

The Role of Fraud Risk Assessment in Moderating the Influence of Ethical Sensitivity and Religiosity on Public Sector Financial Reports in, Indonesia

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Abstract: - Financial reporting fraud remains a major challenge for the public sector in Indonesia, weakening fiscal accountability and eroding public trust. Therefore, individual moral attributes and their interaction with organizational mechanisms are very important to ensure that public sector financial reports are free from fraud. This article analyses ethical sensitivity and religiosity on public sector financial reports by placing fraud risk assessment as a moderator. By using a quantitative design, this research highlights that ethical sensitivity and religiosity are very important in preparing public sector financial reports. Sample data was collected from 400 public sector financial officials in Central Java, Indonesia, who were selected through purposive sampling. Data analysis uses Partial Least Squares Structural Equation Modelling (PLS-SEM). The research results show that ethical sensitivity and religiosity have a significant effect on reducing the tendency to defraud. Fraud risk assessment, at the same time, plays a pivotal role in strengthening those negative relationships, essentially pushing fraudulent behaviour further down. Taken together, these findings give solid empirical backing to the dual attribution framework, which basically argues that you cannot pull off effective fraud prevention by relying on just one side of the equation. It takes both; internal ethical inclinations and external organizational safeguards working in tandem, a kind of synchronized push from the inside out.

Key-Words: - eroding public trust, ethical sensitivity, fiscal accountability, fraud risk assessment, public sector financial reports, religiosity.

Received: April 19, 2026. Revised: June 4, 2026. Accepted: July 9, 2026. Published: September 24, 2026.

1 Introduction

Financial statement fraud continues to be a widespread governance issue in the public sector, as it fundamentally weakens fiscal accountability, skews public resource distribution, and diminishes citizen confidence in governmental institutions. Recent worldwide data from the Association of Certified Fraud Examiners [1] shows that fraudulent financial reporting remains a significant factor in organizational losses, with government and public entities especially susceptible due to the complexity and fragmentation of their oversight structures. Despite successive waves of public financial management reform across many jurisdictions, persistent audit findings in emerging economies suggest that fraud risks remain deeply embedded within public sector governance structures [2].

The extant accounting and fraud literature has predominantly approached fraudulent behavior from structural and organizational perspectives, emphasizing deficiencies in internal control systems,

governance mechanisms, and fraud risk management practices as the primary enablers of fraud [3], [4]. More recent studies have reinforced this orientation by highlighting the critical role of fraud risk assessment and monitoring mechanisms in constraining opportunities for fraudulent conduct [5], [6]. While these contributions have advanced the understanding of the organizational conditions under which fraud occurs, this stream of research has tended to underemphasize the individual-level moral and psychological factors that shape fraudulent reporting decisions. Such an omission is consequential, as governance failures often originate not only from systemic weaknesses but also from the ethical dispositions of the individuals operating within those systems, consistent with the governance framework proposed by [7].

Behavioral accounting research offers a complementary angle by pushing back against the assumption that fraud is purely a product of organizational control failures. Individual moral

cognition and personal value systems matter enormously here. Ethical sensitivity, broadly understood as a person's ability to detect the moral dimensions quietly embedded in professional decision-making, sits at the very foundation of how ethical judgments get formed and how behavior eventually unfolds [8]. Research has consistently shown that people operating with higher levels of ethical sensitivity are far less likely to slide into unethical financial reporting practices [9], [10]. Running alongside this, religiosity, treated as an internalized moral and spiritual orientation rather than mere ritual observance, has demonstrated a similar deterrent effect by reinforcing moral accountability, strengthening self-regulation, and pulling individuals toward normative behavioral standards [11], [12]. Despite these encouraging threads, empirical knowledge about how personal moral traits actually shape fraud, particularly within public sector accounting and governance environments, remains frustratingly patchy and scattered.

One gap that stands out uncomfortably in the existing literature is the shortage of comprehensive models that seriously examine how personal moral tendencies and organizational fraud-prevention mechanisms interact with each other. Fraud risk assessment is broadly acknowledged as a cornerstone of modern fraud prevention and governance architecture [13], yet surprisingly little research has actually asked whether and how it amplifies or conditions the influence that ethical sensitivity and religiosity exert on fraudulent reporting behavior. That gap carries extra weight given the growing chorus of voices in accounting and governance scholarship calling for models that hold dispositional and situational factors in the same frame when trying to explain fraud [14], [15]. Closing that gap is not merely an academic exercise. It is genuinely necessary for building governance strategies that are sharper, more nuanced, and more effective in practice.

To tackle both the theoretical and empirical blind spots, this study reaches for attribution theory [16], [17] as the scaffolding for an integrative model of financial statement fraud in the public sector. The core proposition of attribution theory is that behavior emerges from the push and pull between internal dispositions and external situational signals. Mapped onto this study, ethical sensitivity and religiosity represent the internal moral dispositions that tilt individuals either toward or away from fraudulent conduct, while fraud risk assessment functions as an external organizational signal that dials up accountability pressure and sharpens the perceived risk of being caught. By holding both dispositional and situational factors together within an attribution-

centered framework, this research constructs a theoretically grounded account of when and why financial statement fraud becomes more or less likely.

From that foundation, two core questions drive this research: (1) Do ethical sensitivity and religiosity carry significant influence over financial statement fraud in the public sector? (2) Does fraud risk assessment play a moderating role in the relationships between ethical sensitivity and financial statement fraud, and between religiosity and financial statement fraud?

This study makes an important contribution to the governance and fraud literature and is distinguished as novel in three important respects. First, while prior research [3] focuses heavily on structural controls, this study challenges that view by positioning individual moral dispositions as primary deterrents that function even before controls are activated. Second, it offers a theoretical refinement to Attribution Theory by demonstrating that FRA acts as a situational amplifier rather than a mere barrier. Third, it provides rare empirical evidence from Indonesia's decentralized public sector, a context where religious values and governance reforms intersect uniquely, thereby offering a novel cultural perspective often absent in Western-centric fraud literature [7]. Collectively, these contributions offer both theoretical insights and actionable implications for public sector regulators.

The remainder of this paper is organized as follows. Section 2 builds the theoretical foundation while laying out the research hypotheses. The methodology gets unpacked in Section 3, covering sampling strategy, how data was gathered, and what analytical tools were thrown into the mix. Section 4 then delivers the empirical findings. Section 5 is honestly where the real intellectual work happens, placing the findings in direct dialogue with existing theories and prior literature to see what holds, what surprises, and what needs rethinking. Section 6 then brings everything home, consolidating the study's core contributions, spelling out what the findings mean beyond the academy, being honest about where the research falls short, and pointing toward the territory's future scholars might find worth exploring

2 Theoretical Framework

2.1 Attribution Theory and Public Sector Governance

This study is grounded in Attribution Theory, which explains behavior as the outcome of interactions between internal dispositions and external situational cues [16], [17]. In ethical decision-making contexts,

individuals attribute responsibility for actions based on both personal moral characteristics and environmental signals from institutional settings. Attribution Theory has been widely applied in organizational behavior research, yet its integration into public sector governance and fraud literature remains limited

Within the governance context, fraudulent behavior can be understood as arising from the interplay between "bottom-up" individual moral attributes and "top-down" regulatory mechanisms. Recent accounting research has increasingly adopted attribution-based perspectives to explain fraudulent behavior by integrating psychological and control-based factors [5], [15]. Accordingly, this theoretical lens provides an appropriate foundation for examining how ethical sensitivity and religiosity—as internal moral dispositions—interact with fraud risk assessment (FRA)—as an external regulatory mechanism—in shaping financial statement fraud

