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Determinants of Perceived Accounting Information System Use Success in Village Credit Institutions: Evidence from a Full-Adoption Setting

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ABSTRACT

Purpose – This study examines factors associated with Perceived Accounting Information System Use Success (AISS) among Village Credit Institution (LPD) employees in Denpasar, Bali, focusing on perceived post-adoption outcomes following universal AIS implementation in 2025.
Design/methodology/approach – Data from 397 AIS users were collected using a seven-point Likert questionnaire and analyzed through PLS-SEM with 5,000 bootstrap resamples, supplemented by predictive, non-linear, heterogeneity, clustering, and endogeneity diagnostics.
Finding/Results – Perceived Ease of Use (PEOU; $\beta = 0.693$, $p < 0.001$) and Perceived Usefulness (PU; $\beta = 0.326$, $p < 0.001$) showed significant positive associations with AISS. ATC, Firm Size, and all hypothesized moderation effects were insignificant. The model explained 79.6% of AISS variance ($R^2 = 0.796$; adjusted $R^2 = 0.792$). PU exhibited significant positive quadratic curvature ($\beta = 0.059$, $p = 0.014$). Cluster-aware analyses confirmed positive PEOU and PU associations, while ATC inference remained clustering-sensitive. Gaussian Copula diagnostics indicated potential endogeneity in PEOU and PU.
Originality/Value– This study distinguishes organizational AIS adoption from perceived post-adoption use success. It highlights the importance of perceived ease of use and usefulness, while demonstrating limited incremental contributions from ATC and Firm Size. Findings represent statistical associations rather than causal effects.

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Keywords:
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1. Introduction

Digital transformation has changed financial transaction processing, reporting, internal control and managerial decision making. Hence, Accounting Information Systems (AIS) has become a significant organizational resource for operational efficiency, information quality, governance and sustainability (Liew et al., 2022; Yigitbasioglu et al., 2022). However, when AIS become embedded in organizational routines, an important research question shifts from whether an organization adopts the system to whether employees perceive that an already implemented system is beneficial, usable on a continuing basis, and worth using as improved versions become available.

The AIS research was guided by Technology Acceptance Model (TAM), Diffusion of Innovation (DOI), Technology-Organization-Environment (TOE) and Unified Theory of Acceptance and Use of Technology (UTAUT). These perspectives set the importance of perceptions of technology and organizational conditions in terms of technology acceptance and use. Recent studies have found that perceived usefulness (PU), perceived ease of use (PEOU), organizational capability, technological readiness and management support are relevant to AIS implementation and effectiveness (Agostino et al., 2021; Ayu et al., 2024; Jans, 2022; Putu et al., 2024). However, there is still relatively little evidence on perceived success of using an AIS after the organizational implementation has already taken place, as much of the literature still focuses on initial acceptance or adoption.

This issue is very relevant to the Village Credit Institutions (Lembaga Perkreditan Desa or LPD) in Denpasar City, Bali. Institutional data suggest that all 35 LPDs in Denpasar had implemented AIS by 2025. Since implementation is universal, organizational adoption does not offer any meaningful variation to explain the outcome of interest. Therefore, the setting allows the study to focus on employees who are already using AIS and to investigate Perceived AISS as a post-adoption perceptual outcome rather than an indicator of initial adoption.

The modernization of community-based financial institutions is also relevant when considering Denpasar LPD. Studies of digital transformation and studies of the AIS effectiveness in LPDs have focused on technological and organizational factors (Darmayasa, 2024; Putu et al., 2024). However, these studies do not answer fully whether the perceptions of the employees on technology are associated with perceived success in using AIS, once the implementation is already pervasive across the studied organizations.

Davis (1989) developed the Technology Acceptance Model based on the constructs of Perceived Usefulness and Perceived Ease of Use. PU is the degree to which an individual believes that using a system would enhance his/her work performance. PEOU is the degree of ease associated with the use of the system. These beliefs are relevant to AIS because employees interact directly with the system in transaction processing, accounting-information preparation, reporting, and support of managerial decisions.

However, perceptions of technology are contextually embedded in organizations. An AIS may be perceived as useful and easy to use, but the employees may differ in their readiness to respond to organizational change or in the organizational resources that can support the system. Therefore, this study considers Attitude Toward Change (ATC) and Firm Size as contextual variables along with the two core TAM perceptions.

The relevance of ATC is that AIS-related changes can affect work procedures, responsibilities and organizational routines. Employees who are more change-accepting may be more likely to adjust to updated procedures and system upgrades. Earlier studies have also revealed that the readiness for change is related to digital transformation and use of technology (Mujalli et

al., 2025; Musyaffi et al., 2025). But once AIS is embedded in routine work, the marginal contribution of AIS may be reduced.

Size of the firm captures differences in organizational resources that may support the use of technology. Such resources include financial resources, infrastructure, managerial capability and human capital. Larger organizations may be more able to offer technical support and training (Babalghaith & Aljarallah, 2024; Faiz et al., 2024; Kallmuenzer et al., 2025; Romero & Mammadov, 2025). However, such resource differences may have limited incremental explanatory value for employees' perceived AIS use success, when the system has previously been implemented across all organizations in the setting.

Thus, the study examines PU and PEOU as user-level predictors of Perceived AIS Use Success and also tests ATC and Firm Size as direct contextual predictors and moderators. The paper intentionally uses the terms full-adoption or post-adoption setting rather than the broader term of digital maturity because universal AIS implementation and user experience alone do not create broader digital maturity in infrastructure, governance, interoperability, or strategic digital capability.

The study examines three research questions: (1) Is PU and PEOU positively related to Perceived AIS Use Success after AIS implementation? (2) The Relationship between ATC and Firm Size and Perceived AIS Use Success. (3) Do ATC and Firm Size moderate the effects of users' technology perceptions on Perceived AIS Use Success? We contribute by differentiating between initial organizational adoption and post-adoption perceived use success, by examining the enduring relevance of TAM perceptions after universal implementation, and by evaluating whether contextual organizational factors moderate these relationships in community-based financial institutions.

2. Literature Review & Hypothesis Development

2.1 Technology Acceptance and Post-Adoption Perceived AIS Use Success

One of the most widely used models to explain technology acceptance and use is the Technology Acceptance Model. TAM identifies Perceived Usefulness and Perceived Ease of Use as core beliefs. These constructs are especially relevant to AIS because accounting systems are directly used by employees to record transactions, prepare financial information and support managerial processes.

