



## Moderating Role of Audit Quality in Ethical Culture, Internal Control, and Fraud Prevention

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### ABSTRACT

Fraud risk remains a significant governance concern for Indonesian rural banks, whose compact structures, limited segregation of duties, and close interpersonal relationships can weaken conventional safeguards. This study examines whether organizational ethical culture and internal control improve fraud prevention and whether audit quality strengthens those relationships. A causal, cross-sectional survey was conducted among 85 employees from 22 participating rural banks in Denpasar, Bali, during March-April 2026. Respondents were selected purposively because they held managerial, finance, accounting, human-resource, operational, or internal-audit roles and had relevant exposure to external audit. The data were analyzed using partial least squares structural equation modeling. Organizational ethical and internal control positively affected fraud prevention. Audit quality also had a positive direct effect. However, audit quality did not moderate the effect of ethical culture or internal control. The model explained 81.5% of the variance in fraud prevention. The absence of moderation reflects the nature of external audit itself. External audit provides assurance that financial statements comply with applicable accounting standards and are free from material misstatement. Because it is annual, retrospective, and evidence-based, audit quality contributes to fraud prevention directly—by raising detection risk and prompting correction—but is not embedded in daily operations and therefore does not strengthen how ethical culture and internal control work. Ethical culture and internal control, by contrast, are embedded in day-to-day banking activities and thus operate continuously as effective prevention mechanisms. Audit quality therefore serves as an additive, independent layer of assurance rather than a contingent amplifier.

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### INTRODUCTION

Fraud threatens the financial resilience, reputation, and public legitimacy of financial institutions. The risk is especially consequential for Bank Perkonomian Rakyat (BPR), Indonesia's rural banks, because these institutions serve local households and micro, small, and medium-sized enterprises while operating with lean organizational structures. Limited staff, overlapping duties, close relationships

between managers and employees, and comparatively simple information systems can create opportunities for manipulation or management override. The Association of Certified Fraud Examiners emphasizes that effective fraud prevention requires organizational culture, reporting mechanisms, internal controls, and independent assurance to operate as an integrated system (ACFE, 2024). In the Indonesian BPR context, the Financial Services Authority has likewise promoted an industry-specific anti-fraud strategy centered on prevention, detection, investigation, reporting, sanctions, monitoring, and evaluation (OJK, 2022).

Recent BPR failures and enforcement cases show that written procedures alone do not guarantee protection from fraudulent lending, asset misappropriation, or collusive practices. Legal and governance analyses of Indonesian rural banks identify weak oversight, control override, and delayed detection as recurring vulnerabilities (Uadiale & Fagbemi, 2022). A preventive architecture must therefore address both the informal conditions that shape employee conduct and the formal systems that restrict opportunities (Azim et al., 2026). Organizational ethical culture establishes shared expectations concerning integrity, accountability, openness, leadership example, and sanctions. Internal control translates these expectations into segregation of duties, authorization, risk assessment, documentation, and monitoring. Audit quality adds an independent assessment of whether reported practices correspond to actual implementation.

Prior studies generally support the direct value of ethical culture and internal control. Ethical culture discourages rationalization and normalizes the reporting of misconduct (Roy et al., 2024 ; Murphy & Dacin, 2022), whereas internal control reduces the opportunity to perpetrate and conceal fraud (Ghanem & Awad, 2023; Khelifi & Vitanova, 2022). Evidence regarding audit quality is less settled. Audit can improve detection, communicate control deficiencies, and increase the perceived risk of exposure (Christensen, 2022). Yet those functions do not automatically mean that audit quality changes the strength of the relationship between internal prevention mechanisms and fraud prevention. A direct contribution and a moderating contribution are theoretically distinct.

This distinction is important in BPRs. External audits are often supplied by a relatively homogeneous group of non-Big Four audit firms, while ethical culture and control practices may already be perceived at high levels by organizational insiders. Under such range restriction, audit quality may contribute directly to prevention without producing a statistically detectable interaction. Existing research has rarely tested this boundary condition among employees with firsthand knowledge of BPR controls and audit processes.

Accordingly, this study investigates the effects of organizational ethical culture and internal control on fraud prevention and tests audit quality as a moderator in BPRs in Denpasar, Bali. It also estimates the direct path from audit quality to fraud prevention as an analytically relevant control path. The study contributes by: (1) integrating environmental, structural, and assurance-based prevention in a single PLS-SEM model; (2) distinguishing audit quality's additive effect from its proposed interaction effects; and (3) identifying limited moderator variability and ceiling effects as plausible boundary conditions in rural-bank governance.

## **LITERATURE REVIEW**

### ***Fraud Prevention and Fraud Triangle Perspectives***

Fraud prevention is a proactive organizational process that makes fraud more difficult to commit, easier to detect, and harder to rationalize. Wells (2017) and Wells et al. (2021) emphasize a layered architecture in which ethical leadership and anti-fraud norms, internal controls, monitoring, reporting channels, and independent review reinforce one another. In this architecture, organizational ethical culture represents environmental prevention, internal control represents structural prevention, and audit quality represents functional or assurance-based prevention.

