

Determinants of Electronic Medical Records Use for Improving Physician Performance

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ABSTRACT

The high incidence of malpractice worldwide, particularly in the United States (approximately 32%), is a significant problem in today's digital age, where all hospitals use electronic medical records to enhance performance and patient safety. This study aims to examine the effect of digital literacy, system quality, and information technology service quality on physician performance, using electronic medical records as a mediating variable. This study used a quantitative cross-sectional approach. The sample for this study consisted of 48 physicians who provide patient care using electronic medical records. The research data were obtained from responses to a 1-4 Likert-scale questionnaire and analyzed using Partial Least Squares (PLS) based Structural Equation Modelling (SEM) with SmartPLS 4.0. The results of this study indicate that the use of electronic medical records can mediate the influence of digital literacy, system quality, and information technology service quality on physician performance. The use of electronic medical records, digital literacy, and system quality has a positive and significant effect on physician performance. At the same time, information technology service quality did not have a significant effect on physician performance. These findings suggest that management should improve individual user capabilities, system quality and reliability, and the quality and responsiveness of facility service support to enhance effective and efficient physician performance using electronic medical records.

INTRODUCTION

Previous findings indicate that approximately doctors in Australia contributed to nearly 49% of all patient complaints, whilst in the United States, doctors contributed to 32% of malpractice cases over the past ten years. Therefore, Physician performance is an important indicator of the success of healthcare services because it reflects the physician's ability to provide safe, effective, and high-quality medical care, including clinical competence, communication with patients, and professionalism in carrying out duties (UC Davis PSNet, 2025). However, physician performance can decline due to increasing workloads, the complexity of clinical documentation, and limited adaptation to increasingly developing digital systems in healthcare facilities (Rotenstein et al., 2024). Research (Jeilani & Hussein, 2025) shows that adopting digital health technology has a positive effect on physician performance, though its effectiveness depends heavily on organizational support and a supportive work environment. Conversely, excessive documentation burdens and low usability of digital

systems have been to impact physician well-being and reduce work motivation negatively (McBride et al., 2023).

Physician performance is influenced by an individual's ability to utilise digital health technology, particularly digital literacy, which includes the ability to understand, access, evaluate, and use digital information to support clinical decision-making (Metris & Priambodo, 2023). A good level of digital literacy enables physicians to use EMR systems more efficiently, accelerate documentation, and improve coordination and communication between healthcare professionals (Lee & Kim, 2025). Research by Kundi and Alharbi (2022) shows that digital literacy influences performance by increasing awareness, training, and the use of digital technology in work activities.

In addition to digital literacy, the quality of the EMR system is an important factor in supporting physician performance because a reliable, easy-to-use system integrated with clinical workflows can reduce administrative burdens and improve the accuracy of medical decision-making (Jeilani & Hussein, 2025). Low usability of health information systems is correlated with increased work fatigue and user dissatisfaction, which negatively impacts physician clinical performance (Holmgren et al., 2024). Efforts to improve system design and workflow have been shown to increase documentation efficiency and medical personnel productivity (Lindsay, M. R., & Lytle, 2022; Mazur et al., 2019).

Another factor influencing physician performance is the quality of information technology (IT) services, including technical support, responsiveness, and training for system users (Salleh et al., 2020). Excellent IT service quality enables physicians to quickly resolve technical issues and maintain smooth RME usage, especially under high workload conditions (Salleh et al., 2021). Research by Rhayha et al. (2025) also shows that IT service quality positively influences user satisfaction and indirectly affects physician performance.

Theoretically, the successful implementation of a health information system can be explained by the Information System Success Model, which emphasizes that system quality and service quality influence system satisfaction and usage, ultimately resulting in positive impacts on individuals and organizations (DeLone & McLean, 2016). In the hospital context, these impacts are reflected in increased documentation efficiency, service coordination, and medical staff performance (Salleh et al., 2021).

