

Fraud Mitigation at Muhammadiyah Schools with Moral Sensitivity as a Moderating Variable

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ABSTRACT

This study aims to analyze the influence of ethical leadership, whistleblowing systems, and internal controls on fraud mitigation in Muhammadiyah schools, with moral sensitivity as moderating variable. The research approach used was quantitative, involving the distribution of questionnaires to 54 respondents consisting of school administrators and financial staff within the Muhammadiyah environment. Data analyzed using PLS-SEM (Partial Least Squares Structural Equation Modeling). The results indicate that only internal controls have a significant effect on fraud mitigation. Conversely, ethical leadership and whistleblowing systems do not have a significant effect. Furthermore, moral sensitivity was found to be unable to moderate the relationship between independent variables and fraud mitigation. These findings indicate that within a homogeneous, religion-based organizational environment, strengthening formal governance systems and rigid internal audits is far more effective in reducing the risk of fraud than merely relying on individual moral attributes or existing reporting mechanisms.

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1. Introduction

One of Muhammadiyah's Social Enterprises (AUM) operates in the field of education, specifically through Muhammadiyah Schools at the elementary through high school/vocational school levels; however, the status of a religion-based nonprofit organization does not automatically make these schools immune to the risk of fraud. The most prevalent form of fraud in Indonesia is corruption, followed by asset misappropriation and financial statement fraud (Handayani et al., 2024). Therefore, one of the efforts undertaken involves fostering anti-fraud awareness, utilizing measurement dimensions to detect and prevent fraud, which includes creating and maintaining a culture of honesty and high ethical standards, conducting evaluations of anti-fraud processes and controls, and developing adequate oversight processes. Anti-fraud awareness involves creating and establishing standard prevention procedures, building an organizational structure with robust controls, designing effective control techniques, and fostering sensitivity toward acts of corruption (Prajanti et al., 2024). It is hoped that this will instill trust among the public and members of Muhammadiyah. The key factors in preventing fraud are referred to as a breach of trust involving three key elements: pressure, opportunity, and rationalization. Previous research has found that pressure and opportunity have a positive and significant effect on fraudulent behavior (Khairunisa et al., n.d.). Another study states that, according to the Fraud Triangle Theory, breaches of trust are also motivated by the perception of risk and the temptation to take advantage of the situation (Abdullahi & Mansor, 2015).

In the context of educational institutions, financial pressure does not manifest as a decline in corporate stock value, but rather as operational budget deficits, fluctuations in student enrollment, or mismanagement of institutional funds, which can ultimately incentivize management to engage in financial reporting fraud (Afrianto et al., 2023). As Muhammadiyah Social Enterprises (AUM) operating in the education sector,

Muhammadiyah schools are obligated to adhere strictly to transparent internal control principles to ensure their organizational goals are met effectively. However, a significant gap remains between ideal standards and field reality. Research by (Nazaruddin & Putra, 2021) highlights structural weaknesses within several AUMs, notably the absence of standardized planning guidelines that should serve as the foundation for budget preparation. This vulnerability is further compounded by recent findings from Firdausi (Firdausi Mustoffa et al., 2025), which reveal a prevalent lack of technical accounting comprehension and limited human resource capacity regarding good governance in these schools. To mitigate these governance vulnerabilities, implementing robust fraud detection mechanisms is paramount. One highly recommended approach is the establishment of a whistleblowing system (WBS). Nominally guided by institutional adaptations of national anti-corruption frameworks, such as Law No. 30 of 2002, an effective WBS empowers internal stakeholders to report financial irregularities safely. In educational settings, the efficacy of this system has been observed in the management of public funds; for instance, research by (Melinda et al., 2023) demonstrates that a well-structured whistleblowing system significantly enhances fraud prevention in the administration of School Operational Assistance (BOS) funds. Consequently, integrating a functional whistleblowing mechanism within Muhammadiyah schools is expected to create a formidable barrier against fraudulent financial practices.

