

Optimising Village Financial Management through the Implementation of Accounting Information Systems: A Case Study in Jayapura City

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Abstract

Village financial management is an essential aspect of realising transparent and accountable governance. However, many villages still face obstacles in financial reporting and accounting due to limited information systems. This study was conducted to analyse the effect of the implementation of an accounting information system on village financial management in Jayapura City. This study used a quantitative, explanatory approach to examine the cause-and-effect relationship between variables. The research population included financial management officials from all villages in Jayapura City. The sampling technique used was purposive sampling, with 140 respondents comprising village heads, village secretaries, treasurers, and heads of financial affairs. Data were collected using questionnaires and analysed using Partial Least Squares – Structural Equation Modelling (PLS-SEM) in SmartPLS version 4. The results showed that the implementation of accounting information systems had a positive and significant effect on village financial management. The application of technology-based information systems was proven to increase the transparency, efficiency, and accountability of village fund management. This study has theoretical implications for strengthening the Information System Success Model and practical implications for local governments in expanding the digitisation of village financial systems to enhance good-governance-based administration.

Keywords: accounting information system, village financial management, financial transparency, public accountability, good governance

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INTRODUCTION

Village financial management is now one of the main pillars of Indonesia's national development agenda, as the increasing allocation of village funds poses serious challenges related to transparency, accountability, and efficiency (Gamayuni, 2020). On the other hand, the reality on the ground shows that many village governments still rely on manual financial records and late reporting and do not yet have an adequate accounting information system to support good financial management (Rismawati, Dunakhir, & Sahade, 2024). Thus, studies exploring how the implementation of accounting information systems (AIS) can optimise village financial management are urgently needed and strategic, especially in the context of increasingly complex fund management and stronger demands for good governance.

The selection of Jayapura City as the research area was based on characteristics that distinguish it from many villages in other regions. As an autonomous city, Jayapura has

unique dynamics in village financial management, partly due to challenging geographical conditions, varying levels of technological access, and the diversity of village officials, all of which pose their own challenges. These unique characteristics make Jayapura City a representative location for observing the implementation of AIS in the context of village financial management, which faces real challenges compared to many mainland villages, where technological access is relatively more straightforward. Thus, the case study in Jayapura City provides a deeper understanding of the influence of AIS on village financial management in a specific, fairly complex environment.

This study examines two main variables: (1) the implementation of the Accounting Information System (AIS) as an independent variable and (2) village financial management as a dependent variable. The relationship between the variables is hypothesized: the more optimal the implementation of AIS at the village level, the better the village's financial management, because the system assists in recording financial transactions, enables timely reporting, strengthens internal controls, and increases transparency in financial reporting. In other words, the implementation of AIS is expected to improve efficiency, accuracy, and accountability in village financial management, thereby enhancing its effectiveness.

Several previous studies have explored the relationship between SIA and village financial management or village-owned enterprises (BUMDes). For example, research by Melia Dina Sabilla, Nur Azlina & Suci Nurulita (2022) shows that accounting information systems and governance affect the performance of BUMDes in Bengkalis Regency. Meanwhile, research by Ni Luh Supadmi and colleagues (2023) examined the competence of village officials and the use of AIS technology in South Denpasar District. However, it did not specifically focus on overall village financial management. The gap that emerges is the limited number of studies that empirically test the effect of SIA implementation on village financial governance in local contexts such as Jayapura City, which is geographically and administratively distinct. Furthermore, the novelty of this study lies in its more comprehensive measurement of village financial management (beyond BUMDes) and the use of a more robust PLS method to test the influence model.

In summary, this study addresses a gap in SIA implementation that has not been widely explored in the context of village financial management, particularly in Jayapura City, and thus differs from previous studies. The novelty of this study lies in: (a) its focus on village financial management variables as the primary outcome, (b) its focus on Jayapura City, which has unique challenges, and (c) its use of PLS analysis methods to test the model empirically. The benefits of this research include advancing the theoretical development of the literature on AIS and good governance at the village level, and providing practical recommendations for stakeholders (city/village governments) to improve village financial management in a more transparent, accountable, and efficient manner. The objectives of this study are to measure and analyse the effect of accounting information system implementation on the optimisation of village financial management in Jayapura City, and to identify the extent to which AIS contributes to strengthening village financial management, thereby providing a basis for policy recommendations.