St. Vincentius Hospital Singkawang as a class C hospital in West Borneo has implemented electronic medical records in stages since 2024, reaching full implementation in 2025, in accordance with the Regulation of the Minister of Health Number 24 of 2022 concerning the implementation of electronic medical records (Regulation of the Minister of Health of the Republic of Indonesia, 2022). However, internal hospital data show that after the full implementation of EMR, there was still a decrease in the completeness of filling out the initial patient assessment and the occurrence of medical errors related to drug prescriptions through the electronic system, which indicates that the utilization of EMR has not been fully optimal in supporting physician performance.

This phenomenon shows a gap between the objectives of digital transformation of health services and the reality of implementation in the field, so this study is important to analyze the influence of digital literacy, system quality, and IT service quality on Physician performance with the use of electronic medical records as a mediating variable, especially in the context of class C hospitals in areas with limited network infrastructure.

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Based on the background and research gap outlined above, this study aims to examine the effect of digital literacy, system quality, and information technology service quality on physician performance, examine the effect of digital literacy, system quality, and information technology service quality on the use of electronic medical records, examine the effect of electronic medical record use on physician performance, and analyze the mediating role of electronic medical record use in the relationship between digital literacy, system quality, information technology service quality, and physician performance, with the research objects including all general practitioners and specialists at St. Vincentius Hospital Singkawang who use electronic medical records in their daily practice.

The benefits of this research are both theoretical and practical; theoretically, this study contributes to the development of the Information System Success Model (DeLone & McLean, 2016) and Task-Technology Fit Theory (Goodhue & Thompson, 1995) by integrating individual digital literacy factors with technological and service quality factors in the context of electronic medical record implementation in a class C hospital in a developing region, while the findings also enrich the understanding of how individual capabilities, system quality, and service quality interact to influence system usage and ultimately improve physician performance; practically, the results of this study are expected to provide an evidence-based reference for hospital management in formulating strategies to improve physician performance through enhanced digital literacy training, system quality improvement, and responsive IT service support, serve as a basis for policymakers in designing more effective electronic medical record implementation policies, particularly in hospitals with limited infrastructure in developing regions, and offer a replicable methodology for other healthcare facilities facing similar challenges in optimizing electronic medical record utilization to improve physician performance and patient safety.

METHOD

Research Design

This study employed a quantitative approach using a cross-sectional design through a survey. This approach was chosen because the main objective of the study is to explain the causal relationship and test the formulated hypothesis regarding the influence of independent variables on dependent variables, as well as the role of mediating variables. The causality design allows researchers to measure the extent of the influence of digital literacy, system quality, and information technology service quality on physician performance, both directly and indirectly through the use of electronic medical records as a mediating variable. The research was conducted cross-sectionally, with data collected from respondents at a specific point in time to capture the dynamics of the variables at the research location.

Location, Population, and Sample

The study was conducted at St. Vincentius Hospital in Singkawang, a private healthcare institution. The population in this study consisted of all general practitioners and specialists who used electronic medical records to provide patient care. Based on the latest employment data, the total population was 48 people.

Given the relatively small population (less than 100 people) and to avoid sampling bias, this study used a saturated sample, or total sampling, technique. With this method, all members of the population, consisting of 48 general practitioners and specialists, were designated as

research respondents. The use of total sampling aims to maximize external validity and ensure that research results can be fully generalized to the target population without introducing sampling error.

Operational Definitions and Measurement of Variables

Data was collected using a closed questionnaire distributed directly to respondents. Measurements were made using a 4-point Likert scale, ranging from a score of 1 for strongly disagree to a score of 4 for strongly agree. This scale was chosen to avoid respondents' tendency to select neutral answers or central-tendency bias, thereby forcing them to take a stance.

The dependent variable in this study is physician performance, defined as the results of behaviour perceived by individuals after performing a job or action within a certain period of time, with appropriate technology used to complete the task. This variable is measured using nine statements developed from on three dimensions proposed by Goodhue & Thompson (1995): quality (work quality), effectiveness (ease of work), and efficiency (minimizing resources).

