INKUBIS: Jurnal Ekonomi dan Bisnis
Volume 8, Issue 2, 856-872
e_ISSN: 2775-3913
https://inkubis.polteksci.ac.id/index.php/ink/index
DOI: doi.org/10.59261/inkubis.v8i2.262

Role of Internal Control Systems and Organizational Culture in Preventing Village Fund Fraud: Evidence from Pineleng District, Minahasa Regency

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Article Info:

Article history:
Received: April 24, 2026
Revised: June 05, 2026
Accepted: June 08, 2026

Keywords:
Accountability; Fraud Prevention; Internal Control System; Organizational Culture; Transparency; Village Fund

Abstract

Background: Village fund fraud has become a critical governance challenge in Indonesia, with cases reported across districts, including Minahasa Regency. Effective prevention requires examining both institutional mechanisms and cultural factors within village administrations.
Objective: This study aims to analyze the influence of *internal control systems* and *organizational culture* on fraud prevention in village fund management in *Pineleng District, Minahasa Regency*.
Methods: This study employs a quantitative approach with data collection conducted through questionnaires distributed to village officials. A total of 88 respondents, including village heads, village secretaries, village treasurers, *Village Consultative Body (BPD)* members, and section heads in *Pineleng District*, were selected using purposive sampling. Data were analyzed using multiple linear regression with SPSS Version 25.
Results: The results indicate that the *internal control system* does not have a significant effect on village fund fraud prevention (t=0.428, sig.=0.670 > 0.05), whereas *organizational culture* has a positive and significant effect on fraud prevention (t=9.074, sig.=0.000 < 0.05). Simultaneously, both variables jointly influence fraud prevention (F=70.707, sig.=0.000), explaining 62.5% of the variance in fraud prevention (R^2=0.625).
Conclusion: The *internal control system* does not significantly prevent village fund fraud, while *organizational culture*plays a positive and significant preventive role. Village governments are recommended to strengthen an organizational culture rooted in integrity and accountability and to revitalize *internal control systems* to move beyond mere administrative compliance toward substantive fraud prevention.

To cite this article: Mawikere, L. M., Morasa, J., & Kapojos, P. M. (2026). Role of internal control systems and organizational culture in preventing village fund fraud: Evidence from Pineleng District, Minahasa Regency. *INKUBIS: Jurnal Ekonomi dan Bisnis, 8*(2), 856–872. https://doi.org/10.59261/inkubis.v8i2.262

INTRODUCTION

Indonesian villages play an important role as the country's buffer zones and contribute to many aspects of development and community welfare (Simanjuntak et al., 2025; Sunggoro, 2022). Economic Development – 4,444 villages are central to economic activity, particularly in the agriculture, fisheries, and plantation sectors. By developing local businesses, villages can increase local income and create jobs, thereby reducing unemployment (Ntetha, 2021; Xaba et al., 2018).

Food Security – Most rural areas consist of agricultural land, which is the main source of food production in the country (Ahmadi Dehrashid et al., 2021; Zhidkov et al., 2021). Villages play a crucial role in maintaining food security and increasing agricultural productivity through sustainable agricultural practices (Bose et al., 2017; Patel et al., 2020).

Preserving Local Culture and Wisdom – Villages also act as preservers of culture and customs (Widayati et al., 2023). They contribute to national identity and strengthen national character by safeguarding social and cultural values. The presence of Village-Owned Enterprises (BUMDes) and the strengthening of micro, small, and medium enterprises (MSMEs) enable villages to become hubs of new economic growth (Pawitan et al., 2025).

Villages, as the smallest government units, have autonomy to manage their own budgets. This includes formulating village regulations, managing finances, and providing basic services to communities. Such autonomy allows villages to better respond to local needs.

Urban Buffer Zone – Villages act as urban buffer zones by providing food, raw materials for industry, and green space. This role is vital to support the development of surrounding cities and maintain a balance between urbanization and the needs of rural communities. Minahasa Regency must prevent fraud in the financial management of village funds for several important reasons related to accountability, transparency, and the sustainability of village development.

Improving Financial Accountability – Proper management of village resources must be supported by a strong accountability system (Bakhtiar, 2021; Bawono et al., 2020). Fraud and embezzlement in financial management can lead to a loss of public trust in village governments. By implementing anti-fraud measures, Minahasa Regency can ensure that village funds are managed transparently and accountably in accordance with applicable laws and regulations. Fraud prevention ensures that village funds are used efficiently for programs that genuinely benefit the community (Hendrawati et al., 2022). Misuse of funds can result in misallocation of resources and hinder the development of infrastructure and public services in villages (Ardiputra et al., 2025). By preventing fraud, Minahasa Regency can maximize the positive impact of village fund utilization.

Common problems in village fund management include delays and inaccuracies in financial reporting. With proper preventive measures, Minahasa Regency can improve the quality of its financial reports and meet the requirements established in government regulations. Community trust in village governance is essential for the success of any development program (Komang Merawati et al., 2025). If the community knows that the village is serious about preventing fraud, they will have greater confidence in the management of village funds, which also encourages active community participation in the development process (Pratiwi et al., 2024).