Implementation of Accounting Information Systems (AIS)

An Accounting Information System (AIS) is a formal technology-based system designed to collect, record, process, and present relevant and reliable financial information for organisational decision-making (Romney & Steinbart, 2018). In the context of government, the application of AIS accelerates the accounting process, improves reporting accuracy, and strengthens public accountability (Susanto, 2022). According to Mariyatni, Senimantara, and Juniariani (2020), the effectiveness of AIS is determined by three main aspects: **(1)** system quality, **(2)** the quality of the information produced, and **(3)** the capabilities of the human resources operating it. The better these three aspects are, the higher the reliability of the financial information produced. In village administration, the implementation of AIS is realised through the Village Financial System (SISKEUDES) application developed by BPKP and the Ministry of Home Affairs. This application has been proven to increase transparency, reduce the risk of data manipulation, and strengthen the village's financial reporting process (Suwuh & Wardiyanto, 2025).

However, the effectiveness of SIA implementation at the village level still faces various challenges, including limited technological infrastructure, resistance to change in manual systems, and limited competence among village officials in operating digital systems (Agung, Kuncoro, & Sudarman, 2023). These conditions implement SIA, an important aspect that needs to be continuously reviewed to have a tangible impact on improving the quality of village financial management. Thus, in this study, SIA implementation is used as an independent variable to determine the quality of village financial management.

Village Financial Management

Village financial management is the process of managing village funds in accordance with the principles of good governance – namely, transparency, accountability, participation, effectiveness, and efficiency (Indu Maharani & Widodo, 2024). Good governance not only ensures compliance with regulations but also emphasises public information disclosure, community involvement, and the responsibility of village officials in managing public funds (Funzia & Hutabarat, 2021). Research by Astuti, Sari, and Purnomo (2023) shows that strong village financial governance increases public trust in the village government and reduces the risk of budget irregularities. Furthermore, Ramadhan and Purwanto (2024) emphasise that factors such as human resource competence, internal control systems, and the use of information technology significantly influence the success of village financial management. In the modern context, strengthening village financial management requires digitising administrative and financial reporting processes to ensure sustainable accountability. Therefore, implementing an accounting information system is an important tool to support transparent and efficient financial management. In this study, village financial management is used as the dependent variable, as it reflects the successful implementation of AIS in supporting the principles of good governance at the village government level.

The Relationship between the Implementation of Accounting Information Systems and Village Financial Management

The implementation of Accounting Information Systems (AIS) plays an important role in strengthening village financial management, as these systems are designed to integrate all financial processes electronically – from recording transactions and processing data to

preparing financial reports. Through SIA, village fund management activities can be carried out more efficiently, transparently, and accountably (Suwuh & Wardiyanto, 2025). According to the Information System Success Model (DeLone & McLean, 2003), system quality, information quality, and system utilisation will affect the organisation's net benefits. In the context of village administration, these net benefits are reflected in increased accountability and effectiveness of financial management (Dewi & Widarjo, 2024). Empirical research supports this relationship. Kesa, Nurfikri, and Lee (2025) state that the proper implementation of AIS can improve the accuracy of financial reports and accelerate the reporting process, thereby boosting public trust in village fund management. Similar findings were reported by Agung, Kuncoro, and Sudarman (2023), who explained that integrating technology-based information systems directly improves financial oversight and reduces the potential for misuse of public funds. Thus, the more optimal the implementation of AIS within the village government environment, the higher the quality of village financial management, especially in terms of transparency, accountability, and the efficient use of public budgets.

Formulation of Research Hypotheses

Based on the theoretical description and previous research results, the hypotheses in this study are formulated as follows:

H₁: The implementation of the Accounting Information System has a positive and significant effect on Village Financial Management.

This hypothesis is supported by empirical results showing that improvements in the quality of AIS implementation are directly proportional to improvements in village financial management. A good system makes it easier for village officials to compile reports, monitor budget realisation, and improve public financial accountability (Mariyatni et al., 2020; Kesa et al., 2025). Therefore, testing this hypothesis is important to confirm the extent to which AIS implementation is truly a determining factor in realising optimal village financial management.