The first independent variable is digital literacy, which refers to an individual's basic ability to use information technology devices to search for, understand, and process information obtained from various digital sources, as well as the ability to behave and communicate, and the ability to think critically in assessing the credibility, relevance, and accuracy of information. This variable is measured using 12 statements developed based on Bawden's (2008) four dimensions: underpinnings, background knowledge, central competencies, and attitudes and perspectives.

The second independent variable is system quality, which is a characteristic of the system's technical and operational quality that affects the user's experience, value, and satisfaction, and that provides benefits to the organization. This variable is measured by 15 statements that refer to and are developed based on 5 dimensions in DeLone & McLean's theory (2016). The dimensions used include ease of use, system reliability, ease of learning, sophistication, and response time.

The third independent variable is IT service quality, which is a comprehensive assessment of service excellence influenced by the difference between desired expectations and needs and the capabilities of the service provided. This variable is measured using 15 statements that refer to and are based on the five dimensions of Pitt et al. (1995) theory. The dimensions used are tangibles, reliability, responsiveness, assurance, and empathy.

The mediating variable is the use of electronic medical records, defined as the level of user behaviour that voluntarily uses the information system in depth to carry out daily tasks and activities. This variable is measured by 12 statements that refer to and are developed from the four dimensions in DeLone & McLean's (2016) theory. The dimensions used include amount of use, frequency of use, nature of use, and purpose of use.

Data Analysis Procedure

Data analysis was performed using variance-based Structural Equation Modelling (SEM) or Partial Least Squares (PLS) with SmartPLS version 4. The selection of the SEM-PLS method was based on the characteristics of the data and the predictive nature of the research objectives, as well as its ability to handle limited sample sizes and data that did not need to be strictly normally distributed (Hair et al., 2017). The analysis procedure was carried out in two

main stages, namely evaluation of the measurement model (outer model) and evaluation of the structural model (inner model).

During the measurement model evaluation stage, the validity and reliability of the instruments were tested. Convergent validity was assessed based on a loading factor value that must be greater than 0.70 and an Average Variance Extracted (AVE) value that must be greater than 0.50. Discriminant validity was tested using the Fornell-Larcker and cross-loading criteria, in which the loading factor for each indicator must be higher for its own variable than for any other variable, ensuring that each variable measure something unique (Hair et al., 2017). The reliability of the instrument was evaluated using two parameters, namely Cronbach's Alpha and Composite Reliability, with an acceptance threshold value above 0.70 for both parameters.

The next step is to evaluate the structural model to test the research hypothesis. This step begins by assessing goodness-of-fit using the Standardized Root Mean Square Residual (SRMR) indicator, with a cut-off value of 0.08 or lower indicating acceptable model fit. The predictive power of the model is assessed using the coefficient of determination (R-Square), which indicates how much of the variance in the dependent variable is explained by the independent variables. Hypothesis testing is conducted through a bootstrapping procedure with 5,000 subsamples to generate T-statistics and P-values. The hypothesis is accepted if the T-statistic value is greater than 1.96 and the P-value is less than 0.05 at a 95 percent confidence level. In addition to direct effects, this analysis also tests the significance of indirect effects to prove the mediating role of electronic medical record use variables.

