The Effect of Trust, Perceived Ease of Use, and Perceived Risk in Shaping Patients' Reuse Intention of Digital Hospital Services

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ABSTRACT

This study aims to analyze factors influencing patient trust and reuse intention of digital healthcare services, focusing on perceived ease of use, perceived value, and perceived risk. The study used a quantitative approach with a cross-sectional design. Data were collected from 300 respondents and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), complemented by Importance–Performance Map Analysis (IPMA). The test results showed that perceived ease of use had no significant effect on trust or reuse intention, indicating that system ease of use alone was not sufficient to encourage continued use. Perceived value proved to have a strong and significant effect on trust, but did not directly influence reuse intention, indicating its role as an indirect factor through trust. Conversely, perceived risk was the most dominant predictor because it had a positive and significant effect on trust and reuse intention. IPMA analysis revealed that perceived risk had the highest level of importance on reuse intention, although its performance level was still considered moderate. This finding confirms that perceived risks related to security, privacy, and system reliability are crucial factors in building trust and encouraging the reuse of digital healthcare services.

Keywords*: Perceived Ease of Use, Perceived Risk, Perceived Value, Reuse Intention, Trust.*

INTRODUCTION

Hospital digital services can be understood as a series of hospital services that utilize digital technology in an integrated manner to support clinical and non-clinical service processes more effectively, safely, and patient-oriented. Digital hospital services are part of a hospital's digital transformation, characterized by the use of information systems, technology infrastructure, and digital-based governance to improve service performance and health outcomes (Williams et al., 2019; Barnett et al., 2019; Huaytan et al., 2024). Hospital digital services encompass the use of digital technologies such as hospital information systems, health applications, and digital communication platforms designed to enhance the patient and healthcare professional experience through ease of access, service coordination, and system reliability and security (Sheikh et al., 2021; Canfell et al., 2024).

The development of digital healthcare services in Indonesia has strengthened in recent years, with online hospital registration systems providing faster and more transparent services (Pitaloka & Nugroho, 2021; Hanifa & Wicaksono, 2025). However, technical problems such as system errors, complex navigation, and delayed verification can reduce patient trust and weaken reuse intention, highlighting the importance of understanding its determinants, as limited insight may lead to underutilization or resistance to technology

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(Iyanna et al., 2022; Melly & Saryatmo, 2025). While studies by Dwi and Raka (2022) and Yang (2025) in other sectors show that trust and perceived benefits drive reuse intention, healthcare involves higher risks related to patient data, safety, and service access, creating a critical research gap. This study, therefore, focuses on hospital digital systems and examines perceived risk, perceived value, and perceived ease of use as key determinants of trust and reuse intention, grounded in the Technology Acceptance Model, and extends prior research that has mainly concentrated on lower-risk contexts such as finance, retail, transportation, and carsharing (Liu et al., 2024).

This integrates Trust Theory, the Technology Acceptance Model (TAM), and Problematic Integration Theory into a comprehensive conceptual framework. Trust Theory explains the central role of trust in linking user perceptions to behavioral intentions, TAM underscores the importance of ease of use in technology adoption across different user groups, and Problematic Integration Theory illustrates how high expectations and perceived risks may reduce reuse intention (Liu et al., 2024). The integration of these three theoretical perspectives distinguishes this study from previous research that predominantly relied on a single theoretical framework. Hospitals need to ensure the success of digital transformation (Tanniru et al., 2018; Ziadlou, 2021). Transformation does not stop at system implementation; it must also be accompanied by improvements in the patient experience. Many hospitals in Indonesia already offer online registration services, but still face issues with system reliability and user experience quality (Melly & Saryatmo, 2025). As a result, some patients choose to return to conventional methods even though digital services are readily available.

This research is also important in the context of healthcare inclusivity. Younger generations may be more receptive to digital services due to their familiarity with technology, while older generations may struggle even when such services promise convenience (Aviati et al., 2025). By understanding how perceptions of convenience, value, and risk influence trust and reuse intentions, hospitals can adapt their digital service approaches to be more user-friendly for all patient groups. This approach can improve service efficiency, reduce queues at the counter, and enhance the hospital's image as an institution responsive to technological developments.