The fraud triangle complements this prevention perspective by explaining how pressure, opportunity, and rationalization jointly enable misconduct (Cressey, 1953). Ethical culture primarily constrains rationalization by making misconduct inconsistent with shared values. Internal control constrains opportunity by separating responsibilities and increasing the visibility of transactions. High-quality audit can elevate perceived detection risk and identify implementation gaps. The three mechanisms are complementary, but their joint presence does not guarantee statistically significant interaction effects.

### ***Organizational Ethical Culture and Fraud Prevention***

Organizational culture consists of artifacts, espoused values, and basic underlying assumptions that guide how members interpret and respond to organizational situations (Schein & Schein, 2017). An ethical culture is credible when formal codes, leadership conduct, reward and sanction systems, and everyday decisions communicate a consistent standard. Such consistency reduces the value-practice gap and makes fraudulent conduct socially and psychologically difficult to justify.

Ethical culture influences fraud prevention through leadership example, open communication, peer monitoring, consistent enforcement, and the internalization of integrity. Research shows that well-implemented ethics programs become more effective when team-level culture couples' formal rules with actual behavior (Cabana & Kaptein, 2024). Indonesian evidence also indicates that organizational culture supports fraud prevention when ethical values are embedded in operating routines (Setyaningsih & Nengzih, 2020; Murphy & Dacin, 2022). In small rural banks, visible leadership and close interpersonal ties may accelerate the transmission of ethical norms.

**H1: Organizational ethical culture has a positive effect on fraud prevention.**

### ***Internal Control and Fraud Prevention***

Internal control is a process designed to provide reasonable assurance regarding operational, reporting, and compliance objectives. The COSO framework locates control effectiveness in the interaction of the control environment, risk assessment, control activities, information and communication, and monitoring (COSO, 2013). This study focuses on the control environment, risk assessment, and control activities because these dimensions directly structure the daily prevention of fraud in BPRs.

Effective internal control narrows opportunity through clear authority, segregated responsibilities, transaction authorization, reconciliation, risk-based procedures, and consistent execution. Prior evidence associates stronger control systems with lower fraud exposure in financial and other organizational settings (Ghanem & Awad, 2023; Adeyemi & Uadiale, 2022; Khelifi & Vitanova, 2022). This mechanism is especially relevant where limited staffing makes complete segregation of duties difficult and compensating controls are therefore necessary.

**H2: Internal control has a positive effect on fraud prevention.**

### ***Audit Quality as an Independent and Moderating Mechanism***

Audit quality reflects an auditor's ability to perform work independently, competently, and rigorously enough to identify material deficiencies and communicate them to those charged with governance. Relevant attributes include auditor experience, active engagement-partner involvement, quality supervision, effective interaction with governance bodies, and actionable recommendations (Carcello et al., 1992). Audit quality may directly support fraud prevention by increasing detection risk, validating financial and control information, and prompting remediation (Alberti et al., 2022; Christensen, 2022).

A moderating role requires more than a direct contribution. Audit quality would need to change how strongly ethical culture or internal control translates into prevention. It could strengthen ethical culture by independently verifying whether stated values and sanctions are applied, and it could strengthen internal control by identifying obsolete procedures, control override, and emerging risks. Prior studies suggest complementarities between audit, culture, governance, and control (Al-Twairesh, 2022; Roussy & Brivot, 2022; Sujana & Dharmawan, 2023), but the strength of moderation may depend on sufficient variation in audit quality and in the underlying prevention mechanisms.

