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THE INFLUENCE OF EDUCATIONAL ATTAINMENT, JOB TRAINING, AND INFORMATION TECHNOLOGY SOPHISTICATION ON THE EFFECTIVENESS OF ACCOUNTING INFORMATION SYSTEMS IN SAVINGS AND LOAN COOPERATIVES

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Abstract: The effectiveness of accounting information systems (AIS) is key to promoting transparency and accountability in cooperative financial reporting. However, many cooperatives in Denpasar have yet to optimize the use of AIS. This study aims to examine the influence of educational attainment, job training, and information technology sophistication on AIS effectiveness in savings and loan cooperatives (SLCs) in Denpasar City. Employing a quantitative approach with a survey method, this study collected data from 112 respondents representing 56 active cooperatives selected via purposive sampling. Data were gathered using questionnaires and analyzed using multiple linear regression in SPSS. The results reveal that educational attainment, job training, and information technology sophistication each have a positive and significant effect on AIS effectiveness.

Keywords: Educational Attainment, Job Training, Information Technology Sophistication, Accounting Information Systems Effectiveness

INTRODUCTION

Ensuring the sustainability and success of cooperatives is a central goal in reinforcing their role as drivers of economic development. To achieve this, high-quality financial reporting—both reliable and relevant—is essential in supporting sound and competitive cooperative operations. Such reporting is achievable only if the accounting information system (AIS) is operating effectively. An effective AIS not only ensures reporting accuracy and timeliness but also serves as a foundation for strategic decision-making, strengthens internal controls, streamlines financial transactions, and enhances profitability (Lather et al., 2023).

AIS effectiveness indicates the extent to which goals are achieved through the management of resources used to collect, process, and store electronic data that is transformed into useful information for stakeholders (Ribeiro & Putra, 2023). This study aims to explore key factors influencing AIS effectiveness—namely educational attainment, job training, and information technology sophistication—specifically in the context of savings and loan cooperatives in Denpasar City.

In the era of Society 5.0—characterized by integration between technological advancement and social needs—cooperatives face significant challenges. In Indonesia, cooperatives have expanded into various sectors, including savings and loan cooperatives (SLCs), which play a critical role in providing micro-financing for both productive and consumptive needs, particularly among those underserved by the formal banking sector. As competition in the financial sector intensifies, cooperatives are expected to offer fast, practical, and accessible services, prompting digital transformation through application-based information systems.

Applications such as Kocek, Coopmax, and Coin Bali are specifically designed to modernize SLC operations. Kocek assists in credit decision-making by facilitating verification and analysis, reducing default risk. Coopmax, developed by Djoin, supports a digital cooperative ecosystem, offering a core system, mobile application, and digital collector tools. These systems allow seamless financial reporting and member transactions. Coin Bali offers similar digital tools to enhance operational efficiency.

However, studies like Sari and Indraswarawati (2020) highlight suboptimal AIS usage in cooperatives, many of which still rely on Microsoft Excel or manual bookkeeping. This leads to slow operations, flawed financial reports, and declining public trust. For instance, at KSP Maju Mapan Jaya Denpasar, transactions are still manually recorded by field collectors, resulting in frequent discrepancies and unreadable entries that compromise data accuracy and risk record loss (Karsana & Kurniawijaya, 2024).

AIS effectiveness depends not only on the availability of technology but also on user acceptance. According to the Technology Acceptance Model (TAM) developed by Davis (1989), user adoption of technology is influenced by perceived usefulness and perceived ease of use. TAM is one of the most widely used models in technology adoption studies (Sánchez-Prieto et al., 2017). When users believe that AIS improves their performance and is easy to use, they are more likely to adopt it effectively (Gupta et al., 2007).

In the context of SLCs, user perceptions of AIS are influenced by educational attainment. Individuals with higher education tend to occupy higher organizational roles, access decision-making processes, and make better use of available information. Prior studies (Hardani & Ramantha, 2020; Ribeiro & Putra, 2023) support the view that higher education positively affects AIS effectiveness. Contrarily, some studies (e.g., Ningtias & Diatmika, 2021) report differing results.

Job training is another factor influencing AIS effectiveness. Training enhances employees' knowledge and skills, enabling them to adapt to organizational needs, technological changes, and system updates (Ribeiro & Putra, 2023). Skilled users are more engaged with the system, leading to better utilization and improved AIS effectiveness (Agustina & Sari, 2020; Cahyani & Putra, 2024).