The novelty of this study lies in its focus on digital healthcare services from the patient's perspective and in the integrated examination of perceived risk, perceived value, perceived ease of use, trust, and reuse intention. Previous studies addressed different contexts and viewpoints. Rante and Toii's (2025) study focuses on digital financial services at the adoption stage. Meanwhile, Handayani et al. (2025) focus on internal hospital system integration and employee performance, and Dwijayanti et al. (2025) found about conventional service quality and patient satisfaction. In contrast, this research positions perceived risk as a key determinant of trust and continued use, investigates the mediating role of trust between perceived value and reuse intention, and introduces Importance-Performance Map Analysis (IPMA) as an additional methodological contribution. The study aims to analyze the effects of perceived ease of use, perceived value, and perceived risk on trust and their implications for patients' reuse intention of digital healthcare services.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

Factors Influencing Trust

Trust is a central construct that links perceived ease of use, perceived value, and perceived risk to users' intentions to continue using digital services. It reflects users' confidence that a system will function reliably and that their personal information will be adequately protected (Narahdita et al., 2020). In the context of digital healthcare, trust plays a crucial role because patients rely on technology not only for convenience but also for sensitive health-related decisions. Previous studies indicate that trust is shaped by how easily a system can be used, how much value users perceive from it, and how effectively potential risks are managed. (Acharya et al., 2022; Al Fatah et al., 2023). When these

factors are positively evaluated, users are more likely to believe in the system's credibility and dependability, which in turn strengthens their willingness to reuse the service.

Perceived Ease of Use (PEOU) is widely recognized as an important antecedent of trust, particularly in technology-based services. PEOU refers to the extent to which users believe that a system can be used with minimal effort. In healthcare settings, a simple and intuitive interface reduces uncertainty and increases users' confidence in the system's reliability. Wilson et al. (2021) argue that systems perceived as easy to use are viewed as more transparent and accessible, thereby fostering trust. Similarly, Jatimoyo et al. (2021) found that ease of use enhances user satisfaction and reinforces confidence in continued usage. As users experience fewer difficulties and clearer processes, their perception of system dependability improves, leading to a higher level of trust.

In addition to ease of use, perceived value and perceived risk are also critical in shaping trust. Perceived value reflects users' evaluation of the benefits received relative to the costs or sacrifices incurred (Sánchez-Fernández & Iniesta-Bonillo, 2007). Zhu et al. (2023) demonstrate that when users recognize substantial functional and emotional benefits from digital health services, their trust in the provider increases. Although perceived risk is commonly viewed as an obstacle, it can strengthen trust when risks are transparently communicated and effectively controlled. Xie et al. (2021) emphasize that strong security measures, privacy protection, and clear assurances can transform risk awareness into confidence, thereby reinforcing the positive relationship between perceived risk and trust.

H1: Perceived ease of use has a positive effect on trust.
H2: Perceived value has a positive effect on trust.
H3: Perceived risk has a positive effect on trust.

Factors Influencing Reuse Intention

Reuse intention refers to a user's willingness to continue using a digital service after the initial experience (Ladkoom & Thanasopon, 2020; Wang et al., 2020). In digital healthcare, this construct is particularly important because it reflects the sustainability of system adoption among patients and healthcare professionals (Adha et al., 2023; Aviati et al., 2025). Previous studies by Narahdita et al. (2020) and Liu et al. (2024) indicate that reuse intention is shaped by users' perceptions of ease of use, value, risk, and trust. When digital health systems are perceived as easy to operate, valuable, and secure, users are more likely to develop trust, which in turn strengthens their intention to reuse the service (Zhu et al., 2023; Melly & Saryatmo, 2025). Thus, reuse intention represents not only immediate user satisfaction but also the long-term success and continuity of digital healthcare implementation.

Perceived ease of use has consistently been identified as a key determinant of reuse intention. An intuitive and user-friendly system reduces technical barriers and cognitive effort, making users more comfortable in interacting with the service. Ji et al. (2019) and Jatimoyo et al. (2021) confirmed that perceived ease of use has a direct positive effect on continued usage intentions, as users who find a system easy to operate are more willing to use it repeatedly. This finding is supported by Wilson et al. (2021), who reported that ease of use enhances user satisfaction, which subsequently increases the likelihood of reuse. Therefore, a well-designed and easily navigable digital healthcare system can significantly improve users' propensity to continue utilizing the service.

Perceived value and perceived risk also play crucial roles in shaping reuse intention. Perceived value reflects users' evaluation of the benefits gained relative to the costs or sacrifices incurred (Lin et al., 2020). When users perceive that the benefits outweigh the costs, their motivation to reuse the service increases (Zhu et al., 2023). At the same time, perceived risk represents the uncertainty or potential losses associated with digital service use (Chang et al., 2016; Primandari & Suprapti, 2022). Although risk is often viewed as a deterrent, Xie et al. (2021) found that its negative impact can be mitigated when users perceive high value and adequate risk management. Consequently, even in the presence

of perceived risk, strong perceived benefits can sustain and even enhance users' intention to reuse digital healthcare services.