However, implementing formal control systems in faith-based educational organizations often encounters unique cultural nuances. Within the Muhammadiyah environment, there is frequently an implicit socioreligious assumption that "good people do not engage in corruption," which can lead to over-reliance on the personal integrity of school leaders. While ethical leadership is vital, relying solely on individual piety without structural oversight poses a major governance risk (Duréndez et al., 2016; Irawan & Mudrifah, 2023; Thanasas & Lampropoulos, 2023). Therefore, this study aims to examine a critical paradigm: whether formal control systems and objective reporting channels remain absolutely necessary even when organizational leaders are already perceived as highly ethical and grounded in

religious values. In this framework, the role of individual psychology and values cannot be separated from formal governance. Moral sensitivity is crucial in preventing accounting fraud as it fosters an immediate awareness of ethical boundaries, while accountability reinforces the professional obligation to justify actions and decisions (Oktrivia et al., 2024). Ideally, if members of a Muhammadiyah educational institution possess high moral sensitivity, it should reinforce ethical leadership and amplify the effectiveness of formal control systems against fraud. By examining these interactions, this study addresses the existing literature gap by analyzing whether internal controls and whistleblowing systems can work synergistically with ethical leadership, and whether moral sensitivity genuinely serves as a catalyst for fraud mitigation in a religion-based institutional environment.(Rest, 1986)

Although various studies have explored fraud mitigation strategies, empirical consensus regarding the effectiveness of formal systems versus ethical leadership remains heavily fragmented. On one hand, several studies argue that formal mechanisms such as internal controls and whistleblowing systems are the primary drivers of fraud prevention, rendering individual attributes secondary (Melinda et al., 2023), (Nazaruddin & Putra, 2021). Conversely, another body of literature contends that formal compliance tools are easily bypassed without ethical leadership and an unyielding organizational culture, positioning individual integrity as the ultimate defense against fraudulent behavior. This noticeable inconsistency in previous findings indicates a critical empirical gap: existing models fail to conclusively explain why formal systems succeed in some institutional environments but completely fail in others, particularly when leaders are already perceived as highly ethical. To resolve this empirical ambiguity, this study introduces moral sensitivity—encompassing ethical values and religiosity—as a moderating variable(Duréndez et al., 2016; Kaptein, 2024) Conceptually, the direct relationship between formal control systems and fraud mitigation cannot be assumed to function linearly in faith-based organizations. According to (Rest, 1986) ethical decision-making framework, a formal system or an ethical leader can only influence behavior if internal actors possess the "moral sensitivity" to

recognize a dilemma as an ethical issue in the first place. Within a religion-based institution, high moral sensitivity can act as a catalyst that amplifies the efficacy of internal controls, translating structural guidelines into active, values-driven accountability (Oktrivia et al., 2024). Conversely, if moral sensitivity is stagnant, even the most rigorous formal systems or ethical directives may be reduced to mere paper compliance. Therefore, positioning moral sensitivity as a moderator provides a robust conceptual framework to test whether individual ethical frameworks strengthen or potentially dilute the impact of formal oversight mechanisms.

2. Methods

This study utilizes a sample of 38 Muhammadiyah schools (elementary and junior high levels) under the auspices of the Council for Primary and Secondary Education (Majelis Dikdasmen) of the Muhammadiyah Regional Board (PDM) of Surabaya City.

Table 1. Sampling

No	Research Component	Details / Description
1	Sample & Location	Muhammadiyah schools (SD & SMP) under Majelis Dikdasmen PDM Surabaya City, totaling 54 schools comprising 38 school principals and 16 school treasurers.
2	Data Collection Method	Questionnaire (google forms)
3	Measurement Scale	5-point Likert scale (1= Strongly Disagree to 5 = Strongly Agree), adapted from previous studies
4	Instrument Testing	Pilot Test: Conducted to ensure validity and reliability criteria are met.
5	Bias Control	Common Method Bias Test = Evaluated using SmartPLS to check vertical and lateral collinearity via Variance Inflation Factor (VIF). A VIF > 3.300 indicates potential collinearity and common method bias.

Source : (Hair et al., 2017)

Here is a summary of the operational definitions of the dependent and independent variable listed in the table below.

