EVALUATION OF THE IMPLEMENTATION OF ELECTRONIC MEDICAL RECORDS BASED ON THE PERSPECTIVE OF USERS AT THE CIREBON CITY HEALTH CENTER

Nasywa Imelia Azzahra[1*], Bambang Wibisono[2], Muhammad Amar Latief[3]
Faculty of Medicine, Universitas Swadaya Gunung Jati Cirebon, Cirebon, Indonesia[1,2,3]
**Corresponding Author :* nasywaimeliaa@gmail.com

ABSTRAK

Puskesmas diwajibkan untuk menerapkan Rekam Medis Elektronik (RME) sesuai dengan Peraturan Menteri Kesehatan Nomor 24 Tahun 2022 paling lambat pada tanggal 31 Desember 2023 dengan tujuan untuk meningkatkan efisiensi, akurasi, dan mutu pelayanan kesehatan. Di Kota Cirebon, penerapan RME didukung oleh sistem e-Puskesmas yang terintegrasi dengan platform nasional Satu Sehat. Namun, hingga saat ini belum terdapat penelitian yang mengevaluasi implementasi RME di Puskesmas Kota Cirebon, sementara studi di wilayah lain menunjukkan adanya kendala seperti keterbatasan infrastruktur, jaringan yang tidak stabil, kurangnya pelatihan teknis, serta kesiapan sumber daya manusia yang masih rendah. Penelitian ini bertujuan untuk mengevaluasi pelaksanaan RME berdasarkan persepsi pengguna di Puskesmas Kota Cirebon dengan menggunakan pendekatan *Technology Acceptance Model* (TAM) yang mencakup persepsi kebermanfaatan, kemudahan penggunaan, niat berperilaku, dan penggunaan aktual. Metode penelitian yang digunakan adalah deskriptif dengan instrumen kuesioner berbasis TAM. Sebanyak 85 responden dipilih menggunakan teknik *Proportionate Stratified Random Sampling* dan *Simple Random Sampling*. Data dianalisis secara univariat dan disajikan dalam bentuk distribusi frekuensi. Hasil penelitian menunjukkan bahwa persepsi kebermanfaatan mencapai 90%, kemudahan penggunaan 78%, niat berperilaku 88%, dan penggunaan aktual 83%, dengan skor total sebesar 84,7% yang termasuk dalam kategori "sangat baik." Kesimpulannya, pelaksanaan RME di Puskesmas Kota Cirebon memperoleh skor keseluruhan sebesar 84,7% (sangat baik), dengan rincian subdimensi kebermanfaatan (90%, sangat baik), kemudahan penggunaan (78%, baik), niat berperilaku (88%, sangat baik), dan penggunaan aktual (83%, baik).

Kata kunci : Kota Cirebon, persepsi pengguna, puskesmas, rekam medis elektronik, *technology acceptance model*

ABSTRACT

Community Health Centers (Puskesmas) are required to implement Electronic Medical Records (EMR) according to Minister of Health Regulation No. 24 of 2022 no later than December 31, 2023, with the aim of improving the efficiency, accuracy, and quality of health services. In Cirebon City, the implementation of EMR is supported by the e-Puskesmas system, which is integrated with the national Satu Sehat platform. However, to date, no research has evaluated the implementation of EMR in Cirebon City Community Health Centers, while studies in other regions have reported obstacles such as limited infrastructure, unstable networks, lack of technical training, and insufficient human resource readiness. This study aimed to evaluate the implementation of EMR based on user perceptions in Cirebon City Community Health Centers using the Technology Acceptance Model (TAM) approach, which includes perceptions of usefulness. The research employed a descriptive method using a TAM-based questionnaire, involving 85 respondents selected through Proportionate Stratified Random Sampling and Simple Random Sampling techniques. Data were analyzed univariately and presented in a frequency distribution. The results showed that perceptions of usefulness reached 90%, ease of use 78%, behavioral intention 88%, and actual use 83%, with an overall total score of 84.7%, categorized as "very good." In conclusion, the implementation of EMR at Cirebon City Community Health Centers achieved an overall score of 84.7% (very good), with subdimensions of usefulness (90%, very good), ease of use (78%, good), behavioral intention (88%, very good), and actual use (83%, good).

Keywords *: Cirebon City, electronic medical records, technology acceptance model, user perspective, community health center*

INTRODUCTION

As the first level of health service institution that is most easily accessible to the community, health centers have a crucial role in providing fair and quality health services. Puskesmas is a provider of basic health services, including medical, promotive, preventive, curative, and rehabilitative services. Therefore, the implementation of Electronic Medical Records (RME) in health centers is very important to increase the effectiveness of services and produce more quality and accurate medical data. It is hoped that Puskesmas can use this technology to handle patient data more quickly, systematically, and easily by allowing authorized health workers to access it. The implementation of RME in Puskesmas has also received a boost from the Indonesian government through the Regulation of the Minister of Health Number 24 of 2022, which requires all health facilities, including health centers, to use the RME system no later than December 31, 2023. The purpose of the implementation of RME is to build an integrated health information system that can be accessed by health workers efficiently. However, the adoption and use of the system by users such as doctors, nurses, and other medical personnel and their interaction with the system, is critical to the effective implementation of RME.

