

The Relationship Between Perceived Usefulness, Perceived Ease of Use of Electronic Medical Records, and Outpatient Staff Satisfaction at RSD Idaman Banjarbaru

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ABSTRACT

Introduction: Electronic Medical Records (EMR) are part of the digital transformation in healthcare, aiming to improve the effectiveness and efficiency of hospital services. The success of EMR implementation is influenced by perceived usefulness and ease of use, which can impact user satisfaction. This study aims to determine the relationship between perceived usefulness and ease of use of the Electronic Medical Record and outpatient staff satisfaction at Idaman Regional Hospital, Banjarbaru.

Method: The research design uses quantitative methods with a correlational descriptive design and a cross-sectional approach. The research sample consisted of 82 outpatient officers who were selected using total sampling techniques. Data collection was carried out using a questionnaire that had been tested for validity and reliability and analyzed bivariately using the Spearman Rank test.

Result: The results showed that the majority of respondents considered the EMR useful (96.3%), easy to use (91.5%), and satisfied with the use of the EMR (65.9%). The Spearman Rank test showed a significant relationship between perceived usefulness and officer satisfaction ($r = 0.320$; $p = 0.003$) and a significant relationship between perceived ease of use and officer satisfaction ($r = 0.456$; $p = 0.001$).

Conclusion: There is a relationship between perceived usefulness and perceived ease of use of Electronic Medical Records (EMR) and outpatient staff satisfaction at Idaman Regional Hospital, Banjarbaru. Outpatient staff are advised to improve their skills and accuracy in using EMR and to actively report any problems they encounter to optimize service delivery.

Keywords: Staff Satisfaction; Perceived Usefulness; Perceived Convenience; Electronic Medical Records of Outpatient Staff

Introduction

The development of digital transformation in the healthcare sector has encouraged the use of information technology in various aspects of healthcare services, one of which is through the implementation of Electronic Medical Records (EMR). In accordance with Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022, all healthcare facilities are required to maintain electronic medical records as an effort to improve service quality, ensure patient safety, and improve health information management. The implementation of EMR is expected to support service efficiency, accelerate access to patient data, minimize errors in recording, and assist healthcare workers in the clinical decision-making process (Ministry of Health of the Republic of Indonesia, 2022).

The success of Electronic Medical Records implementation is not only determined by the availability of adequate technological infrastructure, but also by the level of user acceptance of the implemented system. One theory widely used to explain technology acceptance is the Technology Acceptance Model (TAM) introduced by Davis. This model explains that perceived usefulness and perceived ease of use are the main factors influencing a person's willingness to accept and use a technology (Davis, 1989).

Perceived usefulness refers to a user's belief that using a system can improve their effectiveness and performance in carrying out their work. Meanwhile, perceived ease of use reflects the belief that the system is easy to understand, learn, and operate without requiring excessive effort (Munazhifah et al., 2023). If users perceive a system to be highly useful and easy to use, they are more likely to accept and utilize it on a continuous basis (Roziqin et al., 2021).

Various studies have demonstrated that the implementation of Electronic Medical Records positively contributes to improving the quality of healthcare services. Fennelly et al. (2020) stated that the implementation of Electronic Health Records (EHRs) can improve service coordination while simultaneously improving the quality of medical documentation. Consistent with this research, Amin et al. (2021) found that perceived usefulness and perceived ease of use influence the successful implementation of health information systems. However, several studies still report obstacles in implementing

EHRs, such as suboptimal user adaptation, lack of training, and technical barriers that can ultimately impact user satisfaction with the system (Andini et al., 2022).

As part of its digital transformation efforts in healthcare, Idaman Banjarbaru Regional Hospital (RSD Idaman) has implemented EHRs in outpatient services. Although the system has been used in its services, several obstacles remain, including network disruptions, the adjustment process to the newly implemented system, and differences in user skills in operating the application. These conditions have the potential to influence staff's assessment of the usefulness and ease of use of EHRs, which in turn can impact their level of satisfaction with the system.

Research on EHR user satisfaction has been conducted extensively in various healthcare facilities. However, research specifically examining the relationship between perceived usefulness and perceived ease of use with outpatient staff satisfaction, particularly in regional hospitals, is still relatively limited. Therefore, this study aims to analyze the relationship between perceived usefulness and perceived ease of use of Electronic Medical Records (EMR) and outpatient staff satisfaction at Idaman Regional Hospital (RSD) Banjarbaru. The results of this study are expected to serve as a consideration for hospital management in evaluating and improving the quality of EMR implementation in the future.

Method

This research is a quantitative, descriptive correlational study using a cross-sectional approach. It was conducted at the Outpatient Unit of Idaman Regional Hospital, Banjarbaru. The population consisted of all 103 outpatient staff using Electronic Medical Records (ERCs). The sample size of 82 respondents was determined using a total sampling technique in accordance with established inclusion and exclusion criteria.