RESEARCH METHODOLOGY

This study uses a quantitative approach with an explanatory research method. The quantitative approach is used to analyse the interrelationships among numerically measurable variables, to explain the effect of implementing the Accounting Information System on Village Financial Management in Jayapura City. According to Sugiyono (2019), quantitative research is systematic and objective because it uses numerical data to test hypotheses. Meanwhile, the explanatory approach aims to test causal relationships among variables using existing theories (Creswell & Creswell, 2018). This method was chosen because it aligns with the research objectives: to determine and explain the extent of the influence of the implementation of accounting information systems on improving village financial management, using statistical data analysis and the Partial Least Squares (PLS) model.

Research Location and Time

The research was conducted in Jayapura City, Papua Province. This location was chosen based on its unique geographical and social conditions, as well as the differences in technology

adoption levels between villages, which made it relevant to study in the context of Accounting Information System (AIS) implementation.

The research period was from March to July 2025, covering the preparation, data collection, data processing, and analysis stages. This period was determined based on the availability of field data and sufficient time to validate the measurement results.

Population

The population in this study comprises all village financial management officials in the administrative area of Jayapura City, including various elements of the village government involved in public fund management. The population consists of village officials, including the village head, village secretary, treasurer, head of finance, head of general affairs, village consultative body (BPD), and support staff. Based on data from the Jayapura City Community and Village Empowerment Office (2024), the total number of officials relevant to this study was 188, as shown in the following table 1.

Table 1. Distribution of the Village Apparatus Population in Jayapura City

| No | Description | Number of Villages | Population |
|-------|---------------------------------------|--------------------|------------|
| 1 | Village Head | 14 | 14 |
| 2 | Village Consultative Body (BPD) | 14 (11×5 + 3×7) | 76 |
| 3 | Village Secretary | 14 | 14 |
| 4 | Head of General Affairs | 14 | 14 |
| 5 | Head of Planning | 14 | 14 |
| 6 | Head of Finance | 14 | 14 |
| 7 | Head of Government Section | 14 | 14 |
| 8 | Head of Development Section | 14 | 14 |
| 9 | Head of Community Development Section | 14 | 14 |
| Total | | | 188 |

Source: Jayapura City Community and Village Empowerment Agency, 2024 (processed by researcher, 2025)

The above distribution shows that the majority of officials come from the Village Consultative Body (BPD) and the finance and general affairs departments, which are directly involved in the management and supervision of village finances. This proportion reflects a balanced representation of all elements of village government in Jayapura City.

Sampling Technique

The sampling technique used in this study was purposive sampling, which involves selecting respondents based on criteria relevant to the research objectives (Sugiyono, 2019). The criteria used were:

1. Village officials who are directly involved in the management, reporting, or supervision of village finances.
2. Have used the SISKEUDES application or a similar accounting information system for at least one year.

Based on the guidelines of Hair et al. (2019), the minimum sample size for PLS-SEM analysis is ten times the number of indicators in the variable with the most paths. With 13 indicators (6 for the Accounting Information System Implementation variable and 7 for the Village Financial Management variable), a minimum of 130 respondents was required. To increase the reliability of the results, this study used 140 respondents from a total population of 188 people.

Table 2. Distribution of Village Officials in Jayapura City

| No | Description | Population | Sample |
|-------|---------------------------------------|------------|--------|
| 1 | Village Head | 14 | 10 |
| 2 | Village Consultative Body (BPD) | 76 | 57 |
| 3 | Village Secretary | 14 | 10 |
| 4 | Head of General Affairs | 14 | 10 |
| 5 | Head of Planning | 14 | 10 |
| 6 | Head of Finance | 14 | 10 |
| 7 | Head of Government Section | 14 | 10 |
| 8 | Head of Development Section | 14 | 10 |
| 9 | Head of Community Development Section | 14 | 10 |
| Total | | 188 | 140 |

Source: Data processed by researchers, 2025

The sample distribution 2 was made proportionally, adjusting the portion of each element in the population. Thus, the research results are expected to reflect the actual conditions of all village financial management apparatus in Jayapura City.

Type and Source of Data

The data used are primary and secondary.

1. Primary data was obtained by distributing questionnaires to village officials in Jayapura City.
2. Secondary data was obtained from the annual reports of the Jayapura City Community and Village Empowerment Office, as well as documents related to the implementation of SISKEUDES and village financial management.

According to Sekaran and Bougie (2019), combining primary and secondary data can enhance the validity of results by allowing triangulation between field data and official documents.

