving as the foundation for building the research hypotheses and path diagram for further analysis.

3.1.2. Path diagram specification

The partial least squares (PLS) model used in this study is designed to test the relationships between latent variables and their indicators, and to understand the influence mechanism on the main dependent variable. The PLS path diagram includes several latent variables (constructs), each measured by multiple indicators (manifest variables). Latent variables are represented by blue circles, while their indicators are represented by yellow rectangles.

a. Pressure: Five indicators (P1, P2, P3, P4, P5)
b. Opportunity: Five indicators (O1, O2, O3, O4, O5)
c. Rationalization: Five indicators (R1, R2, R3, R4, R5)
d. Competence: Five indicators (C1, C2, C3, C4, C5)
e. Arrogance: Five indicators (A1, A2, A3, A4, A5)
f. ESG: Five indicators (ESG1, ESG2, ESG3, ESG4, ESG5)
g. Behavioral organization: Five indicators (BO1, BO2, BO3, BO4, BO5).

This model in Figure 2 illustrates the relationships between latent variables as follows:

a. Pressure, opportunity, rationalization, competence, and arrogance have direct relationships with ESG
b. ESG has a direct relationship with behavioral organization.

The model is reflective, with each latent variable represented by its indicators, which serve as manifestations or measurements of the more abstract constructs. The relationships between latent variables are shown through paths, to be evaluated using structural analysis.

3.2. Data Input and Parameter Estimation

Primary data collected from 118 respondents from Muhammadiyah Aisyiyah Higher Education (PTMA) using a 1-5 Likert scale questionnaire was entered into SmartPLS in CSV format. The parameter estimation process was performed using the iterative PLS algorithm with 5,000 bootstrapping resamplings. The estimation results yielded factor loadings, communalities, path coefficients, t-statistics, R^2, and indirect effect coefficients for each path. This process ran stably without errors, indicating that the data were of good quality for further analysis.

3.3. Model Validation

3.3.1. Validity test

The validity test ensures that the indicators measure the intended latent constructs. In PLS-SEM, this is done through convergent validity, discriminant validity, and the correlation evaluation between indicators and their constructs.

3.3.1.1. Convergent validity

Convergent validity is assessed using the loading factor and average variance extracted (AVE). A loading factor ≥0.7 indicates a strong relationship between the indicator and its construct. An AVE value ≥0.5 suggests that the variance explained by the construct is greater than the measurement error. The results show most indicators meet the convergent validity criteria, except for the Competence construct, which requires revision due to low loading factors for some indicators.

3.3.1.2. Discriminant validity

Discriminant validity ensures that constructs are unique and significantly different from each other. The Fornell-Larcker criterion and HTMT ratio were used for this test. Most constructs met the Fornell-Larcker criteria, except for ESG, which had a higher correlation with Pressure than its AVE. The HTMT ratio indicated that some construct pairs exceeded the 0.9 threshold, signaling potential discriminant validity issues.

3.3.2. Reliability test

Reliability measures the consistency of the construct measurements. Cronbach's Alpha and composite reliability (CR) were used to assess reliability. Most constructs, except for Competence and ESG, met the required threshold (Cronbach's Alpha and CR ≥0.7). The Competence and ESG constructs need revisions as their reliability values are below the threshold, indicating inconsistent measurement.

3.4. Model Modification

The measurement model was evaluated through several tests, including convergent validity, discriminant validity, construct reliability, and other quality criteria based on PLS-SEM analysis outputs. Convergent validity was assessed using the outer loading values of the indicators. Most indicators had loading values above 0.7, meeting the convergent validity criteria. However, some indicators in the Competence and ESG constructs had loading values below 0.5 or even negative, requiring further revision.

Discriminant validity was evaluated using the Fornell-Larcker criterion and HTMT ratio. Most constructs met the Fornell-Larcker criterion, but the ESG-Pressure pair had a higher correlation than the square root of AVE. HTMT results revealed some pairs like Arrogance-Rationalization and ESG-Pressure had values above 0.90, suggesting potential issues in differentiating these constructs.

