



When Skill Meets System: User Expertise Moderating Accounting Information System Effectiveness and Quality

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ABSTRACT

Purpose – This study analyzes the effect of Accounting Information System (AIS) effectiveness and AIS quality on organizational performance and examines the moderating role of user expertise in Village Credit Institutions (LPDs) in Badung Regency, Bali.

Methodology/approach – The study applied a quantitative explanatory design. A saturated sample of 244 respondents, comprising the chairperson and treasurer of 122 LPDs, was surveyed using five-point Likert-scale questionnaires. Data were analyzed with Partial Least Squares–Structural Equation Modeling (PLS-SEM) using SmartPLS. **Findings** – AIS effectiveness and AIS quality both have positive and significant effects on organizational performance. User expertise significantly strengthens the effects of AIS effectiveness and AIS quality on performance. The model explains 54.3% of the variance in organizational performance, and all four hypotheses are supported.

Novelty/value – The study extends the Resource-Based View by demonstrating that organizational performance depends on the synergy between technological resources (AIS) and human resources (user competence), offering practical guidance for LPD managers to invest jointly in system quality and user training.

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INTRODUCTION

The rapid development of information technology over recent decades has substantially changed the way organizations conduct their operational activities. Organizations no longer rely solely on manual systems but increasingly adopt technology-based systems capable of processing data quickly, accurately, and efficiently. In financial management, one of the most widely used applications of information technology is the Accounting Information System (AIS), a system designed to collect, record, process, and present the financial information required by management and other stakeholders (Susanto, 2020). The success of an AIS is determined not only by the existence of the system itself but also by its effectiveness in supporting organizational activities. AIS effectiveness refers to the system's ability to provide timely, accurate, relevant, and easily understood information for users. An effective system simplifies the processing of financial data, improves work efficiency, and reduces recording errors (Dewi & Putra, 2021). In addition to effectiveness, AIS quality—reflecting reliability, ease of

use, security, and the accuracy of the information produced—is an important factor influencing the successful adoption of the system and, ultimately, organizational performance (Putri & Sari, 2022).

Organizational performance is a key indicator of an organization's success in achieving its objectives, measured through operational efficiency, service quality, productivity, and target attainment. In the digital era, the use of information technology has become a significant factor in improving organizational performance (Pratiwi & Rahmawati, 2023). Nevertheless, the benefits of an AIS cannot be separated from the role of human resources as system users. Users with adequate competence are more able to exploit an AIS optimally, whereas insufficient user competence prevents the organization from realizing the system's full benefits (Wahyuni & Kartika, 2020). User expertise therefore functions as a factor that can strengthen the relationship between the AIS and organizational performance (Sari & Nugroho, 2021).

Among Indonesia's microfinance institutions, Village Credit Institutions (Lembaga Perkreditan Desa, LPD) play a strategic role in supporting the rural economy. An LPD is a financial institution owned by a traditional (adat) village that collects community funds and channels them back as credit to rural communities (Ardiana & Putra, 2020). To maintain public trust and operational sustainability, LPDs require sound financial management, which can be supported by an effective and high-quality AIS (Kusuma & Dewi, 2022).

In practice, however, LPDs still face problems in AIS implementation. Interviews with LPD managers in Badung Regency revealed that many staff lack an accounting background and rarely attend training, so reports are often prepared manually before being entered into the system; users also reported that the system is sometimes slow and prone to errors when printing monthly reports, causing delays in reporting to supervisory bodies. These conditions indicate that both low user expertise and limited system quality constrain the benefits of the AIS.

Prior studies report mixed findings. Several studies (Umam et al., 2024; Pradnyana & Dewi, 2021; Wulandari, 2024; Suryani, 2020; Mahendra, 2024) find that AIS quality, effectiveness, and user competence positively affect organizational performance, and others (Setiawan & Rahayu, 2023; Lestari, 2021) show that human-resource competence strengthens the AIS–performance relationship. Drawing on the Resource-Based View (RBV) proposed by Barney (1991), AIS and user expertise represent strategic resources that are valuable, rare, and difficult to imitate; when the system's quality and users' competence are optimized, organizational performance should improve. In Badung Regency LPDs, however, these two resources are not yet managed optimally, so the AIS has not fully functioned as a strategic resource.

Few studies have jointly examined AIS effectiveness and AIS quality while positioning user expertise as a moderating variable in the LPD context. Therefore, this study aims to empirically test (1) the effect of AIS effectiveness on LPD organizational performance, (2) the effect of AIS quality on organizational performance, (3) the moderating role of user expertise in the effect of AIS effectiveness on performance, and (4) the moderating role of user expertise in the effect of AIS quality on performance. The findings are expected to enrich the AIS literature and to help LPD managers and supervisors improve organizational performance through better systems and more competent users.