H4: Perceived ease of use has a positive effect on reuse intention.
H5: Perceived value has a positive effect on reuse intention.
H6: Perceived risk has a positive effect on reuse intention.

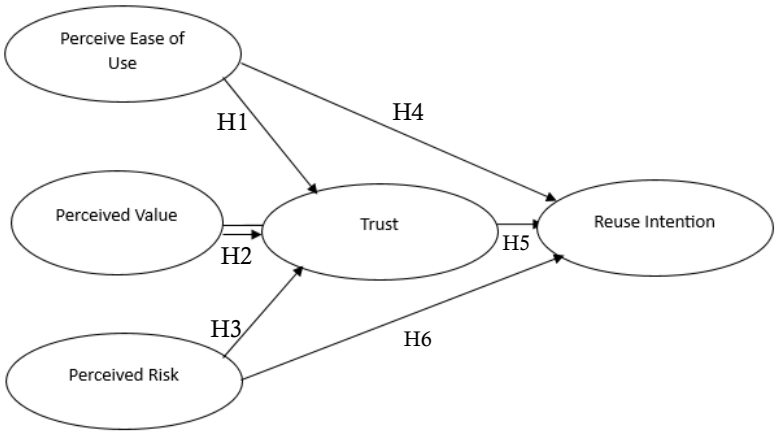

Figure 1. Conceptual Framework

Figure 1 was developed to explain the relationship between perceived value, perceived risk, perceived ease of use, trust, and reuse intention in the context of digital healthcare services. Trust is further positioned as a mediating variable that plays a direct role in driving reuse intention. Furthermore, perceived ease of use is also assumed to directly influence reuse intention, as user-friendly systems reduce technical barriers and increase user convenience. Furthermore, perceived value and perceived risk are also assumed to directly influence reuse intention. Patients are more likely to reuse a service when the benefits perceived outweigh the costs. Even in the presence of risks, reuse intention can still be formed if users perceive significant benefits and the risks are well managed. Thus, this conceptual framework positions perceived value, perceived risk, and perceived ease of use as independent variables influencing trust and reuse intention, with trust playing a key role in explaining the continued use of digital health services.

RESEARCH METHODS

This study employed a quantitative research design with a Structural Equation Modeling (SEM) approach based on the guidelines of Hair et al. (2021). The purpose of this research was to investigate how patients' intentions to continue using digital hospital services relate to their perceptions of risk, perceived ease of use, and trust. Patients who had previously used digital hospital platforms, such as online registration, teleconsultation, or electronic medical record systems, were given a self-administered online questionnaire. This study used a sample of 300. The sampling technique used was purposive sampling, targeting respondents with relevant experience using digital hospital services. Each construct's measurement elements were taken from previously approved scales and adjusted to fit the digital healthcare environment. A Likert scale of five points, from 1 (meaning "strongly disagree") to 5 (meaning "strongly agree"), was used to rate each item. Before data processing, a pilot test was carried out with a small sample of respondents to evaluate the questionnaire's content validity and clarity.

Perceived Ease of Use (PEOU), Perceived Value (PV), Perceived Risk (PR), Trust, and Reuse Intention in this study are measured using multi-item scales adapted from established literature in technology acceptance and digital healthcare. PEOU is operationalized through indicators reflecting ease of learning, clarity of interaction, simplicity of navigation, and overall ease of system use. PV is measured by users'

evaluation of the benefits relative to the costs, including perceived usefulness, time efficiency, service quality, and value for money. PR is assessed through indicators capturing perceived uncertainty and potential loss related to data security, privacy protection, system reliability, and possible service. Trust is measured by users' confidence in the reliability, integrity, and security of the system and service provider, including perceptions of dependability, data protection, and fulfillment of service. Finally, Reuse Intention is operationalized through indicators reflecting the intention to continue using the service, preference over alternative services, and willingness to recommend it to others, adapted from continuance and reuse intention scales.