Moreover, this research relies on the differentiation between "soft" and "hard" governance approaches [15]. Soft governance pertains to ethics-driven strategies that depend on personal moral principles and organizational culture, while hard governance involves rule-oriented systems like formal controls, audits, and regulatory supervision. This study investigates whether formal regulatory mechanisms (hard governance) enhance the effectiveness of individual moral traits (soft governance) in preventing financial statement fraud by combining Attribution Theory with this governance dichotomy

2.2 Financial Statement Fraud in the Public Sector: A Governance Perspective

Financial statement fraud involves the deliberate misrepresentation or omission of significant information in financial reports to mislead stakeholders. In the public sector, this type of fraud creates major governance issues by weakening institutional accountability, skewing fiscal resource distribution, and diminishing public confidence in governmental honesty [1]. In contrast to the private sector, where fraud typically seeks to boost stock prices or reach bonus objectives, fraud in the public sector often includes the theft of public funds, hiding budget shortfalls, or altering performance metrics to meet regulatory standards

Previous research on fraud has mainly focused on structural and organizational viewpoints, highlighting the importance of internal control mechanisms, the quality of external audits, and governance supervision [3], [4]. The Fraud Triangle model—consisting of opportunity, pressure, and rationalization—has been

extensively utilized to clarify the emergence of fraud. Critics contend that this framework places too much emphasis on situational factors and neglects the importance of individual moral qualities in preventing fraud [14], [15]

In developing economies, the conflict between official regulatory changes and informal cultural norms produces a distinct governance climate. Public sector bodies in these contexts often struggle when trying to transplant Western governance models onto ground that is shaped by deeply rooted local customs, including religious values that quietly steer how people define right and wrong. It is not a clean fit, frankly. This tension exposes something bigger; that tackling financial statement fraud cannot be done through a narrow lens. A broader, more integrative approach is needed, one that holds regulatory and institutional structures in one hand while keeping personal ethical orientations in the other, because neither alone tells the whole story

2.3 Ethical Sensitivity and Financial Statement Fraud

Through the perspective of Attribution Theory, ethical sensitivity serves as an internal trait that influences how people assign responsibility for their behaviors. Individuals with high sensitivity attribute the cause of ethical failure to their own agency ('it is my fault'), reducing the likelihood of fraud.

Ethical sensitivity, at its core, is about a person's ability to spot moral dilemmas and grasp what is actually at stake when decisions need to be made [8]. Within Rest's Four-Component Model of ethical decision-making, it occupies the opening position, acting as the cognitive ground floor from which moral judgment and action eventually rise. Those carrying sharper ethical awareness tend to catch things that slip past others entirely; they wrestle more seriously with what unethical choices actually cost in real terms, and the gravitational pull toward wrongdoing simply has less hold on them.

Viewed through an attribution lens, this kind of sensitivity operates as something deeply internal, a moral orientation that quietly shapes how a person reads and responds to situations where the ethical lines are smudged or genuinely disputed. In public sector settings specifically, the stakes are higher. Accountability is not optional, and how public resources get managed carries real weight. So when financial officers are genuinely equipped with strong moral awareness, rationalizing financial misreporting becomes a much harder sell, even when performance pressure is mounting or resources are running tight.

Recent empirical studies support the negative relationship between ethical sensitivity and unethical

financial reporting behavior. Research from [9] found that ethical sensitivity significantly reduces fraudulent intentions among accounting professionals. Similarly, [10] demonstrated that individuals with higher ethical awareness exhibit lower tolerance for earnings manipulation. In the soft governance structure, ethical sensitivity acts as an internal moral regulation system that enhances formal regulatory supervision. Taking into account these theoretical and empirical factors, the following hypothesis is suggested:

H₁: Ethical sensitivity is negatively associated with financial statement fraud.

2.4 Religiosity and Financial Statement Fraud

Religiosity captures the extent to which religious beliefs, values, and practices get genuinely absorbed into a person's life and start steering how they actually behave. It is anything but a flat, single-layered construct. Cognitive convictions, affective commitment, and behavioral habits expressed through everyday religious practice all fold into each other, collectively building the moral architecture through which a person interprets and navigates the world. What prior research keeps landing on, fairly reliably, is that religiosity does something powerful to moral self-regulation. The mechanism runs deeper than surface compliance. It cultivates an internal hunger for ethical conduct, a sense of being accountable to something that sits well above human surveillance, and a fidelity to moral standards that no secular legal code, however sophisticated, can fully substitute or replicate [11], [12].

Within public sector governance, religiosity can serve as an extra moral guide that deters dishonest reporting by bolstering ethical principles beyond official regulations. This is especially important in developing economies where religious values are closely integrated into societal norms and frequently affect professional conduct. The interaction between official regulatory structures and religious ethical principles establishes a unique governance dynamic that deserves empirical examination

From the standpoint of attribution theory, religiosity acts as an intrinsic moral orientation that shapes how people assess and rationalize their behavior. People with strong religious beliefs tend to link negative consequences of unethical actions to personal moral shortcomings and divine condemnation, which in turn lowers their likelihood of participating in fraudulent behaviors. Recent research in accounting shows that religiosity correlates with reduced acceptance of unethical behaviors such as tax evasion, earnings manipulation, and financial misrepresentation [11], [12].

Within the soft governance paradigm, religiosity represents an ethics-based mechanism that operates independently of, yet potentially synergistically with, formal regulatory controls. Accordingly, this study proposes the following hypothesis:

H₂: Religiosity is negatively associated with financial statement fraud.

2.5 Fraud Risk Assessment as a Regulatory Moderating Mechanism

Attribution Theory posits that external situational cues (like FRA) can strengthen or weaken the effect of internal dispositions. When FRA is strong, it sends a clear signal that amplifies the internal moral voice, creating a synergistic effect on fraud prevention. Fraud Risk Assessment (FRA) is a structured organizational process designed to identify, evaluate, and mitigate fraud risks. As a cornerstone of modern governance frameworks, FRA is mandated by professional standards and regulatory bodies, including [13] and the International Standards on Auditing. FRA enhances transparency, strengthens accountability mechanisms, and increases the perceived likelihood of fraud detection, thereby serving as a critical component of hard governance strategies.

Recent studies emphasize FRA as essential for effective fraud prevention systems, particularly in complex organizational settings such as the public sector [5], [6]. However, a critical question remains insufficiently addressed: does FRA merely serve as a direct deterrent, or does it also function as a moderating mechanism that amplifies the effectiveness of individual moral attributes? In other words, does a robust regulatory environment make ethically sensitive and religious individuals even more resistant to fraud?

Attribution Theory provides a theoretical basis for understanding this moderating role. External contextual signals—like structured risk evaluation methods—can enhance or reduce the impact of internal traits on behavior. When organizations adopt strict FRA practices, they indicate solid regulatory expectations, heighten perceived detection risk, and strengthen accountability standards. These external signals interact with individuals' internal moral dispositions to produce stronger behavioral outcomes.

From a governance perspective, FRA represents the intersection of hard and soft governance strategies. Although ethical awareness and religiosity act as gentle, ethics-oriented regulations, FRA offers the official, rule-oriented framework that validates and strengthens these moral qualities. People with elevated ethical sensitivity or religiosity functioning

in a robust FRA atmosphere receive ongoing cues that ethical conduct is anticipated, observed, and appreciated. The congruence between internal principles and external regulatory demands generates a synergistic impact that enhances fraud prevention.