Data Collection Techniques

Data collection techniques were carried out using:

1. Questionnaires: containing closed-ended statements with a 1-5 Likert scale to measure respondents' perceptions of SIA implementation and village financial management.
2. Short interviews: conducted with several village heads and village treasurers to reinforce the interpretation of the questionnaire results.
3. Documentation: used to collect secondary data such as financial reports, technical guidelines, and village audit results.

The questionnaire was compiled based on research indicators that had been tested for validity and reliability in previous studies (Mariyatni et al., 2020; Funzia & Hutabarat, 2021).

Operational Definition of Variables

Table 3. Operational Variables

| Variable | Indicators | Scale | Source |
|--|--|---------------|--|
| Implementation of Accounting Information Systems (X) | 1) System quality 2) Information quality 3) User capability 4) System utilisation | Likert 1-5 | Romney & Steinbart (2018); Mariyatni et al. (2020) |
| Village Financial Management (Y) | 1) Transparency 2) Accountability 3) Efficiency 4) Regulatory compliance | Likert 1-5 | Funzia & Hutabarat (2021); Indu Maharani & Widodo (2024) |

Data Analysis Techniques

Data analysis was conducted using SmartPLS version 4.0 software, with a Partial Least Squares – Structural Equation Modelling (PLS-SEM) approach. According to Hair et al. (2019), PLS-SEM is suitable for both predictive and exploratory models with moderate sample sizes. This technique allows for the simultaneous testing of the measurement model (outer model) and the structural model (inner model).

The analysis stages include:

1. Testing the validity and reliability of the construct. This includes testing convergent validity, discriminant validity, and composite reliability. Indicators are considered valid if the factor loading value is > 0.70 and AVE is > 0.50 (Hair et al., 2019).
2. Structural model (inner model) testing. Measures the strength of the relationship between variables through the path coefficient, t-statistic, and p-value.
3. Coefficient of determination (R^2). Indicates how much the independent variables can explain the dependent variables.
4. Effect size (f^2) and Predictive relevance (Q^2). Used to assess how strongly the independent variables contribute to the research model as a whole.

The results of the analysis were then interpreted to test the hypothesis that the implementation of the Accounting Information System has a positive and significant effect on Village Financial Management in Jayapura City.

RESULTS AND DISCUSSION

Respondent Characteristics

This study involved 140 respondents from the administrative area of Jayapura City, including village heads, village secretaries, treasurers, and heads of financial affairs. Respondents were selected using purposive sampling, with the criteria that they were directly involved in village financial management and had used the SISKEUDES application or a similar accounting information system for at least one year. Respondent characteristics are necessary to understand the demographic profile and background of respondents participating in the study, as factors such as age, gender, position, education, and length of use of the information system can influence perceptions of the implementation of accounting information systems and village financial management.

The following table presents the general characteristics of the research respondents:

Table 4. Characteristics of Research Respondents

| Characteristics | Category | Number (People) | Percentage (%) |
|----------------------------|---------------------------------|-----------------|----------------|
| Gender | Male | 86 | 61.4 |
| | Female | 54 | 38.6 |
| Age (Years) | 21–30 | 28 | 20.0 |
| | 31–40 | 47 | 33.5 |
| | 41–50 | 42 | 30.0 |
| | >50 | 23 | 15.7 |
| Highest Level of Education | High School/Vocational School | 24 | 17.1 |
| | Diploma (D3) | 31 | 22.1 |
| | Bachelor's Degree (S1) | 59 | 42.1 |
| | Master's Degree (S2) | 26 | 18.6 |
| Position | Village Head | 14 | 10.0 |
| | Village Consultative Body (BPD) | 14 | 10.0 |
| | Village Secretary | 14 | 10.0 |
| | Head of General Affairs | 14 | 10.0 |
| | Head of Planning | 14 | 10.0 |
| | Head of Finance | 14 | 10.0 |
| | Head of Government Section | 14 | 10.0 |

| | | | |
|---------------------------|---------------------------------------|-----|-------|
| | Head of Development Section | 14 | 10.0 |
| | Head of Community Development Section | 14 | 10.0 |
| Length of SIA Use (Years) | < 1 year | 11 | 7.7 |
| | 1-3 years | 57 | 40.7 |
| | 4-6 years | 57 | 40.7 |
| | >6 years | 15 | 10.9 |
| Total | | 140 | 100.0 |