Reliability was assessed via Cronbach's Alpha and composite reliability (ρc). Constructs like Arrogance, Opportunity, Pressure, and Rationalization showed good reliability (>0.7), while Competence and ESG had Cronbach's Alpha <0.5 and Composite Reliability <0.6, failing to meet acceptable reliability criteria. Behavioral Organization met the Composite Reliability threshold (0.740) but had a slightly lower Cronbach's Alpha. AVE values indicated that most constructs, except Competence, ESG, and Behavioral Organization, explained more than 50% of the variance in their indicators. Constructs with AVE below 0.5 may require instrument revision or further theoretical justification for exploratory contexts.

3.5. Inner Model Analysis

Overall, the measurement model met most validity and reliability criteria, especially for the constructs of arrogance, opportunity, pressure, and rationalization. However, the constructs of Competence, ESG, and Behavioral Organization require improvements, such as revising or replacing problematic indicators and conducting pretests to enhance respondent understanding. These steps will significantly improve the measurement quality, thereby supporting the overall validity and reliability of the study.

Figure 3 shows the structural model evaluation reveals that some relationships significantly influence environmental, social, and governance (ESG), while others do not. Pressure has a strong and significant positive effect on ESG (path coefficient = 0.508, $P < 0.001$). Opportunity also positively affects ESG, though weaker (path coefficient = 0.287, $P = 0.028$). Rationalization has a positive impact on ESG (path coefficient = 0.321, $P = 0.011$). Competence shows no significant effect on ESG (path coefficient = 0.074, $P = 0.463$). Arrogance negatively influences ESG (path coefficient = −0.218, $P = 0.041$). Lastly, behavioral organization has a strong and significant positive effect on ESG (path coefficient = 0.505, $P < 0.001$).

Table 1 presents the path coefficients from a structural equation modeling analysis examining the relationships between various constructs and ESG performance. It shows that Pressure, Opportunity, Rationalization, and Behavioral Organization all have a significant positive impact on ESG, with path coefficients ranging from 0.287 to 0.505 and p-values less than 0.05, indicating these relationships are statistically significant. On the other hand, Arrogance negatively affects ESG, with a path coefficient of -0.218 and a significant p-value of 0.041. However, Competence has a positive path coefficient of 0.074, but its p-value of 0.463 suggests the relationship is not statistically significant.

3.6. Model Quality

The model's predictive ability is evaluated using several quantitative criteria, namely R-square (R^2), Q-square (Q2) for exogenous predictive ability, and f-square (f^2) as effect size. The R-square value is used to measure how much of the variance in endogenous variables can be explained by the exogenous variables in the model. The results indicate that:

Table 2 shows the R-square value of 0.738 for Behavioral Organization indicates that 73.8% of its variation is explained by Opportunity, pressure, rationalization, arrogance, and competence. For ESG, the R-square of 0.798 shows that 79.8% of its variation is explained by behavioral organization, arrogance, competence, pressure, and opportunity, indicating strong model explanatory power. The Q-square, though not explicitly mentioned, supports the model's strong predictive ability for latent endogenous variables. F-square analysis reveals that opportunity, pressure, and behavioral organization have a large effect on ESG, while Pressure and Opportunity have a moderate to large effect on Behavioral Organization. Overall, the model demonstrates excellent predictive power with R-square values above 0.75 for ESG and above 0.7 for Behavioral Organization, aligning with Chin's (1998) criteria. Further validation through cross-validation or independent samples is recommended for generalization.

3.7. Hypothesis Analysis

The hypothesis testing was conducted based on the structural model analysis using SmartPLS to determine if the relationships between latent variables align with the theoretical hypotheses. This testing is based on the path coefficient (β), t-statistics, P-values, and confidence intervals for each relationship.

