International Journal of Health Literacy and Science 3 (2) (2025)
International Journal of Health Literacy and Science
https://ihelis.com

Overview Of The Readiness For The Implementation Of Electronic Medical Records For Outpatient Registration At Bumiayu Hospital Using The DOQ-IT Method

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Article Info

Article History

Submitted: September 29, 2025

Revised: November 26, 2025

Accepted: December 31, 2025

Keywords:
Electronic Medical Records; DOQ-IT; Registration

Abstract

The implementation of Electronic Medical Records (RME) at Bumiayu Hospital has not been evenly distributed. This is due to several factors, including the lack of special training for the registration sub-unit and the limited educational background of the officers who handle RME. In addition, the information technology infrastructure in hospitals is still not optimal, and governance and leadership support is considered inadequate. These conditions can affect the readiness of the system and reduce the accuracy in recording patient data. This study aims to describe the readiness of registration officers in the implementation of RME using the DOQ-IT method. The aspects studied include human resources, organizational culture, leadership governance, and IT infrastructure. The study uses a descriptive quantitative approach with a cross sectional approach. Data was collected using a questionnaire filled out by 4 registration officers. The results of the analysis on 4 variables show that hospitals are classified as very ready in the implementation of RME. The results of the study were dominated by women (75%) with Diploma education (75%) and a working period of >10 years (75%) The following are the readiness scores for the implementation of RME at Bumiayu Hospital: Human Resources (22.2), Organizational Work Culture (47.6), Leadership Governance (35.9), Information Technology Infrastructure (18.2). The Bumiayu Hospital Medical Record Installation should provide special training on the use of RME, especially for registration officers.

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pISSN 2964-2035
eISSN 3025-9258

Introduction

Based on PERMENKES RI No. 24 of 2022, every health service facility is required to maintain medical records. Medical Records are documents that contain patient identity data, examinations, treatments, actions, and other services that have been provided to patients (Kementrian Kesehatan, 2022). Initially, the medical record document was in the form of paper which would then be filled in by the officer using bollpoint. Along with the advancement of information technology in the health

sector continues to develop rapidly, encouraging hospitals to adopt Electronic Medical Record systems to improve the quality and efficiency of services (Yulis et al., 2021). Electronic Medical Records are Medical Records that are made using an electronic system intended for the implementation of Medical Records (Adhisty, 2024). Electronic medical record plays an important role in digitizing the recording and management of patient medical data, so that information can be accessed more quickly, accurately, and integrated. However, the implementation of electronic medical records in several healthcare facilities, particularly regional hospitals, still faces various challenges in operating the new system. Therefore, the implementation of electronic medical records needs to be strengthened with the DOQ-IT method, whose steps can help assess the level of readiness for electronic medical record implementation.

The DOQ-IT method is used to assess the level of readiness in the application of electronic medical records. DOQ-IT (*Doctor's Office Quality-Information Technology*) is an instrument developed by MASSPRO since 2009 to evaluate various aspects of organizational readiness in adopting information technology in the health sector. The DOQ-IT research method focuses on four main components, namely human resources, organizational culture, leadership governance, and IT infrastructure. The implementation of electronic medical records will certainly not run smoothly if the four components are not ready.

In accordance with the results of the initial survey, Bumiayu Hospital is one of the hospitals that has started implementing electronic medical record since March 2024. However, in its implementation, only the head of medical records and IT departments receive special training on the electronic medical record system. Meanwhile, other sub-units, including registration which acts as the main gateway for services and recording of patients' medical records, are self-taught in the use of electronic medical record. The role of leaders is also considered to be lacking in the implementation of electronic medical record. This can affect the waiting time of patients in the registration section because officers are not familiar with the new system and the readiness of the registration sub-unit in supporting accurate and efficient recording according to electronic medical record standards due to the absence of special training provided. The educational background of officers who do not come from medical records also needs attention in recording patient data and information on the electronic medical record system. In addition, gender differences can also have an effect, where female officers tend to be more meticulous than men. The working period also has an impact on the readiness and ability of officers, because the longer the service period, usually the better the experience and understanding of the service workflow.

