



Development of Regional Asset Management Information System for Transparency and Accountability in Mimika Regency

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Abstract

Purpose: This study examines the effect of local Asset Information System (AIS) development, represented by asset information system quality, asset management quality, and financial reporting quality, on regional financial performance at BAPPEDA Kabupaten Mimika, Central Papua Province. The study addresses challenges in regional asset governance, including data duplication, limited real-time information, and transparency issues.

Research Methodology: A quantitative associative approach was employed using data from 62 ASN respondents at BAPPEDA Kabupaten Mimika collected through questionnaires during March–April 2026. Multiple linear regression analysis using SPSS was conducted, supported by instrument validity, reliability, and classical assumption tests.

Results: Asset information system quality ($\beta=0.659$, $p<0.001$) and financial reporting quality ($\beta=0.234$, $p=0.027$) had significant positive effects on regional financial performance, while asset management quality showed a positive but insignificant effect ($\beta=0.103$, $p=0.195$). Simultaneously, the three variables significantly influenced financial performance ($F=52.619$, $p<0.001$), with $R^2=0.731$, indicating that 73.1% of performance variation was explained by the model. Asset information system quality was the strongest predictor.

Conclusions: AIS development plays an important role in improving regional financial performance through enhanced information and reporting quality, emphasizing the importance of digital asset governance.

Limitations: This study is limited to a single institution and uses perception-based cross-sectional data, which may not fully represent actual system implementation across regional agencies.

Contributions: This study provides empirical evidence on the relationship between AIS development and regional financial performance at BAPPEDA Kabupaten Mimika, offering practical insights for improving asset governance, data management, and financial accountability.

Keywords: *Accountability, Asset Information System, Financial Reporting Quality, Regional Financial Performance, Transparency*

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1. Introduction

Asset Information Systems (AIS) have become an essential element in improving organizational capability to manage physical and financial resources through accurate data processing, information

integration, and evidence-based decision-making ([Diop, Abdul-Nour, & Komljenovic, 2021](#)). In the public sector, effective asset management information systems support transparency, accountability, and efficiency by ensuring that government assets are properly recorded, monitored, and reported. Regional government assets represent significant public resources acquired through the Regional Revenue and Expenditure Budget (*Anggaran Pendapatan dan Belanja Daerah/APBD*) or other legitimate sources. Therefore, their management requires reliable information systems that support accountable governance ([Herminio & Costa, 2025](#)).

Despite continuous regulatory improvements, regional asset management in Indonesia continues to face various challenges, including inaccurate asset records, data duplication, limited real-time information availability, and difficulties in asset monitoring and auditing ([Angkasa, Yeni, & Darmawansyah, 2026](#)). These problems affect the reliability of regional financial reporting and may weaken accountability in public financial management. The Indonesian government has emphasized the importance of digital transformation in asset governance through Permendagri No. 19/2016 concerning Regional Asset Management Guidelines, which requires accurate, orderly, and accountable management of regional assets. Furthermore, the implementation of electronic-based government systems under Perbup Mimika No. 23/2023 reinforces the need for integrated information systems to support transparent and efficient government administration.

The role of AIS extends beyond administrative functions because system quality, asset management quality, and financial reporting quality can influence organizational financial performance. A high-quality information system can improve data accuracy, accelerate reporting processes, and facilitate managerial decision-making. Effective asset management practices contribute to optimal resource utilization, while reliable financial reporting strengthens accountability and stakeholder confidence. Consequently, the development of AIS may become a strategic mechanism for improving regional financial governance ([Hamdat, Ceskakusumadewi, Samalam, Rizal, & Lawalata, 2024](#)).

Regional Development Planning Agency (*Badan Perencanaan Pembangunan Daerah/BAPPEDA*) Kabupaten Mimika represents an important institutional setting for examining this relationship because it plays a central role in regional development planning, budgeting coordination, and policy formulation. As an institution responsible for integrating development priorities, BAPPEDA requires reliable asset information to support planning accuracy and financial accountability. However, the effectiveness of AIS development in improving regional financial performance within regional planning agencies remains empirically underexplored, particularly in geographically challenging areas such as Papua ([Warokka, Warokka, & Aqmar, 2025](#); [Fauzi, Mayor, & Liauw, 2023](#)).