Fraud prevention is further critical to avoid sanctions from the central government. By adopting proactive preventive measures, Minahasa Regency can protect itself from potential financial and reputational losses. Organizational culture and internal control systems are pivotal in preventing fraud in the financial management of village funds (Musyoki, 2023).

According to a report from the Minahasa State Prosecutor's Office in 2023, Tateli Village II is suspected of village fund corruption from 2017–2019. In 2024, twenty-six village heads in Minahasa will be examined by the Minahasa Police Corruption Officer.

Several prior studies have examined similar themes. Widiyarta (2017) found that internal control systems, organizational culture, competence, and whistleblowing significantly reduce fraud risk in village fund management in Buleleng Regency. Similarly, Islamiyah (2020) demonstrated that internal control and whistleblowing systems are key fraud deterrents among village apparatus in Wajak District. Putra (2018) also confirmed that organizational culture and internal control positively reduce fraud tendencies in village credit institutions (LPD) in Gianyar Regency. However, these studies were conducted in Bali, leaving a gap regarding the generalizability of findings to North Sulawesi contexts. Additionally, no prior study has specifically compared the relative dominance of organizational culture versus internal control in Pineleng District. This research addresses that gap by testing whether organizational culture is more dominant than the internal control system in preventing village fund fraud in Pineleng District, Minahasa Regency.

The novelty of this research lies in its empirical testing of whether organizational culture is more dominant than the internal control system in preventing village fund fraud, a comparison that has not been explicitly examined in the context of Pineleng District, Minahasa Regency. This study contributes to the literature by demonstrating that, in the context of North Sulawesi village governance, cultural and behavioral factors may exert greater influence on fraud prevention outcomes than formal procedural controls. The findings are expected to provide evidence-based

policy recommendations for local governments seeking to improve accountability and transparency in village fund management. This study aims to analyze the influence of the internal control system and organizational culture on fraud prevention in village fund management in Pineleng District, Minahasa Regency, and to identify which variable plays a more dominant role.

METHOD

The research methodology employed in this study is classified as quantitative research. This investigation utilizes quantitative data, specifically numerical data derived from the scores obtained through the questionnaire. The study relies on Primary Data, which is collected directly from the research participants and shared by the research team. The data sources for this study include the village head, village secretary, village treasurer, and the Village Consultative Body (BPD).

Data collection in this study is conducted through a questionnaire that employs a Likert scale ranging from 1 to 5, which is distributed across each village and subsequently collected. Additionally, brief interviews were conducted concerning the variables under investigation.

Operational Definitions and Variable Measurements

Internal Control System Variables

The internal control system constitutes a fundamental process that is essential to the ongoing actions and activities performed by both leadership and all employees. It aims to ensure reasonable assurance in the attainment of organizational objectives through the execution of effective and efficient operations, the reliability of financial reporting, the safeguarding of state assets, and adherence to laws and regulations (Government Regulation No. 60 of 2008).

Variable measurement

Table 1. Operationalization of Internal Control Variables

A	Control environment with 3 Indicators, namely; 1 Make standards of behavior and policies that must be complied with by employees 2. Demonstrate commitment to ethical values 3. Demonstrate commitment to maintain competent employees
B	Risk assessment with 4 indicators, namely: 1. Have prepared measures to anticipate risks that may occur 2. Analyze risks as a basis to support efforts to achieve agency objectives Determine how risks must be managed 3 Risk anticipation measures support in efforts to achieve agency objectives 4. Every transaction is recorded in the accounting notebook
C	Control activities with 3 indicators, namely: 1. Every financial transaction in the village is recorded and supported by valid evidence 2. Authorization of financial transactions is carried out by the official who has the authority 3. There is a separation of duties between those who record and those who manage village funds
D	Monitoring with 2 indicators, namely: 1. Reports are reviewed and approved first by the head of finance/accounting before being distributed 2. Evaluating the lack of internal control in the responsible party

Source: Iin Bunga Intan, 2021

Organizational culture is a system of values, beliefs and habits in an organization that interact with the structure of its formal system to produce organizational behavior norms.

Variable Measurement

Table 2. Operationalization of Internal Control Variables

Organizational Culture Variables
A. Innovative risk factoring
You are aware that every work program has inherent risks.
B. Pay attention to each issue in detail
You realize that every problem has a cause and a solution

Outcome-oriented
You are able to work together to achieve the goals of the implementation of the work program
C. Oriented to the interests of the community
You prioritize the goals of the community's interests first.
D. Aggressive at work
You are quick to respond to problems that occur
E. Maintain and maintain work stability
You are trying to improve your performance in carrying out your responsibilities

Source: Syahrani Wangi Puspita:2023

Fraud Prevention (Y) is an activity carried out in terms of establishing policies, systems and procedures that help that actions are needed to eliminate or suppress the causes of fraud (Widiyarta et al., 2017).

Table 3. Operationalization of Good Governance Variables in Village Fund Management

A. Fraud Awareness
Giving strict sanctions to those who commit fraud and rewarding those who excel
B. Self-Management and Participatory
The community provides suggestions and criticisms of the supervision of the village fund program carried out in your village
C. Transparent and Accountable
The village that receives village funds is responsible for the management of funds to the Government in the form of an accountability report at the end of each year
D. Orderly Administration and Reporting
The preparation, decision-making, and problem-solving regarding program planning is carried out by deliberation and making an overall program report at the end of the period. Implementation
E. Trust in each other
You believe that the Government as the village funder has carried out its duties as best as possible without committing fraud.