The readiness of IT infrastructure such as computers and internet networks also needs to be considered to support the successful implementation of electronic medical records. However, the implementation of electronic medical record is not only determined by technical and human resources. Effective leadership governance, such as planning, organizing, and supervising that is carried out consistently, is key to ensure the successful implementation of electronic medical records. Leadership and governance support play an important role in the development of Electronic Medical Records, given that leaders hold a strategic position in decision-making. On the other hand, the work culture of the organization also plays an important role. An organizational culture that is adaptive, innovative, and supportive of collaboration can encourage officers' readiness to face technological changes. Therefore, this study aims to analyze the readiness of registration sub-units in the implementation of electronic medical record through the DOQ-IT method, which evaluates four main aspects: IT infrastructure, human resources, organizational culture, and leadership governance.

Previous studies using the DoQ-It method to evaluate readiness for Electronic Medical Records (EMR) implementation in various hospital sub-units generally found that organizational readiness was moderate, primarily due to weak operational standards, low procedural compliance, and inconsistencies in workflows among staff. The “Do” phase of the DoQ-It revealed discrepancies between actual processes and written procedures, while the “Question” and “Investigate” phases indicated that the main barriers stemmed from lack of training, limited digital infrastructure, and unclear roles and responsibilities for each healthcare professional. In the “Talk” phase, these studies also emphasized the need for cross-unit communication and managerial commitment for effective transition to EMR. Overall, these studies concluded that DoQ-It-based improvement interventions helped identify the root causes of operational problems and gradually increased readiness for EMR implementation (Praptana et al., 2021).

Based on this background, the research question will arise "How is the level of readiness for the implementation of electronic medical records in the registration section at Bumiayu Hospital Using the DOQ-IT Method." By knowing the level of readiness for the implementation of electronic medical record, it is hoped that the right solutions or recommendations can be found to support the effective and efficient implementation of RME at Bumiayu Hospital.

Methods

This research is a quantitative descriptive study with a cross-sectional approach. The population was all outpatient registration staff at Bumiayu Regional Hospital, with a sample size of four staff in the registration section selected using total sampling. These four staff members have similar duties and are directly involved in the registration process, so the data provided is considered representative of the actual situation in the unit. Furthermore, the DOQ-IT method is evaluative and focuses more on work process analysis than sample size, so the number is considered adequate to achieve the research objectives. The research location was at Bumiayu Regional Hospital. This research was conducted in March 2025. The type of data used was primary data obtained directly from respondents through questionnaires.

The variables studied included human resources, organizational culture, leadership governance, and information technology infrastructure. Data were collected using an instrument in the form of a questionnaire adapted from (Khasanah,2021) which has been tested for validity and reliability, so the researcher did not conduct repeated validity and reliability tests (Khasanah, 2021) .Data processing was carried out through the stages of data collection, data entry, editing, coding, and determining categories with an assessment scale using an ordinal scale with a value range of 0–5 according to the DOQ-IT method, and analyzed descriptively to describe the level of readiness for implementing RME in the registration section at Bumiayu Regional Hospital.

Results

Human Resources

The development of electronic medical records (RME) is highly dependent on human resources (HR), both as users of the system and as policymakers who support its implementation (Kementerian Kesehatan, 2013). In measuring human resource readiness, the variables used include characteristics, staff readiness and training. The number of respondents in this study was 4 people with the following characteristics:

Table 1. Characteristics of Respondents

Characteristics	Frequency	Presentase
1. Gender		
a. Man	1	25%
b. Woman	3	75%
2. Education		
a. D3	3	75%
b. S1	1	25%
3. Length of Work		
a. 0-1 year	0	0%
b. 1-10 Years	3	75%
c. >10 Years	1	25%

Based on the data in table 1, the majority of respondents were female as many as 3 people (75%). The highest level of education is Diploma 3 with 3 respondents (75%). Meanwhile, the most dominant working period was in the range of 1-10 years as many as 3 people (75%).

Table 2. Human Resource Readiness

No Characteristics	Sum Value	Average	Sum Question	Average per Question	Readiness Value
Clinical and administrative	56	14	3	4.7	0-1 = No Ready 2-3 = Quite Ready
Staff Training	33	8.2	2	4.1	4-5 = Very Ready

Based on Table 2, the readiness of the implementation of RME from the human resource aspect shows that the clinical and administrative staff area has a score of 4.7, while the training area has a score of 4.1. This shows that both are in the category of being very prepared, but the level of readiness of clinical and administrative staff is higher than the readiness of the training aspect.