This study extends the initial organizational decision to adopt AIS and focuses on employees who are already using an established system. Post-adoption use can result in ongoing system evaluation based on accumulated experience. Thus, the dependent construct is defined specifically as Perceived AIS Use Success. AISS measures the user's perception that the organization benefits from the use of AIS, continues using the system and is willing to use improved or newer versions when available. Thus, it is not a measure of the initial adoption nor an objective measure of the system performance or the actual usage logs.

Perceived AIS Use Success is conceptually different from PU and PEOU. PU is an employee's perception that AIS enhances his/her work performance, productivity, effectiveness or decision support while PEOU is the effort required to learn and operate the system. AISS is an outcome focused construct for post adoption which includes perceived organizational benefit, continued use and willingness to use updated systems. These four AISS items were adapted from Lee (2020) and were intended to capture these post-adoption perceptions rather than ease of use or individual performance.

2.2 PU and Perceived AIS Use Success

Perceived Usefulness is the extent to which a person believes that using a particular system would improve his or her job performance, productivity, effectiveness, or decision making. Usefulness in AIS can be shown in more efficient processing of transactions, availability of accounting information, reporting support, and better work performance. PU is theoretically different from AISS because PU is a user-level cognitive belief about the utility of AIS, whereas AISS is a post-adoption evaluation of perceived organizational benefit and continued or future use.

Recent empirical research indicates usefulness as an important factor in accounting-technology use (Magboul, et al., 2024; Mujalli et al., 2025; Rodi, 2026). Other accounting studies also discuss technology acceptance and AIS effectiveness (Handayani et al., 2021; Larasati et al., 2025; Nur & Fitrios, 2025; Pawitri & Anggara, 2025). These studies provide a basis to expect that employees perceiving more practical utility from AIS will report higher levels of perceived use success.

In the present post-adoption context, perceived usefulness may refer to the employees' evaluations of whether AIS adds to their job and the organisation's continued use of the system. Higher PU is thus expected to be associated with higher perceived AIS Use Success.

H1: Perceived Usefulness is positively associated with Perceived AIS Use Success.

2.3 PEOU and Perceived AIS Use Success

Perceived ease of use is the degree to which a person believes that using a particular system would be free of effort. It's about learnability, clarity, flexibility and ease of operation. In this study, PEOU is differentiated from AISS in that PEOU refers to the effort-related attributes of AIS from the user's perspective, whereas AISS is a post-adoption outcome relating to perceived organizational benefit and continued or future use.

Ease of use is particularly important in AIS environments as employees interact with the system repeatedly for operational accounting and reporting activities. Evidence from previous studies shows that PEOU is related to the acceptance and use of accounting-system (Handayani et al., 2021; Mujalli et al., 2025; Musyaffi et al., 2025; Yaputri & Widuri, 2024).

The relevance of PEOU may extend beyond initial acceptance since experienced users often use AIS. Such a system may be easier to learn and use, and easier to incorporate into routine work. Thus, it is hypothesized that Perceived Ease of Use will have a positive relationship with Perceived AIS Use Success.

H2: Perceived Ease of Use is positively associated with Perceived AIS Use Success.

2.4 ATC and Perceived AIS Use Success

Employees may need to change existing work practices when introducing or upgrading technology. Attitude toward Change (ATC) is the readiness and willingness of employees to accept and respond to organizational change.

Employee openness to change has been considered before as an organizationally relevant resource. Employees more receptive to change can foster the adoption of technology into organizational routines. Research also associates readiness for change with digital transformation and the use of technology (Mujalli et al., 2025; Musyaffi et al., 2025).

LPDs may require employees to adapt traditional procedures and integrate digital technology into the financial and operational dimensions. Thus, it can be expected that employees with a more positive attitude toward organizational change report a higher perceived success in the use of AIS.

However, in a situation where AIS has been rolled out to all 35 LPDs, the direct contribution of ATC might be less obvious. When embedded in routine work, general attitudes to

organizational change may be less important than perceptions of the system itself. However, ATC remains theoretically relevant because of the potential for AIS to evolve through system updates, revised procedures and organizational changes.

H3: Attitude Toward Change is positively associated with Perceived AIS Use Success.

2.5 Firm Size and Perceived AIS Use Success

The size of the firm proxies for differences in organizational resources and capabilities. Larger organizations may have more financial resources, technological infrastructure, managerial capability and human capital to support, maintain and upgrade information systems.

Resource-based arguments are that organizational resources can be used to aid technology implementation and capability development. Related empirical studies associate organizational characteristics and digital-technology outcomes with differences in resources and capabilities (Babalghaith & Aljarallah, 2024; Faiz et al., 2024; Kallmuenzer et al., 2025; Romero & Mammadov, 2025; Putri et al., 2023).

Larger institutions may have a larger bandwidth to provide technical assistance, maintain infrastructure, train staff, and support AIS for LPDs. Such resources may enable employees to feel they succeeded in using an implemented system.

All 35 LPDs in Denpasar will be simultaneously implementing AIS by 2025. Thus, the explanatory incremental value of organizational size for a post-adoption perceptual outcome may have been limited. This means Firm Size is an empirical question rather than a determinant of Perceived AIS Use Success.

H4: Firm Size is positively associated with Perceived AIS Use Success.

2.6 Moderating Role of Attitude Toward Change

Employees' willingness to adapt to organizational change in how technology perceptions are translated may affect the use of technology after adoption. If employees resist work practice changes, positive perceptions of the usefulness of AIS may not lead to perceived use success, but perceived ease of use may be more practically valuable when employees are willing to adapt their routines.

Employees who are more adaptive might be better able to turn positive technology perceptions into continued and beneficial usage. Positive attitudes toward organizational change can reduce resistance and support technology use (Lee et al., 2023; Agostino et al., 2021; Jans, 2022).

Thus, ATC can serve as a boundary condition, where PU and PEOU are more strongly related to Perceived AIS Use Success. However, this moderation might be weaker in a post-adoption context since AIS is integrated into the routines of all 35 LPDs.

H5: Attitude Toward Change positively moderates the association between PU and Perceived AIS Use Success.

H6: Attitude Toward Change positively moderates the association between PEOU and Perceived AIS Use Success.

2.7 Moderating Role of Firm Size

Organizational resources may affect the degree to which positive technology perceptions are translated into perceived success in AIS use. Larger LPDs may be able to provide better infrastructure, managerial support, employee training and technical assistance.

Previous studies have argued that organizational scale and resources can affect technology implementation and AIS-related outcomes (Al-hattami & Almaqtari, 2023; Hakiki, 2023; Yigitbasioglu et al., 2022; Putri et al., 2023). These arguments imply that the effect of user perceptions of usefulness or ease of use on post-adoption use success may be conditioned by Firm Size.