The sophistication of information technology also plays a vital role. IT sophistication refers to the ability of technological tools to support organizational activities through advanced data processing, communication, and integration features. In AIS, this includes hardware, software, communication networks, and supporting

infrastructure (Romney & Steinbart, 2018). Sophisticated IT systems enhance information reliability and support better decision-making (Rasyid et al., 2024). While many studies (e.g., Kepramareni et al., 2020; Dewanti & Kresnandra, 2024) show a positive relationship, others report negative effects (e.g., Cahyani & Putra, 2022).

Despite the potential, many SLCs in Denpasar still face sustainability risks due to inactive status or weak recordkeeping systems. This indicates suboptimal AIS use. Without enhancing AIS effectiveness, cooperatives risk falling behind in the financial sector. Furthermore, inconsistencies in prior findings provide a strong rationale for reexamining these relationships.

METHODS

This study uses a quantitative associative approach to examine the effects of educational attainment, job training, and IT sophistication on AIS effectiveness in savings and loan cooperatives (SLCs) in Denpasar City. This design was chosen to test statistical relationships and derive objective, measurable conclusions.

Denpasar was selected due to its high concentration of SLCs and its leadership in digital cooperative initiatives supported by the local Office of Cooperatives and MSMEs. Nevertheless, the region faces challenges with limited human resources and suboptimal technology use (Sugiyono, 2023).

The research variables include educational attainment, job training, and IT sophistication as independent variables, and AIS effectiveness as the dependent variable. Data were collected through a structured Google Forms survey distributed to 112 respondents across 56 SLCs that had adopted accounting software. Samples were selected purposively, with criteria including active cooperative status and AIS implementation.

Instruments were tested for validity and reliability using SPSS to ensure accuracy and consistency (Ghozali, 2021; Sugiyono, 2023). Data analysis employed multiple linear regression, preceded by descriptive statistics and classical assumption tests (normality, multicollinearity, and heteroscedasticity). Further analysis included adjusted R^2 tests, F-tests, and t-tests to examine the influence of each variable. The regression model explains the interplay among the variables in improving AIS effectiveness. This study offers practical insights for SLC management in navigating digital transformation and strengthening technology-based accounting capacity (Ghozali, 2021).

RESULTS AND DISCUSSION

Results of Analysis of Research Data

Instrument Test Results

1) Validity Test

Table 1. Summary of Research Instrument Validity Test Results

Variables	Statement	Person Correlation	Sig. (2-tailed)	Information
Education Level (TP)	TP_1	0.680	0,000	Valid
	TP_2	0.830	0,000	Valid
	TP_3	0.692	0,000	Valid

	TP_4	0.727	0,000	Valid
Job Training (PL)	PL_1	0.712	0,000	Valid
	PL_2	0.736	0,000	Valid
	PL_3	0.652	0,000	Valid
	PL_4	0.644	0,000	Valid
	PL_5	0.553	0.002	Valid
	PL_6	0.634	0,000	Valid
Sophistication of Information Technology	KTI_1	0.591	0.001	Valid
	KTI_2	0.640	0,000	Valid
	KTI_3	0.654	0,000	Valid
	KTI_4	0.664	0,000	Valid
	KTI_5	0.621	0,000	Valid
SIA Effectiveness	ESIA_1	0.628	0,000	Valid
	SEIA_2	0.533	0.002	Valid
	ESIA_3	0.589	0.001	Valid
	ESIA_4	0.650	0,000	Valid
	ESIA_5	0.665	0,000	Valid
	ESIA_6	0.535	0.002	Valid

Source: Processed Primary Data, 2025

A questionnaire is said to be valid if the statements in the questionnaire are able to reveal something that is measured by the questionnaire (Ghozali, 2018:51). If the correlation between the scores of each statement item and the total score is greater than 0.30, it has a significance level below 0.05 or sig. < 0.05, meaning the data obtained is valid and if the correlation between the scores of each statement item and the total score is less than 0.30, it has a significance level above 0.05 or sig. > 0.05, then the data obtained is invalid.