Organizational Work Culture

Work culture has an important role as a guideline of behavior, which also reflects how RME users respond to the development of the system. Aspects of organizational work culture are assessed through three main areas of readiness, namely culture, process workflow, and information management. The cultural aspect reflects the organization's perspective in involving various parties in the planning of electronic medical records. A good organizational culture ensures that all stakeholders are involved in the drafting of the RME framework (Sabran et al., 2023).

Table 3. Organizational Work Culture

No Characteristics	Sum Value	Average	Sum Question	Average per Question	Readiness Value
Culture	72	18	4	4.5	0-1 = No Ready
Information Management	35	8.7	2	4.4	2-3 = Quite Ready 4-5 = Very Ready
Workflow Process	33	8.2	2	4.1	
Patient Engagement	51	12.7	3	4.2	

Based on Table 3 regarding the results of readiness for the implementation of Electronic Medical Records (RME) based on the DOQ-IT method from the aspect of Organizational Work Culture from the cultural point of view, the highest score of 4.5 which means that it is very ready in the implementation of RME, while in terms of workflow processes it obtains the lowest score of 4.1 which means that it is very ready in the implementation of RME. In terms of information management, it obtained a score of 4.4 and the patient involvement side obtained a score of 4.2, which means that it is very ready for the implementation of RME.

Leadership Governance

According to Carrol (2012), the success of the EMR (Electronic Medical Record) implementation process is influenced by several factors, including strong leadership support, clinical staff participation in design and implementation, effective training process, timely planning, and adequate budgeting. Good leadership and governance support has a great influence on the development of RMEs, as leaders are at the highest levels of decision-making and have a key role in directing and supporting the implementation process. (Pratama & Darnoto, 2023).

Table 4 Leadership Governance

No Characteristics	Sum Value	Average	Sum Question	Average per Question	Readiness Value
Leadership	30	7.5	2	3.7	0-1 = No Ready
Strategy	36	9	2	4.5	2-3 = Quite Ready
Accountability	19	4.7	1	4.7	4-5 = Very Ready
IT Management	59	14.7	3	4.7	

Based on Table 4 regarding the results of the readiness for the implementation of Electronic Medical Records (RME) based on the DOQ-IT method from the aspect of Leadership Governance from the leadership side, a score of 3.7 which is in the range of being quite ready in the implementation of RME, in terms of strategy, it obtained a score of 4.5 which means that it is very ready in the implementation of RME, in terms of accountability and IT management support obtained a score of 4.7 which means that it is very ready in the implementation of RME. According to these results, the highest score was obtained in terms of information technology management support and accountability, while the lowest score was obtained in terms of leadership.

Information Technology Infrastructure

The infrastructure aspect of information technology includes readiness to plan for network, software, and hardware needs that support the use of electronic medical records.

Table 5. IT Infrastructure

No	Readiness Area	Sum Value	Average	Sum Question	Average per Questions	Readiness Value
1	Finance	37	9.2	2	4.6	0-1 = No Ready
2	Infrastructure TI	36	9	2	4.5	2-3 = Quite Ready 4-5 = Very Ready

Based on Table 5 regarding the results of the readiness for the implementation of Electronic Medical Records (RME) based on the DOQ-IT method from the IT Infrastructure aspect, from the financial side it obtained a score of 4.6 which means that it is very ready for the implementation of RME, while from IT Infrastructure it obtained a value of 4.5. Based on these results, it can be concluded that the level of readiness from the financial side is higher than the IT Infrastructure side.

Overall Readiness of RME Implementation

Table 6. Overall Readiness for RME Implementation

No	Readiness Area	Average	Sum Question	Average Per Question	Readiness Value
1	Human Resources	22.2	5	4.4	0-1 = No Ready
2	Organization Work Culture	47.6	11	4.3	2-3 = Quite Ready 4-5 = Very Ready
3	Leadership Governance	35.9	8	4.4	
4	Information Technology Infrastructure	18.2	4	4.5	
	Total	**123.9**	**Average**	**4.4**	

Based on the results of the research per variable, it is known that the highest level of readiness in the implementation of Electronic Medical Records (RME) at Bumiayu Hospital is found in the information technology infrastructure variable of 4.5. This shows that these variables are very ready to support the implementation of RME. Meanwhile, the variable with the lowest level of readiness is the organization's work culture with an average per question of 4.3, which means that it is very ready in the implementation of electronic medical records. Overall, the assessment results based on the DOQ-IT method showed a total score of 123.9 out of 28 question items with a summed average. This means that the readiness for the implementation of RME with the DOQ-IT method is already in range I (Very ready) with an overall aspect readiness of 4.4.Thus, it can be concluded that Bumiayu Hospital is in the category of being very ready to implement RME to support its health services.