Although many potential benefits can be obtained from the implementation of Electronic Medical Records, field reports and previous research show that many health centers still face difficulties in implementing RME properly. Problems such as erratic internet connections, lack of qualified IT staff, and inadequate technical training for medical professionals are common in many regions in Indonesia, including in the Cirebon City Health Center. (Mayasafira & Almansoob, 2024; Salsabila & Pujilestari, 2024) Several previous studies have shown that the implementation of Electronic Medical Records (RME) still faces various challenges and obstacles. Rusdiana et al. (2024) identified that human resource skills, organizational support, and technological limitations are the main obstacles to the implementation of RME. Purwandi (2018) also found that obstacles such as hardware, network, and the absence of SOPs hindered user acceptance of the RME system. Risnawati et al. (2024) obstacles that occur in the form of machine factors, such as slow internet networks, machines that do not meet standards, and even servers that do not function, are obstacles that arise. Method factors, especially the absence of SOPs for the implementation of RME. The money factor, especially the limited budget to implement RME. (Risnawati & Purwaningsih, 2024) Technical issues such as erratic internet networks and substandard hardware are additional challenges faced by health centers when using RME. According to previous research, network disruptions often hinder healthcare services, which ultimately affects healthcare user satisfaction. (Rachmawati, 2023)

User-based assessment *(user-centered evaluation)* is very important in the implementation of Electronic Medical Records (RME), because the success of the system does not only depend on technical and policy aspects, but also on the extent to which the system is accepted, used, and felt by health workers. (Ainurrizah & Widiyanto, 2025; Aji & Novratilova, 2025) However, RME still faces various obstacles, especially technology, so it is necessary to assess the implementation of RME from the user's perspective to understand how this system is accepted and used in daily activities at health centers. (Silva & Dewi, 2023) Another important indicator to assess the implementation of RME is user satisfaction. In line with *Technology Acceptance Model* (TAM), which reveals that the perception of usefulness and ease of use is closely related to the attitude and intention of users in using the system. (Intansari et al., 2023; Suriatno et al., 2022) Positive perceptions tend to be in line with improving work effectiveness, efficiency, and quality of health services, so user-based evaluation is also important as a basis for continuous improvement.

Healthcare facilities that do not use Electronic Medical Records (RMEs) may experience delays in providing services as patient data collection and retrieval are slower, which can

increase patient dissatisfaction. In addition, manual processes make errors more likely to occur when recording and processing data, including loss or duplication of information. (Arnovita et al., 2024) Based on Permenkes Number 24 of 2022, all health service facilities are required to implement Electronic Medical Records (RME) no later than December 31, 2023 in all health service facilities, including in Cirebon City such as hospitals, clinics and primary health service centers such as health centers. This commitment is strengthened by the active role of the central government through implementation support by the Cirebon City local government, especially in the development of digital-based public services. One of the tangible evidence of this effort is the use of the e-Puskesmas and RME systems that have been connected to the national platform SATU SEHAT. Until now, no research has been found that specifically assesses the implementation of RME in Puskesmas in Cirebon City.

Therefore, evaluating the implementation of RME in Cirebon City is important, especially to understand the experiences of RME users at the Cirebon City Health Center. This study aims to understand users' perspectives and evaluate their experiences with RME, including the benefits, ease of use, behavioral interests, and actual usage. The results of this evaluation are expected to provide input to improve and expand the implementation of RME in Puskesmas, so that health services for the people of Cirebon City become more optimal.

METHOD

This study is a descriptive study that aims to evaluate the implementation of Electronic Medical Records (RME) at the Cirebon City Health Center based on the perspective of users with the Technology Acceptance Model (TAM) approach. The variables studied include usability perception, namely the user's belief that RME can improve performance (10 question points); perception of ease of use, which is the belief that RME is easy to use without complicated effort (12 questions); behavioral interest, referring to an individual's drive or desire to utilize RME (5 questions); and actual use, which describes real behavior in operating an RME (5 questions). The overall evaluation of the RME was carried out through the combination of scores from the four variables. The research was conducted in 22 health centers in the Cirebon City area in March–April 2025. The target population is all RME users at the Cirebon City Health Center. The affordable population includes health workers (doctors, nurses, midwives, dentists) and non-medical workers (medical records, registration, pharmacy, laboratories) who are actively working and meet the inclusion criteria, while the exclusion criteria are respondents who are on leave or absent at the time of data collection.