Table 2. Operational Variables

Variable Indicator	Measurement	Source
Ethical Leadership	1. Respecting others 2. Serving others 3. Objective 4. Honest 5. Building community	Northouse (2013: 410-416); Maudul, Pio, & Runtuwene (2013)
Whistleblowing System	1. Perceptions of the whistleblowing system 2. Follow-up within the whistleblowing system 3. Protection regarding the whistleblowing system 4. Effectiveness of the whistleblowing system	Octaviari (2015)
Internal Control	1. Control environment 2. Risk assessment 3. Control activities 4. Information and communication 5. Monitoring	Gerry Armando (2013)
Fraud Mitigation	1. Understanding and recognizing behavior that aligns with the code of ethics 2. Taking actions consistent with one's values and beliefs 3. Acting in accordance with values, even when it is difficult to do so 4. Acting in accordance with values, despite significant risks or costs	Hermawan & Sari (2018)
Moral Sensitivity	1. An individual's capacity to identify and understand situations or	Anuar et al. (2021)

- decisions involving moral aspects
2. Awareness of moral values
 3. Empathy for those affected
 4. The ability to consider and choose a morally appropriate course of action

Source : (Bisnis et al., n.d.; Northouse, 2013)

Table 3. Data analysis and hypothesis testing

Stage	Parameter/Test	Threshold Value / Description
I. Measurement Model Evaluation (Outer Model)	Indicator Loadings (Reflective)	Outer Loading ≥ 0.700
	Internal Consistency (Cronbach's Alpha & Composite Reliability)	Min. 0.70 (0.60 for exploratory research) Max. 0.95 (to avoid redundancy) Recommended: 0.70–0.90
	Convergent Validity	AVE ≥ 0.50
	Discriminant Validity	HTMT: < 0.90 Fornell-Larcker: Square root of AVE $>$ correlation between constructs
	Collinearity	VIF < 3
	Coefficient of Determination (R^2)	0.75: Substantial 0.50: Moderate 0.25: Weak
II. Structural Model Evaluation (Inner Model)	Predictive Relevance (Q^2)	> 0 : Accepted 0.02: Small 0.25: Moderate 0.50: Large
	Effect Size (f^2)	0.02: Small effect 0.15: Moderate effect 0.35: Large effect

	Significance	p-value at a significance level of 1%, 5%, or 10%. If significant, it indicates an influence/relationship between variables.
III. Hypothesis Testing	Model Assumptions	The relationship between variables is linear. Observations are independent of one another (non-parametric).
	Resampling Technique	Bootstrapping with 10,000 samples is recommended to produce stable parameter estimates.

Source : (Cohen, n.d.; Fornell & Larcker, 1981; Hair et al., 2017; Henseler et al., 2015)

Data Analysis Technique

This study employs a quantitative approach using Partial Least Squares Structural Equation Modeling (PLS-SEM) as the data analysis technique, processed with the assistance of SmartPLS software. The choice of PLS-SEM is grounded in several methodological considerations. First, this study aims to predict and explain the relationships among complex latent constructs — namely ethical leadership, whistleblowing system, internal control, and moral sensitivity toward fraud mitigation — making a variance-based SEM approach more appropriate than a covariance-based SEM approach (e.g., AMOS or LISREL). Second, PLS-SEM does not require the assumption of data normality and can still produce stable estimates even with a relatively small sample size. Third, PLS-SEM allows for the simultaneous evaluation of both the measurement model (outer model) and the structural model (inner model) within a single analytical framework.

The analysis is conducted in two main stages. The first stage is the evaluation of the outer model (measurement model), which is used to test the validity and reliability of the indicators, including outer loadings, Cronbach's Alpha, Composite Reliability, and Average

Variance Extracted (AVE) for convergent validity, as well as the Heterotrait-Monotrait Ratio (HTMT) and the Fornell–Larcker criterion for discriminant validity. The second stage is the evaluation of the inner model (structural model), which is used to test the causal relationships among constructs, including collinearity testing (VIF), the coefficient of determination (R^2), predictive relevance (Q^2), and effect size (f^2). Hypothesis testing is conducted using the bootstrapping resampling technique with 10,000 samples to produce stable parameter estimates, given that PLS-SEM is non-parametric and does not require a normal data distribution. The significance of the relationships among variables is determined based on the p-value at a significance level of 1%, 5%, or 10%. In addition, a common method bias test is also conducted by evaluating the full collinearity Variance Inflation Factor (VIF) to ensure that no common method bias occurs as a result of self-reported data collection through the questionnaire.

