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Toward an Integrated Model of Fraud Prevention in Higher Education Institutions: A Fraud Diamond Theory-Based Literature Review with Evidence from Indonesian Higher Education and Comparator Sectors

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ABSTRACT

Fraud in higher education institutions remains a pressing concern, and this review examines the issue primarily through evidence from Indonesia, as illustrated by the alleged new-student admission bribery case at Universitas Lampung in 2022. Prior quantitative studies have reported inconsistent results regarding internal control systems, compensation suitability, university governance, and organizational culture as determinants of fraud prevention, with each determinant typically tested in isolation and without a unifying theoretical framework. This study employs a qualitative literature review of 20 studies published between 2016 and 2026 that examine these four determinants, consisting of 13 studies related to Indonesian higher education, one international higher education comparator, and six comparator studies from other Indonesian organizational sectors and proposes an integrated model that maps each determinant a specific element of fraud diamond theory. The findings show that internal control systems and internal audit have the most methodologically triangulated empirical support, followed by university governance, while compensation suitability and organizational culture remain rarely tested directly within the higher education context, with most evidence drawn from comparative studies in other public-sector settings. The proposed model repositions fraud diamond theory as a prospective and prescriptive framework rather than merely an explanatory tool, thereby offering a theoretically coherent and context-specific basis to guide future empirical testing and institutional policy in Indonesian higher education.

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INTRODUCTION

This review proposes an integrated conceptual model of four organizational determinants of fraud prevention in higher education the model itself has not yet been empirically tested and should be read as a proposed framework rather than a proven fraud-prevention solution. Fraud in higher education institutions is not merely a theoretical risk confined to abstract governance discourse. The alleged new-student admission bribery case at Universitas Lampung in 2022 (BBC News Indonesia, 2022) demonstrated, concretely and with public documentation, that higher education institutions remain vulnerable to the abuse of entrusted authority, even as nonprofit organizations carrying an educational mission. The Association of Certified Fraud Examiners (2022) notes that the nonprofit sector, including higher education, faces significant fraud vulnerability precisely because the complexity of managing education funds, research grants, and student-related transactions creates numerous points at which internal safeguards can be circumvented.

A substantial body of quantitative literature over the past decade has examined the organizational factors hypothesized to influence fraud prevention in higher education institutions. The four determinants that appear most frequently in this literature are the internal control system, compensation suitability, university governance, and organizational culture. Cressey (1953) originally proposed fraud triangle theory, which holds that fraud is triggered by a combination of pressure, opportunity, and rationalization. Wolfe & Hermanson (2004) later extended this formulation by adding a fourth element, capability, giving rise to what is known as fraud diamond theory. Within this theoretical architecture, the internal control system functions as a protective mechanism designed to prevent irregularities and detect fraud at an early stage (Sulistyorini & Urumsah, 2021), a conception broadly consistent with the Internal Control-Integrated Framework of the Committee of Sponsoring Organizations of the Treadway Commission (2013), which remains the most widely referenced international standard for designing and evaluating internal control systems and most directly closes the opportunity element. Evidence of this determinant's cross-country relevance is not confined to Indonesia: Adeyemo (2021), who studied four tertiary institutions in Lagos, Nigeria, likewise found a significant relationship between internal control system implementation and fraud prevention, indicating that the internal control-fraud prevention relationship documented in Indonesian higher education is likely to hold, at least in broad outline, across developing-country institutional contexts. Compensation suitability, which refers to the extent to which employees perceive the rewards they receive as commensurate with their contribution (Dewi & Adiputra, 2022), relates most directly to the pressure element. University governance, understood as the institutionalization of good-governance principles encompassing transparency, accountability, responsibility, independence, and fairness (Astria et al., 2021), relates to both the opportunity element and accountability. Organizational culture, which encompasses visible role-modeling, communication of ethical expectations, ethics training, and consistent enforcement of sanctions, is theorized to counter the rationalization element while also limiting the practice of the capability element.

Although theoretical clarity at the level of each individual construct is fairly well established, empirical results across studies continue to show marked inconsistency, particularly for compensation suitability and organizational culture, and most existing studies test only two or three of the four determinants at once, rarely situating them within a single theoretically integrated model. A prior systematic review addressing fraud prevention in higher education was conducted by Irianto et al. (2025), which applied PRISMA guidelines to the Scopus and Web of Science databases and covered the 2000-2023 period, yielding a fraud prevention pyramid model of fairly broad scope and influence. Despite its substantial contribution, that review remains global in scope and does not specifically examine the interaction among the four determinants above within the institutional, regulatory, and cultural context of Indonesian higher education, nor does it propose an integrated conceptual model capable of explaining why intervening on a single determinant alone frequently produces inconsistent effects.