Source: Primary data processed by researcher (2025)

Males dominated the respondents, numbering 86 (61.4%), while females numbered 54 (38.6%), indicating that the role of village financial management in the study location is still predominantly filled by males. In terms of age, the majority were in the 31–40 (33.5%) and 41–50 (30.0%) age groups, followed by the 21–30 (20.0%) and >50 (15.7%) age groups. This distribution indicates that the majority of respondents were of productive age and were generally relatively adept at using information systems. The highest level of education was a bachelor's degree (S1) with 59 people (42.1%), followed by a diploma (D3) with 31 people (22.1%), SMA/SMK with 24 people (17.1%), and a master's degree (S2) with 26 people (18.6%). In general, this educational background supports understanding accounting procedures and the operation of the SIA/SISKEUDES application.

In terms of position, respondents were evenly distributed across nine key positions—14 people (10.0%) each—covering the Village Head, BPD, Village Secretary, Head of General Affairs, Planning, Finance, and Head of the Government, Development, and Community Development Sections. This even distribution ensured a cross-functional perspective in the assessment of SIA implementation. Experience in using SIA shows that the majority of respondents have used the system for 1–3 years (57 people; 40.7%) or 4–6 years (57 people; 40.7%). Only 11 people (7.7%) have been using it for <1 year, and 15 people (10.9%) have been using it for >6 years. This pattern indicates a relatively high level of maturity in the use of the system, so that perceptions of the AIS's performance and its impact on village financial management are assessed by relatively experienced users.

Data Analysis

Assessing the Outer Model or Measurement Model

In analysing data using SmartPLS, the outer model is assessed against three key criteria: convergent validity, discriminant validity, and composite reliability. Convergent validity ensures that the indicators adequately reflect the construct. Discriminant validity indicates that constructs do not overlap. Meanwhile, composite reliability measures the consistency of indicators in their representation of latent variables. These three criteria are critical to ensure that the research model has good validity and reliability before testing the hypothesis.

Convergent Validity

Convergent validity in measurement models using reflective indicators is assessed by the correlation between item or component scores generated by PLS software and the construct being measured. A reflective indicator is considered to have good convergent validity if its correlation with other indicators is greater than 0.70. This value indicates that the indicator explains the construct quite well, as its contribution is substantial and consistent in representing the latent variables.

Table 5. Outer Loadings (Measurement Model)

| | Implementation of an Accounting Information System (X) | Village Financial Governance (Y) |
|------|--|----------------------------------|
| AIS1 | 0.905 | |
| AIS2 | 0.845 | |
| AIS3 | 0.844 | |
| AIS4 | 0.874 | |
| AIS5 | 0.905 | |
| AIS6 | 0.945 | |
| VFG1 | | 0.800 |
| VFG2 | | 0.857 |
| VFG3 | | 0.760 |
| VFG4 | | 0.815 |
| VFG5 | | 0.797 |
| VFG6 | | 0.839 |
| VFG7 | | 0.827 |

The results of the SmartPLS analysis shown in Table 4 indicate that the external model values, namely the correlations between the constructs and their indicators, meet the convergent validity requirements. This is evident because all indicators have factor loading values above 0.70. Therefore, the model used in this study is considered convergent valid because each indicator consistently and adequately represents the measured construct.

Discriminant Validity

Discriminant validity is used to ensure that each latent variable's construct is distinct and does not overlap with other constructs. A model is said to have good discriminant validity if each indicator shows the highest loading on the latent variable being measured, relative to its loadings on other latent variables. This means that the indicator must better reflect its own construct than other constructs. The results of the discriminant validity test in this study are shown as follows:

Table 6. Discriminant Validity Values (Fornell-Larcker)

| | Implementation of an Accounting Information System (X) | Village Financial Governance (Y) |
|--|--|----------------------------------|
| Implementation of an Accounting Information System (X) | 0.887 | |
| Village Financial Governance (Y) | 0.879 | 0.814 |

Composite Reliability.

The validity and reliability of the construct can be seen from the construct reliability and Average Variance Extracted (AVE) values for each latent variable. A construct is considered reliable if its reliability value is at least 0.70. At the same time, an AVE of more than 0.50 indicates that the indicator explains most of the variance in the measured construct. In this way, the combination of these two values ensures that the construct has good internal consistency and strong validity.