Previous studies have examined the contribution of information systems and asset management practices to organizational performance. However, most studies have focused on general government financial management, hospitals, educational institutions, or specific accounting systems. Limited empirical evidence exists regarding how different dimensions of AIS quality simultaneously influence regional financial performance, especially within BAPPEDA institutions. This study addresses this gap by examining the effects of asset information system quality, asset management quality, and financial reporting quality on regional financial performance at BAPPEDA Kabupaten Mimika.

Accordingly, this study aims to analyze the partial and simultaneous effects of AIS development dimensions on regional financial performance. The findings are expected to provide empirical insights for strengthening digital asset governance, improving financial accountability, and supporting evidence-based policy development in local government institutions.

2. Literature Review and Hypothesis/es Development

2.1 Asset Information Systems in Public Sector

Asset Information Systems represent the application of information technology to the complete asset management lifecycle, namely planning and acquisition, recording, utilization, maintenance, transfer, and disposal. ISO 55000 Asset Management standards, supported by well-documented information

systems, reflect a long-term organizational asset management journey ([Sandu, Varganova, & Samii, 2023](#)). In the Indonesian public sector context, the Asset Management Information System framework encompasses SIMDA BMD (*Sistem Informasi Manajemen Daerah-Barang Milik Daerah*), which [Rahmadhani and Ariani \(2022\)](#) document contributes to improved asset recording accuracy and financial reporting compliance in Bengkalis Regency. [Masruroh, Ramadhani, Maulana, and Widad \(2025\)](#) further document that web-based asset management systems in Islamic educational institutions transformed manual Excel-dependent processes into integrated data systems, directly improving accountability.

The effectiveness of an Asset Information System in the public sector depends not only on technological availability but also on the quality of data management, integration capability, and organizational commitment to maintaining accurate asset information. A reliable asset information system enables government institutions to establish a single source of asset data, improve monitoring processes, and support evidence-based decision-making. In regional governments, these capabilities are particularly important because asset information is closely connected with financial reporting quality, audit accountability, and resource optimization ([Bajo & Zuhdan, 2025](#)). Therefore, the development of AIS should be viewed as a governance mechanism that strengthens transparency and accountability rather than merely as an administrative digital tool. The integration of accurate asset records, systematic asset management procedures, and accessible information platforms provides a foundation for improving regional financial performance and achieving more effective public sector governance ([Ahmad, Aliyudin, Istiono, & Agustin, 2026](#)).

2.2 Asset Information System Quality and Regional Financial Performance

Asset Information System Quality refers to the extent to which an information system provides reliable, accurate, accessible, and useful information to support organizational activities. A high-quality system is characterized by ease of use, fast response, reliability, interface quality, accessibility, information accuracy, completeness, and security. In government institutions, these characteristics are essential because asset information directly influences financial reporting, audit processes, and decision-making quality ([Andika, Nuriantoro, Putra, & Haryono, 2025](#)).

A well-developed asset information system can reduce recording errors, improve data consistency, accelerate verification processes, and provide real-time information for policy formulation. Accurate asset information allows government institutions to strengthen accountability mechanisms and improve the efficiency of financial management. Therefore, improvements in system quality are expected to contribute positively to regional financial performance ([Azfirmawarman, Asnil, Frinaldi, & Putri, 2024](#)).

Previous studies support the relationship between information system quality and financial performance. [Mayndarto, Nugraha, and Asyifa \(2026\)](#) found that accounting information system implementation improved financial reporting efficiency and accuracy in Indonesian MSMEs. Although conducted in a different organizational context, the underlying mechanism indicates that reliable information systems enhance information quality and organizational performance. In the public sector, [Rahmadhani and Ariani \(2022\)](#) also confirmed that SIMDA BMD implementation contributed to improving regional financial management quality.

2.3 Asset Management Quality and Regional Financial Performance

Asset Management Quality reflects the effectiveness of government institutions in managing regional assets through systematic inventory processes, optimal utilization, and compliance with applicable regulations. Effective asset management requires complete asset records, regular data updates, appropriate asset coding systems, and continuous monitoring of asset conditions. These practices enable governments to maximize asset utilization and minimize inefficiencies ([Sari, Maelani, & Susilawati, 2025](#)). High-quality asset management contributes to regional financial performance by ensuring that public resources are utilized effectively. Asset optimization, including the utilization of idle assets, can increase the contribution of government assets to regional revenue. Furthermore,

compliance with regulations such as Permendagri No. 19/2016 concerning Regional Asset Management Guidelines strengthens accountability and reduces potential audit findings related to asset administration ([Mugisana & Sukanta, 2026](#)).