Readiness for RME implementation demonstrates strengths in adequate human resource competency, a work culture that supports the use of digital systems, and readily available and stable infrastructure; however, weaknesses remain, including dependence on specific human resources, potential inconsistencies in work culture as workloads increase, and the risk of technical disruptions due to ongoing infrastructure maintenance and renewal requirements.

Discussion

Human Resources

The readiness of human resources in the implementation of RME greatly affects the development of RME, because human resources play the role of users and policymakers (Yulis et al., 2021). Attention to the quality of human resources is very important to ensure that health services remain optimal. Factors

influencing human resource quality include gender, education level, and length of service. The majority of registration staff at Bumiayu Regional Hospital are female. To ensure appropriate work, it is necessary to ensure an appropriate division of tasks between men and women based on their respective abilities, capabilities, and limitations (Damayanti et al., 2022). In this study, most of the respondents had a D3 educational background. The level of education will affect the ability and mindset of human resources, the higher the human resource education, the wider and more guaranteed the quality (Bhayza & Subinarto, 2024). In addition, with a high level of education, an officer will more easily understand and receive new information or input, so that it can improve the quality and productivity of his work (Syahdilla & Susilawati, 2022). Most of the respondents at Bumiayu Hospital have a working period of 1-10 years. The working period > 10 years have better skills and experience compared to human resources with a working period of 1- 10 years (Faida & Ali, 2021). The implementation of RME at Bumiayu Hospital was very well received by Bumiayu Hospital officers, especially registration officers who will operate RME. Officers hope that the implementation of RME will provide efficiency and effectiveness in work.

Based on the results of the research, the two readiness areas are included in the category of being very prepared. According to these results, the readiness side of clinical and administrative staff has a higher readiness value than the training readiness area. Administrative readiness of clinical staff involvement relates to and with the planning process, details of the officers who will operate the RME, and the officer's experience and understanding of the RME. However, officers have not been given specific training related to the use of RME. Training in the field of Information Technology has a major impact on improving the skills of officers in operating the system. Through the training provided to officers on the use of Information Technology, their ability to utilize technology can develop significantly, considering that almost all aspects of current activities are closely related to the application of information technology. This is in line with the results of a research conducted by Fitria entitled Readiness of Officers in the Transition of Manual to Paperless Medical Record Documents at the Medical Record Unit of the Kedungmundu Health Center, Semarang City which states that officers must conduct training on computer systems skillfully so that services to patients are satisfactory (Yulis et al., 2021).

Organizational Work Culture

The involvement of medical officers, administration, and patients in the planning process greatly determines the success of the implementation of RME (Pratama & Darnoto, 2023). However, unclear workflow priorities can lead to inconsistencies and hinder system effectiveness. To overcome this, information technology training and the habit of data entry through computers are needed so that officers are more adaptive to the new work culture (Sudirahayu & Harjoko, 2017). The organization's work culture reflects the extent to which the leadership is able to design and establish policies, standard operating procedures, and develop a plan that is understood together, while encouraging officers to implement RME. In the early stages of implementing RME, there is usually a change in work culture that can affect the physical and psychological condition of officers (Praptana et al., 2021). Therefore, the readiness of the work culture is closely related to the extent to which officers accept and adapt to the development of information technology (Rizki, 2022). The success of RME implementation is also determined by collaboratively planned processes, including the involvement of medical and administrative personnel in designing the RME content (Faida & Ali, 2021).

It can be concluded that both studies emphasize the importance of cultural factors and human resource participation in supporting the implementation of EMR, although workflows still need to be strengthened. However, there are differences in the aspects emphasized in this study, which highlights the level of readiness in each area (highest culture, lowest workflow), while Pratama's study highlights the role of human resource involvement in planning. However, both agree that culture and human resource participation are crucial for the success of EMR. In addition to involving users and management, the development of EMR also requires patient participation. Patient involvement can be seen through evaluations of the quality of service they receive.