Sampling was carried out by Proportionate Stratified Random Sampling and Simple Random Sampling using the Spinwheel application based on a list of RME usernames that meet the inclusion criteria of each health center. The sample size was calculated with the Slovin formula at an error rate of 10%, resulting in 85 respondents. Primary data were collected through a TAM-based questionnaire that had been used in previous studies and was declared valid. The questionnaire included questions on four main variables with a Likert scale and assessment categories (≤36% not good to ≥84.01% very good). Data collection was carried out directly by researchers at the health center. Respondents received an explanation of the purpose, procedures, and confidentiality guarantees, then signed informed consent before filling out the questionnaire.

The research procedure included three stages: preparation, implementation, and completion. The preparation stage involved determining the title and objectives, consulting with supervisors, preparing instruments, and managing ethical approvals and research permits. The implementation stage included selecting respondents according to the criteria, explaining the research, providing informed consent, and distributing questionnaires. The completion stage involved processing, data analysis, and report preparation. Data were analyzed univariately

using a frequency distribution for each research variable. Data processing included editing, coding, entry, processing, tabulating, and cleaning, with analysis conducted using the latest version of SPSS. This research received ethical approval from the Ethics Committee of the Faculty of Medicine, Swadaya Gunung Jati University (No. 16/EC/FKUGJ/II/2025) and permission from the Cirebon City Health Office (No. B/400.14.5.4/210/DINKES/2025). The ethical principles applied include beneficence, confidentiality, and justice.

RESULLT

Respondent Characteristics

The number of respondents at the Cirebon City Health Center was 85 people. Below is presented data on the characteristics of the respondents who participated in the study at the Cirebon City Health Center.

Table 1. Respondent Characteristics

Variable	Category	Frequency	Percentage
Gender	Male / Female	13 / 72	15% / 85%
Age	17–25 / 26–35 / 36–45 / 46–55 / 56–65	5 / 29 / 23 / 26 / 2	6% / 34% / 27% / 31% / 2%
Education	High School / Diploma / S1 / S2	1 / 38 / 42 / 4	1% / 45% / 49% / 5%
Position	Doctor / Dentist / Midwife / Nurse / Medical Record / Registration / Pharmacy / Lab	19 / 10 / 13 / 13 / 18 / 5 / 3 / 4	22% / 12% / 15% / 15% / 21% / 6% / 4% / 5%
Tenure	<1 th / 1–5th / 6th–10th / >10th	1 / 29 / 19 / 36	1% / 34% / 22% / 42%
Computer Use	Yes / No	85 / 0	100% / 0%
Socialization Participation	Yes / No	85 / 0	100% / 0%
How to Know RME	Friends / Socialization / Guidelines / Self-Taught	16 / 64 / 2 / 3	19% / 75% / 2% / 4%
Duration of RME Use a Day	<1 hour / 1–3 hours / 4–5 hours / >5 hours	1 / 10 / 47 / 27	1% / 12% / 55% / 32%

The majority of respondents were women (85%), aged 26–35 years (34%), and S1 educated (49%). The most positions are doctors (22%) followed by medical records officers (21%). Most have a tenure of more than 10 years (42%). All respondents use computers (100%) and have participated in RME socialization (100%). The most way to find out the most RME usage is through socialization (75%). The duration of daily RME use is at most 4–5 hours (55%).

Questionnaire Research Results

The questionnaire in this study consisted of four sub-variables or dimensions, namely: perception of usefulness (10 statements), perception of ease of use (12 statements), interest in behavior (5 statements), and actual use (5 statements). This questionnaire instrument refers to the *Technology Acceptance Model* (TAM) introduced by Davis in 1989. The data collected through the questionnaire was then analyzed using a statistical test of frequency distribution. The percentage of results was divided into 5 assessment categories, namely: very good (≥ 84.01%), good (68.01–84%), fairly good (52.01–68%), poor (36.01–52%), and bad (≤ 36%). The results of the frequency distribution test related to the Evaluation of RME Implementation at the Cirebon City Health Center.

Table 2. Results of Questionnaire Research Based on Perception of Usefulness

Variable	No. Questionnaire	Actual Score	Ideal Score	%	Category
Perception of Usefulness	1	401	425	94%	Excellent
	2	398	425	93%	Excellent
	3	384	425	90%	Excellent
	4	388	425	91%	Excellent
	5	388	425	91%	Excellent
	6	386	425	90%	Excellent
	7	381	425	89%	Excellent
	8	365	425	85%	Excellent
	9	381	425	89%	Excellent
	10	386	425	90%	Excellent
	Total	**3858**	**4250**	**90%**	**Excellent**

From the table, it is known that the average percentage for the perception of benefits reaches 90%, which is included in the very good category.