LITERATURE REVIEW

Resource-Based View (RBV)

The Resource-Based View (RBV) explains that organizational performance depends on the effective utilization and integration of valuable technological and human resources (Barney, 1991). In this study, AIS quality represents a technological resource that reflects the system's capability to provide reliable and useful accounting information, while AIS effectiveness reflects the extent to which the system supports organizational tasks and objectives. User expertise represents a human resource that enables

users to effectively operate and utilize the AIS. Previous studies indicate that user competence contributes to AIS quality and effectiveness (Fitrios et al., 2022; Lorenzo et al., 2021). Therefore, from an RBV perspective, the integration of technological resources and user expertise can strengthen the organizational benefits derived from AIS and ultimately support organizational performance.

AIS Effectiveness

AIS effectiveness refers to the extent to which an accounting information system successfully supports organizational activities by providing useful information and facilitating the achievement of operational and decision-making objectives. An effective AIS is not merely determined by the availability of technology, but by its ability to deliver accurate and timely information, support users in performing accounting tasks, and generate organizational benefits (Al-Okaily et al., 2020). In financial institutions such as LPDs, AIS effectiveness is particularly important because daily transactions, financial reporting, and managerial decisions depend on the timely and accurate processing of financial information. Effective use of AIS can improve accounting processes and enable organizations to derive greater performance benefits from their information systems (Nguyen et al., 2021). Accordingly, this study assesses AIS effectiveness through the system's ability to support ease of use, timely information processing, data accuracy, operational requirements, and decision-making.

AIS Quality

AIS quality refers to the capability of an accounting information system to reliably process, integrate, and provide data required for accounting and managerial activities. A high-quality AIS is characterized by reliable system performance, efficient data processing, appropriate system functionality, and the ability to generate high-quality accounting information. Such system capabilities are important because higher information system quality improves the quality of data available for managerial tasks and decision-making (Knauer et al., 2020). In financial institutions, AIS quality is particularly critical because reliable transaction processing and financial information are essential for maintaining operational accuracy and supporting organizational performance. Empirical evidence from rural banks in Bali further demonstrates that AIS quality positively contributes to accounting information quality and organizational performance (Sunarta & Astuti, 2023). Accordingly, this study evaluates AIS quality through system reliability, information security, interface usability, data-processing speed, and the quality of system-generated reports.

User Expertise

User expertise refers to the knowledge, skills, and experience that enable individuals to operate and utilize an accounting information system effectively. It involves not only technical proficiency in using system features but also the ability to understand accounting procedures, process data accurately, and address operational problems encountered during system use. User expertise is critical because the benefits of AIS depend on users' ability to appropriately utilize its technological capabilities. Empirical evidence indicates that competent users, characterized by adequate knowledge, experience, and technical skills, contribute significantly to AIS quality and successful system utilization (Fitrios et al., 2022). In the context of LPDs, user expertise is particularly important because employees are directly responsible for transaction processing, financial data entry, and the use of AIS-generated information. Accordingly, this study assesses user expertise through understanding of system procedures, accuracy in data entry, mastery of system features, ability to resolve basic technical problems, and experience in using the system.

Organizational Performance

Organizational performance refers to the extent to which an organization achieves its operational and strategic objectives through the effective and efficient use of its resources. In the context of financial institutions, performance reflects not only financial outcomes but also the efficiency of operational processes, quality of decision-making, and achievement of organizational objectives. Effective utilization of accounting information systems can strengthen organizational performance by improving

information availability, supporting better decisions, and increasing operational efficiency (Sunarta & Astuti, 2023). For LPDs, these capabilities are particularly important because their performance depends on accurate financial administration, efficient transaction processing, responsive customer service, and achievement of institutional targets. Accordingly, this study evaluates organizational performance through financial-reporting accuracy, operational efficiency, service responsiveness, achievement of organizational targets, and completion of organizational tasks and responsibilities.

Hypotheses Development

AIS Effectiveness and Organizational Performance

AIS effectiveness reflects the extent to which an accounting information system successfully supports accounting activities, operational processes, and managerial decision-making. An effective AIS enables organizations to process transactions efficiently and provide timely and useful accounting information, thereby supporting planning, control, and decision-making. These capabilities are particularly important in financial institutions, where delays or inaccuracies in transaction processing and financial information can reduce operational efficiency and the quality of managerial decisions.

From the Resource-Based View (RBV), an effective AIS can be considered a valuable technological resource when its utilization enables an organization to perform activities more efficiently and make better-informed decisions. However, the strategic value of AIS does not arise merely from possessing the technology; it depends on the extent to which the system is effectively utilized to support organizational processes and objectives. Previous research indicates that AIS effectiveness contributes to organizational benefits by improving information availability, supporting accounting processes, and facilitating organizational activities (Al-Okaily et al., 2020). Effective utilization of AIS has also been associated with improvements in accounting-process performance because the system enables users to align technological functions with task requirements (Nguyen et al., 2021).

In the context of LPDs, an effective AIS is expected to facilitate transaction processing, financial reporting, operational control, and managerial decision-making. These improvements can reduce processing delays, enhance operational efficiency, and assist LPDs in achieving their organizational objectives. Therefore, greater AIS effectiveness is expected to result in higher organizational performance.

H1: Accounting Information System effectiveness has a positive effect on organizational performance.