[Amrulloh, Kadir, Jayen, and Rahayu \(2023\)](#) demonstrated that physical inventory, asset assessment, optimization analysis, and asset management information systems contributed to improved asset optimization. These findings indicate that effective asset management practices support better resource utilization and organizational performance. Therefore, asset management quality is expected to influence regional financial performance.

2.4 Financial Reporting Quality and Regional Financial Performance

Financial Reporting Quality represents the ability of government institutions to provide financial information that is accurate, reliable, relevant, and accountable. High-quality financial reporting enables stakeholders to evaluate financial conditions, assess resource utilization, and ensure compliance with government accounting standards. In regional governments, financial reporting quality is also reflected through the accuracy of asset valuation, audit results, and the implementation of audit recommendations ([Ganason, Piaralal, & Maidin, 2025](#)).

The achievement of an WTP from the BPK indicates that financial statements fairly present financial information according to SAP. Maintaining audit quality requires accurate asset documentation, appropriate valuation procedures, and effective follow-up mechanisms. Reliable financial reporting strengthens public trust and supports better financial governance. When financial information is accurate and transparent, regional governments are better able to manage resources and improve accountability. Therefore, financial reporting quality is expected to contribute positively to regional financial performance ([Candra, & Putra, 2025](#); [Ervtasari, & Sofa, 2025](#)).

2.5 Regional Financial Performance Theory

Regional financial performance (*kinerja keuangan daerah*) reflects the ability of regional governments to manage and utilize their financial resources effectively, particularly in relation to regional assets and public expenditures. Regional financial performance is assessed through three main dimensions, namely accountability, which refers to compliance with financial regulations and responsiveness to stakeholder needs, efficiency, which reflects the optimal utilization of resources through the relationship between inputs and outputs or outcomes, and financial independence, which indicates the capacity of a region to generate its own Local Own-Source Revenue (*Pendapatan Asli Daerah*/PAD) rather than relying heavily on central government transfers ([Noviani & Astuti, 2025](#)). In Indonesia, accountability in regional financial management is commonly evaluated through the audit opinion issued by the Supreme Audit Board (*Badan Pemeriksa Keuangan*/BPK). The Unqualified Opinion (*Wajar Tanpa Pengecualian*/WTP) represents the highest audit opinion and indicates that regional financial statements fairly present all material aspects in accordance with Government Accounting Standards (*Standar Akuntansi Pemerintahan*/SAP) ([Azzahra, Fauzi, & Utaminingsyas, 2025](#)). [Mardiasmo \(2018\)](#) explains that regional financial performance is closely related to the value-for-money framework, which includes economic efficiency through cost minimization, efficiency through optimal input-output relationships, and effectiveness through the achievement of organizational objectives as fundamental principles in public sector financial management evaluation.

The measurement of regional financial performance has become increasingly important as local governments are required to demonstrate greater transparency, accountability, and effectiveness in managing public resources. Beyond the achievement of audit compliance, strong regional financial performance reflects the government's capability to allocate resources efficiently, optimize the utilization of regional assets, and provide sustainable public services. In this context, the quality of financial information plays a critical role because reliable and timely financial data enables government institutions to evaluate budget realization, monitor asset utilization, and improve managerial decisions. Therefore, improvements in information systems, asset management practices, and financial reporting mechanisms are expected to contribute to stronger regional financial

governance and enhanced financial performance. This perspective highlights that regional financial performance is not solely determined by financial outcomes but also by the effectiveness of supporting governance systems that ensure responsible resource management.

2.6 Integrated Framework of Asset Information System Development and Regional Financial Performance

The relationship between asset information system development and regional financial performance can be understood through the integration of technological capability, asset governance, and financial accountability. A reliable asset information system provides accurate and timely information that supports effective asset management and improves the quality of financial reporting. Meanwhile, effective asset management ensures that regional resources are utilized optimally, and high-quality financial reporting strengthens transparency and accountability ([Faizal & Irfan, 2025](#)).

Previous studies have examined the role of information systems, asset management, and financial reporting separately. However, limited empirical evidence explains how these three dimensions simultaneously influence regional financial performance, particularly within regional development planning agencies. This research addresses this gap by examining the combined effects of Asset Information System Quality, Asset Management Quality, and Financial Reporting Quality on Regional Financial Performance at BAPPEDA Kabupaten Mimika.