Table 3. Questionnaire Research Results Based on Perception of Ease of Use

Variable	No. Questionnaire	Actual Score	Ideal Score	%	Category
Perception of Ease of Use	1	316	425	74%	Good
	2	335	425	78%	Good
	3	350	425	82%	Good
	4	296	425	69%	Good
	5	321	425	75%	Good
	6	346	425	81%	Good
	7	323	425	76%	Good
	8	350	425	82%	Good
	9	347	425	81%	Good
	10	343	425	80%	Good
	11	330	425	77%	Good
	12	364	425	85%	Excellent
	Total	**4021**	**5100**	**78%**	**Good**

Based on the table, the average percentage for the perception of ease of use reaches 78%, which is classified as good. However, on question item number 12, the results were in the very good category.

Table 4. Research Results of Questionnaire Based on Behavioral Interests

Variable	No. Questionnaire	Actual Score	Ideal Score	%	Category
Behavioral Interests	1	376	425	88%	Excellent
	2	372	425	87%	Excellent
	3	376	425	88%	Excellent
	4	376	425	88%	Excellent
	5	379	425	89%	Excellent
	Total	**1879**	**2125**	**88%**	**Excellent**

From the table, the average percentage for behavioral interest is 88%, which is in the very good category.

Based on the table, the average percentage for perception of actual use reaches 83% and is in the good category. However, in question items 1, 3, and 5, the results showed a very good category.

Table 5. Questionnaire Research Results Based on Actual Use

Variable	No. Questionnaire	Actual Score	Ideal Score	%	Category
Actual Use	1	384	425	90%	Excellent
	2	317	425	74%	Good
	3	369	425	86%	Excellent
	4	340	425	80%	Good
	5	367	425	86%	Excellent
	Total	**1777**	**2125**	**83%**	**Good**

Table 6. Overall Dimensional Results

Variable		No. Questionnaire	Actual Score	Ideal Score	%	Category
Overall Dimensions	**TAM**	Benefits	3858	4250	90%	Excellent
		Ease of Use	4021	5100	78%	Good
		Behavioral Interests	1866	2125	88%	Excellent
		Actual Use	1777	2125	83%	Good
		Total	**11513**	**13600**	**84,7%**	**Excellent**

In the table, it is found that the result of the average percentage of the overall dimension is 84.7%, with the category of very good.

DISCUSSION

Based on the results obtained in this study, the researcher will discuss the results of the evaluation of the implementation of RME at the Cirebon City Health Center.

Evaluation of the Application of the RME System Related to Perception of Usefulness

The evaluation of electronic medical records is carried out as a form of effort to assess how the implementation of RME takes place. (Sintia et al., 2024) In addition, assessing the information system is a concrete step in understanding the actual conditions of the implementation of the system. (Putra et al., 2020) The TAM model, developed by Fred Davis in 1986, emphasizes that perceptions of usefulness describe an individual's view of the extent to which technology is capable of supporting the completion of a task or the achievement of their goals. (Wicaksono, 2022) The concept of utility perception reflects users' belief that information systems have a role to play in improving the effectiveness of their performance. (Rijatullah et al., 2020) The results of filling out the questionnaire regarding the perception of usefulness showed that from 10 questions, a total score was obtained based on the Likert scale with the category of "very good" (90%). This indicates that the RME system is considered useful and supports the implementation of the tasks of users at the health center.

All valid statement items also get an excellent category, reflecting the positive perception of the users. Based on the statements given, respondents assessed that the use of RME helped facilitate the execution of tasks, make it easier to control work, and improve their performance. In addition, RME is considered to make working time more efficient, speed up the work process, and increase effectiveness in completing responsibilities at the health center. This system is also considered to be able to reduce time wasted on unproductive activities and improve the quality of work results. Overall, RME is perceived to make a positive contribution to the completion of work at the Health Center.

According to Davis, the perception of benefits is the extent to which individuals believe that the use of a technological system can improve or improve their work. (Davis, 1989; Suriatno et al., 2022) In this study, the results of the benefits were assessed "very good", indicating that health workers believe that the RME system provides significant benefits, such

as improving service efficiency, recording speed, and data accuracy. These findings are in line with the TAM framework which states that the higher the perceived benefits, the more likely the system will be accepted and used. (Wicaksono, 2022)

In addition to referring to the TAM theory, these results are also in line with national policies through Permenkes No. 24 of 2022 related to medical records, which emphasizes that the implementation of Electronic Medical Records (RME) aims to develop the quality of health services (Article 2 letter a), realize an integrated digital system (Article 2 letter d), and support evidence-based decision-making (Article 28 paragraph 3). Health facilities are required to carry out various important functions through RME, such as filling in clinical information, data processing, and financing claims (Article 13). (Peraturan Menteri Kesehatan Republik Indonesia No 24 Tahun 2022 Tentang Rekam Medis, 2022) The results of the study showing "excellent" benefits reflect that the RME has succeeded in meeting the objectives of the regulation, providing real benefits to health services.