The independent variables in this study were perceived usefulness and perceived ease of use of the Electronic Medical Records, while the dependent variable was outpatient staff satisfaction. Data were collected using a questionnaire addressing perceived usefulness, perceived ease of use, and user satisfaction. The research

instrument underwent validity and reliability testing before being used for data collection.

Data were analyzed using univariate and bivariate methods. Univariate analysis was used to describe respondent characteristics and the distribution of each study variable. Bivariate analysis used the Spearman Rank test because the normality test results indicated the data were not normally distributed, with a significance level of 95% ($\alpha = 0.05$).

This research has obtained ethical approval from the Health Research Ethics Commission according to the Ethical Clearance number listed in the research document before the data collection process was carried out.

Results

The results of this study aim to determine the relationship between the perception of usefulness and the perception of ease of Electronic Medical Records with the satisfaction of outpatient staff at RSD Idaman Banjarbaru.

Table 1. Frequency Distribution of Outpatient Staff Characteristics at RSD Idaman Banjarbaru in 2026

No.	Information	Frequency	Percentage(%)
Age			
1.	Adults (19 □ 44 years)	47	57,3
2.	Pre-elderly (45 □ 59 years)	33	40,2
3.	Elderly (≥ 60 years)	2	2,4
Total		82	100
Gender			
1.	Man	19	23,2
2.	Woman	63	76,8
Total		82	100
Last education			
1.	Diploma (D1/D2/D3/D4)	37	45,1
2.	Bachelor (S1)	31	37,8
3.	Postgraduate (S2/S3)	14	17,1
Total		82	100
Length of work			
1.	6 month – 1 years	1	1,2
2.	> 1 years	81	98,8
Total		82	100

Source: Primary Data, 2026

Based on Table 1, the majority of respondents aged 19–44 years were 47 people (57.3%), 63 people were female (76.8%), 37 people had a Diploma degree (45.1%), and 81 people had worked for more than one year (98.8%). These characteristics show that the majority of respondents are officers with sufficient work experience in using Electronic Medical Records.

Table 2. Frequency Distribution of Perceptions of the Usefulness of Electronic Medical Records for Outpatient Staff at RSD Idaman Banjarbaru in 2026

Perception of Benefit	Frequency	Percentage (%)
Less useful	3	3,7
Beneficial	79	96,3
Total	82	100%

Source: Primary Data, 2026

Based on Table 2, the majority of respondents (79 respondents, 96.3%) perceived Electronic Medical Records as beneficial, while 3 respondents (3.7%) perceived it as less beneficial. These results indicate that the majority of staff believe the use of Electronic Medical Records is beneficial in supporting the implementation of work in outpatient services.

Table 3. Frequency Distribution of Perceptions of the Ease of Electronic Medical Records for Outpatient Staff at RSD Idaman Banjarbaru in 2026

Perception of Ease	Frequency	Percentage (%)
Less easy	7	8,5
Easy	75	91,5
Total	82	100%

Source: Primary Data, 2026

Based on Table 3, 75 respondents (91.5%) considered the Electronic Medical Record system easy to use, while 7 respondents (8.5%) considered the system less user-friendly. These findings indicate that most staff did not experience any difficulty operating the Electronic Medical Record system.

Table 4. Frequency Distribution of Outpatient Staff Satisfaction with Electronic Medical Records at RSD Idaman Banjarbaru in 2026

Category	Frequency	Percentage (%)
Satisfied	54	65,9
Very satisfied	28	34,1
Total	82	100

Source: Primary Data, 2026

Based on Table 4, the majority of respondents (54 respondents (65.9%) were satisfied with the use of Electronic Medical Records, while 28 respondents (34.1%) were very satisfied. These results indicate that outpatient staff generally have a good level of satisfaction with the use of the Electronic Medical Records system.

Table 5. Relationship between Perceived Usefulness and Satisfaction of Outpatient Staff at RSD Idaman Banjarbaru in 2026

Variabels	<i>Spearman's Rho</i>	<i>P-Value</i>	Information
Perception of Benefit	0,320	0,003	Weak relationship, significant

Source: Primary Data, 2026

Based on Table 5, the Spearman Rank test results show a p-value of 0.003 (<0.05), indicating a significant relationship between perceived usefulness and outpatient staff satisfaction. The correlation coefficient of 0.320 indicates a positive relationship with a weak correlation strength. This indicates that the higher the perceived usefulness of Electronic Medical Records, the higher the staff satisfaction tends to be.