3. Results

Descriptive Statistics

Table 4. Respondent Characteristics

Charateristic	Category	Number (People)	Percentage (%)
Gender	Male	28	51,85
	Female	26	48,14
Age	21-30 years	9	16,66
	31-40 years	16	29,62
	41-50 years	21	38,88
	51-60 years	8	14,81
Educational Attainment	High School Diploma	2	3,70
	Bachelor's Degree (S1)	28	51,85
	Master's Degree (S2)	24	44,44
Years of Work Experience	1–3 years	8	14,81
	3–5 years	8	14,81
	5–7 years	5	9,25

	7–10 years	2	3,70
	>10 years	31	57,40
Total		54	100

Source: Primary data processed, 2026

Table 5. Validity Test

Variable	Measurement Item	Indicator	Sig (2-tailed)	R Calculated	R Table
Ethical Leadership	X1.1	Exemplary Conduct	0.03	0.475	0.3440
	X1.2	Fairness in Decision Making	0.01	0.833	0.3440
	X1.3	Ethical Communication	0.01	0.775	0.3440
	X1.4	Upholding Moral Standards	0.01	0.840	0.3440
	X1.5	Care for Employees	0.01	0.764	0.3440
	X1.6	Transparency of Vision	0.01	0.661	0.3440
Whistleblowing System	X2.1	Availability of Channels	0.01	0.682	0.3440
	X2.2	Confidentiality of Identity	0.01	0.734	0.3440
	X2.3	Whistleblower Protection	0.01	0.662	0.3440
	X2.4	Clarity of Procedures	0.01	0.710	0.3440
	X2.5	Prompt Response to Reports	0.01	0.713	0.3440
	X2.6	Independence of the Management Team	0.01	0.809	0.3440
Internal Control	X3.1	Control Environment	0.01	0.677	0.3440
	X3.2	Risk Assessment	0.01	0.733	0.3440
	X3.3	Control Activities	0.01	0.699	0.3440

Fraud Mitigation	X3.4	Information and Communication	0.01	0.845	0.3440
	X3.5	Periodic Monitoring	0.01	0.708	0.3440
	X3.6	Transaction Authorization	0.01	0.695	0.3440
	Y1	Routine Internal Audits	0.01	0.825	0.3440
	Y2	Education and Training	0.01	0.912	0.3440
	Y3	Job Rotation	0.01	0.832	0.3440
	Y4	Anti-Fraud Culture	0.01	0.824	0.3440
	Y5	Financial Data Analysis	0.01	0.778	0.3440
	Y6	Strict Sanctions	0.01	0.711	0.3440
	M1	Personal Integrity	0.01	0.770	0.3440
Moral Sensitivity	M2	Responsibility	0.02	0.363	0.3440
	M3	Objectivity	0.01	0.679	0.3440
	M4	Honesty	0.02	0.363	0.3440
	M5	Professional Loyalty	0.02	0.679	0.3440
	M6	Mutual Respect	0.01	0.363	0.3440

Source: Primary data processed, 2026

The data for all 30 items in the validity assessment can be evaluated using the calculated r obtained via the SPSS application, while the table r is obtained using the product - moment correlation table with a significance level of 5% and $df (n-2)$ (Kasman & Utami, 2023). An item is considered valid if r calculated $>$ r table. Therefore, based on the table above, there are 30 valid items because the r calculated value is above 0.3440 and the Sig (2-tailed) value is above 0.05.

Table 6. Reliability Test

Cronbach's Alpha	N of Items
.953	30

Source: Primary data processed, 2026

The reliability test uses Cronbach's alpha; thus, if a variable shows a Cronbach's alpha value > 0.60 , it can be concluded that the variable is reliable or consistent in its measurement (Rosita et al., 2021). From the table above, it can be concluded that if Cronbach's alpha is 0.9, the data is considered reliable or consistent in its measurement.