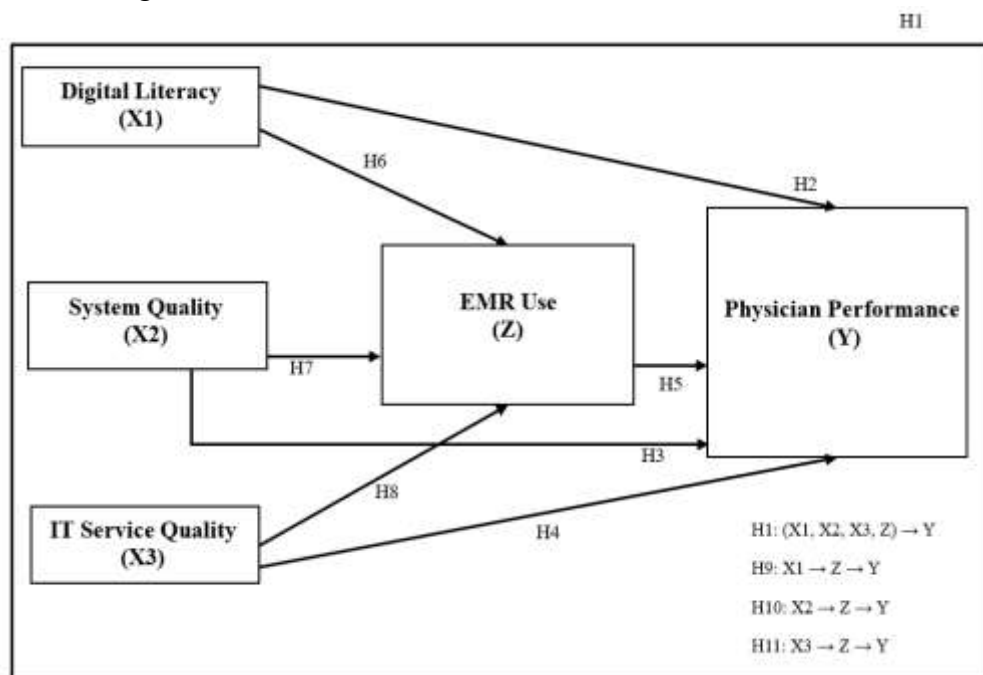


Figure 1. Research Model Constellation
Source: Authors' conceptual framework (2026)

RESULT AND DISCUSSION

Description of Respondent Characteristics

This study used a census method, including the entire population of general practitioners and specialists at St. Vincentius Hospital in Singkawang as respondents. Of the 48 questionnaires distributed, all were returned and deemed suitable for analysis (response rate

100 percent). The demographic profile of the respondents is crucial information for understanding the social background that may influence perceptions of individual abilities, system quality, and work behaviour.

Based on the data collected, the majority of respondents were male, namely 30 people or 62.5 percent, while female respondents numbered 18 people or 37.5 percent. In terms of age, most respondents were aged ≤ 30 years (18 people, 37.5%), followed by those aged 41-50 years, who were the second largest group of respondents (14 people, 29.2%). Regarding the highest level of education, most respondents had a master's or specialist degree (29 people, 60.4%), while the rest had a bachelor's degree in medicine. In terms of length of service, most respondents had been working for 2-6 years, namely 27 people (56.3%). The high percentage of doctors who have worked for more than one year indicates that the respondents have a deep understanding of the development of the hospital's information system, so the validity of their assessment of the system's quality and services can be accounted for. Details of the respondents' characteristics are presented in Table 1 below.

Table 1. Distribution of Respondent Characteristics

Characteristics	Category	Freq.	(%)
Gender	Male	30	62.5
	Female	18	37.5
Age Group	≤ 30 years	18	37.5
	31 - 40 years	14	29.2
	41 - 50 years	12	25
	≥ 51 years	4	8.3
Education Level	Bachelor's degree in medicine	19	39.6
	Master's degree or specialist degree	29	60.4
Length of Service	3 months – 1 year	10	20.8
	2 - 6 years	27	56.3
	7 - 11 years	7	14.6
	> 11 years	4	8.3
Clinical Position	General Practitioner	20	41.7
	Medical Specialist	28	58.3
Total		48	100

Source: Primary data processed by the authors (2026)

Measurement Model Evaluation

Before testing the hypothesis, the measurement model was evaluated to ensure that the instruments used were valid and reliable. Convergent validity was assessed using factor loadings and Average Variance Extracted (AVE) values. The results of the analysis show that

all indicators of digital literacy, system quality, IT service quality, RME usage, and physician performance have loading factor values above 0.70. This indicates that each statement item can accurately reflect the measured variable.

In addition to validity, reliability tests were conducted to measure the internal consistency of the measuring instruments. The parameters used are Composite Reliability and Cronbach's Alpha. Based on Table 2, all research variables have Composite Reliability and Cronbach's Alpha values above 0.70, as well as AVE values above 0.50. Thus, this research instrument meets the strict validity and reliability requirements to proceed to the structural analysis stage.