Table 6. Relationship between Perceived Convenience and Outpatient Staff Satisfaction at RSD Idaman Banjarbaru in 2026

Variabels	<i>Spearman's Rho</i>	<i>P-Value</i>	Information
Perception of Ease	0,456	0,0001	Moderate, significant relationship

Source: Primary Data, 2026

Based on Table 6, the Spearman Rank test results show a p-value of 0.001 (<0.05), indicating a significant relationship between perceived ease of use and outpatient staff satisfaction. The correlation coefficient of 0.456 indicates a positive relationship with moderate strength. This finding suggests that the easier it is for staff to use Electronic Medical Records, the higher their level of satisfaction with the system.

Discussion

The study's results revealed a significant relationship between perceived usefulness and outpatient staff satisfaction with the use of Electronic Medical Records (EMR) at Idaman Banjarbaru Regional Hospital (RSD Idaman) ($p = 0.003$). The correlation coefficient of 0.320 indicates a positive relationship with weak strength. This means that the higher the staff's perception of the usefulness of the Electronic

Medical Record, the higher their satisfaction with the system. Although the relationship is considered weak, these results indicate that perceived usefulness remains a factor contributing to increased user satisfaction.

These findings align with the Technology Acceptance Model (TAM) theory proposed by Davis (1989), which states that perceived usefulness is a person's belief that using a system can improve performance and effectiveness in completing work. When staff perceive that the Electronic Medical Record can speed up the service process, facilitate patient data retrieval, reduce recording errors, and facilitate more efficient work completion, their level of satisfaction with the system will increase.

Most respondents in this study assessed that the Electronic Medical Record provides benefits in the implementation of outpatient services. These conditions indicate that the implementation of EMR at Idaman Banjarbaru Regional Hospital has been able to support service activities, particularly in managing patient data more quickly and in an integrated manner. These results align with those of Fennelly et al. (2020), who stated that the implementation of Electronic Medical Records (EMR) can improve the quality of documentation and coordination of healthcare services. Research by Amin et al. (2021) also explained that perceived usefulness influences the success of health information system implementation because users experience direct benefits from the system in their daily work.

However, the strength of the relationship remains weak. This suggests that staff satisfaction is influenced not only by perceived usefulness but also by other factors, such as system quality, information quality, organizational support, and the condition of the technological infrastructure. In the preliminary study at Idaman Banjarbaru Regional Hospital, several obstacles were encountered, such as network disruptions, the adaptation process to the newly implemented system, and differences in staff skills in operating the EMR. These conditions can impact user satisfaction levels, even though they have experienced the benefits of using the system.

The study results also showed a significant relationship between perceived ease of use and outpatient staff satisfaction ($p = 0.001$). The correlation coefficient of 0.456 indicates a positive relationship with moderate strength. This result indicates that perceived ease of use is more strongly related to satisfaction than perceived usefulness.

This means that the easier the Electronic Medical Records system is for staff to use, the higher the level of user satisfaction.

These results align with the Technology Acceptance Model (TAM) theory, which explains that perceived ease of use is a person's belief that a system can be used without requiring significant effort. A system that is easy to understand, easy to learn, and easy to operate will increase user acceptance of technology, resulting in a better user experience.

Most respondents in this study considered the Electronic Medical Records system easy to use. This indicates that staff have been able to adapt to using the system in their daily services. The ease of accessing menus, inputting patient data, and obtaining needed information makes staff feel more comfortable using the system. These results align with research by Roziqin et al. (2021), which found that perceived ease of use is related to acceptance of health information systems. Research by Amin et al. (2021) also explained that an easy-to-use system can reduce user workload and increase confidence in operating a health information system.

While most respondents stated that Electronic Medical Records were easy to use, some staff still experienced difficulties operating the system. These difficulties are thought to be influenced by differences in technology skills, the adaptation process to the new system, and ongoing technical glitches during the use of Electronic Medical Records. This situation suggests that hospitals need to continue conducting regular training, providing guidance to users, and evaluating the system to make the use of Electronic Medical Records easier and more effective.

Conclusion

This study aims to analyze the relationship between perceived usefulness and perceived ease of use of Electronic Medical Records (EMR) and outpatient staff satisfaction at Idaman Regional Hospital (RSD) Banjarbaru. The results indicate that perceived usefulness and perceived ease of use are significantly related to staff satisfaction in using EMR. This suggests that the greater the perceived usefulness and the easier the system is to use, the higher the staff satisfaction with EMR. This study provides an overview of factors related to EMR user satisfaction, which can be used by

hospitals to improve system quality and support optimal EMR utilization. However, this study was conducted only on outpatient staff at one hospital, so the results may not reflect conditions in other healthcare facilities. Future research is recommended to involve a wider range of respondents and include other variables that may influence user satisfaction, such as system quality, information quality, service quality, or organizational factors.

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