Table 7. Normality Test

		Unstandardized Residual
N		54
Normal Parameters ^{a, b}	Mean	.0000000
	Std. Deviation	1.12542113
Most Extreme Differences	Absolute	.117
	Positive	.116
	Negative	-.117
Test Statistic		.117
Asymp.Sig (2-tailed) ^c		.064
Monte Carlo Sig. (2-tailed) ^d	Sig.	.063
	99% Confidence Interval	
	Lower Bound	.057
	Upper Bound	.070

Source: Primary data processed, 2026

Normality test is a procedure used to determine whether data come from a normally distributed population or follow a normal distribution. One method for analyzing data normality is the Kolmogorov-Smirnov test. If the Sig. value, significance level, or probability value is < 0.05 , the distribution is not normal. If the Sig. value, significance level, or probability value is > 0.05 , the distribution is normal. Based on the data above, it can be concluded that the Asymp Sig (2-tailed) value is 0.063, which is above 0.05; therefore, the data can be said to be normally distributed.

Table 8. Multicollinearity test

Model		Ustandardized B	Coefficients Std. error	Standardized Coefficients Beta	t	Sig.	Collinearity Tolerance	Statistics VIF
1	(Constant)	2.664	1.414		1.884	.066		
	Kepemimpinan Etis	.357	.115	.348	3.106	.003	.175	5.709
	Sistem Whistleblowing	-.038	.112	-.044	-.340	.735	.130	7.673
	Pengendalian Internal	.560	.062	.680	9.080	<.001	.392	2.551
	Moral Sensitivity	.059	.037	.081	1.582	.120	.835	1.198

Source: Primary data processed, 2026

The multicollinearity test is used to determine whether the regression model exhibits a perfect or near-perfect linear relationship among some or all of the independent variables. This can be determined by examining the correlation between variables using the VIF and tolerance values. Multicollinearity is said to exist if the $VIF > 10$ and/or the tolerance value < 0.10 (Susanti & Saumi, 2022). From the table above, it can be concluded that the Tolerance value for Ethical Leadership (X1) is 0.175, and this value is > 0.10 . Meanwhile, the VIF for Ethical Leadership (X1) is 5.709, which is < 10 . For the Whistleblowing System variable (X2), the Tolerance value is 0.130, and this value is > 0.10 . Meanwhile, the VIF for the Whistleblowing System (X2) is 7.673, which is < 10 . For the Internal Control variable (X3), the Tolerance value is 0.392, and this value is > 0.10 . Meanwhile, the VIF for Internal Control (X3) is 2.551, which is < 10 . For the Moral Sensitivity/Ethical Values (M) variable, the Tolerance value is 0.835, and this value is > 0.10 . Meanwhile, the VIF for Moral Sensitivity (M) is 1.198, which is < 10 .

Table 9. Heteroscedasticity test

Model		Ustandardized B	Coefficients Std. error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.281	.834		1.536	.131
	Kepemimpinan Etis	-.025	.068	-.122	-.374	.710
	Sistem Whistleblowing	-.031	.066	-.178	-.471	.640
	Pengendalian Internal	.008	.036	.045	.207	.837
	Moral Sensitivity	.035	.022	.241	1.615	.113

Source: Primary data processed, 2026

A heteroscedasticity test examines whether the variances of the residuals differ across all observations in a regression model. The test is conducted using the Geljser test, with the objective of regressing the independent variables against the absolute residuals. Residuals are the difference between the observed Y variable and the predicted X variable, and their absolute values. Thus, if the significance level between the independent variables and the absolute residuals is > 0.05 , then there is no (Mardiatmoko, 2020). The significance value for the Ethical Leadership variable (X1) is 0.710, which is > 0.05 . For the Whistleblowing System variable (X2), the value is 0.640, which is > 0.05 . For the Internal Control variable (X3), the value is 0.837, which is > 0.05 . For the Moral Sensitivity variable (M), the value is 0.113, which is > 0.05 .