This review fills that dual gap. Rather than treating the internal control system, compensation suitability, university governance, and organizational culture as four separate strands of literature to be summarized sequentially, this study synthesizes Indonesian empirical studies within a single conceptual framework explicitly grounded in fraud diamond theory, positioning the four determinants as jointly, rather than separately, addressing the pressure, opportunity, rationalization, and capability elements of fraud. This dual focus, on the Indonesian institutional context and on an explicitly integrated conceptual model, constitutes this review's principal novelty relative to prior global syntheses and single-variable syntheses.

Accordingly, this study aims to: (1) map and critically evaluate the available evidence concerning four organizational determinants of fraud prevention; (2) distinguish direct evidence from Indonesian higher education from indirect comparator sector evidence; (3)

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identify theoretical and methodological gaps in the existing literature; and (4) propose an integrated Fraud Diamond based framework for future empirical testing of comprehensive, rather than merely partial, institutional anti-fraud strategies in Indonesian higher education.

METHODS

This study employs a qualitative literature review, using predetermined inclusion and exclusion criteria for study selection rather than a full systematic review protocol. A literature review was chosen because it enables the researcher to review, compare, and synthesize existing studies on the four fraud-prevention determinants within a single conceptual framework, an objective that could not yet be optimally achieved through primary data collection alone at this stage of theory development.

DATA SOURCES

The data used in this study are secondary data obtained from scholarly articles, institutional reports, and policy documents published over the past decade. Source selection emphasized peer-reviewed journals indexed in Scopus, Sinta, and Google Scholar, particularly studies related to internal control, compensation suitability, university governance, organizational culture, and fraud prevention in higher education, in order to ensure the validity and credibility of the synthesized evidence.

DATA COLLECTION TECHNIQUE

Data collection was carried out through a structured literature search of established academic databases, namely Google Scholar, Scopus, Web of Science, and Garuda/Sinta, using combinations of keywords related to fraud prevention, higher education, and each of the four determinants under study. The records retrieved were subsequently screened by title and abstract, then assessed for eligibility through full-text review, in accordance with predetermined inclusion and exclusion criteria adapted from the PRISMA framework (Page et al., 2021).

DATA ANALYSIS METHOD

The collected data were analyzed using qualitative thematic content analysis. The analysis proceeded in three stages: (1) systematic identification and coding of relevant evidence from each source concerning the four fraud-prevention determinants, (2) categorization of codes into recurring themes, patterns, and conceptual linkages across the three evidence groups, and (3) synthesis of the resulting themes to identify areas of convergence, divergence, and gaps relevant to fraud prevention in Indonesian higher education.

RESULTS AND DISCUSSION

Table 1 presents the characteristics of twenty studies identified as relevant to this review's inclusion criteria, comprising higher-education-specific evidence, one international comparator study, and comparator studies from adjacent Indonesian public-sector contexts.

Table 1. Characteristics of Reviewed Studies

Author(s) & Year	Design	Location	Key Findings
Sofyani et al. (2021)	Qualitative (interviews)	Several HEIs, Indonesia	Effective implementation of the internal control system in HEIs depended on seven key factors: management/foundation roles, organizational member awareness, human resource competence, internal auditor attitude, organizational climate, IT support, and funding support
Aresteria et al. (2018)	Literature review	HEIs (general)	Internal audit plays an important role in fraud prevention, contingent on the audit team's competence
Hidayah et al. (2018)	Qualitative	HEIs, Indonesia	Internal auditors contribute to the implementation of risk management, including fraud risk
Wahyuningsih et al. (2024)	Qualitative (case study)	Universitas Negeri Semarang	Internal audit builds a culture of honesty and performs preventive-detective oversight at a legal-entity HEI
Rahman (2020)	Quantitative	HEIs, Indonesia	Internal control system and internal audit significantly affect fraud prevention
Muna & Harris (2018)	Quantitative (perception)	State HEI with BLU status	Internal control and information asymmetry significantly affect the tendency toward accounting fraud
Olumide & Adeyemo (2021)	Quantitative	Four HEIs, Lagos, Nigeria (international comparator)	Internal control system implementation significantly related to fraud prevention, administrative performance, and revenue generation
Irsutami & Ryansyah (2023)	Quantitative	Vocational HEIs, Indonesia	Effectiveness of internal audit and internal control improves fraud-detection capability
Larasati & Tjaraka (2025)	Quantitative (SEM-PLS)	HEIs, Eastern Indonesia	Internal control system and Good University Governance significantly affect fraud prevention; GUG mediates the internal control-fraud prevention relationship
Nailufar et al. (2026)	Quantitative (PLS-SEM)	Private HEI, Medan	Internal control system and GUG significantly affect fraud prevention; organizational commitment moderates the relationship
Sugiyanto & Safriliana (2022)	Quantitative	Universitas Negeri Malang	Internal auditors and internal control significantly affect the implementation of GUG
Qinthara & Prasetyo (2023a)	Conceptual/legal analysis	HEIs (general)	Proposes strengthening the design of GUG as a corruption-prevention strategy
Astriani (2025)	Qualitative (case study)	Two private HEIs, Indonesia	Effective fraud prevention depends on internal control combined with individual ethics, culture, and leadership commitment