Source: Syahrani Wangi Puspita:2023

Research Hypotheses

Based on the theoretical framework and review of prior studies, the following hypotheses are proposed:

1. H1: The internal control system has a positive and significant effect on village fund fraud prevention in Pineleng District, Minahasa Regency.
2. H2: Organizational culture has a positive and significant effect on village fund fraud prevention in Pineleng District, Minahasa Regency.
3. H3: The internal control system and organizational culture simultaneously have a positive and significant effect on village fund fraud prevention in Pineleng District, Minahasa Regency.

Data Analysis Techniques

The analysis of data in this research employed multiple linear regression to examine the impact of independent variables on dependent variables. Subsequently, a verification process was conducted by graphing the data to determine whether it exhibited linear or non-linear characteristics, utilizing the Statistical Product and Service Solutions (SPSS) Version 25 software. The data analysis methodologies applied in this study included:

Descriptive Statistics

Descriptive statistics offer a summary or depiction of data, characterized by metrics such as the mean, standard deviation, variance, minimum and maximum values, total sum, range, kurtosis, and skewness. Descriptive statistics constitutes a branch of statistics that examines tools, techniques, or methodologies designed to yield an overview or description of a dataset derived from observational results. The purpose of descriptive analysis is to furnish an overview that

highlights the characteristics of the data collected. This broad description serves as a reference point for understanding the attributes of the acquired data.

Data Quality Test

Data collection was conducted through the use of questionnaires, making the quality of the questionnaire, the respondents' seriousness in providing answers, and situational factors crucial to this research. The validity of research findings was significantly influenced by the measurement instruments employed for the variables under investigation. Should the tools utilized in the data collection process have lacked reliability or trustworthiness, the resulting data would have failed to accurately reflect the true circumstances. Consequently, this study necessitated both a reliability test and a validity test.

Validity Test

The validity test is used to assess whether a questionnaire is valid. A questionnaire is considered valid if its items effectively capture the information it is intended to measure. Therefore, validity seeks to evaluate the construct that we intend to measure. The method employed for the validity test involves correlation analysis. The computation is carried out by comparing the calculated r value (r count) with the critical r value from the table for the degrees of freedom (df) = n - 2, where n represents the sample size. If the calculated r exceeds the table r at a significance level of 0.05 and is positive, the item, question, or indicator is deemed valid.

Reliability Test

Reliability serves as a measure to assess the consistency of a questionnaire, which functions as an indicator of a variable or construct. To determine a variable's reliability, a statistical test is conducted using Cronbach's Alpha (α). A construct or variable is considered reliable if it produces a Cronbach Alpha value greater than 0.60. The reliability assessment is performed using SPSS, and a variable is deemed reliable when its Cronbach Alpha exceeds the 0.60 threshold.

Classic Assumption Test

The classical assumption test evaluates the statistical prerequisites necessary for multiple linear regression analysis using ordinary least squares (OLS). This test is conducted to confirm that the regression model does not exhibit violations regarding data normality, multicollinearity, or heteroscedasticity.

Normality Test

The normality test determines whether the residuals (errors) in the regression model follow a normal distribution. The Kolmogorov-Smirnov test is employed at a significance level of 0.05. Data are considered normally distributed if the p-value obtained from the Kolmogorov-Smirnov test exceeds 0.05.

Multicollinearity Test

The multicollinearity test assesses whether correlations exist among the independent variables in a regression model. To detect multicollinearity, both the tolerance value and the Variance Inflation Factor (VIF) are examined. These metrics indicate the extent to which an independent variable is explained by the other independent variables. A VIF of 10 or higher, or a tolerance value of 0.1 or lower, signals multicollinearity. Conversely, the regression model is considered free of multicollinearity when the tolerance exceeds 0.10 and the VIF is less than 10.

Heteroscedasticity Test

The heteroscedasticity test evaluates whether the variance of residuals differs across observations in a regression model. Constant residual variance is referred to as homoskedasticity, whereas varying variance is termed heteroscedasticity. An ideal regression model is characterized by the absence of heteroscedasticity. This is assessed by analyzing scatterplots and employing the Glejser Test, which involves regressing the absolute residual values against the independent

variables using the equation |Ut| = α + βXt + vt.

Multiple Linear Regression Analysis

This study employs multiple linear regression analysis to examine the relationships among various variables. When the model includes two or more independent variables, it is classified as multiple regression. In this study, since the independent variables exceed two, multiple regression is applied. The regression equation is formulated to measure the influence of the independent variables, specifically the Internal Control System (X1) and Organizational Culture (X2), on the prevention of fraud (Y).

The mathematical formula of multiple regression used in research is:

Y = α + β1X1 +β2X2 +e

Description:

Y: Fraud prevention

α: Constant

X1: Internal Control System

X2: Organizational Culture

β1 – β4: Multiple regression coefficient

E: *error term*

Hypothesis Test

The purpose of the hypothesis test is to evaluate the collected data and draw conclusions based on the results of the analysis. It seeks to determine if the independent variable (free) influences the dependent variable (bound). In essence, it aims to assess whether the hypothesis of this study is validated or rejected.