Table 2. Results of Reliability and Construct Validity Tests

Variable	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)	Description
Digital Literacy (X1)	0.939	0.948	0.728	Reliable & Valid
System Quality (X2)	0.958	0.961	0.691	Reliable & Valid
IT Service Quality (X3)	0.968	0.972	0.683	Reliable & Valid
EMR Use (Z)	0.973	0.979	0.638	Reliable & Valid
Physician Performance (Y)	0.948	0.950	0.668	Reliable & Valid

Source: Primary data processed by the authors using SmartPLS 4.0 (2026)

Structural Model Evaluation

After ensuring that the instruments are valid and reliable, the next step is to evaluate the structural model to examine the relationships among latent variables. This evaluation begins by examining the R-Square value, which indicates the model's predictive power. The results of the analysis in Table 3 show an SRMR value of 0.094 in the model feasibility test (acceptable fit), while the Adjusted R-Square for the physician performance variable is 0.662. This figure indicates that 66.2 percent of the variation in the behaviour of nurses' performance at St. Vincentius Hospital in Singkawang can be explained collectively by variations in digital literacy, system quality, IT service quality, and RME use. Meanwhile, the R-Square value for the RME use variable is 0.713, which falls into the moderate category.

Table 3. Summary of Model Feasibility and Coefficient of Determination (R-Square)

Model Suitability Indices	Value	Category
SRMR (<i>Standardized Root Mean Square Residual</i>)	0,094	<i>acceptable fit</i>
Endogenous Variables	R-Square Adjusted	Category
Use of Electronic Medical Records	0.713	Moderate
Physician Performance	0.662	Moderate

Source: Primary data processed by the authors using SmartPLS 4.0 (2026)

In order to visualize this causal relationship, the following is a path analysis diagram generated from data processing using SmartPLS