Author(s) & Year	Design	Location	Key Findings
Wahyudi et al. (2021)	Descriptive	HEIs, Indonesia	Organizational culture is closely related to the effectiveness of the management control system
Dewi & Adiputra (2022)	Quantitative	Cooperative (comparator)	Compensation suitability reduces individuals' motivation to commit fraud
Samanto et al. (2022)	Quantitative	Indonesian organization (comparator)	Compensation suitability positively affects job satisfaction, which in turn reduces the tendency toward fraud
Putri & Badera (2023)	Quantitative	Indonesian organization (comparator)	Compensation suitability has no significant effect on the tendency toward fraud
Septiani et al. (2023)	Quantitative	Indonesian organization (comparator)	Organizational culture has a significant positive effect on fraud prevention
Lorensa et al. (2018)	Quantitative	Papua Inspectorate (comparator)	Organizational culture and the role of internal auditors influence fraud prevention
Banowati et al. (2023)	Quantitative	Village government (comparator)	Organizational culture has no significant effect on fraud prevention

Source: processed by the author, 2026.

Internal Control and Internal Audit as the Primary Determinant

This theme represents the largest and most methodologically consistent body of empirical evidence in this review. Sofyani et al. (2021) identified seven key factors that promote effective internal control implementation in Indonesian higher education institutions, namely management/foundation roles, organizational member awareness, human resource competence, internal auditor attitude, organizational climate, IT support, and funding support, indicating that control effectiveness depends on a combination of organizational and resource-related conditions rather than formal adoption alone. Rahman (2020) and Irsutami & Ryansyah (2023) reinforced the broader link between internal control and fraud outcomes by reporting statistically significant effects of the internal control system on both fraud prevention and detection capability. Muna & Harris (2018), who studied a state HEI with BLU status, likewise reported a significant association among internal control, information asymmetry, and the tendency toward accounting fraud, adding further empirical weight to this determinant. This pattern is not exclusive to Indonesia: Olumide & Adeyemo (2021), who studied four tertiary institutions in Lagos, Nigeria, also found a significant relationship between internal control system implementation and fraud prevention, alongside significant relationships with administrative performance and revenue generation, lending cross-country credibility to the internal control-fraud prevention relationship documented in this review.

Methodologically, this theme also displays the greatest diversity among the four determinants reviewed here, encompassing qualitative interview-based research, a stand-alone literature review, a single-institution case study, and multiple cross-sectional quantitative surveys drawn from both general and vocational higher education settings. This diversity is analytically useful because it allows the internal control-fraud prevention relationship to be examined from complementary angles: quantitative studies establish that a statistical association exists and estimate its approximate strength, while the qualitative

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and case-study evidence from Sofyani et al. (2021) and Wahyuningsih et al. (2024) illuminates the underlying organizational mechanisms, such as management commitment and resource support, through which that association is realized in practice.

Several studies deepen this theme by isolating the specific contribution of the internal audit function. Aresteria et al. (2018) concluded that internal audit plays an important role in fraud prevention in higher education, provided the audit team possesses adequate technical competence, a caveat that qualifies rather than diminishes the overall relevance of this determinant. Hidayah et al. (2018) further demonstrated that internal auditors make a meaningful contribution to the implementation of risk management, including fraud risk management specifically. A recent qualitative case study by Wahyuningsih et al. (2024), conducted at Universitas Negeri Semarang, a legal-entity state HEI, indicated that the internal audit function effectively fosters a culture of honesty while also carrying out a preventive-detective oversight role. The convergence of findings from both quantitative and qualitative methodological traditions gives this theme a degree of triangulated credibility rarely found for the other three determinants, and is conceptually consistent with fraud diamond theory, which positions opportunity as the element most directly mitigable through strengthened internal control and oversight.