Partial Test (Statistical Test t)

This t-test is employed to determine whether the independent variables (X1, X2) in the regression model have a significant partial effect on the dependent variable (Y). The outcomes of the t-test are presented in the coefficients table, specifically in the significance (sig) column. A t-value probability or significance level of < 0.05 indicates a significant influence of the independent variable on the dependent variable. Conversely, if the t-value probability or significance level is > 0.05, it suggests that there is no significant effect of each independent variable on the dependent variable.

Simultaneous Test (Statistical Test F)

This F-test is employed to determine whether the independent variables present in the model exert a collective effect on the dependent or response variable. With a significance level of 0.05, one can draw conclusions as follows: a) If the significance value is < 0.05, then *Ha* is accepted and *Ho* is rejected, which means that all independent variables have a significant simultaneous effect on the dependent variable. b) If the significance value is > 0.05, then *Ha* is rejected and *Ho* is accepted, which means that the independent variables do not have a significant simultaneous effect on the dependent variable.

Coefficient of Determination Test (R^2)

The coefficient of determination (R^2) fundamentally assesses the extent to which the model can account for the variability of the dependent variable. The determination coefficient ranges from zero to one. A low R^2 value indicates that the independent variables have minimal capacity to explain the variation in the dependent variable. Conversely, a value approaching one signifies that the independent variables almost entirely encompass the information necessary for predicting the dependent variable's variation. Generally, the determination coefficient for cross-sectional data tends to be relatively low due to significant variability among individual observations, whereas for time-series data, it typically exhibits a high coefficient of determination.

A critical limitation of utilizing the determination coefficient is its inherent bias toward the number of independent variables incorporated into the model. Each time an independent variable is added, R^2 will invariably increase, irrespective of whether that variable significantly

influences the dependent variable. Consequently, many scholars advocate for the use of the Adjusted R^2 when determining the most suitable regression model. Unlike R^2, the Adjusted R^2 can either increase or decrease with the addition of an independent variable to the model. In practice, the adjusted R^2 can even be negative, although a positive value is preferred. If an empirical analysis yields a negative adjusted R^2, it is conventionally treated as zero. Mathematically, if R^2 equals 1, then adjusted R^2 equals R^2, which is also 1; however, if R^2 equals 0, then adjusted R^2 is calculated as (1-k)/(n-k). If k exceeds 1, the adjusted R^2 will yield a negative value.

RESULTS AND DISCUSSION

Results

Respondent Characteristics

This research was carried out in all villages in Pineleng District. Data collection employed a questionnaire distributed through a Google Form. The respondents were the Village Head, locally known in Minahasa Regency as Kuntua, the Village Secretary, Village Treasurer, Village Consultative Body (BPD) members, and the Head of Guard. A total of 88 questionnaires were collected. The total population of this study consisted of all village officials in Pineleng District, Minahasa Regency, across 12 villages, amounting to 88 officials. Sampling used purposive sampling, selecting respondents based on their direct involvement in village fund management (village heads, secretaries, treasurers, BPD members, and section heads), ensuring representation of all relevant positions. All distributed questionnaires were completed by the existing village apparatus. The questionnaires were distributed through visits to each village in Pineleng District, accompanied by meetings with the Village Head and other village officials.

Variable Description

The data interval instrument was compiled using a five-point Likert scale, with answer scores defined as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. With five classes derived from the research scale, the class interval was calculated to be 0.8, with classification based on Table 1. This assessment method is used in surveys or questionnaires to measure the level of respondents' agreement with a given statement or condition. Each class represents a different level of agreement according to the range of values provided.

Table 4. Classification

No	Value Range	Rating
1	4.2- 5.0	Totally agree
2	3.4- 4.2	Totally agree
3	2.6-3.4	Agree
4	1.8-2.6	no
5	1.0-1.8	Strongly disagree

Fraud Prevention Variables

Data collection was carried out through Google Forms. For the leadership indicator, Giving strict sanctions to those who commit fraud and rewarding those who excel with a 5-point Likert scale, the score is 4.2, which indicates “agree.” An average score of 4.2 suggests that most respondents selected an answer between “agree” and close to “strongly agree.” This reflects a fairly high level of approval of the role of leaders in fraud prevention, specifically through imposing strict sanctions on fraudsters and providing rewards for high achievers. This value not only represents the dominant answer but also indicates the strength and consistency of opinions among respondents.

The second indicator, In this village, the community gives suggestions and criticisms to the supervision of the village fund program carried out in the village of Mr./Mrs., scored 4.01, which also indicates “agree.” An average score of 4.01 means that the majority of respondents responded in the “agree” range or near the boundary between “agree” and “strongly agree.” This demonstrates that the community tends to actively provide constructive suggestions and criticisms regarding the supervision of the village fund program, showing their engagement and

concern in monitoring the program.

Indicator 3, Village fund recipients are responsible for the management of funds to the Government in the form of accountability reports at the end of each year, has an average score of 4.06. This indicates that respondents generally chose answers between "agree" and close to "strongly agree." This shows that most community members or respondents recognize and support that village fund recipients routinely carry out accountability for fund management through annual reports.