2.7 Theoretical Link Between AIS Quality and Financial Performance

Three theoretical pathways explain the relationship between AIS quality dimensions and regional financial performance. First, system quality contributes to accountability by ensuring that information systems are easy to use, responsive, reliable, secure, and accessible. A high-quality system can minimize recording errors, improve audit efficiency, and provide timely information to support evidence-based decision-making. [Al-Obaidy \(2024\)](#) demonstrate that Accounting Information Systems improve the efficiency and accuracy of financial reporting in Indonesian Micro, Small, and Medium Enterprises (MSMEs), suggesting that similar mechanisms may also apply within public sector institutions.

Second, asset management quality contributes to efficiency through effective inventory control, asset optimization, and regulatory compliance. Systematic asset recording, regular data updates, proper asset coding, and the utilization of idle assets can improve resource allocation efficiency and reduce potential asset-related audit findings ([Hasanah, Sayuti, & Lisnawati, 2024](#)). Compliance with Permendagri No. 19/2016 concerning Regional Asset Management Guidelines further strengthens the accountability and effectiveness of regional asset management practices. Third, financial reporting quality supports regional financial independence by strengthening the credibility and reliability of financial information. Accurate asset valuation, consistent maintenance of the Unqualified Opinion (WTP) issued by the Supreme Audit Board (BPK), and effective follow-up on audit recommendations enhance stakeholder confidence in regional financial management. Reliable financial reports can support better fiscal decision-making and strengthen the capacity of local governments to manage resources and achieve greater financial independence ([Widodo, Anissa, & Mubarokah, 2024](#); [Aditya, Khoirunnisa, & Uzliawati, 2024](#)).

2.8 Prior Research and Hypotheses

Prior research confirms the SIA-financial performance relationship. [Rahmadhani and Ariani \(2022\)](#) in Bengkalis Regency documented positive SIMDA BMD effects on financial reporting accuracy and accountability. [Amrulloh, Kadir, Jayen, and Rahayu \(2023\)](#) at H. Abdul Aziz Marabahan Hospital found that physical inventory, legal audit, asset assessment, and asset management information systems jointly improve asset optimization. [Dewi and Nugrahanti \(2025\)](#) confirmed that AIS audits significantly improve accountability and reduce fraud risks. [Putranto, Dawud, Pradesa, Harjanto, and Dharmanegara \(2022\)](#) document that AI and IoT integration in asset management enables real-time equipment monitoring, predictive maintenance, and optimization, confirming the high-technology

direction of future SIA development. The critical research gap: no prior study has tested the three AIS quality dimensions' simultaneous effects on regional financial performance specifically for a BAPPEDA institution in Papua's extractive-economy context. Three hypotheses are tested:

H_{1a}: K_SIA has a significant positive partial effect on regional financial performance

H_{1b}: K_PA has a significant positive partial effect

H_{1c}: K_PK has a significant positive partial effect positive simultaneous effect

H₂: K_SIA, K_PA, and K_PK jointly have a significant

3. Research Methodology

3.1 Design and Location

A quantitative associative research design was employed to examine the relationship between Asset Information System Quality, Asset Management Quality, Financial Reporting Quality, and Regional Financial Performance. This research design was selected because the study aims to empirically test the influence of independent variables on the dependent variable through statistical analysis. The research was conducted at the Regional Development Planning Agency (*Badan Perencanaan Pembangunan Daerah/BAPPEDA*) of Mimika Regency, Central Papua Province, as the institution responsible for coordinating regional development planning, budgeting, and supporting administrative governance. Data collection was conducted over a three-week period from March to April 2026. The research location was selected because BAPPEDA Mimika plays a strategic role in managing organizational assets and financial information, making it an appropriate setting for examining the contribution of asset information system development to regional financial performance.

3.2 Population, Sample, and Data Collection

The population comprised all 62 active *Aparatur Sipil Negara* (ASN) staff members at BAPPEDA Kabupaten Mimika who were directly involved in asset management, regional planning, budgeting, and financial reporting activities. A census sampling technique was employed, resulting in a total sample of 62 respondents. Data were collected using a dual-mode questionnaire distribution method (physical questionnaires and Google Forms) with a five-point Likert scale. The study examined four constructs, regional financial performance as the dependent variable (*Y*), and three independent variables, namely Asset Information System Quality (*X₁/K_SIA*), Asset Management Quality (*X₂/K_PA*), and Financial Reporting Quality (*X₃/K_PK*).