The data analysis was carried out in two stages, in line with the guidelines of Hair et al. (2021). The first stage concentrated on evaluating the measurement model. This involved examining indicator reliability, internal consistency reliability using both Cronbach's alpha and composite reliability, and convergent validity through the Average Variance Extracted (AVE). Discriminant validity was assessed using the HTMT ratio and the Fornell-Larcker criterion. The second stage focused on a detailed evaluation of the structural model to determine the strength and significance of the proposed relationships, emphasizing path coefficients, the coefficient of determination (R^2), predictive relevance (Q^2), and effect size (f^2). Bootstrapping with 5,000 subsamples was employed to assess the significance of the structural paths. Using SEM as recommended by Hair et al. (2021), the links and measurements of trust, perceived ease of use, perceived danger, and patient intention to reuse digital hospital services were thoroughly examined in this research.

RESULTS

Descriptive analysis was conducted for each indicator in this study to better understand the trends of the responses provided by the participants. The analysis was based on a sample of 300 respondents and is presented in Table 1.

Table 1. Descriptive Analysis

Variable	Item	Mean	Median	Observed min	Observed max	Std. Dev
Perceived Ease of Use (PEOU)	PEOU1	4.280	4.000	1.000	5.000	0.877
	PEOU2	4.340	4.000	1.000	5.000	0.882
	PEOU3	4.123	4.000	1.000	5.000	0.809
	PEOU4	4.247	4.000	1.000	5.000	0.864
	PEOU5	4.193	4.000	1.000	5.000	0.862
	PEOU6	4.077	4.000	1.000	5.000	0.866
Perceived Risk (PR)	PR1	3.877	4.000	1.000	5.000	0.876
	PR2	4.000	4.000	1.000	5.000	0.762
	PR3	3.983	4.000	1.000	5.000	0.794
	PR4	4.087	4.000	1.000	5.000	0.812
	PR5	3.993	4.000	1.000	5.000	0.821
	PR6	3.890	4.000	1.000	5.000	0.890
Perceived Value (PV)	PV1	4.093	4.000	1.000	5.000	0.720
	PV2	4.057	4.000	1.000	5.000	0.707
	PV3	4.040	4.000	1.000	5.000	0.738
	PV4	4.083	4.000	1.000	5.000	0.695
	PV5	4.017	4.000	1.000	5.000	0.661
	PV6	4.093	4.000	1.000	5.000	0.742
Reuse Intention (RI)	RI1	3.983	4.000	1.000	5.000	0.794
	RI2	4.087	4.000	1.000	5.000	0.812
	RI3	3.997	4.000	1.000	5.000	0.823
	RI4	3.900	4.000	1.000	5.000	0.885
	RI5	3.947	4.000	1.000	5.000	0.802
	RI6	3.910	4.000	1.000	5.000	0.861
Trust (T)	T1	4.037	4.000	1.000	5.000	0.736
	T2	4.083	4.000	1.000	5.000	0.695
	T3	4.013	4.000	1.000	5.000	0.658
	T4	4.090	4.000	1.000	5.000	0.741
	T5	3.943	4.000	1.000	5.000	0.712
	T6	4.040	4.000	1.000	5.000	0.774

Based on the descriptive statistics presented, all indicators for the variables perceived ease of use, perceived risk, perceived value, reuse intention, and trust showed relatively high average scores, ranging from 3.877 to 4.340 on a scale of 1–5. This suggests that the system's usability, perceived worth, controllable risk, service trust, and intention to be reused were all rated well by respondents. The uniform median value of 4.00 for almost all indicators indicates a symmetrical distribution of scores, approximating the positive perceptions of the majority of respondents.