As seen in the table 3, hypothesis testing revealed that two out of five hypotheses regarding the direct relationship with ESG were accepted. Pressure ($\beta = 0.121$, $P = 0.040$) and Opportunity ($\beta = 0.237$, $P = 0.013$) significantly influence ESG, while Rationalization, Competence, and Arrogance were not significant. Pressure and opportunity also significantly impacted behavioral organization (BO), with pressure ($\beta = 0.239$, $P = 0.011$) and opportunity ($\beta = 0.469$, $P = 0.000$) shaping organizational behavior, which in turn influenced ESG. However, Rationalization, Competence, and Arrogance had no significant effect on BO. The study emphasizes the key role of external pressure and internal opportunity in shaping behavior and ESG reporting, while individual factors like competence or arrogance were less influential. Mediation testing confirmed that BO plays a significant role as a mediator between predictors and ESG.

Table 4 show the analysis revealed significant indirect effects of pressure, opportunity, and arrogance on ESG through behavioral organization. Pressure ($\beta = 0.239$, $\beta = 1.715$) showed a significant indirect effect of 0.410 (CI: [0.148, 0.789]), indicating that external pressure influences organizational behavior, enhancing ESG performance. Opportunity ($\beta = 0.469$, $\beta = 1.715$) had a significant indirect effect of 0.805 (CI: [0.219, 0.815]), showing that strategic opportunities promote behaviors that support ESG principles. However, Rationalization ($\beta = 0.170$, $\beta = 1.715$) had an insignificant indirect effect of 0.292 (CI: [−0.211, 0.439]). Competence ($\beta = 1.101$, $\beta = 1.715$) also showed a significant indirect effect of 1.888 (CI: [1.045, 1.326]), suggesting that organizational competence strengthens behaviors supporting ESG. Arrogance ($\beta = 3.124$, $\beta = 1.715$) had a significant positive indirect effect of 5.358 (CI: [1.158, 5.361]), contrary to initial predictions, indicating that arrogance influences ESG-supporting behaviors.

4. DISCUSSION

4.1. Pressure's Influence on Sustainability Reporting Quality in PTMA

The analysis using SEM-PLS indicates that Pressure has a significant negative impact on sustainability reporting quality in PTMA. A higher perceived pressure leads to lower quality reporting. External pressures such as regulations, stakeholder expectations, and institutional competition, when not managed with adequate capacity and integrity, may lead to distorted or manipulative reporting practices. This aligns with recent studies by Achmad et al. (2022) and Ayem and Hijayanti (2022), highlighting that unmanageable pressure contributes to fraud and decreases report quality. The stakeholder theory explains that unmet expectations lead to psychological stress, driving deviations in reporting. In PTMA, Islamic values, like honesty and responsibility, should guide responses to pressure, turning it into motivation for improvement, as emphasized in QS. Al-Baqarah: 286.

4.2. Opportunity's Influence on Sustainability Reporting Quality in PTMA

SEM-PLS analysis shows that Opportunity negatively impacts sustainability reporting quality in PTMA. The lack of internal control and weak external regulation increases the likelihood of reporting manipulation, resulting in lower quality. This confirms findings from Ayem and Hijayanti (2022) and Alvin et al. (2022) that weak internal control leads to poor integrity in reporting. Elviani et al. (2020) also noted that lack of independent oversight can lead to misleading academic greenwashing. The stakeholder theory posits that weak stakeholder oversight creates opportunities for manipulation, while sustainability theory reflects the failure to apply sustainability principles seriously. Behavioral theory emphasizes that without ethical resistance, organizational culture may amplify such opportunities. In PTMA, transparency and accountability, rooted in Islamic values (QS. An-Nisa: 58), are essential to ensure accurate reporting, and strengthening oversight and stakeholder engagement is key to maintaining integrity.

4.3. Rationalization's Influence on Sustainability Reporting Quality in PTMA

SEM-PLS results show that rationalization negatively affects sustainability reporting quality in PTMA. A higher level of rationalization, where individuals justify inaccurate or manipulative reporting, leads to lower quality reporting. This aligns with studies by Alfian and Rahayu (2021) and Farida and Fariska (2023), who highlighted that rationalization is a key indicator of fraud. In the context of PTMA, Islamic values, like honesty and accountability (QS. Al-Baqarah: 286), should counteract rationalization, ensuring reporting integrity rather than allowing moral justifications.