3.3 Variable Operationalization

Regional Financial Performance (*Y*) was measured using three dimensions, namely accountability, which is reflected through regulatory compliance and stakeholder responsiveness, efficiency, which is represented by optimal resource utilization and budget accuracy, and financial independence, which is indicated by the contribution of PAD and asset utilization to regional revenue.

Asset Information System Quality (*X₁/K_SIA*) was measured through four dimensions, namely system quality, which includes ease of use, response time, reliability, interface quality, and accessibility, information quality, which consists of accuracy, completeness, timeliness, searchability, and information format, service quality, which covers responsiveness, user training, technical guidance, and complaint handling, and security, which includes protection against unauthorized access, data backup, and access authorization mechanisms.

Asset Management Quality (*X₂/K_PA*) was assessed through three dimensions, namely inventory quality, which is measured by the completeness of asset records, regular data updates, and asset coding systems, asset optimization, which is reflected through the redeployment of idle assets and their contribution to PAD generation, and regulatory compliance, which is represented by adherence to Permendagri No. 19/2016, lawful asset disposal procedures, and budget accuracy.

Financial Reporting Quality (X_3/K_PK) was measured using two dimensions, namely fair value assessment, including market value representation and asset revaluation accuracy, and BPK opinion and follow-up, covering the achievement of WTP, implementation of audit recommendations, and supporting documentation quality.

3.4 Analytical Methods

The instrument quality was assessed through validity and reliability tests. Validity testing was conducted using the Pearson Product Moment correlation, with items considered valid when the correlation coefficient exceeded the r -table value. Reliability testing was performed using Cronbach alpha, with a value greater than 0.60 indicating acceptable internal consistency.

Classical assumption tests were conducted to ensure the suitability of the regression model, including normality and linearity tests using the F-test. The hypotheses were examined using multiple linear regression analysis with the following Formula 1:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e \quad (1)$$

Where Y represents Regional Financial Performance, α represents the constant value, β_1 , β_2 , and β_3 represent the regression coefficients of each independent variable, X_1 represents Asset Information System Quality, X_2 represents Asset Management Quality, X_3 represents Financial Reporting Quality, and e represents the error term.

Partial effects were tested using the t -test at a significance level of $\alpha=0.05$ to evaluate hypotheses H_{1a} , H_{1b} , and H_{1c} . The simultaneous effect of all independent variables was examined using the F -test (Analysis of Variance ANOVA) to test hypothesis H_2 . The explanatory power of the regression model was evaluated using the coefficient of determination (R^2). All statistical analyses were performed using SPSS software.

4. Results and Discussions

4.1 Research Context: BAPPEDA Kabupaten Mimika

Mimika Regency is located in Central Papua Province, covering an area of approximately 21,693.51 km² with diverse geographical characteristics, including coastal, lowland, and highland areas across 18 districts. The regional economy is largely driven by PT Freeport Indonesia copper and gold mining activities, which contribute significantly to economic output while also reflecting considerable social and economic disparities. Mimika economic growth has demonstrated a cyclical pattern influenced by mining sector performance, declining by 38.47% in 2019 before recovering to 36.85% in 2021, followed by slower growth of 15.31% in 2022 and 7.90% in 2023. Despite its substantial economic contribution, poverty remains a persistent challenge, with the poverty rate reaching approximately 14% in 2024, positioned between the national average (8.57%) and the Papua provincial average (27.60%).

Within this complex development context, BAPPEDA Mimika plays a strategic role as the institution responsible for coordinating regional development planning, including multi-year budgeting, spatial planning, economic development strategies, and resource management. This broad institutional responsibility requires reliable asset information systems to support accurate planning, transparent financial management, and accountable decision-making. Therefore, the quality of asset information systems at BAPPEDA Mimika is an important factor in strengthening regional governance and improving the effectiveness of development administration.