Indicator 4, Budget preparation, decision-making, and problem-solving regarding program planning are carried out by deliberation, followed by a report on the implementation of the overall program at the end of the period, scored 4.02. The average score indicates that respondents generally selected answers close to "agree" and slightly leaning toward "strongly agree." This suggests that the majority of village officials agree that budgeting, decision-making, and problem-solving processes are conducted deliberatively and culminate in a comprehensive program implementation report at the end of the period.

Indicator 5, You believe that the Government, as the village funder, has carried out its duties as best as possible without committing fraud, has a value of 3.89. The average score of 3.89 falls between the "neutral" and "agree" categories, leaning more toward "agree." This indicates that most respondents have a positive perception of and trust in the Government's role in managing village funds responsibly, although the level of trust is not as strong as scores of 4.0 or higher.

Table 5. Fraud Prevention Variables

Respondents	**1. Leaders Give strict sanctions to those who commit fraud and give awards to those who have achieved.**	**2. In this village, the community provides suggestions and criticisms of the supervision of the village fund program carried out in the village.**	**3. The village receiving village funds is responsible for the management of funds to the Government in the form of an accountability report at the end of each year.**	**4. Budget preparation, decision-making, and problem-solving regarding program planning are carried out by deliberation and making a report on the implementation of the overall program at the end period.**	**5. You trust the Government as the village funder to carry out its duties as best as possible without committing fraudulent acts**
1	5	5	5	5	3
2	5	5	4	4	4
3	4	4	5	5	5
4	4	4	4	4	4
5	4	4	4	4	4
6	4	4	4	4	4
7	4	4	4	4	4
8	4	4	4	4	4
9	4	4	4	4	4
10	4	4	4	4	4
11	4	4	4	4	4
12	4	4	4	4	4

13	5	4	5	5	5
14	4	4	4	4	4

Description of Internal Control variables

Indicator 1: You, as a village apparatus, feel that you have a role in internal supervision within the village government. The average score is 4.12, indicating that village officials generally responded with "agree" and were close to "strongly agree." This suggests that the majority of village officials feel they have an active role and contribute significantly to internal supervision within their village government environment.

Indicator 2: Have you had a plan to manage or reduce the risk of violations against village funds? The average score is 4.13, showing that most respondents selected "agree," approaching "strongly agree." This indicates that village officials generally believe the village has an effective management plan to reduce the risk of violations in the management of village funds.

Indicator 3: You feel that control activities in the village government have been evaluated regularly to ensure that the activities remain appropriate and function as expected. The average score is 3.9, falling between "neutral" and "agree," but leaning toward "agree." This demonstrates that most respondents have a positive perception of the evaluation of control activities, although some may feel that improvements are still possible.

Indicator 4: You feel capable of making good use of various forms of communication. The average score is 4.02, placing respondents in the "agree" category. This suggests that the majority of village officials feel able and effective in utilizing the available communication tools. It reflects a positive perception and confidence in applying communication means for government activities and coordination.

Indicator 5: Village officials feel that they participate in the continuous monitoring of the internal control system within the village government. The average score is 4.09, indicating responses in the "agree" category, close to "strongly agree." This implies that village officials generally perceive themselves as playing an active role and making significant contributions to ongoing monitoring of the internal control system in village government.

Table 6. Description of Internal Control variables

Respondents	**1. You as a village apparatus feel that you have a role in internal supervision within the village government.**	**2. You already have a plan to manage or reduce the risk of violations of village funds**	**3. You feel that control activities in the village government have been evaluated regularly to ensure that these activities are still appropriate and functional as expected**	**4. You feel that you can make good use of various forms of communication facilities.**	**5. You as village officials feel that you have a role in monitoring the internal control system in a sustainable manner within the village government**
1	5	5	5	5	5
2	5	5	5	5	5
3	5	5	5	5	5
4	4	4	4	4	4
5	4	4	4	4	4
6	4	4	4	4	4
7	4	4	4	4	4
8	3	4	4	4	4
9	4	3	3	4	4
10	4	4	4	4	4
11	5	4	4	4	4
12	4	4	4	4	4
13	5	5	4	5	4
14	4	4	4	4	4

15	4	4	4	4	4
16	4	4	4	4	4
17	4	4	4	4	4
18	5	4	4	4	4
19	4	4	4	4	4
20	4	4	4	4	4
21	4	3	4	4	4
22	4	4	4	4	4

Description Organizational culture variables

Indicator 1: In carrying out work in the village, you are given the widest opportunity to take the initiative to review and complete the work yourself in accordance with your views and applicable regulations. The average score of 3.89 is above the "neutral/ordinary" category and close to "agree." This indicates that the majority of respondents tend to agree that they are granted the freedom and opportunity to take the initiative in reviewing and completing work independently according to applicable rules, although not at the level of full agreement.

Indicator 2: Ladies and gentlemen are regularly briefed on the achievement of targets in accordance with the vision and mission of the organization. With an average score of 4.06, placing respondents in the "agree" category, this suggests that most village officials concur that they regularly receive briefings focused on achieving targets aligned with the organization's vision and mission. This reflects consistent communication and direction that support alignment of work with the organization's strategic goals.