But the 35 LPDs have all adopted AIS, providing an environment where the incremental effect of organizational scale can be tested directly. Firm Size may matter if resource differences continue to shape employee experience after implementation, but the moderating role of Firm Size should be treated as an empirical proposition.

H7: Firm Size positively moderates the association between PU and Perceived AIS Use Success.

H8: Firm Size positively moderates the association between PEOU and Perceived AIS Use Success.

2.8 Research Gap and Conceptual Framework

Existing AIS research has provided sufficient evidence that technology perceptions and organizational conditions are relevant to technology acceptance and implementation. One question left open is whether these factors are still associated with perceived success in using AIS after organizational implementation has become universal. This study fills that gap by studying 397 employees from all 35 LPDs in Denpasar where AIS Implementation reached 100% by 2025.

The study also deals with the measurement distinction between adoption and post-adoption outcomes by defining AISS as a perceived outcome after implementation, rather than as a generic information-system success index. AISS measures the perceived benefit for the organization, the continued use and the intention to use improved versions of AIS. This positioning permits TAM to continue to be the dominant explanatory framework while explicitly recognizing the post-adoption nature of the dependent construct.

The conceptual model proposed here considers the direct relationships of PU, PEOU, ATC, and Firm Size with AISS and the moderating effects of ATC and Firm Size. The hypotheses concern perceptions of post-adoption use success rather than objective system performance, actual usage frequency, or initial organizational adoption.

3. Methodology

3.1. Research Design and Context

This study aims to examine factors related to Perceived AIS Use Success on employees of Village Credit Institutions (LPDs) in Denpasar City, Bali, Indonesia. By 2025 all 35 LPDs had implemented AIS. This condition of full adoption provides a setting for examining post adoption perceptions rather than the organizational decision to implement AIS.

The 35 LPDs vary in the number of respondents and in organizational size. Across institutions, the status of AIS implementation is a common measure, and not one indicative of broader digital maturity. Rather the setting is described as a full adoption, institutionalized or experienced post-adoption environment. This more limited terminology does not equate universal implementation with broader digital transformation maturity.

Eligible respondents were employees with first-hand experience of AIS use. Measures of PU, PEOU, ATC, and AISS at the individual level were obtained. LPD identifiers were kept for clustering diagnostics. The Firm Size was analyzed as an observed organisational-level variable because the value is common to respondents from the same LPD.

3.2. Sampling

The population was employees of the 35 LPDs in the city of Denpasar. In the case of purposive sampling, the only inclusion criterion was that the respondent should be an employee who had used the AIS in the institution. Out of 561 distributed questionnaires, 397 (70.77%) were returned and usable, while 164 (29.23%) were not returned. No questionnaire that was

returned was excluded. Thus the final analytical sample consisted of 397 respondents (70.8% return rate).

Staffing levels and numbers of eligible AIS users differed across institutions, and respondents were not evenly distributed across LPDs. The observed clustering was not artificially equalized, but preserved. We examined ICC and design-effect diagnostics as respondents were nested within 35 LPDs, and considered cluster-aware sensitivity results when interpreting the organisational-level variables and ATC.

Flow of respondents: 35 LPDs -> employee population -> 561 questionnaires distributed -> 397 returned and usable -> 164 not returned -> 397 respondents analyzed.

The final sample was therefore 397 individual AIS users nested within 35 LPDs. The average number of respondents per LPD was 11.34, the median was 8 and the observed range was 3–37 respondents per LPD. These numbers matter because Firm Size varies at the LPD level, so the effective independent information for that predictor is a function of the number of institutions, not just the number of individual respondents.

A priori power analysis for multiple regression/PLS-SEM indicated that 109 observations are needed to detect a medium effect ($f^2 = 0.15$) with eight structural predictors, $\alpha = 0.05$, and 80% power. At the individual level, about 395 observations are needed for a small effect size (f2 = 0.02). Then the approximation leads us to N = 397 sufficient for small effects on the individual level. This does not mean equal power of organizational level effects since Firm Size is only varied across 35 LPDs.

3.3. Data Collection

Data were collected through a structured questionnaire adapted from previously validated scales and modified to the context of LPD. The instrument was pretested for clarity and contextual appropriateness prior to administration. All perceptual constructs were measured using a seven-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. Participation was voluntary and anonymous.

The perceptions and experiences of the respondents on using AIS were measured using a seven-point scale. The considerable AIS experience of the respondents is consistent with the post-adoption framing. Out of 397 respondents, 309 (77.9%) reported more than five years of AIS use.

The level of experience is relevant as the study does not investigate whether the respondents' organizations had implemented AIS in the first place. Instead, respondents are asked to evaluate an AIS they have already interacted with, and therefore the dependent construct can be focused on perceived organizational benefit, continued use and willingness to use improved versions.

3.4. Measures

Five constructs were investigated: PU, PEOU, ATC, Firm Size and Perceived AIS Use Success (AISS). Six TAM indicators related to performance, productivity, efficiency and usefulness were used to measure PU. PEOU was measured using six indicators of learnability, clarity, flexibility, skill acquisition, and ease of operation. Six indicators of willingness and readiness to respond to organizational change were used to measure ATC. Firm Size was an observed variable reflecting the organizational level based on total assets. AISS was assessed using four post-adoption indicators adapted from Lee (2020).

Total assets were aggregated at the LPD level. The prespecified cutoff was the median of the 35 LPD total-asset observations, IDR 72,568,225. LPDs with total assets less than the cutoff were coded as 0 (small) and LPDs with total assets greater than or equal to the cutoff were coded as 1 (large). Under this rule, 17 LPDs were small and 18 were large. Of the LPD

respondents, 103 were small and 294 were large. SIZE is therefore an observed dummy at the organizational level rather than a latent perceptual construct.

AISS is not conceived as a combination of system quality, information quality, user satisfaction or objective net benefits. The four items measure perceived organizational benefits of using AIS, continued use and willingness to use newer versions. AISS1 in particular relates to the organisation's desire to gain innovative benefits from the information system. AISS2 relates to expected organizational benefits. AISS3 relates to continued use. AISS4 relates to willingness to use the latest information system when possible. Because objective performance outcomes and actual system-use logs were not available, AISS is interpreted as a perceived post-adoption outcome only.

3.5. Data Analysis

Data were analyzed using PLS-SEM in SmartPLS with 5,000 bootstrap resamples. Outer loadings, internal consistency reliability, convergent validity and discriminant validity were used to assess the measurement model. Structural model was evaluated by collinearity, path coefficient, R^2, adjusted R^2, f^2 and predictive relevance. Moderation was examined with interaction terms. Additional diagnostic and sensitivity analyzes were conducted, including PLSpredict, CVPAT, quadratic effects, FIMIX-PLS, ICC/design effects and cluster-aware sensitivity analysis, a continuous log-assets specification, and Gaussian Copula endogeneity diagnostics.