These results are in line with the findings of Purwandi (2018) who revealed that the RME system provides benefits in improving effectiveness, speed, and quality of work, even though at that time user perception was still in the good category. (Purwandi, 2018) In this study, the perception of usefulness is in the very good category, which shows that the benefits of the RME system are now increasingly felt by users more optimally in the implementation of daily tasks. (Purwandi, 2018)

Evaluation of the Implementation of the RME System Related to the Perception of Ease of Use

Perceived Ease of Use or Ease of Use is an individual's view of how uncomplicated a technology is to operate. (Wicaksono, 2022) Users' confidence in this convenience is reflected in the assumption that the technology will not require a great deal of effort in its use. (Amarta et al., 2025) Although each person has a different level of effort, the system needs to have simple characteristics and not burden the user to be well-received. (Amarta et al., 2025) Overall, the ease of use of a system reflects the belief that the information system can be used smoothly and without requiring excessive effort. (Deharja et al., 2022) The results of filling out the questionnaire related to the perception of ease of use showed that of the 12 questions, the total score obtained based on the Likert scale was in the "good" category (78%). This indicates that overall, users are satisfied with the ease of using the RME system. However, there is 1 question item that has a very good result, namely the item "Overall, RME is easy to use". This shows that while there are some aspects that could be improved, RME has managed to meet user expectations in terms of overall ease of use. This success can be used as a basis for maintaining and further optimizing elements that have been well received by users, while improving other aspects that still need improvement.

The "good" assessment of some of these items was dominated by respondents with work experience of more than 10 years, work experience showed that they had been accustomed to using the manual system for a considerable time. This can make the process of adapting to the RME system not completely easy, so their perception of the ease of the system has not reached a "very good" level on all items. The value of the ease of use sub-dimension of 78% is the lowest compared to other sub-dimensions, which shows that users are still experiencing various obstacles in using electronic medical records (RME).

This is reflected in the low scores on several question items, especially numbers 1, 2, 4, 5, 7, and 11. Many respondents felt confused (item 1) and often made mistakes when using the RME (item 2), as well as requiring additional consultation (item 4), indicating a lack of understanding and clarity of the system. In addition, respondents felt that they had to spend more effort to overcome errors (item 5), did not find it easy to correct errors that occurred (item 7), and the system was considered to lack clear direction when problems occurred (item 11).

The combination of these items causes the perception of ease of use of RME to be low and lower the overall value of this sub-dimension. According to Davis (1989), the perception of convenience refers to the extent to which a person believes that the use of a system can be done without requiring much effort. (Davis, 1989; Suriatno et al., 2022) The results of the study show the value of "good", which illustrates that the majority of users find RME quite easy to learn and use, although there may still be some aspects that could be improved. According to Davis' theory, this perception of convenience is important because the easier a system is to use, the more likely it is that someone is willing to use it. (Wicaksono, 2022)

In terms of policy, Permenkes No. 24 of 2022 related to Electronic Medical Records also facilitates the ease of use of the RME system. The Ministry of Health provides interoperability platforms and standards (Article 8 paragraph 2), and encourages the use of compatible systems between facilities (Article 10), user role-based access (Article 30), and supports electronic signatures (Article 31) to facilitate the use of RME. (Peraturan Menteri Kesehatan Republik Indonesia No 24 Tahun 2022 Tentang Rekam Medis, 2022) The results of this "good" research reflect that the development of an easy-to-use system and a simple appearance required in the Permenkes Regulation has been quite successful, but it still needs optimization so that ease of use is maximized.

The findings of Purwandi (2018) and Amarta et al. (2025) resulted in that out of 12 statement items measured on the Likert scale, the total score was in the "adequate" category. (Amarta et al., 2025; Purwandi, 2018) Amarta et al. (2025) stated that the implementation of electronic medical records has not provided convenience for users. (Amarta et al., 2025) This statement shows that overall, users' views on ease of use are adequate, although there are still some areas that need to be improved or improved. Meanwhile, in this study the total score was in the "good" category, which describes a higher level of user satisfaction. These two findings suggest that while there are some areas for improvement, the ease of use of the evaluated application or system has been positively received by most users.