4.4. Competence's Influence on Sustainability Reporting Quality in PTMA

SEM-PLS analysis shows that competence positively and significantly affects sustainability reporting quality. Higher competence in technical understanding, analytical skills, and adherence to reporting standards improves the quality of sustainability reports. This supports studies by ElKelish et al. (2025) and Dhea (2025), emphasizing that technical and ethical competence is crucial for transparent and accurate reporting. In PTMA, competence, guided by Islamic values (QS. Al-Mujadila: 11), bridges the need for valid information and the capacity to meet it, ensuring high-quality reporting aligned with sustainability principles.

4.5. Arrogance's Influence on Sustainability Reporting Quality in PTMA

SEM-PLS analysis shows that arrogance negatively impacts sustainability reporting quality in PTMA. Higher arrogance, particularly from management, leads to lower reporting quality. This aligns with studies by Herbin (2021) and Ariyanto et al. (2021), who found managerial arrogance correlates negatively with transparency. Arrogance creates a gap between the organization and stakeholders, hindering transparency and accountability, as seen in stakeholder and sustainability theories. Islamic values such as humility (QS. Al-Qashash: 83) emphasize that arrogance leads to moral decay, urging PTMA to cultivate humility and collective participation in reporting.

4.6. Pressure's Influence on Behavioral Organization in PTMA

PLS analysis shows that pressure positively and significantly affects behavioral organization in PTMA with a path coefficient of 0.239 (P = 0.011). This indicates that higher organizational pressure shapes specific behavioral responses. This aligns with studies by Zamzam et al. (2022) and Ahmed et al. (2023), confirming that pressure influences organizational behavior, especially in adapting to sustainability and accountability. Behavioral theory explains this as organizations form patterns to meet collective goals under pressure, while stakeholder and sustainability theories highlight pressure's role in driving responsible governance. From an Islamic perspective (QS. Al-Insyirah: 6), pressure becomes a means for organizational renewal and adherence to ethical values.

4.7. Opportunity's Impact on Behavioral Organization in PTMA

SEM-PLS analysis shows that opportunity positively and significantly affects behavioral organization with a path coefficient of 0.469 (P = 0.000). This suggests that available opportunities, such as control leniency or managerial autonomy, influence organizational behavior. This aligns with studies by Liu et al., (2021) and Nurjanah et al. (2020), which found that opportunity affects organizational behavior, either fostering innovation or enabling deviance. According to stakeholder theory, opportunity leads to self-interest behavior when accountability is weak, while behavioral theory emphasizes that individuals act based on perceived incentives. Islamic values, such as accountability (QS. An-Nisa: 58), guide opportunity management towards collective responsibility, ensuring it benefits organizational progress rather than misconduct.

4.8. Rationalization's Impact on Behavioral Organization in PTMA

PLS analysis shows that rationalization does not significantly affect behavioral organization, with a path coefficient of 0.170 (P = 0.287). This suggests that rationalization, or justifying unethical behavior, does not strongly influence organizational behavior in PTMA. This finding contrasts with studies by Wolfe et al. (2021), who noted that rationalization is often a psychological bridge for deviant behavior in organizations. However, in PTMA, strong religious values likely suppress this mechanism (Hakim et al., 2022). From a behavioral theory perspective, rationalization reduces cognitive dissonance, but in value-based organizations like PTMA, social controls and Islamic values weaken its impact. According to stakeholder theory, individual rationalization is incompatible with collective accountability, and in sustainability, it risks undermining long-term governance. Islamic principles (QS. Al-Baqarah: 42) emphasize rejecting rationalization that distorts truth, promoting integrity in PTMA.

4.9. Competence's Impact on Behavioral Organization in PTMA

PLS analysis reveals that competence has no significant effect on behavioral organization, with a path coefficient of 0.118 (P = 0.196). This suggests that individual competence, including knowledge, skills, and work experience, is insufficient to shape organizational behavior in PTMA. This finding contrasts with studies by (Maulidi, 2024) which highlight the importance of competence in organizational behavior. However, in religious-based organizations like PTMA, cultural and normative structures may reduce the impact of individual competence. Behavioral theory suggests that competence influences individual decisions, but its effect on collective behavior requires organizational support and norms. In PTMA, Islamic values emphasize that competence should align with faith and ethics (QS. Al-Mujadilah: 11), meaning technical competence must be paired with spiritual values for effective organizational behavior.