Table 7. Composite Reliability Values

| | Cronbach's alpha | Composite reliability (rho_a) | Composite reliability (rho_c) | Average Variance Extracted (AVE) |
|--|------------------|-------------------------------|-------------------------------|----------------------------------|
| Implementation of an Accounting Information System (X) | 0.946 | 0.949 | 0.957 | 0.787 |
| Village Financial Governance (Y) | 0.915 | 0.918 | 0.932 | 0.663 |

Based on Table 6, it can be concluded that all constructs in this study meet the reliability quality requirements. This is evident from the composite reliability value (greater than 0.70) and the AVE value (greater than 0.50), both of which meet the recommended standards. Therefore, the measuring instruments used in this study are considered consistent and capable of representing latent variables well.

Structural Model Testing (Inner Model)

Inner-model or structural-model testing aims to assess the relationships among concepts in the study, including the significance level and R-square value. The evaluation is carried out by examining the R-square value for the measured concept, the t-test value, and the significance level of the relationship coefficient. In this way, we can determine how well the research model explains the measured variables and assess the strength of the relationships within the model.

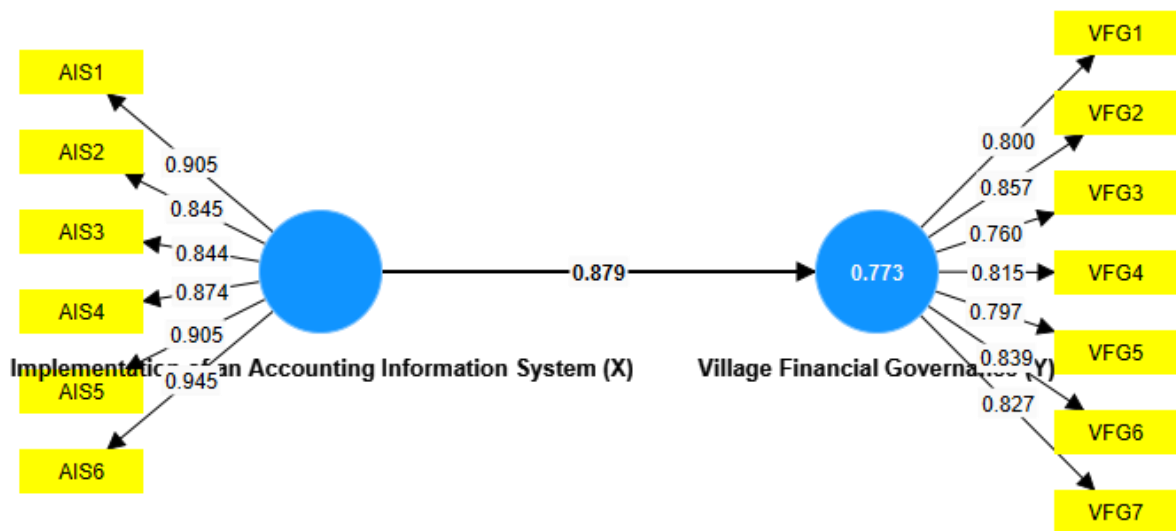


Figure 1. Tested structural model

In evaluating PLS models, the first step is to assess the R-squared for each dependent latent variable. The R-squared value indicates the extent to which the independent variables explain the variation in the dependent variables in the research model. The higher the R-square value, the better the model represents the relationships among the variables analysed. The following table presents the R-square values estimated from the data processing using SmartPLS software, which can serve as a basis for assessing the predictive power of the constructed model.

Table 8. R-Square Values

| | R-square | Adjusted R-square |
|----------------------------------|----------|-------------------|
| Village Financial Governance (Y) | 0.773 | 0.770 |

Based on Table 8, the R-square value of 0.773 and the adjusted R-square value of 0.770 indicate that the independent variables used in the study entitled "Optimisation of Village Financial Governance through the Implementation of Accounting Information Systems: A Case Study in Jayapura City" can explain 77.3% of the variation in the dependent variable, namely Village Financial Governance. at the same time, other factors outside the research model explain the remaining 22.7%. This value indicates that the application of an accounting information system decisively contributes to optimising village financial governance in Jayapura City, suggesting that the implementation of accounting technology plays an

important role in improving the transparency, accuracy, and accountability of village financial management.