Based on the results of the research, the variables of organizational work culture are included in the category of being very prepared. These variables include four areas of readiness, namely organizational culture, workflow, information management, and patient engagement, all four of which are in the category of being very prepared. Among the four, the cultural area showed the highest readiness value, while workflow had the lowest value. Bumiayu Hospital itself has used the RME system in Ministry. Officers there understand that the implementation of RME has a positive impact and can improve the quality of health services. In the RME planning stage, all officers are actively involved in the process of discussion, identification of needs, and the preparation of workflows (Bhayza & Subinarto, 2024). This is in line with

Pratama's research entitled Analysis of Electronic Medical Record Development Strategy in the Outpatient Installation of Yogyakarta City Hospital, which states that the involvement of health workers and administrative staff in the planning process plays a significant role in the successful implementation of RME (Pratama & Darnoto, 2023). In addition to involving users and management, the development of Electronic Medical Records (RME) also requires the participation of patients. Patient involvement can be seen through the evaluation of the quality of service they receive.

The assessment of readiness also includes an evaluation of the workflow in the RME implementation process. This workflow involves the stages of clinical administration, including estimating the number of patients and the required staffing requirements. This evaluation is important to ensure that each process can run effectively and efficiently, and is able to support the smooth running of services without disrupting the quality of health services (Pratama & Darnoto, 2023). The weak workflow in identifying and outlining the priorities for the implementation of Electronic Medical Records (RME) shows that strategic planning in the digital transformation of health services is not optimal. Lack of clarity in prioritization causes the implementation process to lack a structured direction, making it difficult to determine which aspects need to take precedence, whether it is strengthening human resources, developing infrastructure, or adjusting regulations. This has the potential to cause inconsistencies in the implementation of RME, as well as hinder the achievement of efficient, integrated, and sustainable information system goals.

In order to adapt, officers need to improve their ability to use technology. Therefore, it is important to have training and the habit of entering data through computers in stages, so that changes in working methods become more acceptable. This is in line with Sudirahayu research entitled Analysis of the Readiness to Implement Electronic Medical Records Using DOQ-IT at Dr. H. Abdul Moeloek Lampung Hospital which shows that habituation to the new work culture will improve skills in the job (Sudirahayu & Harjoko, 2017).

This study emphasizes the importance of improving technological capabilities through training and gradual familiarization with data entry to help officers more easily accept changes in work methods. Meanwhile, Sudirahayu's study also highlights the importance of familiarizing with a new work culture, but focuses more on how this familiarization directly improves officers' work skills in carrying out RME. Thus, both emphasize the importance of the adaptation process, but this study focuses more on the gradual training and transition process, while Sudirahayu's study emphasizes the impact of familiarizing with a new work culture on skill improvement.

Leadership Governance

Based on the results of the research, the leadership governance variable is included in the category of being very ready. This variable includes four areas of readiness, namely leadership, strategy, accountability, and information technology management support. All readiness areas are in the very ready category. From these results, the information technology management support and accountability area received the highest score, while the leadership area received the lowest score.

Success in the RME implementation process is influenced by strong leadership support, the participation of clinical staff in design and implementation, the training process for staff, as well as the planning process on schedule and the provision of adequate budget. Leadership and governance support have an important role in the development of Electronic Medical Records (RMEs), given that leaders are in a strategic position in decision-making. Strong leadership can provide clear direction and ensure the availability of needed resources during the implementation process. This leadership area includes two main aspects, namely the active involvement of the leadership and tangible support for all stages of RME development. Without commitment from the leadership, efforts to implement the RME system can experience obstacles, both in terms of policies and implementation in the field. This is in line with Pratama's research entitled Analysis of Electronic Medical Record Development Strategy in the Outpatient Installation of Yogyakarta City Hospital which states that the role of leadership support and governance has an effect on the development of RME because leaders are the highest ranks in decision-making (Pratama & Darnoto, 2023).

It can be concluded that both studies affirm that leadership and governance support play a crucial role in the successful implementation of RME. However, this study focused more on measuring the level of readiness of each governance area and found variations in its values, while Pratama's study only conceptually highlighted the role of leadership without assessing the level of readiness of each area.