On the other hand, without a strong FRA, even those with solid moral qualities might believe that unethical actions are accepted or hard to discover, which could diminish the deterrent influence of their personal principles. Therefore, this study posits that FRA acts as a potent moderator that strengthens the negative relationship between moral attributes (ethical sensitivity and religiosity) and financial statement fraud. The following hypotheses are proposed:

H3: Fraud risk assessment strengthens the negative relationship between sensitivity and financial statement fraud.

H4: Fraud risk assessment strengthens the negative relationship between religiosity and financial statement fraud.

2.6 Conceptual Framework

Drawing from Attribution Theory and governance literature, this research views financial statement fraud as resulting from the interplay between internal ethical traits and external regulatory systems. The framework combines soft governance (ethics-oriented) and hard governance (rule-oriented) viewpoints to offer a thorough comprehension of fraud prevention in the public sector.

Ethical sensitivity and religiosity embody internal moral tendencies—or bottom-up influences—that are anticipated to directly diminish fraudulent reporting behavior. These soft governance mechanisms operate through individual moral cognition, self-regulation, and ethical commitment. Fraud risk assessment, conversely, represents an external regulatory mechanism—or top-down factor—that serves as a hard governance tool. Rather than exerting only a direct effect, FRA is conceptualized as a moderating variable that strengthens the influence of individual moral attributes on fraud behavior.

This conceptualization addresses a critical gap in the fraud literature by demonstrating that effective fraud prevention requires the integration of both dispositional and situational factors. It responds to recent calls for research that examines "how formal oversight enhances individual integrity" [14] and provides a nuanced understanding of the dual-process nature of fraud prevention in public sector governance. Figure 1 displays the suggested conceptual framework that represents these relationships.

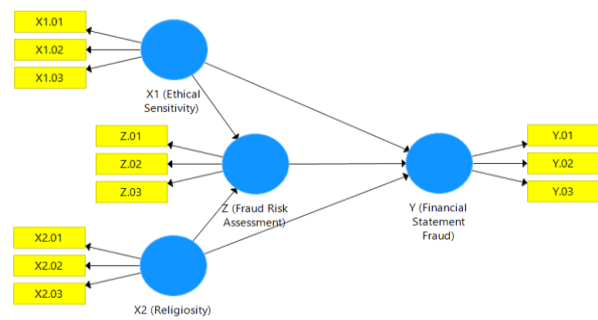


Fig. 1: Research Framework

Source: created by the authors

Figure 1: details the hierarchical influence of ethical sensitivity and religiosity on fraud risk assessment and the influence of a sssessment on financial statement fraud. This hierarchical influence suggests that fraud risk assessment plays a mediating role in the relationship between ethical sensitivity, religiosity, and financial statement fraud.

3 Problem Solution

3.1 Research Design

This research employs a quantitative explanatory design utilizing a cross-sectional survey method. This design is suitable for exploring underlying behavioral constructs that cannot be directly witnessed, such as ethical sensitivity, religiosity, and the tendency toward financial statement fraud. Prior behavioral accounting and fraud studies have widely employed survey-based approaches to capture individual moral judgments and cognitive evaluations underlying fraudulent behavior [5], [18].

The use of a cross-sectional approach is justified because the primary objective of this study is to test theoretically derived relationships among constructs rather than to examine behavioral changes over time. Financial reporting behavior in the public sector is often shaped by immediate ethical judgments and situational controls, making it suitable for assessment within a single time frame. To mitigate social desirability bias, respondents were assured of anonymity and confidentiality, consistent with recommendations in ethical behavior research [19].

3.2 Population and Sampling Procedure

The population of this study comprises employees of provincial government organizations in Central Java, Indonesia, who are directly involved in the preparation, review, verification, or approval of financial reports. This population is particularly relevant because public sector financial reporting is vulnerable to fraud risk, and individuals in these roles

possess discretionary authority that may affect the integrity of financial statements.

A purposive sampling technique was employed to ensure that respondents met the criterion of direct involvement in financial management and reporting processes. This approach is commonly used in behavioral accounting research when specific professional expertise or responsibilities are required [20]. The criteria for respondent selection were: (1) being a permanent employee of a provincial government organization in Central Java; (2) holding a position directly involved in financial reporting processes (preparation, review, verification, or approval); and (3) having at least one year of work experience in the relevant position.

Of the 450 questionnaires distributed, 400 complete and usable responses were obtained, resulting in a response rate of 88.89 percent. This sample size exceeds the minimum requirements for structural equation modeling and is considered adequate for estimating models with interaction effects [21], [22].

3.3 Measurement of Variables

All constructs in this research were defined as latent variables assessed through multiple items modified from recognized tools, thus guaranteeing content validity and consistency with previous studies. Each item was evaluated on a seven-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). Employing a seven-point scale increases response diversity and measurement consistency in behavioral studies [23].

Ethical sensitivity was measured using items adapted from [24], [25], which capture individuals' ability to recognize ethical issues and moral consequences in financial reporting decisions. Religiosity was measured using items adapted from [26], reflecting internalized religious commitment and moral orientation.

Fraud risk assessment was measured using items derived from [13], [14], focusing on organizational processes for identifying, assessing, and managing fraud risk. Financial statement fraud was measured using items adapted from prior fraud intention and reporting behavior studies [27], [28], contextualized to reflect public sector financial reporting practices. Due to the sensitive nature of this construct, items were designed to evaluate propensity or likelihood instead of actual fraudulent behavior.

A preliminary study with 30 participants was carried out to evaluate item clarity and significance, leading to slight wording adjustments before the main data gathering

3.4 Data Collection Procedure

Data were gathered through self-administered questionnaires provided in both physical format and electronically through secure online platforms. Participants were made aware of the study's academic intent and were guaranteed that their answers would be kept anonymous and confidential. These procedures were implemented to reduce social desirability bias, which is a common concern in studies examining sensitive behaviors such as fraud [29].

Multiple procedural strategies were utilized to reduce common method bias (CMB). The items of the questionnaire were randomized, and the predictor and criterion variables were divided into distinct sections of the tool. Clear instructions emphasized honest responses and assured respondents that there were no right or wrong answers. In addition, Harman's single-factor test was employed as a post-hoc diagnostic, indicating that no single factor accounted for a majority of the variance, suggesting that common method bias was unlikely to be a significant concern in this study.

3.5 Data Analysis Technique

Data were examined utilizing Partial Least Squares Structural Equation Modelling (PLS-SEM) through SmartPLS software version 4. The structural model was examined according to recognized protocols [30], [31]. PLS-SEM was selected for this study for several reasons. First, the research model includes multiple latent constructs and interaction (moderation) effects, which can be effectively estimated using PLS-SEM. Second, PLS-SEM is appropriate for prediction-focused behavioral studies and is resilient against non-normal data distributions [21], [22]. Third, PLS-SEM is suggested when the research aim focuses on theory development and model investigation instead of rigid theory validation, in line with the integrative aspect of this study.

The examination was carried out in two phases. Initially, the measurement model was analyzed by examining indicator reliability, internal consistency reliability (composite reliability and Cronbach's alpha), convergent validity (average variance extracted), and discriminant validity (Fornell-Larcker criterion and HTMT ratio) following established standards. Secondly, the structural model was evaluated by analyzing path coefficients, bootstrapped t-values derived from 5,000 subsamples, coefficients of determination (R^2), effect sizes (f^2), and predictive significance (Q^2). The moderating impacts of fraud risk evaluation were examined utilizing interaction terms created within the PLS framework, adhering to the two-stage methodology

advised for latent variable moderation analysis [22], [32]

The regression equation model can be mathematically formulated as follows:

$$FRA = a + b_{11}ES + b_{12}R + e_{11} \quad (1)$$

$$FSF = a_2 + b_{21}ES + b_{22}R + b_{23}FRA + e_{22} \quad (2)$$

Notes:

FSF = Financial Statement Fraud.