The Gaussian Copula procedure was conducted following Park and Gupta (2012) and Hult et al. (2018). It was used as a diagnostic test, not as evidence that endogeneity had been eliminated. Because the cross-sectional design lacks temporal precedence, significant copula terms are interpreted as suggesting potential endogeneity and a reason to refrain from strong causal language. The unit of clustering for cluster-aware sensitivity analysis was LPD. For Firm Size, we used the pre-specified total-assets cutoff in the main specification, but tested a continuous natural-log-assets specification as a robustness check.

4. Result and Discussion

4.1 Respondent Profile

Table 1 shows the demographic characteristics of the 397 participants. Respondents were AIS users in all 35 LPDs in Denpasar City. The sample was composed of 55.2% males and 44.8% females, 75.5% were above 35 years old, 47.3% had a bachelor's degree and 77.9% reported having used AIS for more than five years. Table 2 also shows the distribution of respondents based on LPDs and the Firm Size classification.

Table 1. Respondent Characteristics

Respondent Characteristics	Category	Frequency (f)	Percentage (%)
Gender	Male	219	55.2%
	Female	178	44.8%
	Total	397	100%
Age	Under 26 yrs	11	2.8%
	26 - 35 yrs	86	21.7%
	36 - 45 yrs	147	37.0%

	Over 45 yrs	153	38.5%
	Total	397	100%
Highest Educational Attainment	Senior High School	161	40.6%
	Diploma (Associate Degree)	37	9.3%
	Bachelor's Degree	188	47.3%
	Master's Degree	11	2.8%
	Total	397	100%
Current Position	Manager	43	10.8%
	Secretary	55	13.9%
	Treasurer	62	15.6%
	Head of Funding Division	32	8.1%
	Head of Credit Division	48	12.1%
	Others	157	39.5%
	Total	397	100%
Length of Accounting Information System Usage	1 yr	13	3.3%
	2 yrs	18	4.5%
	3 yrs	22	5.5%
	4 yrs	15	3.8%
	5 yrs	20	5.0%
	> 5 yrs	309	77.9%
	Total	397	100%

Source: Processed Data, (2026)

Table 2. Respondents by LPD and Firm Size Classification

LPD	Respondents (n)	SIZE
Anggabaya	7	Small (0)
Bekul	11	Large (1)
Cengkilung	4	Small (0)
Denpasar	6	Small (0)
Intaran	20	Large (1)
Jenah	5	Small (0)

Kedua	4	Small (0)
Kepaon	20	Large (1)
Kesiman	37	Large (1)
Laplap	6	Small (0)
Oongan	5	Small (0)
Padangsambian	23	Large (1)
Pagan	3	Small (0)
Panjer	21	Large (1)
Pedungan	24	Large (1)
Peguyangan	17	Large (1)
Pemogan	17	Large (1)
Penatih	6	Large (1)
Penatih Puri	4	Small (0)
Peninjoan	7	Small (0)
Penyaringan	8	Small (0)
Peraupan	6	Small (0)
Poh Gading	17	Large (1)
Pohmanis	9	Small (0)
Renon	13	Small (0)
Sanur	9	Large (1)
Serangan	4	Small (0)
Sesetan	15	Large (1)
Sidakarya	19	Large (1)
Sumerta	11	Large (1)
Tanjung Bungkak	13	Large (1)
Tembawu	6	Large (1)
Tonja	6	Small (0)
Ubung	8	Large (1)
Yangbatu	6	Small (0)

Source: Processed Data, (2026)

4.2 Outer Loadings

The measurement model was first tested through outer loadings. All indicators had loadings ranged from 0.781 to 1.000, which is above common standard of 0.70 for indicator reliability in PLS-SEM. The AISS indicators ranged from 0.822 to 0.894, ATC from 0.823 to 0.870, PEOU from 0.781 to 0.854 and PU from 0.894 to 0.915. Loading criterion no indicator removal.

The six indicators reflect a tightly related perception of AIS usefulness as evidenced by the consistently high PU loadings. The AISS, ATC and PEOU indicators also exhibit acceptable indicator reliability. These findings are consistent with the construct of the intended measurement. The interpretation of AISS is explicitly limited to perceived post-adoption use success as described above.

The dummy variable is an observed dummy variable that captures SIZE. Its value of 1.000 represents a mathematical artifact of the single-item specification and should not be taken as evidence of greater measurement reliability than the multi-item constructs. In general, the loading results support the retention of the specified indicators for further reliability, validity, and structural analyzes.

Table 3. Outer Loadings

Item	AISS	ATC	PEOU	PU	SIZE

AISS1	0.822				
AISS2	0.894				
AISS3	0.889				
AISS4	0.891				
ATC1		0.849			
ATC2		0.853			
ATC3		0.829			
ATC4		0.87			
ATC5		0.823			
ATC6		0.85			
PEOU1			0.781		
PEOU2			0.815		
PEOU3			0.795		
PEOU4			0.786		
PEOU5			0.854		
PEOU6			0.817		
PU1				0.906	
PU2				0.915	
PU3				0.898	
PU4				0.894	
PU5				0.901	
PU6				0.902	
SIZE DUMMY					1

Source: Processed Data, (2026)

Note. AISS = Perceived AIS Use Success; ATC = Attitude Toward Change; PEOU = Perceived Ease of Use; PU = Perceived Usefulness; SIZE = Firm Size dummy.

4.3 Reliability and Validity

The results for reliability and convergent-validity show that the multi-item constructs have satisfactory internal consistency. Cronbach's alpha values ranged from 0.897 to 0.955. Composite reliability (rho_a and rho_c) ranged from 0.900 to 0.964. AVE ranged from 0.654 to 0.815. All values are higher than commonly used minimum values of 0.70 for reliability and 0.50 for AVE.

AISS has Cronbach's alpha of 0.897, rho_a of 0.900, rho_c of 0.929 and AVE of 0.765. The corresponding values for ATC are 0.922, 0.949, 0.938, and 0.716, for PEOU are 0.897, 0.914, 0.919, and 0.654, and for PU are 0.955, 0.955, 0.964, and 0.815.

These results provide good internal consistency and convergent validity for the multi-item constructs. The lowest AVE is for PEOU, but the value is still above the recommended threshold of 0.654. Therefore, there is no sign of insufficient convergent validity based on reliability and AVE statistics reported.

The results are consistent with former PLS-SEM studies that employ Cronbach's alpha, composite reliability, and AVE as measures of internal consistency and convergent validity (Lutfi, 2023; Rapina et al., 2023; Sunarta & Astuti, 2023; Thuy, 2025).