Accountability in the implementation of the RME relates to the responsibility of analyzing software products as well as the terms of contracts and negotiations with vendors (Pratama & Darnoto, 2023). Bumiayu Hospital needs to clearly divide roles and responsibilities to human resources (HR) and

identify the desired software needs.

Information Technology Infrastructure

Based on the results of the research, the variables of IT infrastructure are included in the category of being very ready. This variable consists of two areas of readiness, namely finance and budget and readiness of information technology infrastructure, both areas of readiness are in the category of being very ready. However, the level of readiness of information technology infrastructure shows lower results compared to the readiness of financial and budgetary aspects.

To ensure that RME is able to improve the quality of health services adequate information technology infrastructure is needed. In its development, it is important to consider aspects of data security, privacy protection, and accountability. This effort can be supported through the formation of a special security team, identification of potential risks, the implementation of training, and periodic monitoring activities. This is in line with Retno's research entitled The Implementation of Medical Record Media Transfer in the 2024 Filing of the KRMT Wongsonegoro Semarang Hospital which states that media transfer begins by first turning on the tools used (Manuella & Setijaningsih, 2024).

In general, both studies emphasize the importance of IT infrastructure readiness to support digital processes, including the need for well-functioning tools and systems for optimal media transfer or RME implementation. However, this study assesses the overall level of IT infrastructure readiness, encompassing both financial and technological aspects. Meanwhile, Retno's research focuses more on the operational stages of media transfer, such as ensuring equipment is ready for use, without assessing the level of infrastructure readiness comprehensively.

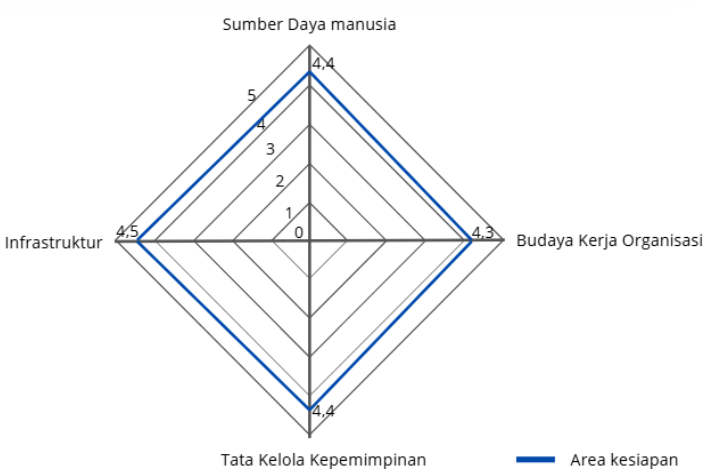
The readiness of information technology infrastructure is related to the availability of funds and the condition of IT infrastructure in health care facilities. Budgeting for the implementation of RME includes officers' perceptions of the system, as well as financing for its acquisition and ongoing maintenance (Bhayza & Subinarto, 2024). The implementation of RME requires considerable investment and careful planning. The financial aspect is a crucial factor in preparing various components of technological infrastructure, such as computer devices, networks, power sources, security systems, training, and others(Rosady et al., 2023).

In terms of budget, Bumiayu Hospital has allocated special funds to support the smooth implementation of RME optimally. This is in line with Pratama's research which states that budget support contributes positively to the success of RME implementation in the future (Pratama & Darnoto, 2023). Officers realize that RME is a form of long-term investment that requires ongoing maintenance. This statement is supported by Rizanti's research in Bhayza, which shows that implementing RME can increase hospitals' investment value (Bhayza & Subinarto, 2024). From the perspective of information technology infrastructure, Bumiayu Hospital has provided computers and hardware components as needed and prepared the necessary software, including the RME application.

Essentially, all three studies affirm that budget support is crucial for the successful implementation of RME. Both Pratama's and Rizanti's studies demonstrate that adequate funding supports the smooth implementation of RME and is considered a long-term investment for hospitals. However, these studies focus primarily on budget allocation at Bumiayu Regional Hospital to ensure optimal implementation of RME. Pratama's study highlights the budget's contribution to successful implementation during the planning and future stages. Meanwhile, Rizanti's study emphasizes that RME investment provides added value to the hospital, allowing for a better understanding of its economic impact. Meanwhile, regarding the information technology infrastructure, Bumiayu Regional Hospital has provided computer equipment and hardware components as needed, along with the necessary software, including the RME application.