FRA = Fraud Risk Assessment.

ES = Ethical Sensitivity.

R = Religiosity.

r = error

3.6 Ethical Considerations

Ethical clearance from the relevant institutional review board was obtained before a single piece of data changed hands, and the research held firmly to recognized ethical standards governing studies with human participants from start to finish. Joining was never compulsory. Every participant came in voluntarily, and informed consent was gathered from each individual before anything else happened. Nobody was left guessing about their rights either. It was made explicitly clear, without hedging or fine print, that withdrawing at any stage carried absolutely no repercussions whatsoever. Responses were also protected under guarantees of anonymity and confidentiality, giving participants the freedom to answer candidly without any lingering anxiety about being identified or exposed

These ethical protections are especially crucial in public sector fraud studies, where matters concerning financial reporting conduct are delicate and might present perceived professional or organizational dangers to participants. All research procedures were conducted in accordance with the Declaration of Helsinki and generally accepted ethical standards for social science research.

4 Findings and Discussion

4.1 Overview

This section reports the empirical findings from the PLS-SEM analysis based on 400 valid responses. The analysis followed a two-stage approach comprising the assessment of the measurement model and the evaluation of the structural model. Bootstrapping with 5,000 subsamples was employed to assess the statistical significance of path coefficients and interaction effects.

4.2 Respondent Demographic Profile

Table 1. lays out the demographic profile of all 400 participants. Women formed the slightly larger portion of the sample at 55.0 percent, with men making up the remaining 45.0 percent. Age distribution leaned heavily toward the middle career years, with the 30 to 39 brackets claiming the largest slice at 35.0 percent and the 40 to 49 group following at 30.0 percent. Taken together, that is a sample dominated by people who are neither fresh out of training nor winding down toward retirement, but solidly planted in the middle stretch of their professional lives. Educational credentials skew predictably toward the undergraduate level, where 60.0 percent of respondents came in with a bachelor's degree, and 18.0 percent held a master's degree. Work experience tells a similar story of mid-range concentration, with 35.0 percent reporting somewhere between 5 and 10 years in their current role and another 25.0 percent sitting in the 10-to-15-year range. As for their specific roles in financial reporting, preparers formed the largest chunk at 40.0 percent, while reviewers sat at 25.0 percent, verifiers at 20.0 percent, and approvers or managers rounded things out at 15.0 percent. This demographic composition reflects a diverse and experienced sample of public sector financial officers in Central Java, Indonesia

Table 1. below explains the demographic profile of respondents based on their gender characteristics, age, education level, work experience, and their position or role in their work

Table 1. Demographic Profile of Respondents (N = 400)

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	180	45.0
	Female	220	55.0
Age (years)	< 30	60	15.0
	30 – 39	140	35.0
	40 – 49	120	30.0
	≥ 50	80	20.0
Education Level	Diploma	80	20.0
	Bachelor's Degree	240	60.0
	Master's Degree	72	18.0
	Doctoral Degree	8	2.0
Work Experience (years)	< 5	100	25.0
	5 – 10	140	35.0
	10 – 15	100	25.0
	> 15	60	15.0
Position/Role	Financial Report Preparer	160	40.0
	Reviewer	100	25.0
	Verifier	80	20.0
	Approver/Manager	60	15.0

Source: created by the authors

4.3 Measurement Model Evaluation

4.3.1 Indicator Reliability

All reflective indicators demonstrate satisfactory reliability, with standardized outer loadings ranging from 0.770 to 0.970, exceeding the recommended threshold of 0.70 [22]. This is demonstrated by Table 2 below, which indicates that each indicator makes an adequate contribution to its respective latent construct.

Table 2. Outer Loadings

Construct	Indicator	Outer Loading
Ethical Sensitivity	X _{1.01}	0.770
	X _{1.02}	0.808
	X _{1.03}	0.840
Religiosity	X _{2.01}	0.965
	X _{2.02}	0.970
	X _{2.03}	0.937
Fraud Risk Assessment	Z ₀₁	0.860
	Z ₀₂	0.872
	Z ₀₃	0.895
Financial Statement Fraud	Y ₀₁	0.902
	Y ₀₂	0.919
	Y ₀₃	0.777

Source: created by the author

4.3.2 Internal Consistency and Convergent Validity

Furthermore, Table 3 below shows that the composite reliability (CR) scores vary between 0.848 and 0.971, exceeding the benchmark of 0.70. All Average Variance Extracted (AVE) values in Table 3 exceed 0.50, indicating adequate convergent validity [33].

Table 3. Composite Reliability and Average Variance Extracted (AVE)

Construct	Composite Reliability	AVE
Ethical Sensitivity	0.848	0.650
Religiosity	0.971	0.917
Fraud Risk Assessment	0.901	0.754
Financial Statement Fraud	0.908	0.767

Source: created by the authors

4.4 Discriminant Validity

4.4.1 Fornell–Larcker Criterion

Meanwhile, the square root of AVE for each construct is shown in Table 4 below. Table 4 shows that the square root of AVE for each construct exceeds its correlation with other constructs, thus supporting discriminant validity [33].

Table 4. Fornell–Larcker Criterion

Construct	X ₁	X ₂	Y	Z
Ethical Sensitivity – X ₁	0.806			
Religiosity – X ₂	0.827	0.958		
Financial Statement Fraud – Y	0.300	0.317	0.868	
Fraud Risk Assessment – Z	0.063	0.136	0.390	0.876

Source: created by the authors

4.4.2 HTMT Criterion

Most of the HTMT values are below 0.90. The HTMT value between ethical sensitivity and religiosity (0.946) slightly exceeds the threshold but remains acceptable considering its conceptual closeness as a moral construct [34]. This is shown in Table 5 below, which shows that the HTMT value of Religiosity – X₂ = 0.946, the HTMT value of Financial Statement Fraud – Y for X₁ = 0.374 and for X₂ = 0.353, while the HTMT value of Fraud Risk Assessment – Z for X₁ = 0.125 and for X₂ = 0.135,

Table 5. HTMT Ratios

Construct	X ₁	X ₂	Y
Religiosity – X ₂	0.946		
Financial Statement Fraud – Y	0.374	0.353	
Fraud Risk Assessment – Z	0.125	0.135	0.452

Source: created by the authors

Although the HTMT value between ethical sensitivity and religiosity slightly exceeds the recommended threshold, this is acceptable given their conceptual proximity as moral constructs, consistent with prior behavioural ethics research [18], [25].

4.5 Structural Model Evaluation

4.5.1 Multicollinearity Assessment

The internal Variance Inflation Factor (VIF) is shown in Table 6 below. Table 6 shows that the internal Variance Inflation Factor (VIF) value is below 5. This condition indicates that there is no multicollinearity problem among the predictor constructs [22].

Table 6. Inner VIF Values

Predictor	Y (Financial Statement Fraud)	Z (Fraud Risk Assessment)
Ethical Sensitivity – X_1	3.181	3.157
Religiosity – X_2	3.228	3.157
Fraud Risk Assessment – Z	1.027	—

Source: created by the authors

4.5.2 Hypothesis Testing

The results of the bootstrapping test using 5,000 subsamples are presented in Table 7 below. The bootstrapping test results indicate that ethical sensitivity and religiosity significantly reduce financial statement fraud. Fraud Risk Assessment strengthens this relationship through a significant interaction effect.