Based on Table 1, it can be seen that all research instruments used to measure the variables of education level, job training, information technology sophistication, and accounting information system effectiveness each have a Pearson Correlation value with a total score of all statement items greater than 0.30 with a significance of less than 0.05. This indicates that the statement items in the research instrument are valid and suitable for use as research instruments.

2) Reliability Test

Table 2. Reliability Test Results

No	Variables	Cronbach's Alpha	Information
1	Level of education	0.705	Reliable
2	Job Training	0.734	Reliable
3	Sophistication of Information Technology	0.624	Reliable
4	Effectiveness of Accounting Information Systems	0.645	Reliable

Source: Processed Primary Data, 2025

Based on the reliability test results presented in Table 2, the Cronbach's Alpha value for each variable is greater than 0.60. Therefore, it can be concluded that all variables have met the reliability requirements and can be used for research.

Descriptive Statistical Test Results

Table 3. Results of Descriptive Statistical Tests

Information	Number of Statements	Minimum	Maximum	Mean	Standard Deviation
SIA Effectiveness (Y)	6	14.00	24.00	19,2589	2.43749
Education Level (X1)	4	10.00	16.00	13,3125	1,59973
Job Training (X2)	6	14.00	24.00	19,9732	2,38032
Advanced Information Technology (X3)	5	13.00	20.00	17,5357	1.68688

Source: Processed Primary Data, 2025

Based on the results of the descriptive statistical test in Table 3 above, it can be interpreted as follows.

1) The accounting information system (AIS) effectiveness variable has a minimum value of 14 and a maximum value of 24, with an average (mean) of 19.26 and a standard deviation of 2.437. Judging from the actual score range obtained in the data, which is 14 - 24, this average value is in a fairly high position. When compared to the interpretation category of the 4-point Likert scale, this value is also included in the high category. This indicates that the majority of respondents believe that the accounting information system used in their cooperative has functioned effectively, particularly in terms of recording, preparation of financial reports, and operational efficiency. The standard deviation value of 2.437 indicates that the distribution of respondents' answers is not too far from the average value, so it can be said that respondents' perceptions of AIS effectiveness are relatively homogeneous. This uniformity is likely influenced by the use of similar systems across cooperatives, similar operational procedures, and the level of training or education of human resources that are not too varied. Thus, these results indicate that the implementation of SIA in the savings and loan cooperatives of Denpasar City has been running quite well and is considered effective by system users.
2) The education level variable has a minimum value of 10 and a maximum value of 16, with a mean of 13.31 and a standard deviation of 1.605. Judging from the actual score range obtained in the data, which is 10-16, the average value is in the upper range, indicating that most respondents have a relatively high educational background. When compared to the interpretation of the measurement scale, this value is categorized as quite high. This illustrates that the majority of respondents, both managers and cooperative staff, have had an adequate level of formal education, which can support an understanding of the use of accounting information systems. The standard deviation value of 1.605 is relatively small, indicating that respondents' answers are not spread far from the average value. This means that the respondents' educational levels tend to be homogeneous. This uniformity may be due to the recruitment standards applicable in savings and loan cooperatives, where most workers have met certain educational qualifications.
3) The job training variable has a minimum value of 14 and a maximum value of 24, with a mean of 19.97 and a standard deviation of 2.388. This mean value is in the high range when viewed from the actual data range, indicating that the majority of respondents have received adequate job training. When associated with the measurement scale, this

value falls into the high category. This means that, in general, the cooperative has provided relevant and supportive training to improve the understanding and skills of human resources in the use of technology-based accounting systems. The standard deviation of 2.388 indicates a fairly concentrated distribution of responses around the mean value, so the data is not widely dispersed. This means that respondents have a relatively uniform perception of the job training they have received, which is most likely due to standardized training patterns or training programs provided evenly across various cooperatives.

4) The information technology sophistication variable has a minimum score of 13 and a maximum score of 20, with a mean of 17.54 and a standard deviation of 1.696. This mean score is high within the actual score range and is also categorized as high based on the interpretation scale, indicating that the savings and loan cooperatives in this study have used information technology systems that are sufficiently sophisticated and meet operational needs. This includes the use of accounting software that supports digital and integrated financial processes. The standard deviation of 1.696 indicates that the distribution of respondents' answers is relatively small, meaning that their perceptions of the level of information technology sophistication in their respective cooperatives are quite uniform. This may reflect that most cooperatives have adopted technology systems with a relatively equivalent level of sophistication, possibly due to the existence of standard application usage recommended or assisted by third parties such as cooperative application providers.