Overall Readiness

The results of the study show that Bumiayu Hospital is **very ready** in the implementation of Electronic Medical Records (RME) with a total score of 123.9. The variable with the highest readiness is **the work culture of the organization**, while the lowest is **human resources (HR).**



Picture 1. Readiness Graphic

In the human resource variable, all respondents have understood the importance of the implementation of Electronic Medical Records (RME) in supporting work and various other benefits of the implementation of the system. However, further training is still needed to improve the understanding and skills of officers in operating the RME optimally.

Meanwhile, the results of the analysis on the organizational work culture variable showed the highest average score. This indicates that the majority of respondents have shown good readiness in facing the implementation of RME. This finding is in line with Wirajaya's research which states that the Hospital will be faster in implementing the RME if the Hospital information system has been implemented optimally (Maha Wirajaya & Made Umi Kartika Dewi, 2020).

Both studies demonstrate that human resource readiness and organizational culture play a significant role in the success of RME implementation. Both this study and Wirajaya's study emphasize that hospitals will be better prepared and implement RME more quickly when human resources understand the system's benefits and when the work culture supports the use of technology. The difference lies in the need for further training to improve staff skills, even if their basic understanding is already good. Meanwhile, Wirajaya's study focuses on the condition of hospital information systems that have been fully implemented as a factor in accelerating RME implementation, rather than on the aspect of human resource training.

In the leadership governance variable, the average results also showed the highest score, which indicates that the leadership at Bumiayu Hospital has a strong readiness to support the implementation of RME. This is in accordance with Faida's opinion that good leadership governance is reflected in the existence of clear regulations and must be obeyed by all officers (Faida & Ali, 2021). Both emphasized that good leadership governance is crucial to the success of RME implementation. Both this study and Faida's opinion demonstrate that strong leadership is reflected in clear rules and directions for all staff. The difference is that this study assessed the level of leadership readiness quantitatively and found that the average score was very high at Bumiayu Regional Hospital. Meanwhile, Faida's opinion emphasizes the normative aspect, namely the importance of having clear and mandatory regulations, without directly measuring the level of Readiness.

Variable information technology infrastructure, Bumiayu Hospital is very ready to implement RME. This readiness can be seen from the support of facilities that have been provided by the hospital leadership. In addition, the availability of an adequate budget also strengthens the readiness of the infrastructure needed in the implementation of the RME system as a whole.

Conclusion

Based on the results of the study, the readiness to implement Electronic Medical Records (RME) at Bumiayu Hospital obtained a total score of 123.9 which is included in the category **of being very ready**. The four research variables showed good readiness, with the following details: the Human Resources (HR) variable obtained an average score of 4.4 which reflects the competence and experience of officers in

supporting the implementation of RME; the Organizational Work Culture variable is in the category of being very ready with an average of 4.3 which shows that officers understand the positive impact of RME on improving service quality; the Leadership Governance variable has an average of 4.4, indicating strong leadership that can provide direction, motivation, and policy support; while the variable of Information Technology Infrastructure obtained the highest average of 4.5, which was supported by the availability of adequate facilities, budgets, and infrastructure. Overall, the results of this study show that Bumiayu Hospital has optimal readiness in implementing RME, both in terms of human resources, work culture, leadership, and infrastructure, so that it is expected to accelerate digital transformation and improve the quality of health services.

Author Contributions

In this research, **Salsabila Fitriyani** as the first author played a role in designing the research, collecting data, and compiling the initial draft of the article. **Nugraheni Kusumawati** as the second author as well as the corresponding author is in charge of analyzing data, ensuring the suitability of the manuscript with the guidelines for writing the journal, and being a liaison with the editor and reviewer. **Syifa Sofia Wibowo** as the third writer contributed to the literature review, manuscript editing, and provided conceptual input for the improvement of the article. **Alfiena Nisa Belladiena** as the fourth author plays a role in data validation, helping to prepare tables and pictures, and contributing to the final revision of the article.

Funding

This research received no external funding.

Institutional Review Board Statement

This study has received ethical approval from the Research Ethics Committee of Universitas Dian Nuswantoro, with approval number 001080/UNIVERSITAS DIAN NUSWANTORO/2025.

Acknowledgments

The researchers would like to thank Bumiayu Regional Hospital for being willing to be the research location.

Conflicts of Interest

The authors declare no conflict of interest.

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