AIS Quality and Organizational Performance

AIS quality represents the capability of an accounting information system to perform its functions reliably and efficiently. A high-quality AIS provides dependable system operation, appropriate functionality, efficient data processing, and useful outputs for organizational activities. These characteristics allow organizations to reduce processing problems, improve the availability of accounting information, and support more efficient operational and managerial processes.

From an RBV perspective, AIS quality represents a technological capability that can contribute to competitive and organizational advantages when it supports activities that create organizational value. High system quality improves an organization's capacity to transform accounting data into information that can be used for planning, monitoring, and decision-making. Empirical evidence demonstrates that higher information system quality contributes to the quality of management accounting data, thereby increasing the usefulness of information for managerial activities (Knauer et al., 2020). In addition, AIS

quality has been found to positively influence organizational performance, including in the context of rural banks, where reliable accounting information and system capabilities are essential to organizational operations (Sunarta & Astuti, 2023).

For LPDs, a high-quality AIS can support reliable transaction processing, reduce system-related disruptions, improve access to accounting information, and facilitate efficient financial administration. Consequently, improvements in AIS quality should enable LPDs to utilize their technological resources more effectively and achieve better organizational outcomes.

H2: Accounting Information System quality has a positive effect on organizational performance.

The Moderating Role of User Expertise in the Relationship Between AIS Effectiveness and Organizational Performance

Although AIS effectiveness can improve organizational performance, the magnitude of its contribution may depend on the capabilities of the individuals who use the system. User expertise reflects the knowledge, technical skills, and experience required to understand system procedures, operate system functions appropriately, process data accurately, and address problems encountered during system use. Thus, users with different levels of expertise may derive different levels of organizational benefit from the same AIS.

RBV emphasizes that organizational performance depends not only on individual resources but also on how complementary resources are combined and deployed. In this study, AIS effectiveness represents a technological resource, whereas user expertise represents a human resource that enables the organization to exploit the technological resource more effectively. Users with greater expertise are more capable of utilizing available system functions, adapting system use to task requirements, identifying input or processing problems, and using AIS-generated information for operational and managerial purposes. Conversely, limited user expertise may prevent an organization from fully realizing the potential benefits of an otherwise effective AIS.

Empirical evidence supports the importance of user capabilities in AIS utilization. Fitrios et al. (2022) demonstrate that user competence plays an important role in determining AIS quality, indicating that technological capabilities and human capabilities are closely interconnected in producing successful accounting information outcomes. Related evidence also suggests that user competency contributes to AIS effectiveness because knowledgeable and capable users are better positioned to utilize system functionality appropriately.

In LPDs, where employees directly interact with AIS in processing transactions, maintaining financial records, and producing information for managerial purposes, user expertise is therefore expected to amplify the benefits generated by an effective AIS. When user expertise is high, improvements in AIS effectiveness should translate more strongly into operational efficiency, effective task completion, and organizational performance. When expertise is low, these benefits may be more limited. Accordingly, user expertise is proposed as a positive moderator of the relationship between AIS effectiveness and organizational performance.

H3: User expertise positively moderates the effect of AIS effectiveness on organizational performance.

The Moderating Role of User Expertise in the Relationship Between AIS Quality and Organizational Performance

The organizational benefits of AIS quality may similarly depend on users' ability to utilize the technological capabilities provided by the system. Although a high-quality AIS may offer reliable

processing, appropriate functionality, security, usability, and efficient access to information, these technological characteristics do not automatically generate higher organizational performance. Their value is realized when users possess sufficient knowledge and skills to operate the system correctly and integrate its functions into their work activities.

From an RBV perspective, technological and human resources can create greater organizational value when they operate as complementary capabilities. AIS quality provides the technological foundation for reliable and efficient accounting processes, whereas user expertise determines the organization's ability to exploit that foundation. Skilled users are more capable of navigating system functions, entering and processing data accurately, identifying operational problems, and utilizing system-generated information in performing organizational tasks. Thus, the contribution of AIS quality to organizational performance should increase as the level of user expertise increases.

This argument is supported by empirical research demonstrating the interaction between user capabilities and AIS outcomes. Fitrios et al. (2022) found that user competence significantly contributes to AIS quality, highlighting the importance of human capabilities in realizing the benefits of accounting information technology. Moreover, evidence that information system quality improves the quality of accounting data (Knauer et al., 2020) suggests that the organizational value generated by system quality depends on the effective utilization of system capabilities. Therefore, user expertise can function as a complementary human resource that enables organizations to convert AIS quality into improved operational and organizational outcomes.

In the LPD context, employees with greater AIS expertise should be better able to exploit system reliability, functionality, processing capabilities, and information outputs in performing financial and operational activities. Consequently, high user expertise is expected to strengthen the extent to which AIS quality translates into organizational performance. In contrast, when user expertise is low, some of the potential benefits associated with a high-quality AIS may remain underutilized.

H4: User expertise positively moderates the effect of AIS quality on organizational performance.