Table 4. Reliability and Validity

Item	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
AISS	0.897	0.900	0.929	0.765
ATC	0.922	0.949	0.938	0.716
PEOU	0.897	0.914	0.919	0.654
PU	0.955	0.955	0.964	0.815

Source: Processed Data, (2026)

4.4 Heterotrait–Monotrait Ratio (HTMT)

The discriminant validity was tested using HTMT. The PEOU–AISS point estimate is 0.892, which is below the usual 0.90 cut-off, but the bootstrap 95% confidence interval is [0.861, 0.922]. Since the upper confidence limit is greater than 0.90, discriminant validity between PEOU and AISS cannot be considered to be sufficiently established. This finding demands a cautious interpretation of the strong PEOU – AISS relationship.

Other HTMT values are considerably lower and range from 0.033 to 0.690. The items also differ in the conceptual content. PEOU relates to effort, learnability, clarity and ease of operation. AISS relates to perceived organizational benefits, continued use and willingness to use improved systems. This differentiation between item and content underpins the intended conceptual separation, but does not eliminate the statistical caution suggested by the PEOU-AISS bootstrap interval.

Therefore, the manuscript does not claim that discriminant validity has been definitively established for all pairs of constructs. Special caution should be taken in the interpretation of the PEOU-AISS relation as some empirical overlap cannot be excluded. Future work should refine potentially proximate item wording, and where possible, include additional discriminant-validity assessments using independent data or alternative measurement specifications.

Table 5. Heterotrait–Monotrait Ratio (HTMT)

Item	AISS	ATC	PEOU	PU	SIZE
AISS					
ATC	0.08				
PEOU	0.892	0.057			
PU	0.69	0.04	0.449		
SIZE	0.125	0.033	0.139	0.085	

Source: Processed Data, (2026). Note: The bootstrap 95% CI for PEOU–AISS HTMT is [0.861, 0.922].

4.5 Common Method Variance and Measurement Proximity

All perceptional variables were collected from the same respondents at the same point of time, which may cause a common source bias. A Harman single factor diagnostic showed that the first factor accounted for 38.3% of the total variance. This does not prove that common method variance is absent but neither does it prove that a single factor explains the majority of the covariance. Because the PEOU–AISS HTMT is relatively high, the item-content distinction and the bootstrap HTMT interval were also checked in interpreting the measurement model. Future studies should link perceptual responses with objective logs of AIS use, transaction accuracy, timeliness of reports, error rates or supervisor assessments.

4.6 Coefficient of Determination (R^2)

The main structural model explains a large part of the variance in Perceived AIS Use Success. $R^2 = 0.796$ and adjusted $R^2 = 0.792$. The combined effect of PU, PEOU, ATC, Firm Size and the interaction terms explain 79.6% of the variation in AISS in the sample. These values represent the explanatory power of the estimated model and are not evidence that the model explains objective AIS performance, actual use of the system or initial organizational adoption.

Table 6. Coefficient of Determination (R^2)

Measure	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
R^2 AISS	0.796	0.801	0.014	56.365	<0.001
Adjusted R^2 AISS	0.792	0.797	0.014	54.935	<0.001

Source: Processed Data, (2026)

4.7 Effect Size (f^2)

The effect size analysis indicates that PEOU has the highest contribution to the explained variance in AISS with $f^2 = 1.616$, followed by PU with $f^2 = 0.363$. Firm Size has no incremental effect ($f^2 = 0.000$) and ATC has a very small effect ($f^2 = 0.010$). Interaction effects are also absent with ATC × PU and ATC × PEOU ($f^2 = 0.000$), SIZE × PU ($f^2 = 0.000$) and SIZE × PEOU ($f^2 = 0.002$).

The effect-size results are consistent with the main path estimates in indicating that the two technology-perception variables account for most of the explanatory contribution of the model. PEOU is a statistically significant path with the largest effect size. PU provides a smaller, but substantive effect.

The small or trivial effect sizes for ATC, Firm Size and the interaction terms suggest limited incremental contribution over and above the core TAM perceptions in this sample. This finding should be understood as evidence of the relative explanatory contribution of the specified predictors to perceived post-adoption use success, rather than as evidence that organizational conditions are universally irrelevant.

Table 7. Effect Size (F^2)

Predictor	AISS
AISS	
ATC	0.010
PEOU	1.616
PU	0.363
SIZE	0.000
ATC x PU	0.000
ATC x PEOU	0.000
SIZE x PU	0.000
SIZE x PEOU	0.002

Source: Processed Data, (2026)

4.8 Predictive Relevance Assessment

The predictive assessment provided a Q^2predict of 0.790 for AISS, RMSE = 0.460 and MAE = 0.362. The positive Q^2predict indicates that there is predictive relevance in the procedure used. However, Q^2predict should be seen as evidence of predictive relevance, not proof of predictive superiority over other models.

An explanatory power and a predictive performance are not the same. The high R2 shows the in-sample explained variance and Q^2predict shows the predictive information under the cross-validation procedure. Hence the more stringent PLSpredict and CVPAT results below are used to evaluate whether the model consistently outperforms simpler benchmarks.

But the output of Q^2predict should not be interpreted in isolation. The PLSpredict and CVPAT analyzes below are more difficult tests of a model's ability to outperform alternative benchmarks on a continuous basis.

Table 8. Predictive Relevance Assessment

Item	Q^2predict	RMSE	MAE
AISS	0.790	0.460	0.362

Source: Processed Data, (2026)

4.9 PLSpredict Analysis

PLSpredict predicts the four AISS indicators with mixed success. PLS-SEM has lower prediction errors than the linear model for AISS1 (RMSE = 0.908 vs. 0.920; MAE = 0.732 vs. 0.737), but the linear model has lower errors for AISS2, AISS3 and AISS4.

Therefore, results do not support a claim of uniform out-of-sample predictive superiority for PLS-SEM. The model has positive predictive relevance, but the relative prediction errors depend on the indicator.

This distinction is important because explanatory power and predictive power are different properties. The PLSpredict results suggest the model has predictive content. However, they also suggest a simpler linear benchmark outperforms the model for most of the AISS indicators.

Table 9. PLSpredict Analysis

Item	PLS		LM	
	RMSE	MAE	RMSE	MAE
AISS1	0.908	0.732	0.92	0.737
AISS2	0.797	0.638	0.774	0.623
AISS3	0.713	0.576	0.493	0.291
AISS4	0.764	0.609	0.573	0.359

Source: Processed Data, (2026)

4.10 CVPAT

CVPAT shows that PLS-SEM has less prediction loss than the Indicator Average benchmark (average loss difference = −0.962, t = 13.416, p < 0.001), but more prediction loss than the Linear Model benchmark (average loss difference = 0.134, t = 6.743, p < 0.001).