Classical Assumption Test Results

1) Normality Test

Table 4. Normality Test Results

	Unstandardized Residual
N	112
Test Statistics	0.066
Asymp.Sig (2-tailed)	0.200

Source:Primary Data Processed, 2025

Based on Table 4, the results of the normality test using the Kolmogorov-Smirnov statistical test show that the Asymp. Sig. (2-tailed) value is 0.200 > alpha 0.05. Therefore, it can be concluded that the residual value of the regression model in this study is normally distributed.

2) Multicollinearity Test

Table 5. Multicollinearity Test Results

Variables	Tolerance	VIF	Information
Education Level (X1)	0.714	1,400	Free from multicollinearity
Job Training (X2)	0.720	1,389	Free from multicollinearity
Advanced Information Technology (X3)	0.729	1,372	Free from multicollinearity

Source: Processed Primary Data, 2025

Based on Table 5, it can be seen that the tolerance value for the education level variable is 0.714 > 0.10 and VIF 1.400 < 10; the job training variable has a tolerance

value of 0.720 > 0.10 and VIF .389 < 10; and the information technology sophistication variable has a tolerance value of 0.729 > 0.10 and VIF 1.372 < 10. It can be said that each independent variable has a tolerance value of more than 0.10 and a VIF value of less than 10 so that it can be concluded that the regression model in this study is free from multicollinearity symptoms.

3) Heteroscedasticity Test

Table 6. Heteroscedasticity Test Results

Variables	Significance	Information
Education Level (X1)	0.144	Free of heteroscedasticity
Job Training (X2)	0.537	Free of heteroscedasticity
Advanced Information Technology (X3)	0.648	Free of heteroscedasticity

Source: Processed Primary Data, 2025

Table 6 shows that the education level variable has a Sig. value of 0.144, the job training variable has a Sig. value of 0.537, and the information technology sophistication variable has a Sig. value of 0.648. When compared, each independent variable has a significance value of more than 0.05 against the absolute residual, so it can be concluded that the regression model in this study is free from symptoms of heteroscedasticity.

Results of Multiple Linear Regression Analysis

Table 7. Results of Multiple Linear Regression Analysis Test

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std.Error	Beta		
(Constant)	0.384	0.827		0.210	0.834
Education Level (X1)	0.452	0.116	0.296	3,889	0,000
Job Training (X2)	0.445	0.078	0.435	5,728	0,000
Advanced Information Technology (X3)	0.270	0.196	0.187	2,475	0.015

Source: Processed Primary Data, 2025

Based on the results of the multiple linear regression analysis which can be seen in Table 7, the linear regression equation can be written as follows:

$\widehat{Y}$ = -0.384 + 0.452X1 + 0.445X2 + 0.270X3………………………………..……(2)

Information :

α = Constant

Y = Effectiveness of Accounting Information System

X1 =Level of education

X2 =Job Training

X3 =Sophistication of Information Technology

The results of the multiple linear regression equation above can be interpreted as follows.

1) The constant value in the regression equation is -0.384. This means that mathematically, if all independent variables in this study—namely, education level, job training, and

information technology sophistication—were zero or absent, the effectiveness of the accounting information system (AIS) would be predicted to be negative, amounting to -0.384 units. However, in the operational reality of savings and loan cooperatives, a situation where all independent variables are zero is almost impossible. All cooperatives certainly have a certain level of education among their human resources, have undergone job training, and use certain forms of information technology. Therefore, this negative constant value has no real practical significance, but is rather a consequence of the statistical calculation model. Overall, the presence of a negative constant does not diminish the validity of the regression model, as the main focus of this study lies in the positive influence of each independent variable on the effectiveness of the accounting information system.

2) Education Level (X1) The regression coefficient for the education level variable is 0.452 with a significance value of 0.000 ($p < 0.05$). This indicates that education level has a positive and significant effect on the effectiveness of the accounting information system. This means that every one-unit increase in education level will increase the effectiveness of the accounting information system by 0.452 units, assuming other variables are constant.
3) Job Training (X2) The regression coefficient for the job training variable is 0.445 with a significance value of 0.000 ($p < 0.05$). This means that job training also has a positive and significant effect on the effectiveness of the accounting information system. Each one-unit increase in job training will increase the effectiveness of the accounting information system by 0.445 units, assuming other variables remain constant.
4) Information Technology Sophistication (X3) The regression coefficient for information technology sophistication is 0.270 with a significance value of 0.015 ($p < 0.05$). This indicates that information technology sophistication also has a positive and significant effect on the effectiveness of accounting information systems. Every one unit increase in information technology sophistication will increase the effectiveness of accounting information systems by 0.270 units, assuming other variables are constant.