Evaluation of the Application of the RME System Related to Behavioral Interests

The evaluation of the electronic medical record system is carried out as an effort to understand the real conditions of its implementation. (Pradita et al., 2024) Meanwhile, behavioral interest describes an individual's motivation or desire to carry out a certain action. A person tends to act when he or she has the intention or interest to do so. (Amarta et al., 2025) Based on the results of a questionnaire related to behavioral interest, it was known that from the 5 statements measured using the Likert scale, a total score was obtained with the category of "excellent" (88%). All valid statement items also receive ratings in the same category. These findings show that every statement in the aspect of behavioral interest was positively and consistently received by the respondents. The statement includes their desire to use RME as long as the system helps work, the habit of trying to use RME, plans to continue using RME in the future, and hopes and intentions to continue using it. Overall, this reflects a high commitment from users to continue to utilize the RME system, both in the near and long term.

Based on the TAM theory developed by Davis (1989), behavioral interest refers to the tendency or intention of individuals to always use a technology in their activities. (Davis, 1989; Suriatno et al., 2022) The results of the study show "Very good", which indicates that the system has been positively received and that users have a strong intention to maintain its use in daily services. Deep Permenkes No. 24 of 2022 emphasized that the obligation to implement RME by all health facilities (Article 3) and the national implementation deadline until December 31, 2023 (Article 45) show a strong push from regulations. The government also provides coaching, socialization, and the threat of sanctions for those who do not implement (Articles 41–42) contribute greatly to forming interest in such positive behavior. (Peraturan Menteri Kesehatan Republik Indonesia No 24 Tahun 2022 Tentang Rekam Medis, 2022) The results of this "very

good" study show that the regulation of the Minister of Health is effective in encouraging health workers to commit to using the system.

These findings are in line with Purwandi's research (2018), which in the evaluation of the RME user's behavioral interest, also shows that all statement items obtain a score of "Very good". The study states that users have a strong desire to use RME because they feel that the system helps and makes their work easier. (Purwandi, 2018) This suggests that the desire to use RME arises naturally in response to positive experiences during the use of the system. Therefore, the results of this study reinforce the evidence that behavioral interest in the RME system tends to be high if users feel that the system is useful and supports work productivity. These results are also in line with Amarta's research (2025) which shows user interest in the "good" category. (Amarta et al., 2025) However, in this study, behavioral interest increased to the "excellent" category, indicating that interest and intention to use the RME system was stronger as positive experiences and trust in the system increased.

Evaluation of the Implementation of the RME System in Relation to Actual Use

Actual use (*Current system use*) describes a real situation in which the system is actually used by an individual. Satisfaction in using a system will arise when a person believes that the system is easy to operate and capable of increasing productivity, which is then seen through the behavior of using the system directly. (Amarta et al., 2025) In the context of the use of information technology, behavior refers to the actual use of the technology. In general, behavior itself is a form of action carried out by an individual. (Purwandi, 2018) Real or actual use of the system refers to how often and for how long the technology is used by users. When individuals feel that the system is easy to use and able to support increased productivity, then they tend to feel satisfied in using it. (Amarta et al., 2025)

Based on the results of the questionnaire regarding perception of actual use, a total score was obtained from 5 questions that were in the "good" category (83%) according to the Likert scale. But there are 3 question items that have done very well, the first is the statement item "I use RME in my work". The second was "Overall I am satisfied with RME's performance". The third is "I recommend to my friend to use RME". These three items indicate that acceptance and satisfaction with RME is not only limited to personal use, but also reflects an active urge from users to recommend the system to others. This shows that there is enthusiasm and trust for the benefits of RME, which is ultimately one of the key factors in evaluating the success of the implementation of the system in the workplace. Good assessments of several items in this variable are generally given by respondents who are in the age range of 36–45 years where the working period is more than 10 years. Even if they use RME for 4–5 hours per day, long-established work habits with manual systems can be an obstacle in optimizing system usage.

According to Davis (1989), actual use means the actual use of technology in daily activities. (Davis, 1989; Suriatno et al., 2022) The results of the study show that the value of "good", which shows that the RME system is not only applied as an obligation, but also actively used in the healthcare process, such as in patient data recording and medical information management. This indicates that the system has been used regularly in accordance with the intended function. These results are also in line with national policies through the Minister of Health Regulation No. 24 of 2022 related to medical records, the actual use of which is reflected in the obligation to implement RME activities such as patient registration, clinical filling, data distribution, and digital storage (Articles 13–24). All facilities must store data securely and connect to the national system (Articles 20–21). The existence of supervision and the requirement to register the system at the Ministry of Health (Article 12) also ensures that the system is actually used and runs operationally. (Peraturan Menteri Kesehatan Republik Indonesia No 24 Tahun 2022 Tentang Rekam Medis, 2022) This "good" result reflects that health facilities have not only fulfilled their obligations administratively, but have actually

implemented RME in daily service practices in accordance with the provisions of the Minister of Health.