Table 7. Path Coefficients and Hypothesis Testing Results

Hypothesis	Path	β	t-value	p-value	Decision
H ₁	$X_1 \rightarrow Y$	-0.178	2.849	0.004	Supported
H ₂	$X_2 \rightarrow Y$	-0.121	1.975	0.048	Supported
H ₃	$X_1 \times Z \rightarrow Y$	-0.056	1.986	0.047	Supported
H ₄	$X_2 \times Z \rightarrow Y$	-0.096	3.174	0.002	Supported

Source: created by the authors

4.5.3 Explained Variance and Effect Size

The results of the coefficient of determination (R^2) test can be seen in Table 8 below. From Table 8, it can be seen that the coefficient of determination (R^2) for financial reporting fraud is 0.233, which indicates that the model explains 23.3 percent of the variance in fraudulent reporting behavior, while the R^2 for fraud risk assessment is 0.026.

Table 8. Coefficient of Determination (R^2) and Adjusted R^2

Construct	R^2	Adjusted R^2
Financial Statement Fraud – Y	0.233	0.227
Fraud Risk Assessment – Z	0.026	0.021

Source: created by the authors

The results of the effect size (f^2) test can be seen in Table 9. In Table 9, the effect size (f^2) shows that fraud risk assessment has a moderate impact on financial statement fraud ($f^2 = 0.167$), while ethical sensitivity and religiosity show small effects ($f^2 = 0.013$ and 0.006, respectively).

Table 9. Effect Size (f^2)

Path	f^2	Effect Size
$X_1 \rightarrow Y$	0.013	Small
$X_2 \rightarrow Y$	0.006	Small
$Z \rightarrow Y$	0.167	Medium

Source: created by the authors

4.5.4 Predictive Relevance (Q^2)

Finally, Table 10 shows the Q^2 values obtained through the blindfolding procedure. These Q^2 values exceed zero, indicating that the model has strong predictive relevance for the endogenous constructs.

Table 10. Predictive Relevance (Q^2)

Construct	Q^2
Ethical Sensitivity – X_1	0.303
Religiosity – X_2	0.770
Financial Statement Fraud – Y	0.486
Fraud Risk Assessment – Z	0.505

Source: created by the authors

4.5.5 Mediation Analysis (Exploratory)

An exploratory mediation analysis was conducted to examine whether fraud risk assessment mediates the relationships between moral attributes and financial statement fraud. The indirect effect of ethical sensitivity via FRA is not significant, while religiosity shows a significant indirect pathway. Given the study's theoretical framing based on attribution theory, FRA is interpreted primarily as a moderating mechanism rather than a mediator.

4.6 Summary of Results

The findings from a survey of 400 public sector financial officers in Central Java, Indonesia, indicate that ethical sensitivity and religiosity both significantly decrease the chances of financial statement fraud. In particular, ethical sensitivity has a more significant negative impact ($\beta = -0.178$, $p = 0.004$) than religiosity ($\beta = -0.121$, $p = 0.048$). Fraud Risk Assessment acts as an important moderating factor, considerably enhancing the adverse connection between ethical sensitivity and financial statement fraud ($\beta = -0.056$, $p = 0.047$) as well as between religiosity and financial statement fraud ($\beta = -0.096$, $p = 0.002$).

The model accounts for 23.3 percent of the variance in financial statement fraud ($R^2 = 0.233$), while the fraud risk assessment shows a moderate effect size ($f^2 = 0.167$). All Q^2 values exceed zero, confirming the model's predictive relevance. Overall, the findings support the argument that fraudulent reporting behavior in the public sector is shaped by the interaction between personal moral dispositions and

organizational-level fraud control systems, consistent with the predictions of attribution theory.

5 Discussion

5.1 Overview of Key Findings

The findings show that ethical sensitivity is notably and inversely related to financial statement fraud ($\beta = -0.178$, $p = 0.004$). This discovery reinforces the behavioral ethics viewpoint that those who are more sensitive to moral matters can better identify ethical dilemmas within financial reporting choices, making them less prone to commit fraud. Ethical sensitivity boosts moral awareness and heightens sensitivity to the impacts of inaccurate reporting for stakeholders, aligning with the moral decision-making framework in [8].

This study investigates how ethical sensitivity and religiosity influence financial statement fraud in the public sector, and how Fraud Risk Assessment (FRA) conditions these relationships. Grounded in Attribution Theory, the findings reveal that fraudulent reporting behavior does not emerge in a vacuum. It sits at the intersection of individual moral characteristics and the organizational control structures surrounding them. More specifically, the results show four things worth paying attention to: ethical sensitivity carries a meaningful negative effect on financial statement fraud; religiosity does much the same; fraud risk assessment significantly amplifies both of those negative relationships, making ethical sensitivity and religiosity even more potent in curbing fraud; and fraud risk assessment operates as a situational moderator rather than a mediator, which slots neatly into the attribution framework logic.

What this adds to the broader governance and behavioral accounting conversation is genuinely useful. Fraud prevention, it turns out, is not something that personal virtue alone or organizational controls alone can carry. The two need to move together, personal moral qualities pulling in the same direction as robust institutional mechanisms, because when they are out of sync, the gaps are exactly where fraud tends to slip through. The following subsections discuss these findings in relation to prior literature, theoretical implications, and practical applications for public sector governance.

5.2 Ethical Sensitivity and Financial Statement Fraud

The findings show that ethical sensitivity is notably and inversely related to financial statement fraud ($\beta = -0.178$, $p = 0.004$). This discovery reinforces the

behavioral ethics viewpoint that those who are more sensitive to moral matters can better identify ethical dilemmas within financial reporting choices, making them less prone to commit fraud. Ethical sensitivity boosts moral awareness and heightens sensitivity to the impacts of inaccurate reporting for stakeholders, aligning with the moral decision-making framework in [8].

This result is consistent with and extends prior research. Research from [9] found that ethical sensitivity significantly reduces unethical accounting intentions among Vietnamese accountants, demonstrating that moral recognition serves as a first line of defense against fraudulent behavior. Some studies, like [18], [25], show that people who are more aware of ethics are less likely to engage in misleading financial practices or false reporting, even when they face pressure from their organization. This study builds on previous findings by showing that ethical sensitivity works in a similar way in the public sector of an emerging economy. In this setting, being accurate in reporting is directly connected to how responsible and accountable the government is in managing public resources.

Ethical sensitivity shows a statistically significant but modest effect on fraud, with an effect size of $f^2 = 0.013$. It contributes, yes, but it is nowhere near the whole picture. What this really signals is that ethical sensitivity does not operate in isolation. It functions alongside other variables, and its influence on whether someone ultimately engages in fraudulent behavior is conditional on the broader context surrounding them. This sits comfortably within the wider argument that personal traits alone are poor predictors of human action without factoring in situational forces.