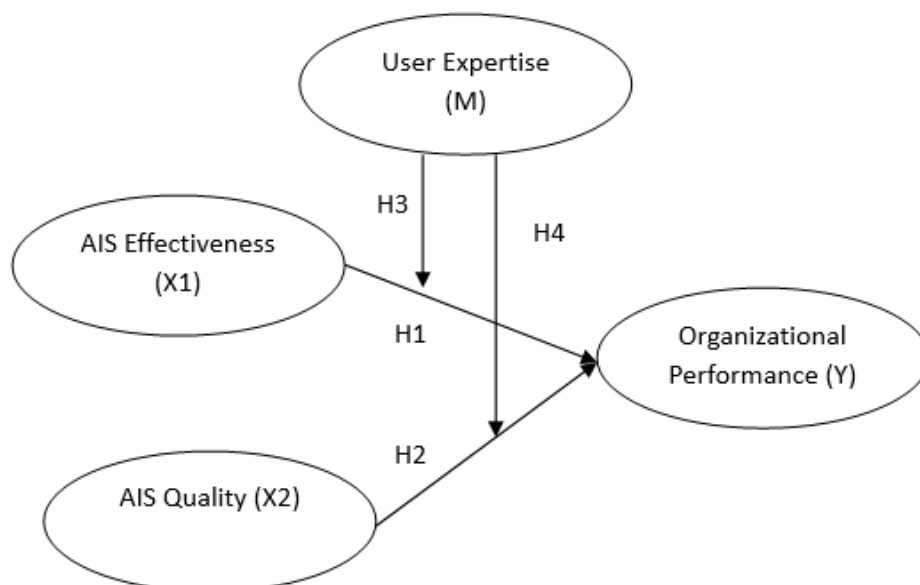


Figure 1. Framework

METHOD

This study uses a quantitative, associative, explanatory design to test the causal relationships among AIS effectiveness, AIS quality, user expertise, and organizational performance in LPDs in Badung Regency, Bali. Data were analyzed using Structural Equation Modeling based on Partial Least Squares (PLS-SEM), which suits limited sample sizes, complex relationships, and the presence of a moderating variable.

The population comprised all 122 LPDs operating across the six sub-districts of Badung Regency. Using a saturated (census) sampling technique, the chairperson and treasurer of each LPD were surveyed, yielding 244 respondents who hold strategic roles in decision-making and financial management. All 244 questionnaires distributed directly between 16 March and 16 April 2026 were returned and usable.

Two exogenous variables—AIS effectiveness (X1) and AIS quality (X2)—were examined for their effect on the endogenous variable, organizational performance (Y), with user expertise (M) as the moderating variable. Each variable was measured with a five-point Likert-scale instrument adapted from prior studies (Hall, 2011; Jogiyanto, 2007; Mahardika, 2021; Yuniartini, 2020; Wardana, 2022). Data were collected primarily through questionnaires, supplemented by informal interviews and documentation. Analysis followed the standard PLS-SEM stages: evaluation of the measurement (outer) model through convergent validity, discriminant validity, composite reliability, and Cronbach's alpha; and evaluation of the structural (inner) model through R-Square, Q-Square, Goodness of Fit, and bootstrapping for hypothesis testing, using a significance threshold of $p < 0.05$.

RESULT AND DISCUSSION

Respondent Characteristics

The 244 respondents were profiled by age, work tenure, and position, as presented in Table 1.

Table 1. Respondent Characteristics

No	Characteristic	Category	Frequency	Percentage (%)
1	Age	< 25 years	15	6.10
		25–35 years	55	22.50
		36–45 years	58	23.80
		> 45 years	116	47.50
2	Work tenure	< 1 year	9	3.70
		1–3 years	35	14.30
		3–5 years	41	16.80
		> 5 years	159	65.20
3	Position	Treasurer	122	50.00
		Chairperson	122	50.00
		Total	244	100.00

Source: Author's data processing (2026)

Most respondents were older than 45 years (47.50%) and had more than five years of tenure (65.20%), and the sample was evenly split between treasurers and chairpersons. This indicates experienced respondents with adequate capacity to assess AIS effectiveness and quality.

Measurement Model (Outer Model)**Convergent validity**

The measurement model was evaluated to assess the reliability and validity of the constructs. Figure 2 presents the PLS-SEM model, including the indicator loadings and estimated relationships among the constructs. Convergent validity and internal consistency reliability were subsequently assessed using outer loadings, Average Variance Extracted (AVE), Cronbach's alpha, and composite reliability (Ghozali, 2019).

Table 2. Convergent Validity and Reliability Results

Construct	Indicator	Outer Loading	AVE	Cronbach's Alpha	Composite Reliability
User Expertise (M)	M ₁	0.743	0.644	0.721	0.844
	M ₂	0.868			
	M ₃	0.791			
AIS Effectiveness (X ₁)	X _{1.1}	0.764	0.608	0.871	0.903
	X _{1.2}	0.812			
	X _{1.3}	0.786			
	X _{1.4}	0.730			
	X _{1.5}	0.831			
	X _{1.6}	0.751			
AIS Quality (X ₂)	X _{2.1}	0.723	0.587	0.859	0.895
	X _{2.2}	0.776			
	X _{2.3}	0.764			
	X _{2.4}	0.733			
	X _{2.5}	0.823			
	X _{2.6}	0.773			
Organizational Performance (Y)	Y ₁	0.782	0.641	0.860	0.899
	Y ₂	0.858			
	Y ₃	0.784			
	Y ₄	0.722			
	Y ₅	0.852			

Source: Author's data processing (2026)

Discriminant validity

Discriminant validity was assessed using the Fornell–Larcker criterion and the Heterotrait–Monotrait Ratio (HTMT). The results are presented in Table 3.