Table 10. Results of the Hypothesis Test

Hypothesis	Relationship	Coeff	t	p	Conclusion
H1	$X1 \rightarrow Y$	0.899	1.174	0.246	Rejected
H2	$X2 \rightarrow Y$	0.865	-0.338	0.737	Rejected
H3	$X3 \rightarrow Y$	0.276	0.771	0.026	Accepted
H4	$X1 * M \rightarrow Y$	0.03	-0.768	0.446	Rejected
H5	$X2 * M \rightarrow Y$	0.03	0.156	0.877	Rejected
H6	$X3 * M \rightarrow Y$	0.01	-0.161	0.873	Rejected

Source: Primary data processed, 2026

Table 10 : 1) Ethical Leadership and Fraud Mitigation (H1): The test results show a P-value of 0.246 (> 0.05). This indicates that Ethical Leadership does not have a significant effect on Fraud Mitigation at Muhammadiyah Schools. Therefore, H1 is rejected. 2) Whistleblowing System on Fraud Mitigation (H2): The test results show a P-value of 0.737 (> 0.05). This indicates that the existence of a Whistleblowing System has not yet had a statistically significant impact on fraud mitigation efforts. Therefore, H2 is rejected. 3) Internal Controls on Fraud Mitigation (H3): The test results show a P-value of 0.026 (< 0.05). These results prove that Internal Controls have a positive and significant effect on Fraud Mitigation. The stronger the internal control system, the more effective the fraud mitigation efforts at the school. Therefore, H3 is accepted.

The moderation analysis aims to determine whether Moral Sensitivity (MS) strengthens the relationship between the independent variable and the dependent variable. 1) Moderation in the Ethical Leadership Relationship (H4): The interaction P-value is 0.446. This indicates that Moral Sensitivity does not moderate the relationship between Ethical Leadership and Fraud Mitigation. 2) Moderation in the Whistleblowing System Relationship (H5): The interaction P-value is 0.877. This indicates that the level of Moral Sensitivity does not alter the effect of the Whistleblowing System on Fraud Mitigation. 3) Moderation in the Internal Control Relationship (H6): The interaction P-value is 0.873. This indicates that Moral Sensitivity does not act as a moderating variable in the relationship between Internal Control and Fraud Mitigation.

Based on the above analysis, it can be concluded that in the context of the Muhammadiyah schools studied, internal control is the only strong predictor of fraud mitigation. Meanwhile, personal factors such as leadership and individual moral sensitivity do not show a significant influence in this statistical model.

This provides an initial indication that fraud prevention in the research subject is more system-driven than individual-driven.

Table 11. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.948 ^a	.899	.884	1.16906

Source: Primary data processed, 2026

Based on the results of the coefficient of determination test in the Model Summary table, an Adjusted R-Square value of 0.884 was obtained. This indicates that the Fraud Mitigation variable can be explained by Ethical Leadership, Whistleblowing Systems, Internal Controls, and Moral Sensitivity as moderating variables to the extent of 88.4%. The remaining 11.6% is explained by other factors outside the scope of this study. Additionally, an R value of 0.948 indicates a very strong relationship between the independent and dependent variables simultaneously.

4. Discussion

The Effect of Ethical Leadership on Fraud Mitigation (H1 - Rejected)

Based on the test results, Ethical Leadership does not have a significant effect on Fraud Mitigation at Muhammadiyah Schools ($p = 0.246$). This indicates that the presence of a personally ethical leader is not strong enough to reduce fraud rates without the support of technical oversight mechanisms. This finding indicates the phenomenon of Ethical Normalization within religious organizational environments. Respondents likely view the ethical behavior of leaders as a general standard (norm), so it is not considered an extraordinary distinguishing factor in fraud prevention efforts. In the context of the Fraud Diamond, ethical leadership only addresses the Rationalization aspect but cannot close the Opportunity gap if the operational system is weak.

The Influence of the Whistleblowing System on Fraud Mitigation (H2 - Rejected)

The Whistleblowing System was not found to have a significant influence on Fraud Mitigation ($p = 0.737$). This result is quite surprising because, theoretically, a reporting system is a powerful early detection tool. In organizational culture, Muhammadiyah Schools

have very strong values of modesty and brotherhood. This has the potential to create a sense of reluctance (ewuh pakewuh) to report colleagues. A reporting system may be formally available, but functionally it does not work due to psychological barriers or fear of damaging good relationships among staff.