A further point of comparison concerns institutional status. Muna & Harris (2018) and Wahyuningsih et al. (2024) both examine institutions with a degree of financial autonomy, a public HEI with Badan Layanan Umum (BLU) status and a legal-entity public university (PTNBH), respectively, raising the possibility that greater financial and managerial autonomy heightens both the opportunity for fraud and the institutional motivation to invest in robust internal control and audit functions. This pattern would be consistent with agency-theoretic reasoning: as Indonesian public universities are granted greater autonomy from centralized government financial oversight, the internal control function assumes correspondingly greater importance as a substitute governance mechanism, an interpretation that future research could test directly by comparing fraud-prevention outcomes across institutions with differing degrees of financial autonomy.

University Governance

The evidence base for this theme has strengthened meaningfully with the emergence of recent studies. Larasati & Tjaraka (2025) reported that Good University Governance has a significant effect on fraud prevention and, notably, mediates the relationship between the internal control system and fraud prevention, a finding that positions governance not merely as a parallel determinant but as a structural channel through which control effectiveness is realized. Nailufar et al. (2026) reinforced this pattern, demonstrating a significant effect of GUG with organizational commitment acting as a moderating variable. Sugiyanto & Safriliana (2022), in an earlier study at Universitas Negeri Malang, found that internal auditors and internal control significantly affected the implementation of Good University Governance, suggesting a possibly reciprocal or endogenous relationship between internal control and governance quality that future research using longitudinal or structural designs should further disentangle. Qinthara & Prasetyo (2023a) complement this empirical contribution with a conceptual and legal study proposing an explicitly strengthened GUG design as a corruption-prevention strategy in higher education.

It is also worth noting the methodological diversity within this theme, which strengthens confidence in the underlying relationship despite the relatively small number of studies. Larasati & Tjaraka (2025) and Nailufar et al. (2026) each employ variance-based structural equation modeling to test mediation and moderation, respectively, while Sugiyanto & Safriliana (2022) rely on more conventional regression analysis, and Qinthara & Prasetyo (2023a) apply a normative-juridical legal method entirely outside the quantitative tradition. That governance emerges as an important determinant across this range of analytical approaches, spanning statistical modeling and doctrinal legal analysis alike, suggests the relationship is not an artifact of any single methodological choice, even though the total number of studies remains modest relative to the internal control theme.

Compensation Suitability

This review did not identify any study specifically examining compensation suitability in relation to fraud prevention within the Indonesian higher education context, a rather conspicuous evidence gap. As comparators from adjacent organizational sectors, Dewi & Adiputra (2022), who studied a cooperative context, reported that compensation suitability reduces individuals' motivation to commit fraud, while Samanto et al. (2022) documented a positive effect of compensation suitability on job satisfaction, which in turn weakens the tendency toward fraud. In contrast, Putri & Badera (2023) reported no statistically significant effect. This inconsistency across comparator-sector findings, compounded by the near-absence of higher-education-specific evidence, suggests that the causal mechanism linking compensation to fraud prevention likely depends on sector-specific moderating conditions that have not yet been sufficiently theorized, making this area a genuine and unresolved empirical uncertainty.

Part of this uncertainty may stem from structural differences between the comparator sectors and higher education itself. Compensation in Indonesian public higher education is often governed by centralized civil-service pay scales for permanent staff, which affords individual institutions considerably less discretion to adjust compensation than the cooperative and other organizational settings examined by Dewi & Adiputra (2022) and Samanto et al. (2022), where management may have greater latitude to link pay to performance or need. If compensation suitability operates primarily by reducing perceived pressure, as fraud diamond theory suggests, its preventive effect may be systematically muted in public higher education settings where compensation structures are largely exogenous to institutional decision-making, an institutional feature that comparator-sector studies conducted in more flexible-pay environments would not capture.