This value is lower than the Education Level (X1) variable of 0.452 and Job Training (X2) of 0.445. In general, this does seem to contradict the initial assumption that information technology is a major factor in supporting the effectiveness of accounting information systems. However, this finding can still be explained logically and contextually. The low contribution of variable X3 can be attributed to the level of information technology utilization that is still not optimal in savings and loan cooperatives in Denpasar City. Although the technology used is sophisticated, not all employees are able to utilize it optimally. The results of respondent characteristics show that most respondents only have a frequency of job training 1-5 times (77.7%), which indicates a limitation in in-depth and understanding of the technology used. This impacts the effectiveness of technology use in accounting information systems. Thus, it can be concluded that in this context, technology is only a tool, while the quality of human resources remains the main determinant.

Results of the Coefficient of Determination (R2) Test

Table 8. Results of the Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	0.743a	0.552	0.539	1.65472

Source: Processed Primary Data, 2025

Based on the results of the coefficient of determination test in Table 8, the Adjusted R Square value was 0.539. This value indicates that 53.9% of the variation in accounting information system effectiveness can be explained by the three independent variables in the model: education level, job training, and information technology sophistication. Meanwhile, the remaining 46.1% is explained by other factors outside the model that were not examined in this study.

Model Feasibility Test Results (F Test)

Table 9. Results of Model Feasibility Test (F Test)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	363,777	3	121,259	44,286	0.000b
Residual	295,714	108	2,738		
Total	659,491	111			

Source: Processed Primary Data, 2025

Based on the analysis results in Table 9, the calculated F value was 44.286 with a significance value of 0.000 ($p < 0.05$). This indicates that the regression model developed in this study is suitable for predicting the effectiveness of accounting information systems. Therefore, it can be concluded that education level, job training, and information technology sophistication simultaneously have a significant effect on the effectiveness of accounting information systems in savings and loan cooperatives in Denpasar City.

Hypothesis Testing

Table 10. Statistical Results Test (t-Test)

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-,384	1,827		-,210	0.834
Education Level (X1)	0.452	0.116	0.296	3,889	0,000
Job Training (X2)	0.445	0.078	0.435	5,728	0,000
Advanced Information Technology (X3)	0.270	0.109	0.187	2,475	0.015

Source: Processed Primary Data, 2025

Based on the results of the hypothesis test in Table 10, it can be explained as follows:

1) Hypothesis Testing 1 (H1)

   Based on the hypothesis test in Table 10, the results of the analysis of the influence of education level (X1) on the effectiveness of AIS (Y), obtained a positive regression coefficient of 0.452 with a calculated t value of 3.889 and a significance value of 0.000. The positive regression coefficient value of 0.452 ($\beta > 0$) and the significance of the education level of 0.000 is smaller than $\alpha = 0.05$ ($0.000 < 0.05$) which indicates that H0 is rejected and H1 is accepted. This means that the education level variable (X1) has a positive and significant effect on the effectiveness of the accounting information system (Y).

2) Testing Hypothesis 2 (H2)

   Based on the hypothesis test in Table 10, the results of the analysis of the influence of job training (X2) on the effectiveness of AIS (Y), obtained a positive regression

coefficient of 0.445 with a calculated t value of 5.728 and a significance value of 0.000. The positive regression coefficient value of 0.445 (β > 0) and the significance of job training of 0.000 is smaller than α = 0.05 (0.000 < 0.05) which indicates that H0 is rejected and H1 is accepted. This means that the job training variable (X2) has a positive and significant effect on the effectiveness of the accounting information system (Y).