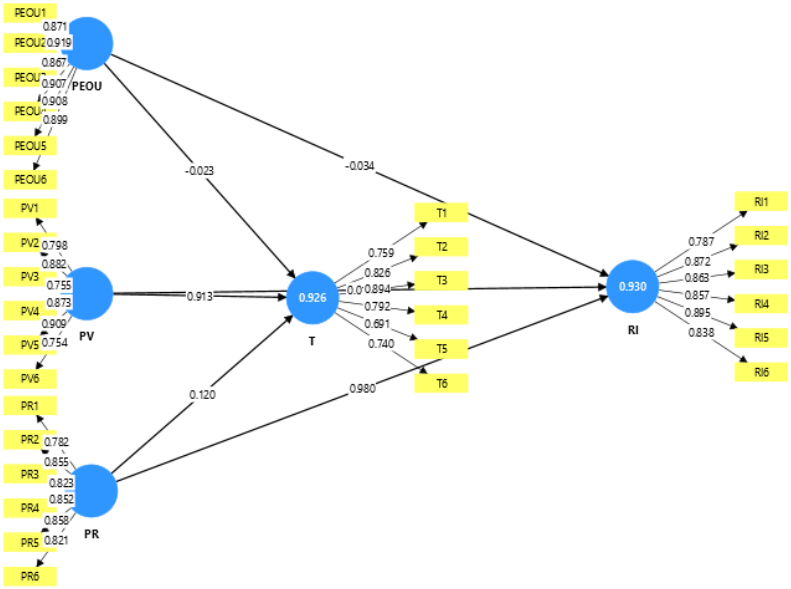

Figure 2. Outer Model

The outer model demonstrates the validity of the measurement indicators, illustrated in Figure 2. Following the guidelines of Hair et al. (2021), outer loadings were analyzed to evaluate the reliability of each construct's indicators. All indicators exhibited satisfactory loading levels above the recommended threshold of 0.70, indicating a strong relationship with their respective latent constructs. Specifically, the six items measuring the perceived ease of use construct showed loadings between 0.867 and 0.919, reflecting consistent representation of the construct. The perceived risk indicators ranged from 0.782 to 0.858, confirming acceptable reliability. For the perceived value construct, loadings varied from 0.754 to 0.909, exceeding the minimum requirement and validating the measures. Indicators for reuse intention had loadings between 0.787 and 0.895, supporting their ability to represent patients' intention to reuse digital hospital services. The trust construct displayed loadings from 0.691 to 0.894, although one item (T5) was slightly below 0.70, it remained within an acceptable range and did not compromise the construct's overall reliability.

Table 2. HTMT, Validity, and Reliability Test

Construct	HTMT Test					CA	CR	AVE
	PEOU	PR	PV	RI	T			
Perceived Ease of Use (PEOU)						0.950	0.960	0.802
Perceived Risk (PR)	0.661					0.911	0.931	0.693
Perceived Value (PV)	0.606	0.525				0.909	0.930	0.690
Reuse Intention (RI)	0.610	1.044	0.501			0.925	0.941	0.727
Trust (T)	0.616	0.620	1.054	0.579		0.876	0.906	0.618

According to the findings in Table 2, every concept satisfies the requirements set out by Hair et al. (2021) for convergent validity and internal consistency reliability. All constructs have Cronbach's alpha values between 0.876 and 0.950, which is higher than

the permissible minimum of 0.70 and suggests a high degree of internal reliability. With composite reliability (ρc) values ranging from 0.906 to 0.960, each latent variable's indicators showed a strong degree of internal consistency. All constructs' Average Variance Extracted (AVE) values showed strong convergent validity, with values ranging from 0.618 to 0.802, over the minimally advised cutoff of 0.50. This confirms sufficient convergent validity as each concept accounts for over 50% of the variation in its indicators. The perceived ease of use construct exhibited the highest AVE at 0.802, indicating a robust correlation between its indicators and the associated latent variables. The Trust (T) construct exhibited the lowest AVE at 0.618, a value that is still within acceptable limits. The findings demonstrate that all constructs in the measurement model show adequate reliability and convergent validity.

Following Hair et al. (2021), discriminant validity between constructs was assessed using the Heterotrait-Monotrait Ratio (HTMT). The HTMT results indicated that most values were below the conservative threshold of 0.90, suggesting sufficient discriminant validity. However, two construct pairs slightly exceeded this limit: perceived risk and reuse intention (HTMT = 1.044), and perceived value and trust (HTMT = 1.054). These elevated values suggest potential conceptual overlap, likely reflecting the influence of respondents' perceptions of risk and value on their trust and intention to reuse hospital digital services.

Table 3. F-square Test

Construct	F-Square
Perceived Ease of Use -> Reuse Intention	0.009
Perceived Ease of Use -> Trust	0.004
Perceived Risk -> Reuse Intention	8.108
Perceived Risk -> Trust	0.115
Perceived Value -> Reuse Intention	0.001
Perceived Value -> Trust	7.361

According to Hair et al. (2021), f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively. The results in Table 3 showed that perceived risk had a large influence on reuse intention ($f^2 = 8.108$) and Trust ($f^2 = 0.115$), indicating that Perceived Risk is a major determinant in shaping these constructs. Similarly, perceived value showed a large influence on trust ($f^2 = 7.361$), indicating that patients' perceptions of value significantly influence their Trust in digital hospital services. Conversely, perceived ease of use had a small influence on reuse intention ($f^2 = 0.009$) and trust ($f^2 = 0.004$), implying that although ease of use is relevant, its influence is weaker compared to perceived risk and value.