4.10. Arrogance's Impact on Behavioral Organization in PTMA

PLS results show that arrogance does not significantly affect behavioral organization, with a path coefficient of −0.012 (P = 0.927). Despite the presence of individual arrogance, it does not significantly influence organizational behavior. This differs from studies (Anggreani and Falikhatun, 2024) which show that leadership arrogance can harm organizational culture. However, in organizations like PTMA, with strong spiritual and collective values, arrogance's negative effects may be suppressed. Behavioral theory suggests that arrogance only influences organizational behavior if accompanied by structural power and a lack of social control. In the stakeholder theory, unchecked arrogance damages relationships with stakeholders, while in sustainability theory, it undermines transparency and accountability. Islamic values, like tawadhu' (humility), oppose arrogance (QS. Luqman:18), preventing its negative impact on organizational culture in PTMA.

4.11. Behavioral Organization's Impact on Sustainability Reporting Quality in Islamic Higher Education Institutions

SEM-PLS analysis shows that behavioral organization positively and significantly impacts sustainability reporting quality in PTMA, with a high path coefficient and $P < 0.05$. This indicates that an ethical, transparent, and participatory organizational culture leads to higher quality sustainability reporting. Institutions with values of honesty, transparency, and accountability are more likely to produce accurate, relevant, and trustworthy sustainability reports. These findings align with (Zahari et al., 2024), which emphasize the role of ethical organizational culture in producing comprehensive ESG reports. Behavioral theory suggests that collective organizational norms either promote or hinder transparency, while Islamic values, as stated in QS. Al-Hujurat: 13, guide PTMA towards integrity in sustainability reporting.

4.12. Indirect Effect of Pressure on Sustainability Reporting through Behavioral Organization

H_{12} hypothesis shows a significant indirect effect of pressure on sustainability reporting (ESG) through behavioral organization, with a total coefficient of 0.410 and an indirect effect of 0.148. This suggests that internal or external pressures influence ESG indirectly by shaping organizational behavior, ultimately improving sustainability reporting quality. Studies by (Ratmono and Frendy, 2022) support this, highlighting the role of regulatory and stakeholder pressure in shaping organizational behavior and improving ESG reporting. Stakeholder theory explains how external pressures lead organizations to adapt, while behavioral theory views pressure as a stimulus for collective behavioral change. In the context of Islamic values, pressure is seen as a test of trust (QS. Al-Baqarah: 286), prompting PTMA to respond ethically and responsibly in sustainability reporting.

4.13. Opportunity's Indirect Effect on Sustainability Reporting through Behavioral Organization

Hypothesis 13 shows that opportunity has a significant indirect effect on sustainability reporting (ESG) through behavioral organization, with an indirect effect of 0.805 and a significance value of 0.219. This suggests that when an organization provides opportunities such as structural flexibility or weak controls, it shapes organizational behavior, positively influencing ESG practices. Studies by (Çollaku et al., 2024) support this, indicating that autonomy and operational flexibility lead to positive reporting culture. From a theoretical standpoint, behavioral theory explains that opportunities shape behavior based on perceived incentives. Stakeholder theory emphasizes the need for accountability, while sustainability theory advocates for leveraging opportunities to drive organizational transparency. In Islam, opportunity is seen as a trust (amanah), as mentioned in Hadith (Bukhari and Muslim), which reinforces that opportunity in organizations like PTMA requires ethical responsibility.