Organizational Culture

Wahyudi et al. (2021) documented a close relationship between organizational culture and the effectiveness of the management control system in higher education, although without directly testing its effect on fraud prevention. A more recent qualitative case study by Astriani (2025), conducted at two private HEIs, found that effective fraud prevention depends not only on formal internal control procedures but also on individual ethics, organizational culture, and leadership commitment to integrity and transparency, a finding consistent with fraud diamond theory's emphasis on the capability element alongside opportunity. As comparators from other public-sector settings, Septiani et al. (2023) and Lorensa et al. (2018) reported a significant positive effect of organizational culture on fraud prevention, whereas Banowati et al. (2023) reported no significant effect. This variation across comparator studies suggests that the effect of organizational culture likely depends on the specific organizational context and measurement instrument, and that direct empirical testing within the higher education sector remains an unresolved priority for future research.

The contrast between the qualitative depth achieved by Astriani (2025) and the mixed quantitative findings of Septiani et al. (2023), Lorensa et al. (2018), and Banowati et al. (2023) is itself informative. Case-study designs are able to capture how ethical climate is enacted through specific leadership behaviors and everyday organizational routines, whereas survey-based measures of organizational culture often rely on generic, multi-item scales that may not adequately capture the higher-education-specific manifestations of an ethical climate, such as academic integrity norms or the handling of grant and procurement irregularities. This measurement mismatch offers one plausible explanation for the inconsistent quantitative findings on this determinant: the construct may matter substantively, as the qualitative evidence suggests, while remaining difficult to detect using measurement instruments validated in other public-sector settings rather than developed

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specifically for higher education.

Proposed Conceptual Framework

Building on the thematic synthesis above, this study proposes an integrated conceptual framework that positions the four determinants within fraud diamond theory, as illustrated in Figure 1. Rather than treating the internal control system, compensation suitability, university governance, and organizational culture as independent predictors, this framework maps each determinant onto the specific fraud element it theoretically addresses: internal control and university governance jointly close the opportunity element, compensation suitability reduces pressure, and organizational culture counters rationalization while also limiting the practice of the capability element.

Internal Control System (closing Opportunity)	**Compensation Suitability (reducing Pressure)**
↓ Fraud Prevention in Higher Education Institutions ↓	
University Governance (closing Opportunity, strengthening Accountability)	**Organizational Culture (countering Rationalization, limiting Capability)**

Figure 1. Proposed Conceptual Framework for Fraud Prevention in Higher Education Institutions

Source: processed by the author, 2026.

This framework differs from prior studies that tested only one or two variables by explicitly integrating all four determinants under a single theoretical lens. It suggests that fraud prevention in higher education is unlikely to be achieved through any single determinant in isolation; rather, opportunity-closing mechanisms (internal control, governance) must be combined with pressure-reducing mechanisms (compensation) and rationalization-countering mechanisms (culture) to comprehensively address every element of the fraud diamond. This integrated view also explains why studies testing only one or two determinants report inconsistent effect sizes: interventions that address opportunity alone can be undermined by unaddressed pressure or rationalization factors within the same institution.

The framework also carries implications for how future empirical work might be operationalized. Because internal control and university governance are theorized to jointly close the opportunity element, researchers testing the framework should consider whether these two constructs are best modeled as parallel predictors or as a single higher-order construct, given the reciprocal relationship suggested by Sugiyanto & Safriliana (2022) between internal control and governance quality. Similarly, because compensation suitability and organizational culture are theorized to operate through distinct psychological mechanisms, pressure reduction versus rationalization suppression, interaction effects between these two determinants may be theoretically meaningful and empirically testable, even though no reviewed study has yet examined such an interaction. Specifying these relationships in advance would allow future structural equation models to test not only the direct effects of each determinant but also the moderating and mediating pathways that the fraud diamond framework implies but that have not yet been jointly estimated in a single Indonesian higher education sample.

Theoretical and Practical Implications

From a theoretical standpoint, this review contributes to the fraud-prevention literature by extending fraud diamond theory beyond its conventional application as a post-

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hoc explanatory tool for why fraud occurs, and instead positioning it as a prospective and prescriptive framework for structuring preventive interventions. Whereas prior Indonesian studies have generally applied the theory in isolated models testing only a single determinant, the framework proposed here demonstrates how the theory's four elements can be systematically mapped onto distinct, empirically testable organizational determinants, thereby offering a more parsimonious and theoretically coherent basis for future hypothesis development than the additive, atheoretical variable lists common in the existing literature.