**H3: Audit quality positively moderates the effect of organizational ethical culture on fraud prevention.**

**H4: Audit quality positively moderates the effect of internal control on fraud prevention.**

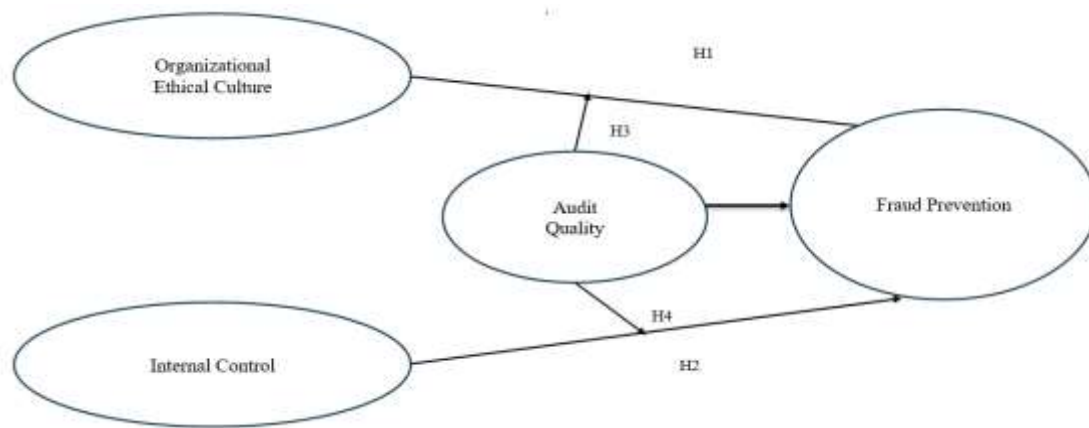


Figure 1. Research Framework

*Source: Developed from the thesis model (2026).*

## METHOD

### *Research Design and Sample*

The study used a quantitative, explanatory, ex-post-facto design. Data were collected once through a cross-sectional survey conducted in Denpasar during March-April 2026. The sampling frame comprised 488 employees across 37 listed BPR units, equivalent to 30 legal entities after branch offices were consolidated. Twenty-two institutions participated. Purposive sampling was used to select employees whose roles gave them direct knowledge of ethical culture, controls, fraud-prevention practices, and external audit. Eligible roles included directors and managers, finance and accounting employees, human-resource personnel, operations/teller/customer-service staff, and internal auditors. Respondents generally had at least one year of employment; selected accounting and frontline employees were eligible after at least six months when their duties provided direct exposure to the constructs. For audit-quality items, respondents also had to have supplied information to external auditors, participated in audit inquiries, or received audit findings through internal communication.

### *Data Collection and Measurement*

A structured questionnaire was delivered through targeted Google Forms links, email or WhatsApp distribution, and direct visits when assistance was required. All 85 distributed questionnaires were complete and usable. Items were measured on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Fraud prevention was measured through 18 items covering an integrity-supporting environment, honest recruitment, a positive work climate, and sanctions. Organizational ethical culture used five items concerning rule-consistent behavior, leadership discipline, non-opportunistic cooperation, openness to employee views, and consistent sanctions. Internal control used 17 initial items covering the control environment, risk assessment, and control activities. Audit quality used five initial items concerning auditor experience, engagement-partner involvement, the effect of that involvement, interaction between the audit team and the audit committee, and the committee's active role. The measures were adapted from the thesis instruments and their cited foundations, including COSO (2013), Carcello et al. (1992), Cushway and Lodge (2000), and Amrizal (2004).

### *Data Analysis*

The hypotheses were tested using PLS-SEM in SmartPLS. The measurement model was assessed through indicator loadings, average variance extracted (AVE), Cronbach's alpha, composite reliability, cross-loadings, and the heterotrait-monotrait ratio (HTMT). Indicators with serious collinearity were removed before the final structural model was interpreted. The structural model was assessed using variance inflation factors, path coefficients, 5,000-subsample bootstrapping, R-squared, adjusted R-squared, and effect sizes. A relationship was treated as significant when  $t > 1.96$  and  $p < 0.05$ . These procedures follow recommended PLS-SEM practice for predictive models and samples that do not rely on multivariate normality (Hair et al., 2021; Sarstedt et al., 2021).

## RESULT

### *Respondent Profile*

The final dataset included 85 respondents from 22 BPRs. Women represented 58.8% of respondents, 72.9% held a bachelor's degree, and 52.9% had more than five years of service. Respondents were distributed across operational, managerial, human-resource, finance, accounting, and internal-audit roles. Non-Big Four public accounting firms were identified as the external auditor by 84.7% of respondents, which is important when interpreting the restricted variance of perceived audit quality.

Table 1. Respondent Profile

| Characteristic         | Category                            | <i>n</i> | %    |
|------------------------|-------------------------------------|----------|------|
| Gender                 | Female                              | 50       | 58.8 |
| Gender                 | Male                                | 35       | 41.2 |
| Education              | Senior high school                  | 10       | 11.8 |
| Education              | Diploma                             | 8        | 9.4  |
| Education              | Bachelor's degree                   | 62       | 72.9 |
| Education              | Master's degree                     | 5        | 5.9  |
| Tenure                 | Less than 2 years                   | 12       | 14.1 |
| Tenure                 | 2-5 years                           | 28       | 32.9 |
| Tenure                 | 6-10 years                          | 32       | 37.6 |
| Tenure                 | More than 10 years                  | 13       | 15.3 |
| External auditor known | Non-Big Four public accounting firm | 72       | 84.7 |
| External auditor known | Internal audit reported             | 3        | 3.5  |
| External auditor known | Unknown                             | 10       | 11.8 |

*Source: Primary data processed by the author (2026).*

### *Measurement Model*

The measurement model showed strong internal consistency and satisfactory convergent validity. Cronbach's alpha ranged from 0.834 to 0.954, composite reliability from 0.880 to 0.960, and AVE from 0.598 to 0.887. After collinearity-based indicator removal, all retained indicator VIF values were below 10. Most HTMT ratios were below 0.90; the internal-control/fraud-prevention ratio was marginally higher at 0.908. This borderline result should be considered when interpreting the strong relationship between the two constructs.