Table 4. VIF Inner Model

Construct	Reuse Intention (RI)	Trust (T)
Perceived Ease of Use (PEOU)	1.903	1.903
Perceived Risk (PR)	1.682	1.682
Perceived Value (PV)	1.531	1.531

Based on Table 4, of the Variance Inflation Factor (VIF) calculation in the inner model, the VIF values for each independent construct on the dependent construct T show 1.903 for PEOU, 1.682 for PR, and 1.531 for PV. The values are substantially below the threshold indicative of serious multicollinearity (VIF > 5), thus concluding that multicollinearity is not present among the variables in the model. Thus, the estimated influence of each construct on T can be considered stable and reliable.

Table 5. R-Square and Q-Square

Construct	R-square	R-square adjusted	Q^2predict	Interpretation
Reuse Intention	0.930	0.929	0.930	Large Predictive Relevance
Trust	0.926	0.925	0.925	Large Predictive Relevance

The R-squared (R^2) value was utilized as a metric to assess the model's capacity to elucidate the endogenous constructs, following the guidelines established by Hair et al. (2021). The results in Table 5 revealed that reuse intention had an R^2 value of 0.930 (with an adjusted R^2 of 0.929), while trust showed R^2 value of 0.926 (and an adjusted R^2 of 0.925). The results indicate that the model explained 93.0% of the variance in RI and 92.6% of the variance in trust, demonstrating a significant level of explanatory power as categorized by Hair et al. (0.75 = substantial, 0.50 = moderate, 0.25 = weak). This means that the combination of predictor variables provides a highly accurate explanation of patients' trust and their intention to reuse digital hospital services. The f-squared (f^2) value was examined to evaluate the individual impact of each exogenous construct on the endogenous variables.

Following the instructions given by Hair et al. (2021), the model's predictive significance with respect to the endogenous constructs was evaluated by blindfolding the Q^2 values. According to the findings, trust had a Q^2 value of 0.925, and reuse intention had a Q^2 value of 0.930. A high level of predictive relevance is shown by the structural model when both values are substantially above zero. This implies that the values of the endogenous constructions may be reliably predicted by the external constructs. According to Hair et al. (2021), low, medium, and high predictive significance are indicated by Q2 values larger than 0, 0.25, and 0.50, respectively.

Table 6. Cross-Validated Predictive Ability Value

Variable	PLS-SEM vs Indicator Average (IA)		PLS-SEM vs Linear Model (LM)	
	Average Loss Difference	P Value	Average Loss Difference	P Value
Reuse Intention	-0.464	0.000	0.155	0.000
Trust	-0.287	0.000	0.124	0.000
Overall	-0.375	0.000	0.140	0.000

Based on the results of the Cross-Validated Predictive Ability (CVPAT) analysis in Table 6, it appears that the PLS-SEM method shows better predictive performance compared to the Indicator Average (IA) approach, indicated by a significantly negative average loss difference value for all variables (RI, T, and overall) with $p < 0.001$. This indicates that the PLS-SEM model is able to minimize prediction errors more effectively than IA. Meanwhile, the comparison of PLS-SEM with the Linear Model (LM) shows a significantly positive average loss difference, indicating that although LM has lower performance than PLS-SEM, the PLS-SEM model still provides substantial prediction improvements. These results confirm that PLS-SEM is superior in predictive ability for the RI and T variables, as well as, making it worthy of being the main approach in this study.

Table 7. Hypothesis Testing

Path	Original Sample (O)	T Statistics	P Values	Result
Perceived Ease of Use → Trust	-0.023	0.714	0.476	Not Supported
Perceived Value → Trust	0.913	29.780	0.000	Supported
Perceived Risk → Trust	0.120	4.963	0.000	Supported
Perceived Ease of Use → Reuse Intention	-0.034	1.585	0.113	Not Supported
Perceived Value → Reuse Intention	0.010	0.510	0.610	Not Supported
Perceived Risk → Reuse Intention	0.980	64.997	0.000	Supported