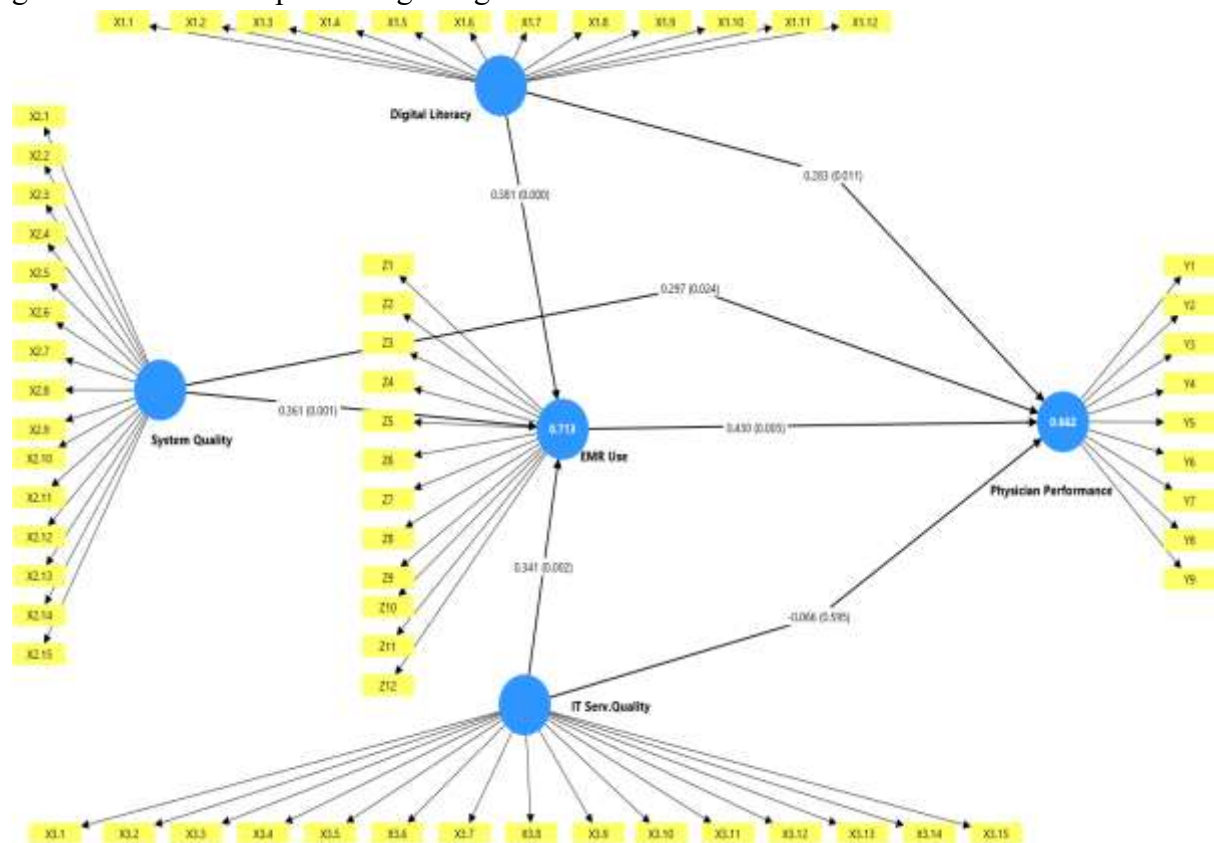


Figure 2. Path Analysis

Source: Primary data processed by the authors using SmartPLS 4.0 (2026)

Hypothesis testing was performed using the bootstrapping procedure to obtain T-statistics and P-values. The results of the direct and indirect effect tests are summarized in Table 4 below.

Table 4. Summary of Hypothesis Test (Direct and Indirect Effects)

Hypothesis	Path	Path Coefficient	T-Statistic	P-Values	Decision
H ₂	Digital Literacy → Physician Performance	0.283	2.544	0.011	Accepted
H ₃	System Quality → Physician Performance	0.297	2.251	0.024	Accepted
H ₄	IT Service Quality → Physician Performance	-0.066	0.531	0.595	Rejected
H ₅	Use of EMR → Physician Performance	0.430	2.928	0.003	Accepted
H ₆	Digital Literacy → Use of EMR	0.381	3.911	0.000	Accepted
H ₇	System Quality → Use of EMR	0.361	3.195	0.001	Accepted
H ₈	IT Service Quality → Use of EMR	0.341	3.154	0.002	Accepted
H ₉	Digital Literacy → Use of EMR → Physician Performance	0.164	2.150	0.032	Accepted

Hypothesis	Path	Path Coefficient	T-Statistic	P-Values	Decision
H ₁₀	System Quality → Use of EMR → Physician Performance	0.155	2.181	0.029	Accepted
H ₁₁	IT Service Quality → Use of EMR → Physician Performance	0.146	2.215	0.027	Accepted

Source: Primary data processed by the authors using SmartPLS 4.0 (2026)

Simultaneous effects of digital literacy, system quality, IT service quality, and use of EMR on physician performance

SEM-PLS results show that the structural model has excellent validity and proves that digital literacy, System quality, IT service quality, and RME usage simultaneously have a significant effect on physician performance (H1 accepted). Substantively, these four variables can explain approximately 66.2% of the variation in physician performance ($R^2 = 0.662$), which is also reinforced in the inner model test with an SRMR value (0.094) of acceptable fit. These findings reinforce the information system success model (ISSM) and the task-technology fit frameworks, which state that skilled individuals, high system quality, responsive technology service support, and effective use of electronic medical record systems are the main factors that determine effective and optimal physician performance in hospitals.

Previous research has identified factors that influence performance into several categories, including technological, organizational, and environmental factors (Rhayha et al., 2025). Research by Salleh et al. (2020) also assessed technological factors and added the quality of knowledge gained from the use of electronic medical record technology to increase its adoption, ultimately leading to improved performance. Another study by Kundi & Alharbi (2022) found that strong individual digital skills in electronic medical record systems will increase their use. Human factors, especially those with strong digital literacy, will improve the ability to use information and communication systems effectively, thereby also enhancing physician performance through their use. The results of research by Kayser et al. (2022) also found personal factors (lack of basic computer skills, lack of knowledge about digitisation, lack of use of electronic medical record technology, fear of using technology) are significantly related to the use of electronic medical records.