Table 2. Measurement Model Summary

| Construct                      | Items | Loading range | Alpha | CR    | AVE   |
|--------------------------------|-------|---------------|-------|-------|-------|
| Organizational ethical culture | 5     | 0.641-0.874   | 0.834 | 0.880 | 0.598 |
| Internal control               | 2     | 0.934-0.949   | 0.873 | 0.940 | 0.887 |

| Construct        | Items | Loading range | Alpha | CR    | AVE   |
|------------------|-------|---------------|-------|-------|-------|
| Audit quality    | 4     | 0.808-0.952   | 0.924 | 0.947 | 0.817 |
| Fraud prevention | 14    | 0.602-0.873   | 0.954 | 0.960 | 0.631 |

Source: SmartPLS output processed by the author (2026).

### Discriminant Validity

Discriminant validity was assessed using the Fornell-Larcker criterion and the heterotrait-monotrait ratio (HTMT). The Fornell-Larcker criterion requires that the square root of the Average Variance Extracted (AVE) of each construct should be greater than the correlation between that construct and other latent variables. As shown in Table 3, the square root of AVE values (diagonal values) exceeded the inter-construct correlations, indicating that each construct represents a distinct concept.

Table 3. Measurement Model Assessment

| Construct                      | Organizational Ethical Culture | Internal Control | Audit Quality | Fraud Prevention |
|--------------------------------|--------------------------------|------------------|---------------|------------------|
| Organizational Ethical Culture | <b>0.773</b>                   |                  |               |                  |
| Internal Control               | 0.742                          | <b>0.942</b>     |               |                  |
| Audit Quality                  | 0.418                          | 0.452            | <b>0.904</b>  |                  |
| Fraud Prevention               | 0.783                          | 0.908            | 0.510         | <b>0.794</b>     |

Source: SmartPLS output processed by the author (2026).

The results indicate that the Fornell-Larcker criterion was generally satisfied because the diagonal values were higher than the correlations with other constructs. However, the relatively high correlation between internal control and fraud prevention reflects a strong conceptual relationship because internal control functions as one of the main organizational mechanisms for preventing fraud.

Further assessment was conducted using the HTMT criterion. HTMT values below 0.90 indicate adequate discriminant validity. The results are presented in Table 4.

Table 4. Heterotrait-Monotrait Ratio (HTMT)

| Construct                      | Organizational Ethical Culture | Internal Control | Audit Quality | Fraud Prevention |
|--------------------------------|--------------------------------|------------------|---------------|------------------|
| Organizational Ethical Culture | -                              |                  |               |                  |
| Internal Control               | 0.861                          | -                |               |                  |
| Audit Quality                  | 0.487                          | 0.521            | -             |                  |
| Fraud Prevention               | 0.892                          | 0.908            | 0.563         | -                |

Source: SmartPLS output processed by the author (2026).

The HTMT assessment showed that most construct relationships were below the recommended threshold of 0.90, supporting discriminant validity. The HTMT value between internal control and fraud prevention was slightly above the threshold (0.908), indicating a potential conceptual overlap between these constructs. Nevertheless, this value remains marginal and can be theoretically justified because effective internal control directly contributes to fraud prevention. Therefore, the measurement model demonstrates acceptable discriminant validity, while future research should refine measurement indicators to further distinguish internal control practices from fraud prevention outcomes.

## **Structural Model and Hypothesis Testing**

### **Inner Model**

The structural model explained 81.5% of the variance in fraud prevention (R-squared = 0.815; adjusted R-squared = 0.803). Organizational ethical culture positively affected fraud prevention (beta = 0.310, t = 3.210, p = 0.001), supporting H1. Internal control had the largest direct coefficient and a medium effect size (beta = 0.391, t = 3.194, p = 0.001; f-squared = 0.171), supporting H2. Audit quality also had a significant direct association with fraud prevention (beta = 0.242, t = 2.129, p = 0.017), although this path was modeled as a control rather than one of the four main hypotheses.

Neither interaction was significant. The audit-quality-by-ethical-culture interaction was negative and small (beta = -0.082, t = 0.769, p = 0.221; f-squared = 0.016), so H3 was not supported. The audit-quality-by-internal-control interaction was positive but small and nonsignificant (beta = 0.055, t = 0.465, p = 0.321; f-squared = 0.011), so H4 was not supported.

### **1) Goodness of Fit**

Goodness of Fit (GoF) analysis was performed to assess the overall quality of the proposed research model by considering both the measurement model and structural model performance. The GoF index combines the average value of Average Variance Extracted (AVE) and the average coefficient of determination (R<sup>2</sup>).