3) Testing Hypothesis 3 (H3)

Based on the hypothesis test in Table 10, the results of the analysis of the influence of job training (X3) on the effectiveness of AIS (Y), obtained a positive regression coefficient of 0.270 with a calculated t value of 2.475 and a significance value of 0.015. The regression coefficient value is positive at 0.270 (β > 0) and the significance of information technology sophistication of 0.015 is smaller than α = 0.05 (0.000 < 0.05) which indicates that H0 is rejected and H1 is accepted. This means that the variable of information technology sophistication (X3) has a positive and significant effect on the effectiveness of the accounting information system (Y).

Discussion

Effect of Education Level on AIS Effectiveness

Hypothesis testing (t-test) reveals a positive and significant effect of education level on the effectiveness of AIS, with a significance value of 0.000 (p < 0.05) and a regression coefficient of 0.452. This suggests that the higher the educational attainment of an individual, the more effectively they are able to understand, operate, and utilize AIS. Education reflects the quality of human resources in terms of conceptual knowledge, technical understanding, and adaptability to information systems. Educated individuals are better equipped to interpret data, manage information flows, and make strategic decisions using system-generated outputs.

Within the framework of TAM (Davis, 1989), education level contributes to the formation of perceived usefulness (PU). Individuals with higher education are more likely to appreciate how technology enhances efficiency and accuracy, leading to greater system acceptance. Prior studies by Dewi & Latrini (2020), Diatmika & Widhiyani (2021), Zalukhu & Hutauruk (2022), Ribeiro & Putra (2023), and others support the finding that education has a positive influence on AIS effectiveness.

Effect of Job Training on AIS Effectiveness

Hypothesis testing shows a positive and significant influence of job training on AIS effectiveness, with a significance value of 0.000 (p < 0.05) and a regression coefficient of 0.445. This supports the second hypothesis and emphasizes the role of training in enhancing user skills and confidence when interacting with the system. Effective training equips users with the technical knowledge and practical experience needed to utilize AIS efficiently, aligning with findings by Agustina & Sari (2020), Cahyani & Putra (2024), and others.

According to TAM, training directly influences perceived ease of use and perceived usefulness, which in turn affect technology acceptance. Training serves as a vehicle to build these perceptions by offering hands-on experience and structured guidance, ultimately improving system effectiveness.

Effect of IT Sophistication on AIS Effectiveness

The t-test result shows that IT sophistication has a positive and significant impact on AIS effectiveness, with a significance level of 0.015 ($p < 0.05$) and a regression coefficient of 0.270. This implies that more advanced IT systems lead to more efficient accounting processes and better decision-making. However, it is notable that the coefficient is the lowest among the three independent variables, suggesting that despite its positive impact, the full potential of IT has not yet been realized across all cooperatives.

The variation in perceived IT sophistication may be due to differences in software used, with some cooperatives still relying on basic or partially integrated systems. Some respondents expressed disagreement regarding the sophistication of their current systems, indicating inconsistent exposure to or experience with advanced features like automation and real-time integration.

This finding supports the argument that the effectiveness of AIS is not determined solely by technological advancement, but also by the preparedness and capability of its users. As emphasized by TAM and the Theory of Reasoned Action (TRA), successful technology adoption depends on the user's perceptions of usefulness and ease of use, both of which are shaped by training, familiarity, and individual readiness.

These results are consistent with prior research by Putri & Srinadi (2020), Lorenzo et al. (2020), Paramitha & Supadmi (2023), and others, which found a significant positive relationship between IT sophistication and AIS effectiveness.

CONCLUSION

This study examined the influence of education level, job training, and IT sophistication on the effectiveness of accounting information systems in savings and loan cooperatives in Denpasar City. The sample comprised 112 respondents from 56 active cooperatives that utilize accounting software in their daily operations.

Based on the data analysis and hypothesis testing, the following conclusions can be drawn:

1. Education Level has a significant and positive effect on AIS effectiveness. Employees with higher educational qualifications are better equipped to comprehend and operate AIS, leading to improved system performance.
2. Job Training significantly enhances AIS effectiveness. Frequent and relevant training increases user competence and confidence in using AIS, thereby improving system efficiency and accuracy.
3. IT Sophistication positively influences AIS effectiveness. The use of advanced, user-friendly technologies supports accurate data processing, speeds up transaction recording, and enhances decision-making processes.

These findings highlight the importance of both human and technological factors in ensuring the successful implementation and utilization of AIS in cooperatives. For maximum impact, investments in technology must be accompanied by parallel efforts to develop human resources through education and continuous training.

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