The influence of digital literacy in improving physician performance and the use of RME

Digital literacy has been proven to improve physician performance (H2 accepted, $\beta = 0.283$) and also increase the use of RME (H6 accepted, $\beta = 0.381$). These findings show that physicians with strong technology skills and knowledge tend to be more active users and adapt quickly. This can encourage improvements in work processes using RME, thereby reducing the rate of medical errors, especially in terms of writing instructions and prescriptions when using information technology systems.

Theoretically, these findings are in line with the principle of information system success, which holds that individual capabilities can increase system usage and ultimately benefit system users. Evidence from a previous study by Metris & Priambodo (2023) indicates that digital literacy not only improves technological skills but also encourages changes in work processes that are more adaptive and add value, especially in the era of digitalisation. Ramadan

et al. (2025) also found that the higher an individual's digital literacy, the greater their awareness and behaviour regarding the use of electronic medical records. Increased digital-based innovation contributes to faster decision-making, more complete documentation, and better inter-professional coordination. Lee & Kim's (2025) research shows that a high level of digital literacy affects performance in providing daily services using technology systems.

The importance of system quality in influencing physician performance and the use of RME

The important role of system quality in the success of information systems in this study shows that system quality can influence physician performance (H3 accepted, $\beta = 0.297$) and also influence the use of RME (H7 accepted, $\beta = 0.361$). This indicates that a reliable system can make patient information management more effective and efficient, and improve communication between health workers. This helps create more structured work quality and supports increased system usage, ultimately improving physician satisfaction and performance.

According to information system success theory, system quality is one of the technological factors that must enable users to easily learn the system, ensure system reliability, maintain security, minimize errors, and achieve satisfaction when interacting with the system. An easy-to-use, reliable system is necessary to ensure that users, such as doctors, can access and use it effectively. Evidence from a previous study by Rotenstein et al. (2024) indicates that when users like the quality of the system they use, their work productivity increases, and they use their time more effectively and efficiently in their daily work. The system's quality reduces time spent using electronic medical records, thereby reducing documentation burden and increasing productivity. Rasipin et al. (2024) also found that a well-designed, easy-to-use system with adequate technical support encourages deeper use. The results of a study by Bashiri et al. (2023) also show that system quality, which provides ease of use, reliability, and responsiveness, has a significant effect on the use of electronic medical records.

IT service quality has different roles in influencing physician performance

IT service quality, which has no direct influence on physician performance (H4 Rejected, $p = 0.595$), may be explained by service quality already in line with expectations, reliability, and good support response, which do not directly affect physician performance. Theoretically, the indirect influence pathway is clearer because the quality of information system services is related to providing adequate facility support, ensuring timely and consistent system improvements, maintaining system security and smoothness, providing service support, and paying attention to and understanding the system workflow for effective system use. Thus, the influence of IT service quality is more directly proven on the use of RME (H8 Accepted, $\beta = 0.341$).

This finding is supported by a previous study by Rhayha et al. (2025), which shows that the quality of information technology services does not have a direct effect on clinician performance but does have an indirect effect through the use of electronic medical record systems. Other studies also align with and reinforce this study's results (Jazil et al., 2022; Hartiwi & Rokhayati, 2023). A study by Senishaw et al. (2023) found that the quality of information technology services plays an important role in increasing the use of electronic

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medical record systems. This study emphasizes that responsive, reliable service quality will increase user satisfaction and trust in the use of electronic medical records.

The vital role of utilizing electronic medical records as a connecting bridge

The most significant finding in this study is the influence of EMR use on physician performance with a β value of 0.430 (H5 Accepted), making it the strongest determinant among the variables. This confirms that the better and more intensive the use of electronic medical records, the higher the effectiveness and efficiency of doctors' work in daily practice. The use of electronic medical records is not only measured by frequency but also by the features used to improve the quality, effectiveness, and efficiency of doctors' work.