Religiosity, meanwhile, tells a slightly different story. With a coefficient of -0.121 and a p -value of 0.048 , it shows a meaningful link to reduced likelihood of financial statement fraud. The underlying logic is that religiosity works as a kind of built-in moral regulator, worlds apart from an externally imposed set of rules that someone hands down from above. It is something far more intimate than that. It deepens a person's felt obligation toward moral conduct, tightens their capacity for self-regulation, and naturally orients them toward widely held ethical norms. People with strong religious conviction tend to do the right thing because their faith genuinely requires it from the inside out, not because a supervisor or oversight body happens to be watching from across the room. This lines up well with earlier literature connecting religious orientation to cleaner, more ethical conduct in financial and accounting contexts. In 2020, [11] showed that being religious helps cut down on bad behavior in businesses and

makes financial experts make better ethical choices. They believe this happens because religious people take moral rules more seriously and feel more responsible to a higher power. Similarly, studies in [33] and [34] show that being religious is linked to less unethical behavior in different cultures. Meanwhile, studies from [12] also showed that people who are religious are better at resisting dishonest financial behavior because they have stronger self-control abilities.

This study builds on existing research by showing that religiosity still plays an important role in public-sector organizations in emerging economies, especially in Indonesia, where religious beliefs are a big part of both society and workplace culture. In public sector organizations, being religious can help strengthen values like honesty, good management, and responsibility, which are key to making ethical financial reports. The finding also covers an area that hasn't been much explored before, which has mostly looked at private companies and wealthier countries. However, the impact of religiosity on fraud ($f^2 = 0.006$) is less than that of ethical sensitivity, which means that even though religiosity can help with ethical behavior, its effect might be weaker or depend on other things. This point needs more study in future research.

5.3 Religiosity and Financial Statement Fraud

Religiosity is also found to significantly reduce financial statement fraud ($\beta = -0.121$, $p = 0.048$). This finding supports the view that religiosity serves as an internalized moral control that shapes ethical behavior by strengthening moral obligations, self-regulation, and adherence to normative standards. Individuals with higher levels of religiosity are more likely to adhere to ethical standards due to internal moral commitments rather than external enforcement alone.

This evidence is consistent with previous studies documenting a negative relationship between religiosity and unethical behavior in accounting and financial decision-making. Callen et al. (2020) demonstrated that religiosity significantly reduces corporate misconduct and enhances ethical decision-making among financial professionals, attributing this effect to the internalization of moral norms and heightened accountability to a higher authority. Similarly, [35], [36] found that religiosity is associated with lower levels of unethical behavior across various cultural contexts. Meanwhile, research from [12] further confirmed that religious individuals exhibit greater resistance to financial misconduct due to enhanced self-regulation mechanisms.

The present study extends this literature by confirming the relevance of religiosity in emerging

economy public-sector settings, specifically in Indonesia, where religious values are deeply embedded in societal and organizational culture. In public sector organizations, religiosity may reinforce values such as honesty, stewardship, and accountability, which are central to ethical financial reporting. The finding also addresses a gap in prior research, which has predominantly focused on private-sector and developed-country contexts.

However, the effect size of religiosity on fraud ($f^2 = 0.006$) is smaller than that of ethical sensitivity, suggesting that while religiosity contributes to ethical behavior, its influence may be more indirect or contingent upon other factors. This observation warrants further investigation in future research.

5.4 The Moderating Role of Fraud Risk Assessment

The moderation analysis reveals that Fraud Risk Assessment significantly strengthens the negative relationships between individual moral attributes and financial statement fraud. FRA increases the effect of ethical sensitivity ($\beta = -0.056$, $p = 0.047$) and religiosity ($\beta = -0.096$, $p = 0.002$) in helping to prevent fraudulent behavior. This implies that organizational control systems don't work alone but instead work together with personal moral attitudes in a way that supports each other.

This discovery aligns with and builds upon earlier studies. Research results from [5] demonstrated that fraud risk management mechanisms significantly enhance the effectiveness of ethical climates in reducing fraudulent behavior, arguing that formal controls and informal ethical norms are complementary rather than substitutive. Similarly, [6] found that robust fraud risk assessment processes strengthen the relationship between ethical leadership and reduced misconduct. [14], [27] further argued that effective control environments reinforce ethical conduct rather than substitute for moral character.

The present study contributes to this literature by demonstrating that FRA functions as a contextual amplifier of individual moral attributes. From an attribution perspective, strong fraud risk assessment mechanisms increase the salience of external situational cues such as monitoring, detection probability, and sanctions. When external cues match internal moral standards, individuals tend to credit ethical behavior to both personal accountability and organizational norms, thus diminishing the chances of justifying dishonest actions.

The moderation effect holds significant importance in the public sector, where formal controls are frequently stressed yet might differ in effectiveness because of bureaucratic intricacy and

limitations in resources. The findings indicate that improving fraud risk assessment procedures can elevate the ethical influence of employees' moral values, thus decreasing the chances of fraudulent reporting more efficiently than either element by itself.

Notably, FRA exhibits a medium effect size ($f^2 = 0.167$) on financial statement fraud, indicating that organizational control mechanisms play a substantial role in shaping fraudulent behavior. This finding underscores the importance of investing in robust fraud risk assessment systems as a core component of public sector governance. Aligning with broader principles of risk governance

5.5 Conceptual Overlap between Ethical Sensitivity and Religiosity

The discriminant validity assessment revealed that the HTMT value between ethical sensitivity and religiosity (0.946) slightly exceeds the recommended threshold of 0.90. While this may initially raise concerns about discriminant validity, we argue that this high correlation is theoretically justifiable given the conceptual proximity of these constructs.

Both ethical sensitivity and religiosity represent moral-cognitive attributes that influence an individual's ethical orientation. According to [8], ethical sensitivity is defined as the capacity to identify moral dilemmas in decision-making contexts, whereas religiosity includes internalized moral principles that arise from religious devotion. Religiosity, across a wide range of cultural contexts, often functions as the fertile ground from which ethical awareness quietly sprouts, and Indonesia offers a particularly vivid illustration of this given how thoroughly religious values have penetrated everyday social and professional life.

People grounded in strong religious conviction tend to register moral concerns faster and more instinctively, largely because their faith already provides a working framework for distinguishing right from wrong long before any formal ethics curriculum gets involved. There is something almost pre-installed about it. This conceptual bleed between religiosity and ethical sensitivity is not a new observation either. It echoes what behavioral ethics scholars have been documenting for years. [26] argued that religiosity actively shapes moral identity and ethical consciousness, while [24] noted that religiously oriented individuals frequently demonstrate a sharper, more heightened sensitivity to ethical dilemmas when they arise.

The high HTMT value in this study reflects this theoretical convergence rather than a measurement artifact. However, the Fornell–Larcker criterion

verifies discriminant validity since the square root of AVE for each construct is greater than its correlations with other constructs. Moreover, both constructs reveal separate homological networks within the structural model, with ethical sensitivity displaying a more significant direct influence on fraud compared to religiosity. Shared conceptual ground notwithstanding, these two constructs are not simply two names for the same thing. Each one reaches into a different corner of moral cognition, and each pulls its own explanatory weight when the question turns to why people drift toward dishonest conduct.

The overlap is real and undeniable, but underneath that surface similarity, they are doing genuinely distinct work, pointing at different psychological mechanisms and leaving different fingerprints on behavior. Down the road, future research could benefit from sharper measurement tools that draw cleaner lines between them, or perhaps explore whether religiosity actually feeds into ethical sensitivity sequentially, and whether those dynamics play out differently depending on the cultural soil it is growing in.

Theoretical Contributions and Integration with Attribution Theory: This study makes several theoretical contributions to the governance and behavioral accounting literature. First, it integrates ethical sensitivity, religiosity, and fraud risk assessment within a unified attribution-based framework, thereby bridging the dispositional–situational divide that characterizes much of the existing fraud literature. Second, it empirically examines the moderating role of FRA, addressing a significant gap identified in recent research [14], [15]. Third, it provides empirical evidence from the public sector in an emerging economy, a context that remains substantially underrepresented in prior studies.