The positive loss difference indicates that the prediction loss exceeds the benchmark. Therefore, the PLS-SEM model does not outperform the Linear Model in this comparison.

Results from CVPAT and PLSpredict suggest meaningful but mixed predictive performance. The model outperforms the naive Indicator Average benchmark but does not have consistent predictive superiority over the Linear Model.

These predictive analyzes are thus diagnostic evidence about out-of-sample performance and do not confirm the overall robustness or theoretical superiority of the model.

Table 10. CVPAT

Variabel	PLS SEM VS IA	PLS SEM VS LM

	Average loss difference	t value	p	Average loss difference	t value	p
AISS	-0.962	13.416	<0.001	0.134	6.743	<0.001
Overall	-0.962	13.416	<0.001	0.134	6.743	<0.001

Source: Processed Data, (2026)

4.11 Results of Hypothesis Testing

The main PLS-SEM results show that PEOU and PU are positively and statistically significant related with AISS. PEOU is $\beta = 0.693$ ($t = 29.783$, $p < 0.001$) and PU is $\beta = 0.326$ ($t = 12.978$, $p < 0.001$). In the primary model, ATC and Firm Size are not statistically significant and none of the four interaction terms are statistically significant.

H1: Perceived Usefulness is positively associated with Perceived AIS Use Success.

The primary PLS-SEM model supports H1. PU was positively related to AISS ($\beta = 0.326$, $t = 12.978$, $p < 0.001$; 95% CI [0.274, 0.373]). PU had a large effect size ($f^2 = 0.363$). This result is consistent with the TAM proposition that perceived usefulness is an important cognitive correlate of technology use.

The finding is in line with recent AIS research which finds usefulness as an important factor in accounting-technology use and AIS effectiveness (Nur & Fitrios, 2025; Pawitri & Anggara, 2025; Permatasari & Luhsasi, 2025). The PU in the current context is the employees' assessment of the usefulness of an AIS they are currently using rather than a belief that will determine whether the organization will initially implement the system.

The association between PU and AISS suggests therefore that employees who perceive greater practical value of the existing AIS are more likely to report greater perceived organizational benefit and continue to use or use in the future. However, since the Gaussian Copula diagnostics suggest potential endogeneity for PU, this relationship should be interpreted as a strong empirical association, rather than as a definitive causal effect.

H2: Perceived Ease of Use is positively associated with Perceived AIS Use Success.

The primary PLS-SEM model supports H2. PEOU is positively related to AISS ($\beta = 0.693$, $t = 29.783$, $p < 0.001$; 95% CI [0.646, 0.738]) and has the largest effect size reported ($f^2 = 1.616$). The result shows a strong empirical relationship between perceived ease of interacting with AIS and perceived post-adoption use success.

This result is consistent with TAM and previous AIS research, which found that systems perceived as easier to learn and use are likely to be more positively evaluated in terms of use (Handayani et al., 2021; Mujalli et al., 2025; Musyaffi et al., 2025; Yaputri & Widuri, 2024).

More importantly, the finding extends the post-adoption interpretation of TAM. All 35 LPDs had AIS in place and the respondents were active users. Thus, we are interested in the relevant variation relative to perceptions of an existing system, rather than the initial organizational decision to adopt.

Meanwhile, the HTMT estimate for PEOU–AISS is 0.892 and the 95% confidence interval is [0.861, 0.922], indicating that caution is needed in interpreting the magnitude of this relationship. Moreover, the Gaussian Copula diagnostic indicates the possibility of endogeneity for PEOU. Thus, the result supports a strong association but does not allow a definitive causal statement.

H3: Attitude Toward Change is positively associated with Perceived AIS Use Success.

H3 is not supported in the main PLS-SEM model at a conventional level of 5%: ATC has β = −0.044, t = 1.775, p = 0.076, and 95% CI = [−0.090, 0.011]. However, the cluster-aware sensitivity analysis returns a statistically significant negative coefficient (β = −0.047, p < 0.001). The inference for ATC is thus model- and dependence-sensitive and not simply not supported.

The cluster-sensitive finding should not be interpreted as evidence of a negative causal effect of ATC. Instead, it illustrates the effects of accounting for within-LPD dependence on statistical inference. In a post-adoption context, general attitudes toward organizational change may also be less directly related to perceived use success than perceptions of the AIS itself, but this interpretation remains sensitive to the dependence evidence.

Thus, H3 should be reported as being unsupported in the primary PLS-SEM specification but sensitive to cluster-aware inference. Further research with sufficient power at the organizational level or employing a multilevel design is needed to elucidate this relationship.

H4: Firm Size is positively associated with Perceived AIS Use Success.

The main PLS-SEM model does not support H4. Firm size β = −0.003, t = 0.109, p = 0.913, 95% CI [−0.047 to 0.045]. The specification of continuous log-assets sensitivity does not indicate a significant direct size effect either.

This is an interesting finding as larger organizations may have more resources for infrastructure, training, managerial support and technical capability (Babalghaith & Aljarallah, 2024; Faiz et al., 2024; Kallmuenzer et al., 2025; Romero & Mammadov, 2025). However, in the present setting, the incremental association of organizational size with employees' perceived AIS use success is negligible.

The outcome can be seen in relation to the organizational level at which Firm Size varies. Since there are 35 LPDs in the study, the Firm Size does not provide 397 independent units of variation. Hence the lack of a significant association should not be considered as evidence that organizational resources are never important for post-adoption AIS use.

H5 and H6: Moderating Role of ATC

The primary model indicates that the ATC × PEOU → AISS (β = −0.012, p = 0.668; 95% CI [−0.069, 0.040]) and ATC × PU → AISS (β = 0.008, p = 0.802; 95% CI [−0.051, 0.069]) are not statistically significant. Thus, the data do not support the idea that ATC systematically affects the strength of the relationships between perceptions of tech and AISS.

The lack of any significant moderation implies that employees' overall attitude toward organizational change does not significantly qualify PU or PEOU relationships with perceived AIS use success in the primary model. This is perhaps in line with a post-adoption scenario, where the repeated interaction with an established system puts more weight on direct perceptions of the technology.

However, these results should be considered as evidence of null moderation for the given sample and model rather than evidence that ATC can never act as a boundary condition.

H7 and H8: Moderating Role of Firm Size

both Firm Size interaction is not statistically significant: SIZE × PU → AISS (β = −0.002, p = 0.949; 95% CI [−0.062, 0.059]) and SIZE × PEOU → AISS (β = 0.027, p = 0.388; 95% CI [−0.036, 0.086]). The continuous log-assets sensitivity specification does not suggest much moderation either.