Hypothesis Test Results

Direct (Partial) Effect

In SmartPLS analysis, the direct (partial) effect is the relationship between the independent and dependent variables, without involving the mediating variable. This relationship is assessed using the path coefficient, t-statistic, and p-value as the basis for significance testing. An effect can be considered significant if it meets the criteria of a t-statistic greater than 1.995 and a p-value less than 0.05. Thus, the direct effect analysis provides an overview of the extent to which each independent variable influences the dependent variable in the research model.

Table 9. Results of the Direct (Partial) Effect Hypothesis Test

| | Original sample (O) | Sample mean (M) | Standard deviation (STDEV) | T-statistic (O/STDEV) | P-values | Alpha | Conclusion |
|---|---------------------|-----------------|----------------------------|-------------------------|----------|-------|--|
| Implementation of an Accounting Information System (X) → Village Financial Governance (Y) | 0.879 | 0.882 | 0.020 | 43.741 | 0.000 | 0.05 | Influential Positive Significant |

Based on the test results in the table, the original sample (O) value of 0.879 indicates a positive relationship between the implementation of accounting information systems and village financial management. The T-statistic value of 43.741, which is much greater than the T-table value (1.96), and the P-value of 0.000, which is smaller than the significance level ($\alpha = 0.05$), indicate that the relationship is statistically significant. This means that the implementation of accounting information systems has a positive and significant effect on village financial management. Thus, the more effectively accounting information systems are applied, the better village financial management, as these systems help improve efficiency, transparency, and accountability in the village-level financial management process.

Effect Size (f square)

Effect size (f^2) is a measure used to assess the extent to which independent variables contribute to the predictive ability of dependent variables in a research model. The f^2 calculation is based on the change in R^2 when an independent variable is removed from the model. The f^2 value is then interpreted according to specific criteria: $f^2 < 0.02$ indicates a very small or insignificant effect, $0.02 \leq f^2 < 0.15$ indicates a small effect, $0.15 \leq f^2 < 0.35$ indicates a moderate effect, and $f^2 \geq 0.35$ indicates a significant effect. Based on the analysis results, the effect size can be used to assess the strength of each independent variable's specific influence on the dependent variable, thereby strengthening understanding of each variable's contribution to the research model being tested.

Table 10. Effect Size Results (f-square)

| | f-square |
|---|----------|
| Implementation of an Accounting Information System (X) → Village Financial Governance (Y) | 3.408 |

The results show that the *f*-value is 3.408, indicating that the implementation of an accounting information system significantly influences village financial governance in Jayapura City. This value is well above Cohen's (1988) interpretation thresholds: 0.02 (small), 0.15 (medium), and 0.35 (large). This means that the implementation of accounting information systems plays a significant role in improving the transparency, accountability, and efficiency of village financial management. Through the optimisation of accounting information systems, the processes of recording, reporting, and supervising village finances become more structured and accountable, thereby supporting better village governance aligned with the principles of good governance.

DISCUSSION

The study's results indicate that implementing the Accounting Information System (AIS) has a positive and significant effect on Village Financial Management in Jayapura City. These findings confirm that the more optimal the implementation of the AIS, the better the village's financial management, especially in terms of transparency, accountability, efficiency, and effectiveness. These results align with the Information System Success Model (DeLone & McLean, 2003), which posits that system quality, information quality, and user satisfaction are the primary factors that determine organisational benefits (net benefit). In the context of this study, these benefits are realised through increased accuracy of financial reports and greater transparency in village fund management.

These findings support the research by Kesa, Nurfikri, and Lee (2025), which shows that implementing SISKEUDES improves report accuracy and strengthens village financial supervision in Indonesia. Similar results were also found by Agung, Kuncoro, and Sudarman (2023), who explained that technology-based ISAs strengthen public accountability by reducing the potential for irregularities. Furthermore, Hardianti, Januarti, and Udin (2020) state that the use of regional financial information systems accelerates reporting and increases transparency for village governments. These three results are consistent with the current study's findings, confirming that effectively implemented accounting information systems can support the principles of good governance at the local level.