4.2 Descriptive Analysis: Respondent Perceptions

Table 1. Descriptive Analysis Summary of All Indicators for 62 BAPPEDA Mimika Respondents

Variable	Indicators	Agree (%)	Strongly Agree (%)	Key Findings
Regional Financial Performance (Y)	Accountability, efficiency, and financial independence	55–70%	30–45	Overall positive perceptions with no neutral or negative responses reported
Asset Information System Quality (X_1/K_SIA)	System quality, information quality, service quality, and security dimensions	48–73%	27–52	All dimensions received highly positive evaluations; security showed strong agreement regarding access authorization
Asset Management Quality (X_2/K_PA)	Inventory quality, asset optimization, and regulatory compliance	45–65%	35–55	Positive evaluations across dimensions, with improvement areas identified in asset location accuracy and asset optimization
Financial Reporting Quality (X_3/K_PK)	Fair value assessment, BPK WTP opinion, and audit follow-up	61–69%	31–39	All respondents provided positive assessments, with no neutral or negative responses across all indicators

Table 1 presents the descriptive analysis results of all research variables based on responses from 62 respondents at BAPPEDA Mimika. The findings indicate consistently positive perceptions across regional financial performance, asset information system quality, asset management quality, and financial reporting quality. The high level of agreement suggests that respondents generally perceive the implementation of the asset information system and related governance practices as supportive of financial management processes.

However, several areas for improvement were identified. In the asset management quality dimension, some respondents indicated discrepancies between physical asset locations and recorded system data, suggesting the need for stronger asset verification and reconciliation processes. In addition, asset optimization remains an area requiring further attention, particularly regarding the utilization of idle assets to support regional revenue generation. These findings highlight that although the overall assessment is positive, continuous improvement in data accuracy and asset utilization mechanisms remains necessary to strengthen regional asset governance.

4.3 Multiple Regression Results for Partial Effects

Table 2. Multiple Linear Regression Results for the Partial Effects on Regional Financial Performance (N = 62)

Variable	B (Unstandardized)	Std. Error	β (Standardized)	Sig.	α Threshold	Hypothesis Decision
Constant	–	–	–	–	–	–
X_1 : Asset Information System Quality (K_SIA)	0.659	–	Highest β	<0.001	<0.05	H_{1a} Accepted. Significant and dominant predictor
X_2 : Asset Management Quality (K_PA)	0.103	–	Lowest β	0.195	<0.05	H_{1b} Rejected. Not statistically significant
X_3 : Financial Reporting Quality (K_PK)	0.234	–	Middle β	0.027	<0.05	H_{1c} Accepted. Significant effect

$\alpha=0.05$. Significance: $\text{sig}<0.05$ = significant.

Table 2 presents the results of the multiple linear regression analysis examining the partial effects of each independent variable on regional financial performance. The findings indicate that two of the three hypotheses regarding partial effects are supported.

Asset Information System Quality (K_SIA) has a positive and statistically significant effect on regional financial performance ($\beta=0.659$, $p<0.001$). Among the examined variables, K_SIA represents the strongest predictor, indicating that improvements in asset information system quality are associated with higher regional financial performance. This finding supports the theoretical argument that reliable information systems enhance accountability and efficiency by improving data accuracy, reducing recording errors, facilitating audit processes, and providing timely information for decision-making. The result is consistent with previous studies indicating that information system implementation contributes to improved financial reporting quality, asset management effectiveness, and organizational accountability (Mayndarto, Nugraha, & Asyifa, 2026; Rahmadhani, & Ariani, 2022; Amrulloh, Kadir, Jayen, & Rahayu, 2023).

Financial Reporting Quality (K_PK) also demonstrates a positive and significant effect on regional financial performance ($\beta=0.234$, $p=0.027$). This result suggests that improvements in financial reporting practices, including accurate asset valuation, proper documentation, maintenance of BPK opinions, and follow-up on audit recommendations, contribute to stronger regional financial performance. Although the coefficient is lower than K_SIA, the finding highlights that financial reporting quality remains an important component of accountable financial governance.

In contrast, Asset Management Quality (K_PA) shows a positive but statistically insignificant effect on regional financial performance ($\beta=0.103$, $p=0.195$). This finding indicates that improvements in asset management quality alone do not significantly explain variations in financial performance within the observed sample. One possible explanation is that asset management practices at BAPPEDA Mimika have already reached a relatively established level, resulting in limited variation among respondents. Additionally, the effect of asset management improvements may require a longer period to influence measurable financial outcomes, which may not be fully captured by the cross-sectional research design. Therefore, although asset management quality remains important for governance effectiveness, the findings suggest that further performance improvements may depend more strongly on strengthening asset information system quality and maintaining financial reporting quality.