Indicator 3: Ladies and gentlemen are supported by the leadership to continue their education. The average score of 4.15 exceeds the "agree" category, approaching "strongly agree." This demonstrates that the majority of village officials feel that leadership actively supports continuing education, reflecting the leaders' commitment to developing human resources within the village context.

Indicator 4: There are standard rules listed in the employee code of ethics that are used to supervise and control the behavior of employees in carrying out their duties, with an average score of 4.05. This indicates that respondents generally agree that the employee code of ethics effectively serves as a tool to supervise and regulate village officials' behavior. The score demonstrates good recognition and compliance with existing ethical standards.

Indicator 5: The increase in income (salary and additional activity allowances) is based on your work performance, with an average value of 4.14, placing most respondents in the "agree" category, close to "strongly agree." This suggests that village officials are aware and accepting that income increases—both salaries and allowances—are performance-based.

Indicator 6: Communication with your boss is not limited by a formal hierarchy of authority, with an average score of 4.0. This shows that most respondents agree that communication with supervisors occurs without rigid hierarchical restrictions, indicating a more open, flexible, and effective communication environment.

Indicator 7: The implementation of work is always based on transparency where formal and material provisions are informed to service users (stakeholders). The average score of 4.09 indicates that respondents generally agree that work implementation is transparent and that all formal and material provisions are clearly communicated to stakeholders. This demonstrates a relatively high level of trust and satisfaction regarding information disclosure in village operations.

Indicator 8: Carry out all the work completely. An average score of 4.11 suggests that most respondents selected "agree," nearing "strongly agree." This reflects confidence among village officials in thoroughly executing their work, completing tasks fully, and maintaining adequate quality.

Indicator 9: You always carry out your work sincerely and conscientiously. With an average score of 4.22, respondents generally fall in the "agree" category, approaching "strongly agree." This indicates that village officials exhibit a sincere and conscientious approach to work, which aligns with the organizational culture.

Table 7. Organizational culture variables

Repl y in	1. In carrying out work in the village, you are given the widest opportuni ty to take the initiative to review and complete your own work with the view of you and applicable regulation s	2. You are regularly given directions related to the achieveme nt of targets in accordance with the vision and mission of the organizati on i	3. You are supporte d by the leadershi p to continue your educatio n	4. There are standard rules listed in the employe e code of ethics that are used to supervis e and control the behavior of employe es in carrying out their duties	5. Increase in income (salary, and additional activity allowances) based on your work performan ce	6. Communicati on between you and your boss is not limited by a formal hierarchy of authority	7. The implementati on of work is always based on transparency where formal and material provisions are informed to service users (stakeholders))	8. You carry out all work complete ly	9. You alway s carry out your work sincer ely and sincer ely
1	5	5	5	5	3	5	5	5	5
2	5	5	5	5	5	5	5	5	5
3	5	5	4	4	5	5	4	5	5
4	4	4	5	4	4	4	4	4	4
5	4	4	4	4	4	4	4	4	4
6	4	4	4	4	4	4	4	4	4
7	4	3	4	4	4	4	4	4	4
8	4	4	4	4	4	4	4	4	4
9	4	4	4	4	4	4	4	4	4
10	4	4	4	4	4	4	4	4	4
11	4	4	4	4	4	4	4	4	4
12	4	4	4	4	4	4	4	4	4
13	3	4	5	5	5	4	4	5	5
14	4	4	4	4	4	4	4	4	4
15	4	4	4	4	4	4	4	4	4
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21	4	3	4	4	4	4	4	4	3
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23	4	3	4	4	4	4	4	4	4
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35	4	4	4	4	4	4	4	4	4
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76	2	2	2	2	2	3	1	3	4
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81	4	4	4	4	5	3	4	5	5
82	2	4	4	4	4	3	4	4	4
83	4	5	4	4	4	4	4	4	4
84	4	4	4	4	4	4	4	4	4
85	1	5	5	1	5	1	5	1	5
86	3	4	4	4	5	3	4	4	4
87	3	3	4	3	4	4	4	4	4
88	5	4	4	4	5	4	4	4	4
	343	358	366	357	365	352	360	362	371
	3,8977273	4,068	4,15909091	4,056818	4,14773	4	4,090909	4,11363636	4,215909 09

Analysis Process

Descriptive Statistical Analysis

The number of samples in this study was 88 respondents. For the *Fraud Prevention* variable, the average score was 20.28 with a standard deviation of 2.171. For the *Internal Control* variable, the average score was 36.75 with a standard deviation of 3.649. For the *Organizational Culture* variable, the average score was 36.75 with a standard deviation of 3.649.

These results show that the data meet the minimum sample size for regression analysis (N > 30). The *Organizational Culture* variable has a higher average and variance than the other two variables.

Data Quality Test

The Validity Test used the Pearson Product-Moment correlation, which compares the calculated r with the r-table value. The correlation of X1 with Y was 0.510, which is significant. The correlation of X2 with Y was 0.790, which is also significant. These results indicate that the independent variables have a statistically significant relationship with the dependent variable, making them valid.

Reliability Test

In this study, a Cronbach's alpha above 0.7 is considered reliable. The reliability test for 88 respondents indicates that the instrument is reliable.