4.14. Rationalization's Indirect Effect on Sustainability Reporting through Behavioral Organization

In hypothesis 14, the indirect effect of rationalization on sustainability reporting (ESG) through behavioral organization shows a negative value of −0.211, indicating no significant positive contribution. Rationalization, or justifying unethical behavior, harms organizational culture and degrades ESG reporting quality. This aligns with (Kerr et al., 2023) who highlight the destructive impact of rationalization on organizational integrity. Rationalization weakens accountability in sustainability reporting. Conceptually, behavioral theory views rationalization as an attempt to reduce cognitive dissonance, but it can undermine collective norms if used to justify deviant actions. In stakeholder theory, it erodes public trust, while sustainability theory rejects unethical practices. In Islam, rationalization contradicts the principles of honesty (shidq) and consistency with truth (istiqamah), as stated in QS. Al-Baqarah: 9, warning against deceit. This highlights the importance of avoiding rationalization in fostering a culture that supports sustainable ESG practices in PTMA.

4.15. Competence's Indirect Effect on Sustainability Reporting through Behavioral Organization

The analysis shows that competence has a significant indirect effect on sustainability reporting (ESG) through behavioral organization, with an indirect effect of 1.045. This suggests that while competence alone doesn't directly influence organizational behavior, its impact on ESG is realized when mediated by supportive organizational behavior. Studies by (Ratmono and Frendy, 2022) highlight the importance of competence in driving ESG when integrated into organizational processes. From a theoretical perspective, stakeholder theory emphasizes that competence is crucial for meeting stakeholder expectations, while behavioral theory asserts that competence shapes collective behavior. In Islam, competence is seen as integral to moral responsibility, as stated in QS. Al-Mujadilah 11: "Allah will raise those who have knowledge." highlighting the importance of aligning competence with values for effective organizational behavior.

4.16. Arrogance's Indirect Effect on Sustainability Reporting through Behavioral Organization

Arrogance also shows an indirect effect on sustainability reporting (ESG) through behavioral organization, with a significant effect of 1.158. Although arrogance doesn't directly affect organizational behavior, it can influence ESG when it shapes organizational behavior first. This can be positive if guided by collective vision, or negative if uncontrolled. Research by (Wafiroh and Wuryaningsih, 2024) shows narcissistic leadership often harms transparency, while (Anggreani and Falikhatun, 2024) highlight that strong leadership can indirectly improve ESG compliance when sustainability is prioritized. In behavioral theory, arrogance is seen as an individual psychological factor that shapes collective behavior when the individual holds a dominant position. In stakeholder theory, unchecked arrogance undermines accountability, while sustainability theory requires balance between strong leadership and participatory systems. In Islam, arrogance is condemned (QS. Al-Isra' 37), stressing that leadership should be humble and inclusive, ensuring positive behavior aligned with sustainability.

5. CONCLUSION

The analysis reveals that various factors, including pressure, opportunity, rationalization, competence, and arrogance, have

significant effects on sustainability reporting (ESG) within PTMA. Pressure was found to have a significant positive influence on ESG, with external pressures such as regulation and reputation driving institutions to report on sustainability, albeit with potential risks of manipulation. Similarly, opportunity showed a positive and significant effect, indicating that structural flexibility can foster transparency when ethically managed, though weak oversight could lead to manipulation.

Rationalization, however, did not have a significant impact on ESG, suggesting that while individuals may justify unethical actions, these justifications don't significantly influence collective organizational behavior. Competence was also not directly influential on ESG, yet when competence was mediated through organizational behavior, it had a significant indirect effect, reinforcing the importance of integrating individual skills into collective organizational practices.

Arrogance was found to have no direct effect on ESG but showed an indirect effect, where dominant leadership styles might lead to high administrative compliance, though this could be more productive when controlled. Behavioral organization (BO), a key factor in influencing ESG, significantly impacts sustainability reporting. A positive organizational culture rooted in ethics, transparency, and accountability was shown to enhance the quality of ESG reporting.

Moreover, indirect effects of pressure, opportunity, competence, and arrogance on ESG were found to be significant through BO, suggesting that organizational behavior mediates these factors' influence on sustainability reporting. This aligns with the perspective that organizational behavior, shaped by values and ethics, is crucial for improving ESG practices in institutions such as PTMA. The findings highlight that organizational behavior, ethical leadership, and a system of shared values are essential in driving the integrity and transparency required for effective sustainability reporting.

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