The results indicate that the two technology-perception associations in the main model do not vary materially by organizational scale. However, Firm Size is an organisation-level variable and only 35 LPDs provide independent variation, so the null interaction results should be interpreted with care.

The results therefore qualify rather than negate resource-based arguments about organizational size. Resources may play an important role for implementation and infrastructure, but the current evidence does not suggest that size systematically changes the relationship of employees' technology perceptions and their perceived AIS use success after implementation.

Table 11. Results of Hypothesis Testing

Item	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	95% CI Lower	95% CI Upper
ATC → AISS	-0.044	-0.046	0.025	1.775	0.076	-0.090	0.011
ATC × PEOU → AISS	-0.012	-0.013	0.027	0.429	0.668	-0.069	0.040
ATC × PU → AISS	0.008	0.008	0.031	0.251	0.802	-0.051	0.069
PEOU → AISS	0.693	0.694	0.023	29.783	<0.001	0.646	0.738
PU → AISS	0.326	0.325	0.025	12.978	<0.001	0.274	0.373
SIZE → AISS	-0.003	-0.002	0.023	0.109	0.913	-0.047	0.045
SIZE × PEOU → AISS	0.027	0.026	0.031	0.863	0.388	-0.036	0.086
SIZE × PU → AISS	-0.002	-0.002	0.031	0.064	0.949	-0.062	0.059

Source: Processed Data, (2026)

4.12 Non-Linear Effect Analysis

The nonlinear analysis gives evidence of curvature in a selective way. The quadratic term for PU is positive and statistically significant ($\beta = 0.059$, $t = 2.467$, $p = 0.014$) whereas the quadratic terms for ATC ($\beta = -0.024$, $p = 0.259$) and PEOU ($\beta = 0.003$, $p = 0.889$) are not significant. The nonlinear specification raises R^2 from 0.796 to 0.800 and adjusted R2 from 0.792 to 0.796, an incremental increase of 0.004 in both measures.

The positive PU^2 coefficient shows that the estimated relationship is of convex curvature. A supplementary cluster-aware composite-score diagnostic yields $PU^2 = 0.0409$ ($p = 0.0028$), $R^2 = 0.0055$, incremental $f^2 = 0.0216$, and PU^2 VIF = 1.129. These results are consistent with statistical curvature but do not provide evidence for an accelerating behavioral mechanism.

The PU^2 finding indicates that the relationship between perceived usefulness and AISS may not be linear across the range of PU we studied. In a post-adoption context, experienced users may evaluate additional benefits of the system differently, as their perception of usefulness

strengthens. It is a plausible reading of the curvature, but it is an empirical pattern, not evidence of a particular behavioral mechanism.

The nonlinear finding should therefore be taken as a sensitivity finding that needs to be replicated. This does not justify labeling the whole model as nonlinear, because the quadratic terms for ATC and PEOU are not significant and the incremental explanatory gain is small.

Table 12. Non-Linear Effect Analysis

Item	Original sample (O)	T statistics (|O/STDEV|)	P values
QE (ATC) > AISS	-0.024	1.128	0.259
QE (PEOU) > AISS	0.003	0.139	0.889
QE (PU) > AISS	0.059	2.467	0.014

Source: Processed Data, (2026)

4.13 Cluster Structure and Sensitivity Analysis

Of the 397 respondents, 35 LPDs were nested. Intra-class correlation (ICC) and design-effect diagnostics were reviewed. The ICC (1) for PU, PEOU, ATC and AISS were 0.193, 0.233, −0.004 and 0.310, respectively, with corresponding design effects of 2.994, 3.412, 0.960 and 4.205. These values indicate substantial clustering for PU, PEOU and in particular AISS, so at the respondent level the observations should not be regarded as fully independent for the purpose of interpretation.

The cluster-aware sensitivity regressions with LPD as the clustering unit continue to show significant positive associations for PEOU ($\beta = 0.626$, $p < 0.001$) and PU ($\beta = 0.292$, $p < 0.001$), while SIZE and the SIZE-based interactions remain nonsignificant. Under the cluster-aware specification, ATC becomes negative and statistically significant ($\beta = -0.047$, $p < 0.001$). Again, the continuous log-total-assets specification fails to imply strong size effects. These analyzes do not replace the main PLS-SEM results, but qualify the inference particularly for ATC and organisational-level predictors.

Table 13. ICC, Design Effects, and Cluster Sensitivity

Construct	ICC (1)	Approx. design effect	Sensitivity implication
PU	0.193	2.994	Cluster-aware PU remains significant
PEOU	0.233	3.412	Cluster-aware PEOU remains significant
ATC	−0.004	0.960	ATC inference is sensitive to clustering
AISS	0.310	4.205	Meaningful respondent clustering

Source: Processed Data, (2026)

4.14 Unobserved Heterogeneity Assessment

FIMIX-PLS was used to assess whether the unobserved segments of respondents provide an obviously better representation of the structural relationships. The AIC of the two-segment solution is lower (502.417 versus 506.997), but the one-segment solution is preferred by BIC, CAIC, HQ, AIC3, AIC4 and MDL5. The two-segment solution also has relatively high entropy (EN = 0.848), but entropy alone does not demonstrate that segmentation is substantively better. Evidence does not allow for a replacement of the single-segment interpretation by a multi-segment model, as the information criteria do not favor the two-segment solution consistently.

This does not mean that the respondents are perfectly homogeneous; it only means that the FIMIX diagnostics available do not yield a clear preferred latent-segment structure.
Thus, FIMIX-PLS is considered as a heterogeneity diagnostic rather than a validation of model stability or population homogeneity (Kuckertz et al., 2024).

Table 14. Unobserved Heterogeneity Assessment

Criterion	Segment 1	Segment 2
AIC (Akaike's information criterion)	506.997	502.417
AIC3 (modified AIC with Factor 3)	511.997	513.417
AIC4 (modified AIC with Factor 4)	516.997	524.417
BIC (Bayesian information criterion)	526.917	546.241
CAIC (consistent AIC)	531.917	557.241
HQ (Hannan-Quinn criterion)	514.888	519.777
MDL5 (minimum description length with factor 5)	646.595	809.534
LnL (LogLikelihood)	-248.499	-240.209
EN (normed entropy statistic)	0	0.848
NFI (non-fuzzy index)	0	0.855
NEC (normalized entropy criterion)	0	60.434

Source: Processed Data, (2026)

The Gaussian Copula diagnostics qualify the interpretation of the main PLS-SEM associations. Significant copula terms are observed for PEOU and PU, whereas the ATC copula term is not statistically significant. These results indicate that potential endogeneity cannot be excluded for the two strongest TAM predictors.
The Gaussian Copula results therefore should not be interpreted as proving that the model is free from endogeneity. Instead, they identify possible endogeneity in selected relationships and reinforce the need to avoid strong causal language for PEOU and PU.
The reported specification shows GC (PEOU → AISS) = −0.387 (p = 0.020), GC (PU → AISS) = −0.506 (p = 0.001), and GC (ATC → AISS) = 0.022 (p = 0.890). Thus, the evidence is mixed: potential endogeneity is indicated for PEOU and PU, while no statistical evidence of endogeneity is found for ATC under this specification.