The use of electronic medical records also serves as a link between individual capabilities, system quality, and service quality, providing benefits and impacts on individuals, as shown in H9, H10, and H11. This indicates that doctors with good skills, in-depth knowledge, and a positive attitude toward technology will be more confident and motivated to use electronic medical records. In addition, system reliability and ease of use, as well as an easy-to-use workflow, are also important parts of system quality that can increase doctors' confidence in using electronic medical records. Quality service support factors, such as adequate facilities, training provided, and the speed of response to repairs and the maintenance of the smooth running of the information system, will encourage doctors to utilize electronic medical records more optimally and effectively in their daily practice, ultimately providing benefits and impacting doctors' performance.

Theoretically, these findings are consistent with the principle of information system success was high system quality, combined with high individual capability, increases system usage and ultimately improves user performance. Evidence from previous studies by Chen & Hsiao (2021) indicates that individual characteristics, technology suitability, and task suitability influence performance through the use of information systems. Rhayha et al. (2025) emphasize that high system quality increases user satisfaction and encourages users to increase their use of electronic medical records to improve work quality. Meanwhile, the results of Abdullah et al.'s (2025) study indicate that optimal service support increases effective system usage, thereby influencing performance improvement.

Research Findings

1. The influence of digital literacy, system quality, information technology service quality, and the simultaneous use of electronic medical records on physician performance is significant. These findings explain the importance of the relationships among skilled individuals, good system quality, responsive technology support, and the intensive and effective use of electronic medical record systems as key factors in determining effective and efficient physician performance.
2. The influence of digital literacy, system quality, and the use of electronic medical records significantly affects physician performance, indicating that higher individual digital capabilities, accompanied by reliable system quality and effective use of medical records, will improve documentation quality and work speed and reduce medical errors in services. Meanwhile, the quality of information technology services does not significantly affect physician performance, suggesting that it is necessary first to implement a system so that service quality can affect physician performance.

3. The influence of digital literacy, system quality, and information technology service quality is significant in the use of electronic medical records, indicating that these three factors are the main drivers of individuals' use of an information system. When a person's digital capabilities are high, they will use the system intensively and effectively, and when the system and the services provided are of high quality and reliable, it will provide comfort and satisfaction for users.
4. The use of electronic medical records can mediate the influence of digital literacy, system quality, and information technology service quality on physician performance. The use of medical records plays a very important role in bridging these three factors to improve physician performance, especially in terms of information technology service quality, which has the greatest mediating influence, as it first affects system users and then their performance.

CONCLUSION

This study demonstrates that digital literacy, system quality, information technology service quality, and the use of electronic medical records collectively influence physician performance. The findings indicate that digital literacy, system quality, and electronic medical record utilization have significant positive effects on physician performance, while IT service quality does not directly affect performance. Physicians with stronger digital competencies are better able to utilize technology effectively, leading to improved productivity and service quality. Likewise, high-quality systems that are reliable, user-friendly, and efficient help physicians manage patient information more effectively and support better communication among healthcare professionals. The study also reveals that digital literacy, system quality, and IT service quality significantly contribute to the use of electronic medical records. Physicians with greater technological knowledge and skills are more likely to adopt and utilize electronic medical record systems effectively in their daily practice. In addition, system characteristics such as ease of use, reliability, and accessibility encourage greater utilization of these systems. Quality IT services, including adequate training, technical support, and responsive maintenance, further facilitate the effective use of electronic medical records, enabling healthcare organizations to improve operational efficiency and service delivery. Furthermore, the use of electronic medical records plays a significant mediating role in the relationship between digital literacy, system quality, IT service quality, and physician performance. Theoretical implications of this study extend the Information System Success Model and Task-Technology Fit Theory by highlighting the importance of both technological and individual factors in enhancing performance outcomes. From a managerial perspective, hospitals should prioritize continuous digital literacy training, regular system evaluations, improvements in technological infrastructure, and policies that encourage complete and accurate documentation practices. Future studies are recommended to adopt longitudinal research designs, use objective measures of digital literacy, and examine broader healthcare settings to provide deeper insights into the factors influencing physician performance.

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