Table 3. Discriminant Validity (Fornell-Larcker Criterion)

Construct	Fornell–Larcker
	M

User Expertise (M)	0.802
AIS Effectiveness (X₁)	0.614
AIS Quality (X₂)	0.690
Organizational Performance (Y)	0.677

Table 4. HTMT

Construct	HTMT						
	X ₁	X ₂	Y	M	X ₁	X ₂	Y
User Expertise (M)	—	—	—	—	—	—	—
AIS Effectiveness (X₁)	0.780	—	—	0.718	—	—	—
AIS Quality (X₂)	0.694	0.766	—	0.794	0.781	—	—
Organizational Performance (Y)	0.616	0.632	0.801	0.776	0.702	0.724	—

Source: Author's data processing (2026)

As shown in Table 3, the square root of AVE for each construct exceeds its correlations with the other constructs, satisfying the Fornell–Larcker criterion. In addition, all HTMT values range from 0.702 to 0.794 and remain below the recommended threshold of 0.90. Therefore, discriminant validity is established.

Structural Model (Inner Model)

The structural model was evaluated to examine the explanatory power of the model and the significance of the hypothesized relationships. The assessment included the coefficient of determination (R²) and bootstrapping analysis of the path coefficients. Figure 3 presents the bootstrapping results for the direct and moderating relationships among the constructs.

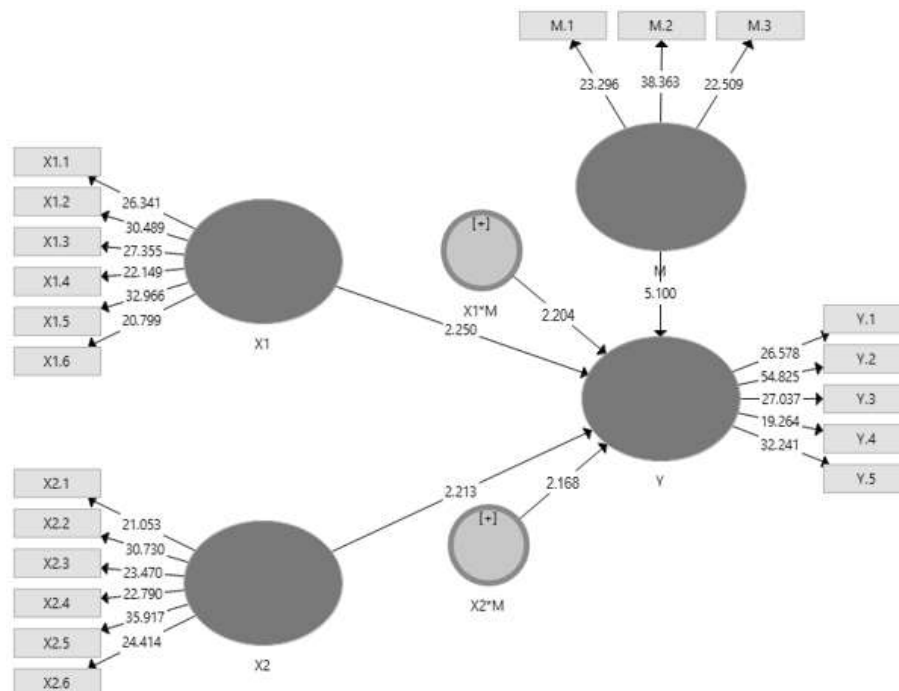


Figure 2. Bootstrapping Results

The R-Square of 0.543 indicates that AIS effectiveness and AIS quality explain 54.3% of the variance in organizational performance, with the remainder explained by variables outside the model. The Q-

Square, computed as $Q^2 = 1 - (1 - R^2) = 0.543 > 0$, indicates strong predictive relevance. The Goodness of Fit, $GoF = \sqrt{(AVE \times R^2)} = \sqrt{(0.620 \times 0.543)} = 0.580$, exceeds 0.36 and denotes a large overall model fit (Wetzels et al., 2009).

Coefficient of Determination (R^2)

Table 5. Coefficient of Determination

Variable	<i>R Square</i>	<i>R Square Adjusted</i>
Organizational Performance (Y)	0.543	0.533

Source: Author's data processing (2026)

As shown in Table 4, the R^2 value for Organizational Performance is 0.543, with an adjusted R^2 of 0.533. This indicates that the predictors included in the structural model explain 54.3% of the variance in Organizational Performance, while the remaining 45.7% is attributable to other factors not included in the model. Thus, the model demonstrates meaningful explanatory power for Organizational Performance.

Hypothesis Testing

The hypotheses were tested using the bootstrapping procedure. The significance of each structural relationship was evaluated based on the path coefficient and p-value, using a significance level of 5% ($p < 0.05$). The results of the hypothesis testing are presented in Table 5.