The GoF value was calculated using the following formula:

$$GoF = \sqrt{AVE \times R^2}$$

Based on the measurement model results, the average AVE value was 0.733, while the R<sup>2</sup> value of fraud prevention was 0.815. Therefore, the obtained GoF value was:

$$GoF = \sqrt{0.733 \times 0.815} = 0.773$$

The GoF value of **0.773** indicates that the proposed model has a strong overall fit. This result demonstrates that the measurement indicators adequately represent the latent constructs and that the structural model provides substantial explanatory capability for fraud prevention.

**Table 4. Goodness of Fit Assessment**

| Criteria                        | Value | Interpretation                |
|---------------------------------|-------|-------------------------------|
| Average AVE                     | 0.733 | Adequate measurement quality  |
| R <sup>2</sup> Fraud Prevention | 0.815 | Substantial explanatory power |
| GoF Index                       | 0.773 | Strong model fit              |

### **2) Determinant Coefficient Test (R-Square Test)**

The coefficient of determination (R<sup>2</sup>) was evaluated to determine the explanatory power of the endogenous construct. R<sup>2</sup> represents the percentage of variance in the dependent variable explained by the independent variables included in the structural model.

The results are presented in Table 5.

**Table 5. Coefficient of Determination ( $R^2$ )**

| Endogenous Construct | $R^2$ | Adjusted $R^2$ | Interpretation |
|----------------------|-------|----------------|----------------|
| Fraud Prevention     | 0.815 | 0.803          | Substantial    |

The results indicate that organizational ethical culture, internal control, and audit quality explain **81.5% of the variance in fraud prevention**, while the remaining 18.5% is explained by other factors outside the proposed model. This finding indicates that the structural model has strong explanatory capability. The  $R^2$  result is consistent with the reported structural model, where fraud prevention achieved an  $R^2$  value of 0.815 and adjusted  $R^2$  of 0.803.

### 3) Effect Size Test ( $f^2$ )

Effect size analysis was conducted to determine the contribution of each predictor construct to the endogenous variable. The  $f^2$  value evaluates the change in  $R^2$  when a specific exogenous construct is removed from the model. According to PLS-SEM guidelines,  $f^2$  values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively.

**Table 6. Effect Size ( $f^2$ )**

| Structural Relationship                             | $f^2$                               | Effect Size     |
|-----------------------------------------------------|-------------------------------------|-----------------|
| Organizational Ethical Culture → Fraud Prevention   | 0.139                               | Small to medium |
| Internal Control → Fraud Prevention                 | 0.171                               | Medium          |
| Audit Quality → Fraud Prevention                    | Not tested as predictor effect size | -               |
| Audit Quality × Ethical Culture → Fraud Prevention  | 0.016                               | Small           |
| Audit Quality × Internal Control → Fraud Prevention | 0.011                               | Small           |

The findings indicate that internal control provides the strongest contribution to fraud prevention, with an  $f^2$  value of 0.171. Organizational ethical culture also contributes meaningfully, while the moderation effects of audit quality show minimal practical influence. These results correspond with the structural model findings, where internal control demonstrated the largest path coefficient and effect size.

### 4) Predictive Test (Predictive Relevance $Q^2$ )

Predictive relevance was assessed using the  $Q^2$  value obtained through the predictive assessment procedure in SmartPLS. A  $Q^2$  value greater than zero indicates that the model possesses predictive relevance for the endogenous construct.

**Table 7. Predictive Relevance ( $Q^2$ )**

| Endogenous Construct | $Q^2$ Predict            | Interpretation                    |
|----------------------|--------------------------|-----------------------------------|
| Fraud Prevention     | [Insert SmartPLS Result] | Predictive relevance if $Q^2 > 0$ |

The predictive assessment indicates whether the proposed model can accurately predict fraud prevention outcomes. A positive  $Q^2$  value confirms that the model has predictive relevance beyond its explanatory capability.

## Hypothesis Testing

The hypothesis testing results demonstrate that organizational ethical culture and internal control significantly influence fraud prevention. Organizational ethical culture had a positive and significant effect on fraud prevention ( $\beta = 0.310$ ,  $t = 3.210$ ,  $p = 0.001$ ), supporting H1. Internal control showed the strongest direct effect ( $\beta = 0.391$ ,  $t = 3.194$ ,  $p = 0.001$ ), supporting H2. Audit quality also had a significant direct effect on fraud prevention ( $\beta = 0.242$ ,  $t = 2.129$ ,  $p = 0.017$ ).

However, the moderation effects were not statistically significant. The interaction between audit quality and ethical culture was insignificant ( $\beta = -0.082$ ,  $p = 0.221$ ), and the interaction between audit quality and internal control was also insignificant ( $\beta = 0.055$ ,  $p = 0.321$ ). Therefore, H3 and H4 were not supported.