The ideas used to understand these results come from Attribution Theory [16], [17]. According to this theory, behavior is best explained by the interaction of internal (dispositional) and external (situational) causes. In this study, internal attributions are linked to ethical sensitivity and religiosity, which show how individuals naturally feel about right and wrong, and how they see dishonest actions. External attributions are represented by Fraud Risk Assessment, which constitutes situational signals that influence perceptions of monitoring, accountability, and consequences.

The significant direct and moderation effects found in this study support [16] proposition that behavior results from the confluence of internal and external factors. Public sector workers are less likely to lie about things they report when they believe in doing the right thing because of their own values and

also because they think their workplace expects them to act honestly. This system helps lower the chance of people making excuses for bad behavior, like saying "everyone does it," or shifting the blame onto someone else. Furthermore, the findings extend the covariation model by demonstrating that consistent and integrated attribution signals produce more predictable ethical behavior [17].

Strong FRA systems signal consistent institutional standards that reinforce individual moral qualities, thereby encouraging greater adherence to ethical reporting practices. When organizational controls and individual dispositions are aligned, the attribution environment becomes conducive to ethical behavior. The present study thus empirically validates a dual-attribution paradigm for explaining financial statement fraud in public sector organizations, offering a theoretically grounded alternative to models that focus exclusively on either individual characteristics or organizational controls.

5.6 Theoretical Contributions and Integration with Attribution Theory

The results of this study have several key meanings for public sector regulators, policymakers, and those involved in governance: Cutting financial statement fraud down meaningfully requires more than just tightening formal controls; it demands a genuine investment in sharpening how people perceive and process ethical issues. Ethics training and professional development programs that are actually designed with intention, not just ticked off as compliance boxes, can make a real difference here. Public sector organizations would do well to weave modules on moral awareness, ethical reasoning, and dilemma recognition into their training ecosystems, because when financial officers can spot an ethical problem before it snowballs, the whole fraud prevention equation shifts in the right direction.

Organizational policy cannot afford to keep treating religiosity and personal moral values as though they exist in a separate universe from professional conduct, particularly in contexts like Indonesia, where these forces are anything but peripheral. They shape how people think, decide, and act at work in ways that are too significant to keep ignoring. Public institutions must absolutely remain secular and inclusive; that boundary is not up for negotiation, but secularity does not require pretending that values-based programming is off the table. There is genuine space to develop integrity-building initiatives that acknowledge and respect the diversity of personal beliefs people bring through the door, without veering into territory that feels coercive, exclusionary, or ideologically heavy-handed. This can

happen through voluntary ethics efforts, reflection activities, and leaders showing ethical behavior as an example. Third, fraud risk evaluation systems must be enhanced and consistently applied, as they not only diminish the probability of fraud directly but also boost the impact of employees' ethical qualities.

Clear fraud risk identification, regular monitoring, transparent communication of sanctions, and consistent enforcement of controls may reinforce ethical behavior and deter misconduct more effectively when aligned with employees' moral frameworks. This finding aligns with [13]'s recommendation that optimal fraud risk management occurs when ethical culture and control mechanisms complement one another. Fraud prevention strategies built exclusively around regulations and penalties are working with an incomplete toolkit, and the gaps tend to show up at the worst possible moments. What the situation actually calls for is a more integrated architecture, one that braids organizational controls together with internal ethical reinforcement so that neither dimension is left shouldering the burden alone.

Governance frameworks need to be intentionally designed to cultivate an attribution environment, an institutional climate where ethical behavior gets tied simultaneously to personal accountability and broader organizational expectations, shrinking the psychological space where rationalization and blame-shifting typically breed. Oversight bodies and regulators are also overdue for some honest reflection about what their assessment frameworks are genuinely capturing. Incorporating evaluations of ethical culture alongside fraud risk management maturity into how public sector entities get assessed would shift the whole exercise toward something meaningfully more comprehensive.

Procedural compliance metrics tell only part of the story, and sometimes not even the most important part. Right now, too many frameworks fixate on procedural compliance while the human and organizational dimensions of fraud risk quietly go unmeasured. Bringing those dimensions into the fold would produce a far more complete and honest picture of where vulnerabilities actually live. Likewise, it was reported that structured fraud risk assessment methods in Indonesian state-owned companies greatly enhance governance standards and decrease material misstatements. The current research builds on their findings by showing that the success of FRA depends on the ethical awareness and religious beliefs of individual participants — a conclusion that has not been previously demonstrated in the context of the Indonesian public sector. Collectively, these research findings offer strong support that merging organizational controls with individual ethical

reinforcement in fraud prevention strategies should be a fundamental element of governance reform in Indonesia's public sector.

5.7 Practical Implications for Public Sector Governance

The results of this study have several key meanings for public sector regulators, policymakers, and those involved in governance:

First, cutting financial statement fraud down meaningfully requires more than just tightening formal controls; it demands a genuine investment in sharpening how people perceive and process ethical issues. Ethics training and professional development programs that are actually designed with intention, not just ticked off as compliance boxes, can make a real difference here. Public sector organizations would do well to weave modules on moral awareness, ethical reasoning, and dilemma recognition into their training ecosystems, because when financial officers can spot an ethical problem before it snowballs, the whole fraud prevention equation shifts in the right direction.

Second, organizational policy cannot afford to keep treating religiosity and personal moral values as though they exist in a separate universe from professional conduct, particularly in contexts like Indonesia, where these forces are anything but peripheral. They shape how people think, decide, and act at work in ways that are too significant to keep ignoring. Public institutions must absolutely remain secular and inclusive; that boundary is not up for negotiation, but secularity does not require pretending that values-based programming is off the table. There is genuine space to develop integrity-building initiatives that acknowledge and respect the diversity of personal beliefs people bring through the door, without veering into territory that feels coercive, exclusionary, or ideologically heavy-handed. This can happen through voluntary ethics efforts, reflection activities, and leaders showing ethical behavior as an example.

Third, fraud risk evaluation systems must be enhanced and consistently applied, as they not only diminish the probability of fraud directly but also boost the impact of employees' ethical qualities. Clear fraud risk identification, regular monitoring, transparent communication of sanctions, and consistent enforcement of controls may reinforce ethical behavior and deter misconduct more effectively when aligned with employees' moral frameworks. This finding aligns with [13]'s recommendation that optimal fraud risk management occurs when ethical culture and control mechanisms complement one another.

Fourth, fraud prevention strategies built exclusively around regulations and penalties are working with an incomplete toolkit, and the gaps tend to show up at the worst possible moments. What the situation actually calls for is a more integrated architecture, one that braids organizational controls together with internal ethical reinforcement so that neither dimension is left shouldering the burden alone. Governance frameworks need to be intentionally designed to cultivate an attribution environment, an institutional climate where ethical behavior gets tied simultaneously to personal accountability and broader organizational expectations, shrinking the psychological space where rationalization and blame-shifting typically breed.

Fifth, oversight bodies and regulators are also overdue for some honest reflection about what their assessment frameworks are genuinely capturing. Incorporating evaluations of ethical culture alongside fraud risk management maturity into how public sector entities get assessed would shift the whole exercise toward something meaningfully more comprehensive. Procedural compliance metrics tell only part of the story, and sometimes not even the most important part. Right now, too many frameworks fixate on procedural compliance while the human and organizational dimensions of fraud risk quietly go unmeasured. Bringing those dimensions into the fold would produce a far more complete and more honest picture of where vulnerabilities actually live.