4.15 Endogeneity Assessment

Nothing about the possibility of endogeneity negates the structural relationships observed. This means that the estimated coefficients should not be taken as causal effects. Future research could address temporal precedence and reciprocal relationships with longitudinal designs, panel data, theoretically justified instrumental variables, or other identification strategies.

Table 15. Endogeneity Assessment

Item	Original sample (O)	P values
GC (PEOU > AISS)	-0.387	0.020
GC (PU > AISS)	-0.506	0.001

GC (ATC > AISS)	0.022	0.890

Source: Processed Data, (2026)

We tested the possible endogeneity of the main predictors using a Gaussian Copula analysis, following Park and Gupta (2012) and Hult et al. (2018). Large terms in the copula are taken as diagnostic evidence that the corresponding predictor may be endogenous. The terms for PEOU and PU are important in the present specification, but the term for ATC is not.

For ATC, endogeneity is not statistically evidenced ($\beta = 0.022$; $p = 0.890$). For PEOU ($\beta = -0.387$, $p = 0.020$) and PU ($\beta = -0.506$, $p = 0.001$) the significant copula terms indicate that potential endogeneity cannot be ruled out. Hence, the main coefficients should be better interpreted as strong empirical relationships and not definitive causal effects.

One interpretation is that the perception of usefulness and ease of use by employees may be related to accumulated experiences using AIS successfully. In a cross-sectional post-adoption context, the direction of influence between perceptions and use-related outcomes is not clear. This possibility is consistent with the diagnostic evidence, but is not proved by the Gaussian Copula test itself.

The main structural model indicates that AISS is significantly associated with PEOU ($\beta = 0.693$, $p < 0.001$) and PU ($\beta = 0.326$, $p < 0.001$). The results for the corresponding copula indicate the possible endogenuity of these estimates. The results therefore provide evidence for strong empirical relationships between technology perceptions and perceived AIS use success, but do not allow for causal interpretation.

This qualification is particularly relevant in the post-adoption context, as the respondents are experienced users of AIS. Their perceptions of the system and their accumulated experiences with the system may affect their evaluations of usefulness and ease of use. The cross-sectional design cannot distinguish between these possibilities.

Thus, the Gaussian Copula analysis clarifies the limitations of the identification rather than confirming the overall robustness. Future research should investigate temporal precedence and reciprocal relationships using longitudinal or panel designs, theoretically justified instruments or other identification strategies.

5. Discussion

The main model shows that the explanatory power is concentrated on the two TAM perceptions. PEOU has the strongest correlation with AISS ($\beta = 0.693$, $p < 0.001$; $f2 = 1.616$), followed by PU ($\beta = 0.326$, $p < 0.001$; $f2 = 0.363$). ATC and Firm Size are not statistically significant in the main model. None of the four moderation terms is statistically significant.

The results are consistent with the full adoption, post-adoption context. The relevant variation is therefore not whether an organization adopted AIS but the manner in which employees view the benefits and continued or future use of an existing system, since all 35 LPDs had adopted AIS and most of the respondents had substantial experience with the system. The results indicate that direct perceptions of technology still play a significant role in this post-adoption outcome, while the additional roles of ATC and Firm Size are limited in the primary model.

The findings extend the post-adoption interpretation of TAM by demonstrating that PU and PEOU remain strongly associated with perceived AIS use success, even when implementation is universal in the study setting. However, the PEOU–AISS HTMT result needs to be treated with caution, so the magnitude of the PEOU association should not be interpreted in isolation from the proximity of the measurement.

The extra diagnostics are more about qualifying than collectively confirming robustness. Q^2predict is positive, but PLSpredict and CVPAT have mixed performance compared to the linear benchmark. FIMIX-PLS does not give a consistent evidence for a preferred multi-segment solution. Cluster-aware diagnostics still show positive associations of PEOU and PU, and no SIZE-based effects, but the ATC inference changes under clustering. The Gaussian Copula diagnostics show the potential endogeneity for PEOU and PU. Taken as a whole, these results support interpretable primary associations, and limit claims of strong causal or universal robustness.

6. Conclusion and Implications

This study examines Perceived Use Success to employees who have used AIS in all 35 LPD in Denpasar. The primary PLS-SEM results show significant positive relationship of PEOU and PU with AISS, and insignificant results for ATC and Firm Size, with no significant moderation effect of ATC and Firm Size on the PU–AISS or PEOU–AISS relationships. The nonlinear analysis finds a large positive PU^2 term but its incremental explanatory power is small and does not demonstrate an accelerating behavioral mechanism.

7. Limitations and Future Research

Several limitations should be taken into account when interpreting. First, the cross-sectional design cannot establish temporal precedence and the Gaussian Copula diagnostics suggest potential endogeneity of PEOU and PU. Thus, the coefficients reported should be interpreted as associations rather than definitive causal effects. Second, respondents are nested within 35 LPDs with significant ICCs for PU, PEOU and AISS and only 35 institutions offering independent variation of Firm Size. The cluster-aware sensitivity analysis partly addresses this issue but future research should use multilevel or other cluster-aware designs with sufficient numbers of organizations. Third, the PEOU–AISS HTMT point estimate is 0.892 and the bootstrap interval has a value of 0.922; thus, discriminant validity for this pair is not conclusively established, and future studies should refine potentially proximate item wording and apply additional measurement checks. Fourth, all perceptual variables are self-reported from a single source and the Harman diagnostic does not rule out the possibility of common method variance. Future research should combine survey responses with objective measures of system use and performance. Fifth, Firm Size is dichotomized, losing information; a continuous log-assets sensitivity analysis does not replace a sufficiently powered organisational-level analysis. Sixth, the large PU^2 term should be replicated using alternative nonlinear specifications and tests for scaling, range and ceiling effects. Finally, this study is conducted on 35 LPDs in Denpasar, so generalization to LPDs in other regions and to other financial institutions should be done cautiously.

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Declaration of AI and AI-assisted technologies in the writing process (if author[s] utilize AI)

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