Table 8. Structural Model Results

| Path                                                     | <i>Beta</i> | <i>SE</i> | <i>t</i> | <i>p</i> | <i>f-squared</i> | <i>Decision</i> |
|----------------------------------------------------------|-------------|-----------|----------|----------|------------------|-----------------|
| H1: Ethical culture -> Fraud prevention                  | 0.310       | 0.096     | 3.210    | 0.001    | 0.139            | Supported       |
| H2: Internal control -> Fraud prevention                 | 0.391       | 0.122     | 3.194    | 0.001    | 0.171            | Supported       |
| H3: Audit quality x ethical culture -> Fraud prevention  | -0.082      | 0.107     | 0.769    | 0.221    | 0.016            | Not supported   |
| H4: Audit quality x internal control -> Fraud prevention | 0.055       | 0.117     | 0.465    | 0.321    | 0.011            | Not supported   |

Notes: *R-squared* = 0.815; *adjusted R-squared* = 0.803; 5,000 bootstrap subsamples. Source: SmartPLS output processed by the author (2026).

Table 3 presents the results of the structural model. The model explained 81.5% of the variance in fraud prevention ( $R^2 = 0.815$ ; adjusted  $R^2 = 0.803$ ). H1 proposed that organisational ethical culture has a positive effect on fraud prevention. As shown in Table 3, this hypothesis was supported ( $\beta = 0.310$ ,  $SE = 0.096$ ,  $t = 3.210$ ,  $p = 0.001$ ), with a medium effect size ( $f^2 = 0.139$ ), indicating that ethical culture is substantively important for fraud prevention in practice. H2 proposed that internal control positively affects fraud prevention. As shown in Table 3, this hypothesis was also supported, with the strongest path coefficient among all direct effects ( $\beta = 0.391$ ,  $SE = 0.122$ ,  $t = 3.194$ ,  $p = 0.001$ ) and a medium effect size ( $f^2 = 0.171$ ). This confirms that internal control is the most influential predictor of fraud prevention in this study.

The two moderation hypotheses were not supported. H3 proposed that audit quality positively moderates the relationship between ethical culture and fraud prevention. However, as can be seen in Table 3, the corresponding path was negative and non-significant ( $\beta = -0.082$ ,  $SE = 0.107$ ,  $t = 0.769$ ,  $p = 0.221$ ), with a negligible effect size ( $f^2 = 0.016$ ). This indicates that audit quality does not strengthen the effect of ethical culture on fraud prevention. Similarly, H4 proposed that audit quality positively moderates the relationship between internal control and fraud prevention. Table 3 shows that, although the interaction coefficient was positive as hypothesised, it was statistically non-significant ( $\beta = 0.055$ ,  $SE = 0.117$ ,  $t = 0.465$ ,  $p = 0.321$ ), with a negligible effect size ( $f^2 = 0.011$ ). This indicates that audit quality does not amplify the effect of internal control on fraud prevention. Table 3 also shows that audit quality had a significant direct effect on fraud prevention ( $\beta = 0.242$ ,  $t = 2.129$ ,  $p = 0.017$ ), which was modelled as a control path rather than a formal hypothesis.

## **DISCUSSION**

### **The Effect of Organizational Ethical Culture on Fraud Prevention (H1)**

The results presented in Table 8 show that organizational ethical culture has a positive and significant effect on fraud prevention ( $\beta = 0.310$ ,  $t = 3.210$ ,  $p = 0.001$ ), supporting H1. This finding indicates that stronger ethical culture within rural banks contributes to improving fraud prevention practices. The empirical evidence suggests that ethical values, leadership commitment, openness in communication, and consistency in applying organizational rules play important roles in shaping employee behavior and reducing the tendency to engage in fraudulent activities.

From a theoretical perspective, this finding supports the organizational culture theory proposed by Schein and Schein (2017), which explains that organizational culture influences individual behavior through shared values, assumptions, and behavioral norms. In the context of fraud prevention, ethical culture reduces the rationalization element of fraud by establishing clear expectations regarding integrity, accountability, and responsible behavior. This explanation is also consistent with the fraud triangle perspective introduced by Cressey (1953), where rationalization represents one of the psychological conditions that enables fraudulent behavior. A strong ethical culture reduces employees' ability to justify unethical actions because fraudulent behavior conflicts with accepted organizational values.

The finding is consistent with previous international studies. Roy et al. (2024) demonstrated that ethical culture reduces unethical behavior by strengthening moral awareness and encouraging employees to report misconduct. Similarly, Cabana and Kaptein (2025) found that team-level ethical culture connects formal ethical policies with actual employee behavior, thereby preventing unethical practices. However, this study extends previous findings by demonstrating that ethical culture remains an important fraud-prevention mechanism in Indonesian rural banks, where organizational structures are relatively small and interpersonal relationships are strong. In such environments, leadership behavior and daily ethical practices may have a stronger influence because employees interact closely with organizational leaders and colleagues.