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5.8 Limitations and Future Research Directions

Even with its contributions, this study has numerous limitations that need to be recognized and tackled in upcoming research:

First, the cross-sectional design is probably the most stubborn limitation here. It simply cannot establish causation between the constructs, no matter how well the theoretical logic holds up or how clean the statistical results look. Longitudinal or

experimental designs would put the causal argument on much firmer ground, and future researchers would do well to consider longitudinal surveys or field experiments that track how changes in ethical sensitivity, religiosity, and fraud risk assessment actually ripple through fraudulent behavior across time.

Second, on top of that, pulling data exclusively from public sector entities in a single province, Central Java specifically, puts a ceiling on how far these findings can travel. Other regions, other countries, different cultural textures, varying governance climates, all of these could produce meaningfully different results. Replicating this study across other Indonesian provinces would already be a worthwhile step, but pushing further into other developing country contexts would do even more to stress-test whether these relationships hold up beyond the particular soil they were first grown in.

Third, the indicators of financial statement fraud relied on self-reported tendencies or intentions instead of real fraudulent actions, given the sensitive nature of the concept and the challenges of acquiring objective fraud information. Although previous studies have confirmed that fraud intention serves as a substitute for actual behavior [27], [28], upcoming research could investigate different data sources, like audit results or whistleblower reports, to corroborate the connections found in this study.

Fourth, the elevated HTMT value between ethical sensitivity and religiosity indicates a conceptual intersection that requires more exploration. Future studies might investigate if religiosity acts as a precursor to ethical sensitivity in specific cultural settings or if these concepts should be represented as higher-order factors indicative of a more extensive moral identity framework.

Fifth, by focusing entirely on fraud risk assessment as a moderator, this research inevitably left other potentially important variables sitting on the sidelines. Ethical leadership, organizational culture, peer influence, perceived organizational support, any one of these could be doing meaningful moderating or mediating work that simply went unexamined here. Future studies would produce richer, more textured models by pulling some of these factors in and mapping out the fuller web of mechanisms that drive fraudulent behaviour in public sector environments.

Sixth, methodologically, PLS-SEM was the right call for a study oriented around prediction and interaction effects, but it is not the only lens worth looking through. Subsequent research applying covariance-based SEM could serve as a useful cross-check, potentially surfacing additional clarity around model fit and parameter estimation that PLS-SEM is

not particularly built to deliver. Running both approaches in parallel or sequentially would give the findings a much sturdier foundation.

6 Conclusion

This research shows that financial statement fraud within the public sector is influenced by the interplay between personal ethical tendencies and organizational control measures. Ethical sensitivity and religiosity significantly reduce the propensity toward fraudulent reporting, and these effects are strengthened by robust fraud risk assessment systems. Based on Attribution Theory, the results endorse a dual-attribution model in which ethical conduct arises from the concordance between internal moral values and external organizational demands.

This research carves out a meaningful space in the governance and behavioral accounting literature by doing something that prior work has rarely attempted, bringing dispositional and situational factors together under one coherent theoretical roof. Beyond that, it empirically probes the moderating role of fraud risk assessment and draws on a public sector context in a developing economy that has largely been passed over in existing scholarship. That combination alone makes the contribution hard to dismiss.

For regulators and policymakers operating at the coalface of public sector governance, these findings have practical relevance rather than just theoretical tidiness. Genuinely comprehensive fraud prevention cannot be assembled by running ethics-driven initiatives and risk-focused control mechanisms on separate tracks as though they have nothing to do with each other. They are fundamentally interconnected, and this study puts empirical muscle behind that argument in ways that should be difficult to set aside when designing policy.

As a springboard for future inquiry, the work does something quietly important. It deepens understanding of the attribution processes underneath fraudulent behavior, keeping the conversation between individual ethics and organizational governance alive and productive, all in service of something that genuinely matters, which is public sector integrity. Moreover, the current results align with recent data from Indonesian local governments indicating that effective internal control systems significantly diminish fraud when paired with ethical leadership and moral consciousness among public officials. The alignment of findings strengthens the claim that fraud prevention in Indonesia's public sector is most successful when formal control systems are backed by individual ethical attitudes, thereby

offering strong contextual support for the attribution-based framework suggested in this research.

While this study significantly enhances the development of financial reports in the public sector, it also has multiple limitations. The cross-sectional design remains the most stubborn constraint in this work, simply because it cannot pin down causal direction between the constructs, no matter how theoretically sound the proposed relationships look. Longitudinal surveys tracking shifts in ethical sensitivity, religiosity, and fraud risk assessment across time would be a natural next step, and field experiments that deliberately manipulate control conditions to observe behavioral outcomes could push the causal argument considerably further.

Leaning entirely on self-reported data opens the door to a familiar cluster of problems; social desirability bias, common method bias, and the kind of memory inaccuracies that procedural safeguards like anonymity guarantees, item randomization, and Harman's single-factor test can only partially address. Bringing objective fraud indicators into future studies, things like audit findings, financial restatement records, or whistleblower disclosures, would give the associations uncovered here a much harder empirical surface to stand on.

Anchoring the study in Central Java also puts a natural ceiling on how broadly the findings can be generalized. Varying provinces, contrasting national contexts, different balances of religious composition, divergent governance architectures, and different levels of institutional maturity could each generate findings that look quite unlike what emerged here. Pushing this line of research outward into other Indonesian regions and into comparable developing economy settings like Vietnam, the Philippines, or India would subject these results to the kind of cross-cultural pressure testing that would either confirm their broader applicability or reveal exactly where the boundaries of generalizability actually sit.

The elevated HTMT value of 0.946, sitting between ethical sensitivity and religiosity, is a signal that deserves more attention than a single study can give it. The conceptual boundary between these two constructs is blurrier than the measurement model would ideally prefer. Future work could dig into whether religiosity actually precedes and shapes ethical sensitivity in certain cultural environments, or whether both are better understood as indicators of some deeper, more complex moral identity construct. Qualitative approaches, interviews, focus groups, that sort of thing, could surface the kind of nuanced insight that survey data simply cannot reach.

Narrowing the moderator spotlight exclusively onto fraud risk assessment meant that other potentially

powerful variables never got their moment. Ethical leadership, organizational culture, peer influence, perceived organizational support, moral courage, professional identity, any of these could be doing significant moderating or mediating work in the background. Future models that are bold enough to incorporate several of these factors simultaneously would paint a far more complete picture of what actually drives fraudulent behavior in public sector settings.

PLS-SEM was a reasonable and well-justified methodological choice for a study centered on prediction and interaction effects, but intellectual honesty demands acknowledging where it falls short. Overall model fit and the precision of parameter estimation are not exactly its strongest suits. CB-SEM could do meaningful work as a robustness check in follow-up investigations, and there is a real argument for deploying both analytical approaches side by side within comparative research designs. That kind of methodological pairing would inject an additional layer of credibility into whatever conclusions surface, making them considerably harder to dismiss on technical grounds.

Acknowledgement:

The author would like to thank colleagues who were involved, either directly or indirectly, for taking the time to participate in this research.

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Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

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editing: Z.R.F; A.C; S.H.

Sources of Funding for Research Presented in a Scientific Article or Scientific Article Itself

No funding was received for conducting this study.

Conflict of Interest

The author declares that there are no political, social, cultural, religious and economic interests related to this research.

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