These findings in line with Amarta's research (2025), which in the actual use evaluation of RME also shows that the entire statement item obtained a total score with the category "Good" The study stated that users were satisfied with the performance of the RME and users also recommended electronic medical records to others or other users. (Amarta et al., 2025) These similar results further confirm that the implementation of RME shows a positive impact on users and has the potential to improve efficiency in work. This is also in line with the findings of Purwandi (2018) which also obtained "good" results on valid items, even though the total score was categorized as "adequate". (Purwandi, 2018) This shows that the implementation of RME in this study has resulted in higher acceptance and satisfaction among users.

TAM Overall Dimension Results

Based on the results of univariate analysis, the overall dimensions in the TAM model showed a result of 84.7% which was categorized as "excellent". This reflects that respondents in general have a very positive perception of the implementation of the electronic medical record system, both in terms of usefulness, ease of use, behavioral interest, and actual use. These results show that the system has functioned as expected and supports user activities optimally.

Characteristics of Respondents by Age

The age range used in the classification of respondents in this study refers to the working age category according to the Ministry of Health of the Republic of Indonesia. (Hakim, 2020) The distribution of respondent age data is the result of this study, which shows that most of the RME users at the Cirebon City Health Center are in the age group of 26-55 years. This reflects that the implementation of RME has involved productive age groups who are actively playing a role in primary health services.

CONCLUSION

Based on the results of the study on the implementation of the Electronic Medical Record (EMR) system in all Community Health Centers (Puskesmas) in Cirebon City, the overall evaluation showed a very good result with a total score of 84.7%. The subdimension of perceived usefulness achieved an average score of 90%, which falls into the very good category, indicating that users believe the EMR system significantly improves their work performance and service efficiency. The subdimension of perceived ease of use obtained an average score of 78%, categorized as good, suggesting that while most users find the system easy to operate, there are still minor challenges in its practical application. The behavioral intention dimension scored an average of 88%, which is categorized as very good, reflecting strong user motivation and willingness to continue using the EMR system. Meanwhile, the actual use dimension achieved an average score of 83%, categorized as good, demonstrating that users have actively implemented the system in their daily work routines, though there remains room for optimization in usage consistency and integration across services. Overall, these findings indicate that the EMR system at Cirebon City Puskesmas has been successfully implemented and well-received by users, showing high levels of acceptance and practical application.

ACKNOWLEDGMENT

The researcher sincerely expresses deepest gratitude to Universitas Swadaya Gunung Jati Cirebon, especially the Faculty of Medicine, for the continuous guidance, academic support, and ethical approval provided throughout this study. Special appreciation is also extended to

the Cirebon City Health Office and all Community Health Centers (Puskesmas) involved for their cooperation and participation. This research could not have been successfully completed without the invaluable assistance, encouragement, and resources provided by Universitas Swadaya Gunung Jati Cirebon**.**

REFERENCES

Ainurrizah, Widiyanto WW. (2025). *Evaluation of Outpatient Electronic Medical Record User Satisfaction Using the EUCS Model at Sultan Fatah Regional Hospital Indonesia*. *International Journal of Health and Medicine*.;2(3):69–75.

Aji RW, Novratilova S. (2025). Evaluasi Implementasi Permintaan Rekam Medis Operasi Elektif Menggunakan Metode *Technology Acceptance Model*. Sehat Rakyat (Jurnal Kesehatan Masyarakat).;4(2):380–97.

Amarta AFT, Jaya B, Anugrahanti WW, Aini NDN. (2025). Evaluasi Penerapan Rekam Medis Elektronik di Unit Rawat Jalan Rumah Sakit Panti Waluya Malang. ASSYIFA: Jurnal Ilmu Kesehatan.;3(1):1–9.

Arnovita DK, Yuliaty F, Purwanda E. (2024). Peranan Penggunaan Rekam Medis Elektronik Terhadap Waktu Tunggu Serta Dampaknya Pada Kepuasan Pasien. NUSRA: Jurnal Penelitian dan Ilmu Pendidikan.;5(4):1695–709.

Davis FD. (1989). *Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology*. *MIS Quarterly*.;13(3):319–39.

Deharja A, Azis MN, Nuraini N, Rahagiyanto A, Santi MW, Yunus M. (2022). *Technology Acceptance Model to Implementation of Electronic Medical Record (EMR's) at Clinic of* Rumah Sehat Keluarga Jember. *Jurnal Aisyah: Jurnal Ilmu Kesehatan.*;7(4):1215–24.

Hakim LN. (2020). Urgensi Revisi Undang-Undang tentang Kesejahteraan Lanjut Usia. J Aspirasi: Jurnal Masalah-Masalah Sosial.;11(1):43–55.