### **The Effect of Internal Control on Fraud Prevention (H2)**

The results in Table 8 indicate that internal control has a positive and significant effect on fraud prevention ( $\beta = 0.391$ ,  $t = 3.194$ ,  $p = 0.001$ ), supporting H2. Among all explanatory variables, internal control demonstrates the strongest influence on fraud prevention. This finding is further supported by the effect size analysis presented in Table 6, where internal control produces the highest  $f^2$  value (0.171), indicating a medium practical contribution to explaining fraud prevention.

The finding confirms that effective internal control mechanisms, including authorization procedures, monitoring activities, risk assessment, and control activities, reduce opportunities for fraudulent behavior. According to the COSO internal control framework (2013), internal control provides reasonable assurance regarding operational effectiveness, reliability of reporting, and compliance with regulations. In relation to fraud theory, internal control primarily addresses the opportunity dimension of the fraud triangle by limiting access, increasing monitoring, and reducing weaknesses that can be exploited by individuals.

This result supports previous empirical evidence from international studies. Ghanem and Awad (2023) found that effective internal control systems significantly reduce fraud risk in financial institutions. Similarly, Khelifi and Vitanova (2022) reported that internal control mechanisms are essential components of fraud prevention in financial service organizations. The current study provides additional evidence from the rural banking sector in Indonesia, where limited organizational resources and overlapping responsibilities can increase vulnerability to fraud. Therefore, strong internal control becomes particularly important as a compensating mechanism when complete segregation of duties cannot always be implemented.

However, the strong relationship between internal control and fraud prevention also requires careful interpretation. The measurement model indicated a relatively high association between these constructs, suggesting possible conceptual similarity between control practices and preventive outcomes.

Therefore, future studies should further refine measurement indicators to distinguish between the existence of control mechanisms and their actual effectiveness in preventing fraud.

### **The Direct Effect of Audit Quality on Fraud Prevention**

The structural model results presented in Table 8 demonstrate that audit quality has a positive and significant direct effect on fraud prevention ( $\beta = 0.242$ ,  $t = 2.129$ ,  $p = 0.017$ ). This finding indicates that higher audit quality contributes to fraud prevention by improving detection capability, identifying control weaknesses, and encouraging corrective actions.

This finding supports the assurance role of auditing theory, which emphasizes that independent audits provide confidence regarding the reliability of organizational information and governance practices. High-quality audits are characterized by auditor competence, independence, effective communication with governance bodies, and the ability to provide valuable recommendations. Through these mechanisms, audits increase the perceived probability of fraud detection and encourage organizations to improve their preventive systems.

The finding is consistent with Alberti et al. (2022) and Christensen (2022), who found that audit effectiveness contributes to stronger governance and improved control environments. However, this study highlights an important distinction between the direct and moderating roles of audit quality. Although audit quality directly contributes to fraud prevention, its role does not necessarily strengthen other internal mechanisms.

### **The Moderating Role of Audit Quality on the Relationship between Organizational Ethical Culture and Fraud Prevention (H3)**

The moderation analysis presented in Table 8 shows that audit quality does not significantly moderate the relationship between organizational ethical culture and fraud prevention ( $\beta = -0.082$ ,  $t = 0.769$ ,  $p = 0.221$ ). Therefore, H3 is not supported.

This finding indicates that audit quality does not strengthen the influence of ethical culture on fraud prevention. Although external audits can evaluate compliance and identify weaknesses, they may have limited ability to modify deeply embedded organizational values and employee attitudes. Ethical culture develops through continuous organizational processes, leadership examples, and social interactions, whereas external audits are generally periodic and focused on evaluation.

This finding differs from Sujana and Dharmawan (2023), who reported that audit quality could strengthen relationships between governance mechanisms and risk-related outcomes. The difference may be explained by contextual variations. In this study, rural banks showed relatively high perceptions of ethical culture and audit quality, which may reduce variation and limit the possibility of detecting interaction effects statistically.

Therefore, the findings suggest that audit quality functions as an independent governance mechanism rather than an amplifier of ethical culture. Ethical culture must be developed internally through leadership commitment, organizational norms, and employee engagement rather than relying solely on external assurance.

### **The Moderating Role of Audit Quality on the Relationship between Internal Control and Fraud Prevention (H4)**

The results in Table 8 indicate that audit quality does not significantly moderate the relationship between internal control and fraud prevention ( $\beta = 0.055$ ,  $t = 0.465$ ,  $p = 0.321$ ). Therefore, H4 is not supported.

This finding suggests that high-quality audits do not automatically enhance the effectiveness of internal control systems in preventing fraud. Internal control operates through daily operational processes, including authorization, supervision, monitoring, and risk management. Meanwhile, external audits

evaluate whether these systems function appropriately but do not directly participate in daily control implementation.