Table 6. Hypothesis Testing Results

Hypothesis	Effect Type	Relationship	Path Coefficient (β)	p-value	Decision
H1	Direct	$X_1 \rightarrow Y$	0.227	0.025	Supported
H2	Direct	$X_2 \rightarrow Y$	0.214	0.027	Supported
H3	Moderation	$X_1 \times M \rightarrow Y$	0.143	0.026	Supported
H4	Moderation	$X_2 \times M \rightarrow Y$	0.136	0.031	Supported

Source: Author's data processing (2026)

The results in Table 5 show that all four hypotheses are supported. AIS Effectiveness has a positive and significant effect on Organizational Performance ($\beta = 0.227$, $p = 0.025$), supporting H1. Similarly, AIS Quality has a positive and significant effect on Organizational Performance ($\beta = 0.214$, $p = 0.027$), supporting H2. The moderation analysis further indicates that User Expertise positively and significantly moderates the relationship between AIS Effectiveness and Organizational Performance ($\beta = 0.143$, $p = 0.026$), supporting H3. User Expertise also positively and significantly moderates the relationship between AIS Quality and Organizational Performance ($\beta = 0.136$, $p = 0.031$), supporting H4. These positive interaction coefficients indicate that higher User Expertise strengthens the positive effects of AIS Effectiveness and AIS Quality on Organizational Performance.

Discussion

AIS Effectiveness and Organizational Performance

The results demonstrate that AIS effectiveness has a positive and significant effect on organizational performance ($\beta = 0.227$, $p = 0.025$), supporting H1. This finding indicates that an effective AIS enables LPDs to process financial transactions more efficiently, provide timely and relevant accounting information, and support managerial decision-making. From the Resource-Based View (RBV) perspective, an effective AIS represents a valuable technological resource because its organizational value derives not merely from the availability of technology but from its effective deployment in supporting organizational activities.

This finding is consistent with Prasad and Green (2015), who found a positive association between dynamic AIS capability, accounting-process performance, and overall firm performance. Their study emphasizes that organizations can generate performance benefits when AIS capabilities are effectively developed and deployed. Similarly, recent international evidence shows that AIS effectiveness contributes to business performance through the organization's ability to transform system capabilities and accounting information into useful organizational outcomes. Compared with these studies, the present study extends the evidence to Village Credit Institutions, demonstrating that the performance benefits of effective AIS are also evident in relatively small community-based financial institutions.

AIS Quality and Organizational Performance

AIS quality has a positive and significant effect on organizational performance ($\beta = 0.214$, $p = 0.027$), supporting H2. This result suggests that a reliable, secure, user-friendly, and responsive AIS enables LPDs to process transactions accurately, minimize operational disruptions, and provide useful information for organizational decision-making. From an RBV perspective, a high-quality AIS represents a technological capability that can generate organizational value when it supports efficient financial and operational processes.

The finding is consistent with Sunarta and Astuti (2023), who examined rural banks in Bali and reported that AIS quality contributes to organizational performance, with accounting information quality playing an important role in transmitting the benefits of system quality to organizational outcomes. The present study therefore reinforces previous international evidence while extending it specifically to LPDs. Whereas Sunarta and Astuti focused on rural banks and the mediating role of accounting information quality, this study demonstrates that AIS quality also has a significant direct effect on organizational performance in community-based financial institutions. This comparison suggests that the organizational benefits of AIS quality are not confined to conventional banking institutions but also apply to locally governed financial organizations.

Moderating Role of User Expertise in the AIS Effectiveness–Performance Relationship

The results further show that User Expertise positively and significantly moderates the effect of AIS Effectiveness on Organizational Performance ($\beta = 0.143$, $p = 0.026$), supporting H3. The positive interaction coefficient indicates that the contribution of AIS effectiveness to organizational performance becomes stronger when users possess greater knowledge, skills, and experience in operating the system. This finding supports the RBV proposition that technological resources alone may be insufficient to generate superior outcomes unless they are complemented by appropriate human capabilities.

This result is particularly consistent with Prasad and Green (2015), who emphasize the complementary role of AIS-related human IT competencies in developing dynamic AIS capabilities. Their evidence suggests that AIS performance benefits arise from the combination of technological capabilities and technically competent accounting professionals rather than from technology in isolation. Related empirical evidence also indicates that user competence significantly improves AIS quality, highlighting the importance of human capabilities in enabling organizations to realize the potential of accounting information technologies.

However, the present study extends these findings by demonstrating a moderation mechanism. Rather than treating user competence solely as an antecedent of AIS effectiveness or quality, this study shows that User Expertise changes the strength of the relationship between AIS effectiveness and organizational performance. Thus, the performance value of an effective AIS is greater when LPD employees possess sufficient expertise to exploit system functionalities, process data accurately, and use system-generated information in their work.

Moderating Role of User Expertise in the AIS Quality–Performance Relationship

User Expertise also positively and significantly moderates the effect of AIS Quality on Organizational Performance ($\beta = 0.136$, $p = 0.031$), supporting H4. This finding indicates that improvements in AIS quality generate stronger organizational performance outcomes when the system is operated by knowledgeable and skilled users. A technically reliable system therefore does not automatically produce maximum organizational benefits; its capabilities must be effectively utilized by competent users.