Intansari, Rahmaniati M, Hapsari DF. (2023). Evaluasi Penerapan Rekam Medis Elektronik dengan Pendekatan *Technology Acceptance Model* di Rumah Sakit X di Kota Surabaya. J-REMI: Jurnal Rekam Medik dan Informasi Kesehatan.;4(3):108–17.

Kemenkes RI. (2022). Peraturan Menteri Kesehatan Republik Indonesia No 24 Tahun 2022 tentang Rekam Medis. Jakarta: Kementerian Kesehatan RI;. p. 1–19.

Mayasafira SD, Almansoob M. (2024). *Electronic Medical Records As Digital Transformation in Indonesian Health Services 4.0. International Journal of Nursing and Midwifery Science (IJNMS).*;8(2):229–39.

Mulyana, Situmorang M, Fatikasari S. (2023). Evaluasi Sistem Informasi (*Electronic Medical Record*) Dengan Metode Hot-Fit Terhadap Mutu Pelayanan Kesehatan di Rumah Sakit X Tahun 2023. Warta Dharmawangsa.;17(4):1580–99.

Putra AD, Dangnga MS, Majid M. (2020). Evaluasi Sistem Informasi Manajemen Rumah Sakit (SIMRS) dengan Metode Hot Fit di RSUD Andi Makassau Kota Parepare. Jurnal Ilmiah Manusia dan Kesehatan.;3(1):61–8.

Pradita R, Kusumo R, Adhitia D. (2024). Penerimaan Pengguna Dalam Implementasi Rekam Medis Elektronik di Puskesmas Kijang Menggunakan *Technology Acceptance Model*. Jurnal Manajemen Informasi Kesehatan.;9(2):313–26.

Presiden RI. (2023). Undang-Undang Republik Indonesia Nomor 17 Tahun 2023 tentang Kesehatan. Jakarta: Presiden Republik Indonesia;. p. 1–300.

Purwandi ID. (2018). Evaluasi Penerimaan Pengguna Terhadap Penerapan Rekam Medis Elektronik dengan Pendekatan (TAM) di Unit Rawat Jalan Muhammadiyah Yogyakarta. Tesis. Universitas Muhammadiyah Yogyakarta;.

Rachmawati AD. (2023). Evaluasi Implementasi Rekam Medis Elektronik Menggunakan Metode HOT-Fit di Puskesmas Mergangsan. Tesis. Universitas Gadjah Mada;.

Rahmawati MD, Nugroho E. (2018). Faktor-Faktor yang Mempengaruhi Keberhasilan Implementasi Simpus di Puskesmas Kabupaten Sragen. Jurnal Sistem Informasi Kesehatan Masyarakat.;3(1):81–94.

Rijatullah R, Suroso A, Rujito L. (2020). Pengaruh Persepsi Kemanfaatan dan Persepsi Kemudahan Penggunaan Terhadap Sikap Penggunaan Resep Elektronik. Jurnal Ekonomi, Bisnis dan Akuntansi (JEBA).;22(2):217–31.

Risnawati, Purwaningsih E. (2024). Analisis Hambatan Dalam Implementasi Rekam Medis Elektronik di Puskesmas Karang Asam Samarinda. Jurnal Pengabdi kepada Masyarakat Nusantara (JPkMN).;5(2):1603–8.

Rusdiana A, Yogaswara D, Annashr NN. (2024). Analisis Implementasi Rekam Medis Elektronik Berdasarkan Faktor Hot-Fit di Puskesmas Kawalu Kota Tasikmalaya Tahun 2023. Jurnal Kesehatan Komunitas Indonesia.;20(2):108–26.

Salsabila R, Pujilestari I. (2024). Analisis Hambatan Dalam Implementasi Rekam Medis Elektronik di Unit Rawat Jalan dengan Menggunakan Metode Fishbone di RSUD Bandung Kiwari. Jurnal Kesehatan Tambusai.;5(3):7152–63.

Silva AA, Dewi TS. (2023). Hambatan Implementasi Rekam Medis Elektronik dari Perspektif Perekam Medis Dengan Metode PIECES. Jurnal Manajemen Informasi Kesehatan Indonesia.;11(2):150–6.

Sintia N, Siswati, Indawati L, Yulia N. (2024). Evaluasi Sistem Informasi Manajemen Operasional (SIMOP) Dengan Metode Hot-Fit di Rumah Sakit Pelabuhan Jakarta. Jurnal Kesehatan Tambusai.;5(4):11031–8.

Suriatno ME, Putra DH, Rumana NA, Indawati L. (2022). Penerimaan Terhadap Sistem Informasi KIA Online di Kecamatan Cengkareng Dengan Metode TAM. *Journal of Innovation Research and Knowledge (JIRK).*;2(5):2145–60.

Wicaksono SR. (2022). Teori Dasar *Technology Acceptance Model*. Malang: CV. Seribu Bintang;. p. 1–59.