The finding provides a different perspective from studies suggesting that audit quality strengthens governance effectiveness. While previous research emphasizes the importance of audit quality as a monitoring mechanism, this study demonstrates that its contribution may depend on organizational conditions and the level of variation in audit quality. The absence of moderation may also be explained by the limited variation in respondents' perceptions, where most respondents reported relatively high audit-quality assessments.

This result contributes to the fraud prevention literature by demonstrating that governance mechanisms may operate independently rather than through interaction effects. Internal control remains an essential preventive mechanism, while audit quality provides additional assurance. Both mechanisms are important, but their functions are complementary rather than necessarily reinforcing.

## **CONCLUSIONS**

This study shows that organizational ethical culture and internal control are significant foundations of fraud prevention in BPRs in Denpasar. Internal control had the strongest direct effect, confirming the importance of reducing opportunity through formal systems, while ethical culture constrained rationalization through leadership example, openness, and consistent enforcement. Audit quality contributed directly to fraud prevention, but it did not significantly moderate either direct relationship. The model explained 81.5% of the variance in prevention.

The central conclusion is that independent audit is valuable but is not a substitute for, or an automatic amplifier of, internal prevention. BPRs obtain the strongest protection when ethical expectations, implemented controls, and independent audit are each treated as accountable governance mechanisms with distinct functions.

## **RECOMMENDATIONS**

The support for H1 and H2 gives clear directions for rural bank management, showing that organizational ethical culture and internal control strongly prevent fraud. This matches the findings of Cabana and Kaptein (2025) and Roy et al. (2024), who showed that a strong team culture connects formal rules with actual behavior and stops employees from making excuses for bad behavior. It also supports the work of Ghanem and Awad (2023) and Khelifi & Vitanova, (2022) who found that good control systems lower fraud risks. To apply this, bank managers should make ethical practices a real part of daily work, include ethical behavior in performance reviews, and focus on proving that controls are actually being done, not just written on paper. However, the lack of support for H3 and H4 shows that audit quality did not strengthen the link between these internal systems and fraud prevention. This result differs from the findings of Sujana and Dharmawan (2023), who showed that audit quality can change the relationship between risk and prevention. Instead, our study proves that external audits work as an independent check, which supports the studies by Alberti et al. (2022) and Christensen (2022). Therefore, management should not assume that hiring a high quality audit firm will automatically fix a weak ethical culture or poor internal controls. Each system must be managed separately, and audit firms should expand their fraud checks to look closely at the behavior of top leaders and see if the bank actually follows ethics policies in real life.

Future research should look at the limits of this study to better understand fraud prevention in rural banks. First, most of the banks in this study used smaller audit firms, and the perceived audit quality was very similar across all respondents. This limited variety might be the reason why the moderation effect was not found, so future studies should choose banks with a wider mix of audit firms to see if the results change. Second, the survey questions for internal control and fraud prevention were slightly too similar, so future researchers should improve the survey questions to clearly separate the design of controls from the actual results of preventing fraud, possibly using real data like actual audit findings instead of just asking employees for their opinions. Third, this study only collected data at one point in time, meaning future studies should collect data over several years to see if improvements in ethical culture and internal control actually lead to less fraud over time. Finally, future researchers should use interviews to understand why audit quality did not strengthen the internal systems, and they should also

look at other factors that might affect fraud prevention, such as whether the bank is family owned or professionally managed, and the skill level of the employees.

## **RESEARCH LIMITATION AND FUTURE RESEARCH**

### **RESEARCH LIMITATION**

The study used purposive, cross-sectional, self-reported data and therefore cannot establish temporal causality or eliminate social-desirability bias. Eight of the 30 legal entities in the sampling frame did not contribute respondents, and the 85 participants were unevenly distributed across the 22 participating BPRs. Two banks accounted for 36.5% of the final sample, while several banks contributed only one respondent. These features limit statistical generalization beyond the participating institutions.

Measurement limitations also matter. Perceived audit quality was high and relatively homogeneous, creating range restriction for moderation tests. Indicator removal to address collinearity substantially reduced the final internal-control measure, and one HTMT ratio was marginally above 0.90. The significant direct effects should therefore be interpreted as strong contextual evidence rather than definitive population estimates.

### **FUTURE RESEARCH**

Future studies should use stratified or multistage probability sampling, establish minimum and maximum respondent quotas per BPR, and obtain multiple respondents from each institution. Longitudinal designs and triangulation with audit findings, loss events, regulatory examinations, interviews, and direct observation would reduce common-method and social-desirability bias. Moderation should be retested in samples with wider variation in audit-firm characteristics, partner involvement, audit tenure, and recommendation follow-up. Researchers should also refine internal-control measures to reduce conceptual overlap with fraud-prevention outcomes and examine information technology governance, human-resource competence, ownership characteristics, and corporate governance as additional predictors.

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