Classic Assumption Test

Normality Test

This test was conducted to determine whether the data were normally distributed. The results show that the data and residuals are normally distributed.

Multicollinearity Test

Based on the Tolerance and VIF values in the coefficients table: X1: Tolerance = 0.619, VIF = 1.616; X2: Tolerance = 0.619, VIF = 1.616. Because the VIF values are <10 and Tolerance values are >0.1, the results indicate no multicollinearity.

Heteroscedasticity Test

This test was evaluated using a scatterplot of predicted values versus residuals. The points are randomly dispersed without a specific pattern, indicating no heteroscedasticity.

Hypothesis Test

Multiple Regression Analysis

This study used two predictor variables, namely *Internal Control* (X1) and *Organizational Culture* (X2), with the regression equation:

Y = 2.765 + 0.037(X1) + 0.457(X2)

Partial Test (t-test)

Internal Control of Village Fund Fraud

t = 0.428, Sig. = 0.670 > 0.05, indicating that *Internal Control* is not statistically significant in predicting fraud.

Respondents perceive that, as village apparatus, they play a role in internal supervision within the village government. They maintain management plans to reduce the risk of village fund violations and regularly evaluate control activities to ensure compliance and effectiveness. Respondents feel capable of utilizing various communication facilities. However, they appear to have no measurable influence on village fund fraud, potentially due to insufficient understanding of internal control mechanisms.

Organizational Culture Against Village Fund Fraud

t = 9.084, Sig. = 0.000 < 0.05, indicating that *Organizational Culture* has a significant positive effect on preventing village fund fraud.

This research shows that village apparatus are given wide opportunities to take initiative, review, and complete tasks according to regulations. They receive periodic briefings on target achievements aligned with the organization's vision and mission, and leadership supports

continuing education. The apparatus are familiar with the employee code of ethics, which guides supervision and behavioral control. Compensation based on performance is not the primary motivator. Communication with superiors is not restricted by formal hierarchical structures. Work implementation emphasizes transparency, with both formal and material provisions clearly communicated to stakeholders. The apparatus execute all tasks diligently and sincerely.

Simultaneous Test (F-test)

F count = 70.707, Sig. = 0.000 < 0.05, indicating that X1 and X2 together have a significant effect on Y.

Coefficient of Determination (R^2)

R = 0.790, R^2 = 0.625, Adjusted R^2 = 0.616. This means that 62.5% of the variation in *Fraud Prevention* (Y) can be explained by *Internal Control* and *Organizational Culture*, while 37.5% is explained by variables outside the model. Although *Internal Control* is not statistically significant individually, combined with *Organizational Culture*, both contribute substantial explanatory power. This suggests that *Organizational Culture* acts as a mediator or reinforcer between *Internal Control* and fraud prevention. A robust internal control system is more effective when supported by a strong organizational culture emphasizing integrity, transparency, and accountability.

Discussion

The results of this research are examined in relation to established theoretical frameworks. The Fraud Triangle Theory asserts that fraud arises when three factors coexist: pressure, opportunity, and rationalization. In the realm of village fund management, an effectively executed internal control system is anticipated to mitigate the opportunity factor by restricting the circumstances that allow fraud to take place. The Committee of Sponsoring Organizations Internal Control–Integrated Framework further delineates five essential components of effective internal control: control environment, risk assessment, control activities, information and communication, and monitoring, all of which are represented in the measurement indicators utilized in this research. Moreover, the Theory of Planned Behavior Ajzen (1991) underscores the influence of organizational culture on shaping individuals' behavioral intentions; when a village culture prioritizes integrity, transparency, and accountability, officials are more inclined to act ethically and resist engaging in fraudulent behavior.

The Effect of Internal Control on Village Fund Fraud.

The empirical findings of this study indicate that the internal control system has no significant effect on village fund fraud prevention in Pineleng District, Minahasa Regency. This critical condition suggests that internal control mechanisms within the village administrations operate merely as a procedural formality rather than a substantive deterrent. Village apparatuses tend to carry out control activities, such as signing financial documents and attending administrative meetings, out of routine compliance without a deep, critical understanding of fraud risk assessment. Consequently, specific vulnerabilities within the village fund execution cycle remain undetected. Furthermore, the evaluation of control activities is mostly directed toward fulfilling bureaucratic paperwork rather than creating a continuous feedback loop for system improvement. This lack of rigorous data validation and substantive transaction monitoring leaves structural loopholes that administrative compliance alone cannot close.

The monitoring carried out is often only for administrative compliance or for the completeness of documents. Substantive data validation of transactions is lacking, and monitoring is routine. Sanctions are often not applied due to family considerations, and awards are based on loyalty rather than integrity. The limited capacity of village apparatus, where not all personnel share the same competence, ranging from undergraduates to junior high school graduates, further restricts the ability to detect fraud.

The Influence of Organizational Culture on Village Fund Fraud

In contrast to formal controls, organizational culture exerts a positive and significant influence on fraud prevention within the investigated village governments. This highlights that informal governance mechanisms, such as shared values, ethics, and behavioral norms, are far

more effective in shaping the ethical conduct of village officials in Pineleng District. When village leaders actively foster an environment of open communication, formal hierarchies are minimized, allowing for immediate clarification of errors and collaborative problem-solving. Moreover, a deep-rooted commitment to professional integrity and public service serves as an internal psychological barrier against fraudulent temptations. Compliance with the employee code of ethics in these villages is driven not by the fear of procedural sanctions but by a collective cultural preference for transparency and accountability toward the community.