The Effect of Internal Controls on Fraud Mitigation (H3 - Accepted)

Internal controls were found to have a positive and significant effect on fraud mitigation ($p = 0.026$). This is the only independent variable that has been empirically proven to serve as the school's primary line of defense. This finding is consistent with Internal Control Theory (the COSO Framework), which holds that a formal organizational system—standard operating procedures, layered authorization, and independent audit—rather than an individual's psychological attitude, is what effectively restrains opportunistic behavior within an institution. In Muhammadiyah schools, the presence of strict financial governance, functional separation, and multi-tiered authorization directly eliminates the “Opportunity” element in the Fraud Triangle Theory. A robust system is more feared and more effective than mere moral appeals. Additionally, the “Deterrence” effect from the LPPK is extremely strong. Although not present every day, the presence of the LPPK at crucial moments (such as a change in school leadership) functions as a very strict check-and-balance mechanism. This is because leadership transitions are the most vulnerable points for fraud. The LPPK's intervention at this stage ensures that new leadership begins with a clean financial record (a clean slate). This is why this variable significantly influences fraud mitigation.

The Moderating Role of Moral Sensitivity (H4, H5, H6 – Rejected)

The results indicate that Moral Sensitivity does not moderate (enhance) the effects of Ethical Leadership, Whistleblowing Systems, or Internal Controls on Fraud Mitigation, as $p > 0.05$. An R-Square value of 89.9% indicates that this model is collectively very strong; however, the largest contribution comes from Internal Control. Individual moral sensitivity

becomes irrelevant when control systems are already very strict (people cannot commit fraud because the system simply does not allow it, not merely because they are “morally sensitive”). Because the respondents are situated within a homogeneous religious-based educational institution, their moral sensitivity tends to cluster at a uniformly high level, a pattern consistent with a restriction-of-range (ceiling) effect that is common in faith-based organizational samples. Statistically, when a moderating variable displays very little variance, Moderated Regression Analysis has limited power to detect a significant interaction effect, since MRA relies on variation in the moderator to reveal how the strength of a relationship changes across its different levels. In practical terms, when nearly all respondents already report elevated moral sensitivity, the meaningful distinction between more and less morally sensitive staff for fraud-prevention purposes disappears; consequently, in Muhammadiyah schools, the reduction of fraud risk is driven more by compliance with formal rules (SOPs) and institutional oversight than by individual differences in moral sensitivity.

5. Conclusion

Based on the results of the data analysis and discussion conducted regarding fraud mitigation at Muhammadiyah Schools, with Moral Sensitivity as a moderating variable, the following conclusions can be drawn: 1) Of all the factors tested, only Internal Control was found to have a positive and significant effect on fraud mitigation. This is inseparable from the crucial role of the Lembaga Pengawasan dan Pembinaan Keuangan (LPPK) as an internal auditor. LPPK conducts critical and comprehensive oversight of all school financial data, ranging from the verification of revenue details to general expenditures in detail. 2) Ethical leadership and whistleblowing systems have not been shown to have a significant impact on fraud mitigation when considered in isolation. This suggests that strong leadership and the existence of reporting channels will not have a tangible impact unless accompanied by the strengthening of systematic technical oversight systems. 3) Moral sensitivity is insufficient

to strengthen the relationship between ethical leadership, whistleblowing systems, and internal controls in the context of fraud mitigation. In the context of religious educational institutions, individual moral sensitivity is a common, inherent standard; however, in practice, fraud prevention remains more dependent on the rigor of formal systems than on intrinsic moral awareness alone. 4) At the same time, this research model has an R-squared value of 89.9%. This means that the combination of variables in this study (Leadership, Whistleblowing, Internal Control, and Moral Sensitivity) is able to explain the phenomenon of fraud mitigation at Muhammadiyah Schools very comprehensively, although the Internal Control variable plays the dominant role. Muhammadiyah schools are encouraged to focus on developing school management by strengthening internal audit systems and digitizing financial reporting to minimize subjective human intervention.

6. Limitation

Future research could encompass a broader geographical area (spanning regions or provinces) to enhance the generalizability of the findings.

7. Acknowledgement

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