However, these results are not entirely consistent with those of Suhartono and Hasanah (2022), who found that AIS has not had a significant impact on village financial accountability in Central Java due to officials' limited competence and technological infrastructure constraints. Mariyatni et al. (2020) also revealed that technical disruptions and a lack of training for officials often hamper the effectiveness of SISKEUDES. This difference arises because the conditions in Jayapura City are relatively more institutionally ready and have received strong support from the local government in digital transformation. Thus, human resource readiness and institutional support are the main distinguishing factors in the successful implementation of AIS.

Based on Agency Theory (Jensen & Meckling, 1976), accounting information systems function as a control tool to reduce information asymmetry between village officials (agents) and the community (principals). The findings of this study reinforce the view that AIS helps create transparency and accountability, which reduces the potential for moral hazard in public fund management. In addition, the principles of Good Governance from the UNDP (1997) are reflected in these results, in which information technology strengthens the pillars of transparency and public participation in village governance.

The novelty of this research lies in the context of Jayapura City, which has different geographical and social characteristics from other regions that have been the focus of previous studies on the island of Java. The results show that, despite infrastructure challenges, the implementation of SIA was still successful due to intensive training and the local government's commitment. This proves that the successful implementation of an accounting information system depends not only on technology but also on the readiness of human resources, policy support, and organisational culture.

Overall, the results of this study reinforce empirical evidence that the digitisation of village finances through AIS is a strategic instrument in creating professional, efficient, and transparent village financial management. Thus, the implementation of AIS can serve as a model to promote good governance at the village government level in Indonesia.

CONCLUSION

This study aims to analyse the effect of implementing an Accounting Information System (AIS) on village financial management in Jayapura City. Based on the analysis and discussion, it can be concluded that AIS implementation has a positive and significant effect on village financial management. The application of accounting information systems has been proven to improve transparency, accuracy, efficiency, and accountability in village financial management. Through technology-based systems such as SISKEUDES, the process of financial recording and reporting has become more structured, easier to audit, and has encouraged the creation of village governance in line with the principles of good governance.

Thus, it can be concluded that the more optimal the implementation of AIS at the village level, the better the village's financial management will be, as evidenced by public information disclosure, clear financial accountability, and increased public trust in the village government. This study emphasises the importance of accounting information systems as a managerial and internal control tool in public financial management at the village level.

Theoretically, the results of this study reinforce the Information System Success Model (DeLone & McLean, 2003) and Agency Theory (Jensen & Meckling, 1976), in which the quality of systems and the utilisation of information play an important role in improving the accountability of public organisations. This study extends the context of both theories by demonstrating that implementing AIS in the village administration sector also provides tangible benefits for improving financial management. Thus, these findings contribute to the empirical literature on the effectiveness of public information systems in local government in Indonesia, particularly in eastern regions such as Jayapura City.

In practical terms, this study provides local governments with an overview: implementing AIS is not only an administrative requirement but also an important strategy for strengthening the transparency and accountability of village fund management. The Jayapura City Government can use the results of this study as a basis for expanding training and capacity building for village officials, updating digital infrastructure, and strengthening regulations related to system-based financial reporting. Furthermore, these findings can serve as a reference for other villages in Indonesia to accelerate the digitalisation of financial services and support more professional, public-service-oriented governance.

This research has several limitations that need to be considered. First, the study focused on only one independent variable—accounting information system implementation—and therefore did not consider other factors, such as human resource competencies, organisational

culture, and internal supervision, which may also affect village financial governance. Second, this study was conducted in Jayapura City, so the results may not be fully generalisable to other regions with different geographical characteristics and technological capacities. Third, data collection was conducted through questionnaires based on respondents' perceptions, so the results depend on the level of understanding and honesty of village officials in answering the questions. Therefore, the findings of this study need to be interpreted in light of the local context and the limitations of the study design.

Based on the research results and limitations, the following recommendations are provided. First, for local governments, it is recommended that they strengthen technical and managerial training for village officials to improve the effectiveness and sustainability of accounting information systems. Second, it is necessary to integrate information systems across levels of government (village, sub-district, and city) to improve the efficiency and transparency of financial reporting and auditing. Third, for future researchers, it is recommended to add other variables, such as officials' competence, organisational culture, and internal supervision, and to use qualitative or mixed-methods approaches to deepen understanding of the factors that influence village financial management. In addition, expanding the research to multiple provinces in Indonesia can provide a comparative picture of the effectiveness of AIS implementation across different geographical and social contexts.

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