Theoretical Implications: Fraud Triangle and Planned Behavior

From a theoretical standpoint, these findings provide a nuanced extension to both the Fraud Triangle Theory and the Theory of Planned Behavior. The Fraud Triangle Theory posits that fraud occurs when pressure, opportunity, and rationalization coexist. Conventionally, an internal control system is expected to eliminate fraud by reducing opportunity. However, this study demonstrates that when internal control is strictly administrative and lacks substantive enforcement (e.g., absence of surprise audits and independent whistleblowing channels), it fails to minimize opportunity.

Conversely, the potent effect of organizational culture aligns seamlessly with the Theory of Planned Behavior, which states that normative beliefs and subjective culture heavily dictate individual behavioral intentions. In Pineleng District, a strong organizational culture prioritizing integrity and transparency effectively suppresses the rationalization element of fraud. Even though formal procedures (opportunities) are weak, village officials refrain from committing fraud because their internalized cultural values reject unethical behavior. This underscores that in rural Indonesian governance, strengthening cultural and behavioral frameworks is an indispensable prerequisite for any formal anti-fraud infrastructure to function optimally.

These findings are partially consistent with prior research. Widiyarta (2017) found that internal control systems significantly reduce fraud in village fund management in Buleleng Regency; however, the present study found no significant effect of internal control in Pineleng District. This discrepancy may be attributable to contextual differences: the quality of internal control implementation in Pineleng District appears to be more procedural than substantive, lacking real-time monitoring, surprise audits, and independent reporting channels. Conversely, the dominant role of organizational culture found in this study aligns with the findings of Putra (2018), who confirmed that organizational culture significantly reduces fraud tendencies in village credit institutions in Gianyar Regency. The current study extends this finding to a North Sulawesi context, confirming that strong cultural values of integrity, transparency, and open communication are key fraud prevention factors even when formal control systems are sub-optimally implemented. This also corroborates Ansar (2025), who demonstrated that organizational culture plays a mediating role in the relationship between internal control and fraud prevention in Indonesian village governments.

CONCLUSION

The results of this study indicate that the internal control system does not have a significant effect on fraud prevention in village fund management in Pineleng District, Minahasa Regency. This finding suggests that the implementation of internal control has not been fully effective and tends to be administrative and procedural rather than substantive in detecting and mitigating fraud risks. In contrast, organizational culture has a positive and significant effect on fraud prevention, demonstrating that values such as integrity, transparency, ethical compliance, and open communication play an important role in shaping the behavior of village officials and reducing opportunities for fraudulent practices.

Simultaneously, the internal control system and organizational culture significantly influence fraud prevention, contributing 62.5% to the explained variance. These findings highlight that internal control mechanisms become more effective when supported by a strong organizational culture, emphasizing the need for an integrated approach to enhance accountability and transparency in village fund management. Accordingly, Pineleng District is encouraged to establish an independent fraud reporting and investigation mechanism, utilize real-time monitoring technology, provide regular anti-fraud training for village officials, and

implement periodic surprise audits by independent institutions. Furthermore, the existing positive work culture among village officials should be continuously maintained and strengthened through community involvement and self-regulatory practices.

This study has several limitations that should be considered when interpreting the findings. First, the research only examined two independent variables, internal control systems and organizational culture, leaving 37.5% of the variation in fraud prevention unexplained. Future studies are therefore recommended to incorporate additional factors such as individual morality, apparatus competence, whistleblowing systems, digital transparency mechanisms, and community participation. Second, the study was limited to Pineleng District, which may restrict the generalizability of the findings to other regions. Third, the use of self-reported questionnaire data may have introduced social desirability bias, particularly given the sensitivity of fraud-related issues. Future research could employ mixed-method approaches combining surveys with observations, interviews, or document analysis to improve data validity. Finally, the cross-sectional design limits the ability to establish causal relationships; therefore, longitudinal studies are recommended to better understand the dynamics between internal control systems, organizational culture, and fraud prevention over time.

ACKNOWLEDGEMENT

The authors would like to express their sincere gratitude to all village officials in Pineleng District, Minahasa Regency, who participated in this study and provided valuable information during the data collection process. The authors also extend their appreciation to the Faculty of Economics and Business, Universitas Sam Ratulangi, for its academic support and encouragement throughout the completion of this research. Any opinions, findings, and conclusions expressed in this article are solely those of the authors.

AUTHOR CONTRIBUTION STATEMENT

Lidia Marlina Mawikere contributed to the conceptualization of the study, research design, data collection, data analysis, interpretation of findings, and preparation of the original manuscript draft. Jenny Morasa contributed to methodology development, supervision of the research process, critical review of the analysis, and manuscript revision. Peter Marshall Kapojos contributed to data validation, interpretation of results, manuscript editing, and final approval of the version submitted for publication. All authors have read and approved the final manuscript and agree to be accountable for all aspects of the work.

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