This finding complements international evidence showing that AIS capabilities and human competencies function as interdependent organizational resources. Prasad and Green (2015), for example, demonstrate that AIS-related human technical competence is an important component in developing dynamic AIS capabilities that contribute to organizational performance. Likewise, empirical research on AIS quality and user competence indicates that competent users play an important role in enhancing the quality and successful utilization of accounting information systems.

Compared with these studies, the present research provides additional evidence by identifying User Expertise specifically as a positive moderator of the AIS Quality–Organizational Performance relationship. This means that the same level of AIS quality may generate different organizational outcomes depending on users' ability to exploit system reliability, functionality, and information outputs. The result therefore strengthens the RBV argument that organizational performance depends on the complementary deployment of technological and human resources rather than on either resource independently.

Taken together, the findings demonstrate that AIS Effectiveness and AIS Quality directly contribute to Organizational Performance, while User Expertise strengthens both relationships. These results are consistent with international evidence that AIS capabilities can enhance organizational performance and that human technical competence is an important complementary resource. However, the present study advances this literature by showing that User Expertise does not merely contribute independently to AIS outcomes but functions as a boundary condition that determines how strongly AIS Effectiveness and AIS Quality translate into Organizational Performance. In the context of LPDs, technological investment and user capability should therefore be regarded as complementary rather than substitutable resources.

CONCLUSION

This study concludes that AIS effectiveness and AIS quality each have a positive and significant effect on the organizational performance of LPDs in Badung Regency, and that user expertise significantly strengthens both effects. These findings support the Resource-Based View: organizational performance improves when strategic technological resources (an effective, high-quality AIS) are combined with a strategic human resource (competent users). The model explains 54.3% of the variance in organizational performance and demonstrates strong predictive relevance and a large goodness of fit.

The study has several limitations. Data collection relied on questionnaires, which may introduce differences in respondents' interpretation; the sample was confined to LPDs in Badung Regency, limiting generalizability; and unexamined variables outside the model also influence performance. LPDs are therefore advised to evaluate their systems regularly, strengthen digital-system development, and provide continuous user training so that the AIS is used optimally. Future research is encouraged to add variables such as organizational culture, top-management support, user satisfaction, and internal control; to broaden the sample across regions; and to combine questionnaires with interviews, observation, and documentation for richer findings.

REFERENCES

- Al-Okaily, A., Al-Okaily, M., Shiyyab, F., & Masadah, W. (2020). Accounting information system effectiveness from an organizational perspective. *Management Science Letters*, 10(16), 3991–4000. <https://doi.org/10.5267/j.msl.2020.7.010>
- Ardiana, I. K., & Putra, I. W. (2020). The role of Village Credit Institutions in improving the economy of rural communities in Bali. *Jurnal Ekonomi dan Bisnis Desa*, 5(2), 112–125.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Lawrence Erlbaum Associates.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>
- Dewi, N. K., & Suryanawa, I. K. (2025). The role of user competence in moderating the effect of accounting information systems on organizational performance. *Jurnal Akuntansi dan Keuangan*, 20(1), 45–60.
- Dewi, N. P., & Putra, I. G. (2021). The effect of accounting information system effectiveness on accounting information quality. *Jurnal Akuntansi dan Keuangan Indonesia*, 18(1), 45–58.
- Eschenbrenner, B., & Nah, F. F.-H. (2014). Information systems user competency: A conceptual foundation. *Communications of the Association for Information Systems*, 34, 1363–1378. <https://doi.org/10.17705/1CAIS.03480>
- Fitrios, R., Nur, E. D. P., & Zakya, I. (2022). How information technology and user competence affect the quality of accounting information through the quality of AIS. *Quality—Access to Success*, 23(187), 109–118. <https://doi.org/10.47750/QAS/23.187.13>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Ghozali, I. (2021). *Multivariate analysis application using IBM SPSS 26* (9th ed.). Badan Penerbit Universitas Diponegoro.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage Publications.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Haleem, A. H., & Kevin, L. L. T. (2018). Impact of user competency on accounting information system success: Banking sectors in Sri Lanka. *International Journal of Economics and Financial Issues*, 8(6), 167–175. <https://doi.org/10.32479/ijefi.7212>