From a practical standpoint, this framework carries direct implications for higher education management and policymakers. Institutions that concentrate anti-fraud investment primarily on control and internal audit functions, while neglecting compensation structures and the cultivation of an ethical organizational climate, risk diminishing returns, since unaddressed pressure and rationalization pathways may persist even when opportunity-closing mechanisms are already strong. This review therefore recommends that Indonesian higher education institutions adopt a portfolio approach to fraud prevention, allocating resources to all four determinants simultaneously rather than focusing solely on control-centered strategies.

These implications extend beyond individual institutions to the actors responsible for higher education oversight and quality assurance in Indonesia. National accreditation bodies, which already assess institutional governance as part of their evaluation criteria, could consider incorporating explicit indicators of integrated fraud-prevention capacity rather than treating internal control, governance, and ethical climate as separately scored sub-criteria; doing so would operationalize the portfolio logic advanced in this review at the level of national quality assurance policy. Similarly, professional development programs for internal auditors and financial administrators in higher education could be redesigned to train staff not only in technical control procedures but also in recognizing how compensation-related grievances and weak ethical climates can undermine even well-designed control systems, thereby translating the theoretical integration proposed here into practical institutional capacity.

Research Gaps and Directions for Future Research

This synthesis reveals a tiered pattern of evidence across the four determinants. Internal control and internal audit are relatively supported, constituting the largest and most consistent body of evidence across both quantitative and qualitative studies. University governance reflects emerging evidence, now supported by four studies but not yet a settled body of findings. Organizational culture shows limited and mixed evidence, with results that vary across the small number of available studies. Compensation suitability has no direct higher-education evidence; the available support is drawn largely from other public-sector settings rather than higher education institutions themselves. Finally, the integration of all four determinants within a single empirical model has not yet been empirically tested :

1. Relatively supported: internal control and internal audit, which constitute the largest and most consistent body of evidence across both quantitative and qualitative studies.
2. Emerging evidence: university governance, now supported by four studies but not yet a settled body of findings.
3. Limited and mixed evidence: organizational culture, with results that vary across the small number of available studies.
4. No direct higher-education evidence: compensation suitability, for which available support is drawn largely from other public-sector settings rather than higher education institutions themselves.
5. Not yet empirically tested: the integration of all four determinants within a single empirical model in Indonesian higher education, a gap the proposed framework is specifically designed to fill through future research, ideally through primary

quantitative studies using structural equation modeling capable of estimating both direct effects and interaction effects among the four determinants simultaneously.

Beyond the substantive gap in jointly testing all four determinants, several methodological patterns across the reviewed studies warrant explicit comment. Quantitative studies in this review predominantly rely on cross-sectional survey designs analyzed through either multiple linear regression or partial least squares structural equation modeling (PLS-SEM), as seen in Larasati & Tjaraka (2025) and Nailufar et al. (2026) this design choice, while efficient for capturing perceptions at a single point in time, cannot establish the direction of causality implied by the fraud diamond framework, nor can it capture how control effectiveness, governance quality, and organizational culture may co-evolve over an institution's history. Sample composition also skews toward a narrow set of institutional types, with public universities and BLU-status institutions more frequently represented than private universities, foundations, or vocational polytechnics, limiting the extent to which findings can be generalized across the full diversity of Indonesia's higher education landscape. Future studies employing longitudinal panel designs, or mixed-methods designs that pair survey data with document analysis of actual fraud incidents, would substantially strengthen the evidentiary basis for the causal claims that the proposed framework implies.

CONCLUSION

This literature review synthesizes empirical evidence on the internal control system, compensation suitability, university governance, and organizational culture as determinants of fraud prevention in Indonesian higher education, and proposes an integrated conceptual framework grounded in fraud diamond theory that maps each determinant onto a distinct fraud element. Internal control and university governance, which together constitute the most consistent and methodologically triangulated evidence in this review, are unlikely to be sufficient on their own to achieve comprehensive fraud prevention. Compensation practices that reduce pressure and organizational culture that counters rationalization remain important, yet both are still rarely tested directly within the higher education context and rely largely on evidence from comparator public-sector settings. This review therefore recommends that Indonesian higher education institutions adopt a portfolio-based anti-fraud strategy that addresses all four determinants simultaneously, rather than concentrating resources solely on control mechanisms. It should also be acknowledged that these conclusions rest on a synthesis of secondary literature obtained through search-engine-based retrieval rather than a full systematic extraction from subscription databases. Future research should empirically test the proposed framework using primary data, to establish whether the four determinants jointly and significantly predict fraud prevention as theorized, and whether meaningful interaction effects exist among them, a question that this review's design does not allow it to answer.

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