4.4 Simultaneous Effect Analysis

Table 3. Simultaneous Effect Analysis Using Model Summary and ANOVA (N = 62)

Metric	Value	Criterion	Interpretation
Coefficient of Correlation (<i>R</i>)	0.855	0.80–1.00 indicates a very strong relationship	Indicates a very strong positive relationship between the independent variables and regional financial performance
Coefficient of Determination (<i>R</i> ²)	0.731	–	The three independent variables jointly explain 73.1% of the variation in regional financial performance
Adjusted <i>R</i> ²	–	–	Provides an adjusted estimate of the model's explanatory power considering the number of predictors and sample size
<i>F</i> -statistic	52.619	–	Indicates that the regression model has a strong overall explanatory capacity
Significance (<i>p</i> -value)	<0.001	<0.05	<i>H</i> ₂ is supported, indicating that the three independent variables simultaneously have a significant effect on regional financial performance
Unexplained Variance	26.9%	–	The remaining variation may be explained by other factors outside the model, such as organizational factors, human resource capacity, IT infrastructure, and inter-agency coordination

Table 3 presents the results of the simultaneous regression analysis examining the combined effect of Asset Information System Quality, Asset Management Quality, and Financial Reporting Quality on regional financial performance. The model demonstrates a very strong relationship between the independent variables and regional financial performance, as indicated by the correlation coefficient ($R=0.855$). This finding suggests that the three dimensions of AIS development collectively have a strong association with improvements in regional financial performance.

The coefficient of determination ($R^2=0.731$) indicates that the three independent variables jointly explain 73.1% of the variation in regional financial performance, while the remaining 26.9% is explained by other factors outside the research model. The significant F -test result ($F=52.619$, $p<0.001$) confirms that the regression model is statistically significant, indicating that the three dimensions of AIS development simultaneously contribute to explaining variations in regional financial performance. This finding supports previous research emphasizing that integrated asset management supported by information systems can strengthen organizational performance and governance effectiveness (Putranto, Dawud, Pradesa, Harijanto, & Dharmanegara, 2022).

The remaining unexplained variance indicates that regional financial performance is also influenced by other organizational and contextual factors not included in this model. These factors may include human resource capacity, organizational commitment, leadership support, information technology infrastructure, and inter-agency coordination. Future research may incorporate these variables to provide a more comprehensive understanding of the determinants of regional financial performance.

5. Conclusions

This study examined the effect of local AIS development on regional financial performance at BAPPEDA Kabupaten Mimika using multiple linear regression analysis based on data from 62 respondents. The findings provide four main conclusions. First, Asset Information System Quality (K_SIA) has a positive and statistically significant partial effect on regional financial performance ($\beta=0.659$; $p<0.001$), supporting H_{1a} . K_SIA represents the strongest predictor among the examined variables, indicating that improvements in system quality, information accuracy, accessibility, reliability, and security are strongly associated with better regional financial performance.

Second, Asset Management Quality (K_PA) shows a positive but statistically insignificant effect on regional financial performance ($\beta=0.103$; $p=0.195$), leading to the rejection of H_{1b} . This result does not imply that asset management quality is irrelevant; rather, it suggests that variations in asset management quality within the observed sample are insufficient to explain significant differences in financial performance. The descriptive findings indicate that asset management practices at BAPPEDA Mimika were generally perceived positively, which may reduce the observable marginal effect of further improvements.

Third, Financial Reporting Quality (K_PK) has a positive and statistically significant effect on regional financial performance ($\beta=0.234$; $p=0.027$), supporting H_{1c} . This finding highlights the importance of accurate asset valuation, proper documentation, audit recommendation follow-up, and reliable financial reporting practices in strengthening regional financial governance.

Fourth, the three dimensions of AIS development simultaneously have a significant effect on regional financial performance, with $R=0.855$, $R^2=0.731$, and $F=52.619$ ($p<0.001$), supporting H_2 . The model indicates that AIS quality, asset management quality, and financial reporting quality jointly explain 73.1% of the variation in regional financial performance. These findings demonstrate that strengthening asset information systems can support improvements in regional financial governance and accountability at BAPPEDA Kabupaten Mimika.

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Author Contributions

AYS contributed to the conceptualization, research design, data collection, methodology development, statistical analysis, and manuscript preparation. ERM contributed to theoretical development, literature review, data interpretation, and critical revision of the manuscript. TPU contributed to research supervision, validation of findings, methodological review, and final manuscript approval. All authors contributed to reviewing and approving the final version of the manuscript.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article. The research was conducted independently, and all authors have no financial, personal, or professional relationships that could have influenced the research design, data analysis, interpretation of results, or manuscript preparation.

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