The hypothesis testing results in Table 7 show that not all proposed relationships are supported by the data. Following Hair et al. (2021), a relationship is considered statistically significant when the T-statistic exceeds 1.96, and the p-value is below 0.05. The findings reveal that perceived ease of use does not have a significant effect on trust ($\beta = -0.023$, $p = 0.476$) or on reuse intention ($\beta = -0.034$, $p = 0.113$), indicating that the

ease of using digital hospital systems does not necessarily enhance patients' trust or their intention to reuse these services. In contrast, perceived value has a strong and significant influence on trust ($\beta = 0.913$, $p < 0.001$), suggesting that higher perceived benefits of digital hospital services substantially increase patients' trust; however, its direct effect on reuse intention is insignificant ($\beta = 0.010$, $p = 0.610$), implying a possible indirect influence through trust. Furthermore, perceived risk significantly affects both trust ($\beta = 0.120$, $p < 0.001$) and reuse intention ($\beta = 0.980$, $p < 0.001$). These results indicate that when patients perceive risks related to data security, privacy, and system reliability as being well managed, their trust in digital hospital services increases and their intention to continue using these services is strengthened, highlighting risk mitigation as a key factor in fostering patient loyalty and sustained engagement. Among the studied pathways, perceived value and perceived risk emerged as the primary determinants of trust, while perceived risk was the dominant factor influencing reuse intention. The insignificant pathways for perceived ease of use and perceived value on reuse intention suggest that these constructs may play a more indirect role in shaping patients' behavioral intentions.

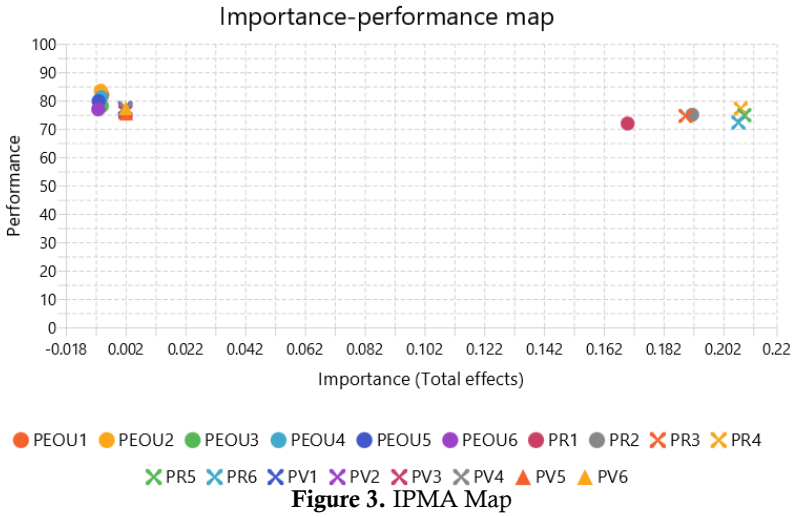

Figure 3. IPMA Map

According to Figure 3, the importance-performance map for the reuse intention variable shows that perceived risk (PR1–PR6) indicators have the largest total effect on RI, with values ranging from 0.170 to 0.209. This indicates that patient risk perception significantly influences the likelihood of patients returning for subsequent visits. In contrast, perceived ease of use (PEOU1–PEOU6) indicators show a negative and very small total effect (around -0.006 to -0.007), indicating that their influence on RI is relatively insignificant, despite their relatively high performance (around 76.917–83.500). Perceived value (PV1–PV6) indicators have a total effect close to zero (0.002) with moderate to high performance (around 75.417–77.333), indicating that patients' perceived value is not a major factor in determining return intention, despite their adequate performance. These results confirm that efforts to improve RI should be focused on managing and mitigating patient perceived risk, while aspects of ease of use and value received by patients are already at a relatively satisfactory level.

DISCUSSION

The results of this study revealed that perceived risk and perceived value were the main determinants of patient trust in digital hospital services, while perceived ease of use did not significantly influence trust or reuse intention. The positive effect of perceived risk on trust and reuse intention aligns with previous research showing that effectively managing perceived risk, including data privacy and system reliability, increases trust and intention to continue using digital services (Yang et al., 2015; Rouibah et al., 2016; Liu et al., 2024). Similarly, the strong impact of perceived value on trust suggests that when patients

perceive clear benefits such as convenience, time efficiency, and cost-effectiveness, trust in the system increases, consistent with studies in the healthcare and FinTech contexts (Narahdita et al., 2020; Zeqiri et al., 2023). Interestingly, PEOU, despite its high performance score in the IPMA, showed minimal importance to reuse intention. This suggests that while patients perceive digital hospital systems as easy to use, usability alone is not sufficient to drive sustained adoption. These findings align with Wilson et al. (2021) and Jatimoyo et al. (2021), who argue that ease of use often contributes indirectly through trust or perceived value, rather than directly influencing behavioral intentions. IPMA further highlights that PR is the most influential predictor of reuse intention, suggesting that hospitals should prioritize risk management strategies, such as enhancing system security, providing clear guidance, and maintaining reliability, to strengthen patient engagement (Adha et al., 2023; Aviati et al., 2025).