-
- Hall, J. A. (2011). *Accounting information systems* (8th ed.). South-Western Cengage Learning.
- Hartono, B. (2020). Technology competence and employee productivity. *Jurnal Manajemen dan Bisnis*, 14(2), 88–99.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hidayat, R. (2021). The effect of accounting information system quality on organizational performance. *Jurnal Akuntansi dan Sistem Informasi*, 9(3), 112–125.
- Jogiyanto, H. M. (2007). *Behavioral information systems*. Andi.
- Knauer, T., Nikiforow, N., & Wagener, S. (2020). Determinants of information system quality and data quality in management accounting. *Journal of Management Control*, 31, 97–121. <https://doi.org/10.1007/s00187-020-00296-y>
- Kusuma, D. P., & Dewi, N. L. (2022). Implementation of accounting information systems in microfinance institutions. *Jurnal Sistem Informasi Akuntansi*, 9(3), 201–215.
- Lestari, N. M. (2019). Information system effectiveness and managerial decision-making. *Jurnal Manajemen*, 12(1), 33–45.
- Mahardika, I. G. (2021). Accounting information system quality and internal control. *Jurnal Akuntansi dan Sistem Informasi*, 9(2), 120–133.
- Mahendra, A. (2024). AIS implementation and its effect on the operational efficiency of financial institutions. *Jurnal Akuntansi Terapan*, 12(1), 33–47.
- Nguyen, T., Chen, J. V., & Nguyen, T. P. H. (2021). Appropriation of accounting information system use under the new IFRS: Impacts on accounting process performance. *Information & Management*, 58(8), Article 103534. <https://doi.org/10.1016/j.im.2021.103534>
- Pradnyana, I. B., & Dewi, N. K. (2021). The effect of information system quality and user competence on LPD performance. *Jurnal Manajemen dan Akuntansi*, 8(2), 89–102.
- Pramana, I. G., & Yudistira, K. (2022). User expertise and data processing quality in financial institutions. *Jurnal Ekonomi dan Keuangan*, 10(1), 55–68.
- Prasad, A., & Green, P. (2015). Organizational competencies and dynamic accounting information system capability: Impact on AIS processes and firm performance. *Journal of Information Systems*, 29(3), 123–149. <https://doi.org/10.2308/isys-51127>
- Prasetyo, A. (2018). The effectiveness of AIS on work efficiency in financial institutions. *Jurnal Akuntansi Terapan*, 6(2), 77–89.
- Pratiwi, A., & Rahmawati, S. (2023). The utilization of information technology in improving organizational performance. *Jurnal Bisnis dan Teknologi*, 11(1), 15–27.

- Putra, I. W., & Hidayat, R. (2025). The impact of AIS on organizational planning and control. *Jurnal Manajemen Strategis*, 18(1), 22–35.
- Putri, A. D., & Sari, N. P. (2022). Accounting information system quality and its effect on financial transparency. *Jurnal Riset Akuntansi*, 14(2), 67–81.
- Putriana, P. A., & Wiratmaja, I. D. N. (2021). Analysis of factors in the effect on acceptance of accounting information system acceptances at Denpasar City LPD (Village Credit Institution). *International Journal of Economics and Management Studies*, 8(7), 99–105. <https://doi.org/10.14445/23939125/IJEMS-V8I7P112>
- Romney, M. B., & Steinbart, P. J. (2018). *Accounting information systems* (14th ed.). Pearson Education.
- Sari, D. P. (2019). User expertise and successful implementation of information systems in the public sector. *Jurnal Administrasi Publik*, 13(3), 144–157.
- Sari, N. W., & Nugroho, B. (2021). The role of user expertise as a moderator of the relationship between AIS and performance. *Jurnal Manajemen SDM*, 15(2), 98–110.
- Setiawan, E. (2020). Resource-Based View and organizational strategic resources. *Jurnal Manajemen dan Bisnis*, 15(1), 11–25.
- Setiawan, E., & Rahayu, M. (2023). Human resource competence as a mediator of the effect of AIS on MSME performance. *Jurnal Ekonomi dan Kewirausahaan*, 13(1), 44–56.
- Sunarta, I. N., & Astuti, P. D. (2023). Accounting information system quality and organizational performance: The mediating role of accounting information quality. *International Journal of Professional Business Review*, 8(3), e01192. <https://doi.org/10.26668/businessreview/2023.v8i3.1192>
- Suryani, N. (2019). User expertise and financial reporting quality. *Jurnal Akuntansi dan Keuangan*, 16(2), 120–133.
- Susanto, A. (2020). *Accounting information systems: Structure, control, risk, and development*. Lingga Jaya.
- Wahyuni, S., & Kartika, D. (2020). The effect of user competence on the utilization of accounting information systems. *Jurnal Akuntansi Universitas*, 8(3), 120–133.
- Wardana, I. M. (2022). Indicators of AIS quality and organizational performance. *Jurnal Akuntansi dan Keuangan Indonesia*, 19(2), 145–160.
- Wetzels, M., Odekerken-Schröder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly*, 33(1), 177–195. <https://doi.org/10.2307/20650284>
- Widyaningrum, A. (2020). User expertise in maximizing AIS functions. *Jurnal Akuntansi dan Teknologi*, 7(2), 66–78.
- Wulandari, R. (2024). The effect of users' technological capability on AIS utilization. *Jurnal Teknologi Informasi dan Akuntansi*, 5(2), 101–115.
- Yuliana, S., & Putra, I. G. (2021). AIS effectiveness and service quality in microfinance institutions. *Jurnal Ekonomi Mikro*, 9(1), 44–56.

- Yulinda, N., & Pramana, I. G. (2022). The interaction of AIS effectiveness and user expertise on productivity. *Jurnal Manajemen Operasional*, 5(2), 99–112.
- Yuniartini, N. M. (2020). Indicators of accounting information system user expertise. *Jurnal Sistem Informasi Akuntansi*, 7(1), 44–56.