These findings reinforce the notion that trust plays a crucial mediator role in digital adoption, where perceived value and perceived risk shape willingness to reuse services (Silva et al., 2023). For hospital management, a focus on increasing perceived benefits and mitigating risks is likely to result in higher patient retention in digital services, while ease of use remains a supporting but secondary factor (Nugroho & Hariani, 2018; Xie et al., 2021). These insights provide practical guidance for designing and implementing a digital hospital platform that is secure and valuable from a patient perspective (Madanian et al., 2023).

The IPMA analysis showed that perceived risk indicators had the strongest influence on reuse intention, with total effects ranging from 0.170 to 0.209. This demonstrates that a major determinant of patients' propensity to return is service preparedness. This result is consistent with other studies that highlight the value of operational preparedness and service effectiveness in raising patient happiness and loyalty, especially when it comes to hospital digitization (Adha et al., 2023; Melly & Saryatmo, 2025). Service readiness encompasses responsiveness, the availability of accurate information, and the ability of staff to effectively address patient needs, all of which directly impact patient experience and their intention to revisit (Aviati et al., 2025).

The indicators of perceived ease of use showed negligible negative total effects (around -0.006 to -0.007) despite relatively high performance, indicating that although patients consider the systems easy to use, this factor does not significantly drive reuse intention. Similarly, perceived value exhibited near-zero total effects (around 0.002) with moderate to high performance, suggesting that while the benefits are adequately perceived, they are not the main determinants of returning behavior. These findings imply that ease of use and perceived value primarily influence initial acceptance and satisfaction, whereas reuse intention is more strongly shaped by other factors such as trust and perceived risk (Narahdita et al., 2020; Xie et al., 2021; Liu et al., 2024).

The IPMA results confirm that strategies to improve reuse intention should focus on enhancing perceived risk by strengthening staff capacity, ensuring fast and accurate service procedures, and optimizing the integration of digital systems with patient care processes (Nugroho & Hariani, 2018). Meanwhile, the ease of use and perceived value aspects of patients are already at a satisfactory level and can therefore be maintained, but are not a primary priority in efforts to increase reuse intention. Therefore, hospitals seeking to increase reuse intention should place greater emphasis on operational service readiness, while maintaining the quality of digital systems to ensure user-friendliness and adequate value for patients. This strategy aligns with the digital transformation trend in the healthcare sector, where operational effectiveness remains a key determinant of patient loyalty (Zhou et al., 2017; Dayan et al., 2022).

CONCLUSION

Based on the research results, it can be concluded that patient behavior in reusing digital hospital services is strongly influenced by their perceptions of the risks and value offered by those services. Although perceived ease of use demonstrated high performance, this variable did not significantly influence trust or reuse intention. This indicates that

ease of use alone is not sufficient to build trust or encourage reuse of digital hospital services. Conversely, perceived value emerged as a very important factor in shaping trust, although it did not have a direct influence on reuse intention. Patient-perceived value plays a more significant role as a catalyst that strengthens Trust, which in turn can indirectly influence behavioral intentions.

The most dominant factor is perceived risk, which has a strong and significant influence on both trust and reuse intention. The high "importance" value of perceived risk in the IPMA results indicates that perceived risks related to data security, system reliability, and information privacy are key considerations for patients in deciding to reuse digital hospital services. However, because its performance level is still in the moderate category, the hospital has a significant opportunity to improve the quality of its digital services by strengthening the security, transparency, and reliability of its systems. This study confirms that in the context of utilizing digital hospital services, trust is a central element, built primarily through perceptions of value and risk. Reuse intention is determined more by the patient's level of psychological comfort and sense of security than simply the ease of use of the system. Therefore, healthcare providers need to prioritize strategies for reducing risk and improving perceived security, while still optimizing the value of the digital services offered, to encourage continued patient use. One limitation of this study is the use of purposive sampling and a cross-sectional design, which may limit the generalizability of the findings and prevent the examination of changes in patients' perceptions and reuse intentions over time. Future research is therefore recommended to employ longitudinal designs and broader sampling techniques, as well as to incorporate additional variables such as service quality, digital literacy, or perceived security to further explain reuse intention in digital hospital services.

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