

EVALUATION OF THE DIGITAL TRANSFORMATION POLICY OF ELECTRONIC MEDICAL RECORDS (EMR) ON THE QUALITY OF HEALTHCARE SERVICES AT DR. RUBINI MEMPAWAH REGIONAL GENERAL HOSPITAL

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Received : 15 January 2026

Accepted : 20 February 2026

Revised : 31 January 2026

Published : 28 April 2026

Abstract

This research is entitled: Evaluation of the digital transformation policy process of Electronic Medical Records (ERM) on the quality of health services at Dr. Ribini Mempawah Regional General Hospital. The problems of this research stem from the lack of Human Resources Competence in ERM Operation, not yet Optimal Security and Privacy of Patient Data, not yet Optimal Data Integration between Service Units, Limited Maintenance and Limited Technical Support and limited Infrastructure and Internet Network. The purpose of this research is to describe and analyze the compliance perspective and what's happening perspective in the Evaluation of the digital transformation policy process of Electronic Medical Records (ERM) on the quality of health services at Dr. Ribini Mempawah Regional General Hospital. This research uses a descriptive research type with a qualitative approach. The results of the study indicate that the implementation of the ERM policy at Dr. Ribini Mempawah Regional General Hospital has been carried out but is not optimal. From a compliance perspective, the compliance of implementing agents is quite good although not yet consistent, the implementation of the policy has not been fully integrated between units, and facilities and resources still need strengthening. From a what's happening perspective, implementation is influenced by HR readiness, management support, technological infrastructure, and work culture, while short-term results show an increase in administrative efficiency and ease of access to patient data. This study recommends strengthening human resource capacity, improving infrastructure, and optimizing coordination and oversight to support the success of digital transformation and improve the quality of healthcare services.

Keywords: *Evaluation, Policy, Digital Transformation of Electronic Medical Records.*

1. INTRODUCTION

Digital transformation in the healthcare sector has become one of the Indonesian government's primary focuses in achieving more effective, efficient, and high-quality healthcare services. In line with the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records, all healthcare facilities are expected to digitize medical records as an effort to improve service quality and patient safety. The dr. Rubini Mempawah Regional General Hospital, as one of the referral hospitals in Mempawah Regency, has implemented EMR since December 2022, starting from outpatient services. The implementation covers the entire service flow, from registration, medical consultation, supporting examinations, to pharmacy services, including the use of e-prescriptions and e-billing for general patients.

Patient visit data at dr. Rubini Mempawah Regional General Hospital show a continuously increasing trend, with 100,889 visitors in 2023, 101,027 in 2024, and rising significantly to 108,600 in 2025 (RSUD dr. Rubini Mempawah, January 2026). This increase indicates the need for a comprehensive evaluation of the effectiveness of the EMR system in supporting service quality. The evaluation of the EMR digital transformation policy is relevant considering several identified challenges, including: (1) limited human resource competence in operating EMR; (2) suboptimal data security and patient privacy; (3) inadequate data integration across service

units; (4) limited maintenance and technical support; and (5) constraints in infrastructure and internet connectivity.

2. LITERATURE REVIEW

2.1 Concept of Public Policy

According to Dunn (2003:132), public policy is a complex pattern of interdependent collective choices, including decisions not to act, made by government bodies or offices. Meanwhile, Anderson (in Widodo, 2014:190) defines public policy as a series of purposeful actions carried out by actors or groups of actors to address specific problems. Subarsono (2015:24) defines public policy as a process involving various patterns of activities that constitute a set of decisions related to actions taken to achieve objectives through specific means. In policy studies, three major interrelated activities are identified: policy formulation, policy implementation, and policy evaluation.

2.2 Concept of Policy Evaluation

Akbar (2018:28) states that evaluation produces policy-relevant knowledge regarding discrepancies between expected and actual policy performance. Nugroho (2016:61) argues that evaluation generates evaluative demands characterized by: (1) value focus; (2) interdependence of facts and values; (3) present and past orientation; and (4) value duality. Wahyuni (2017:125) asserts that evaluation is an effort to produce information regarding the value or benefits of policy outcomes, aiming to assess overall impacts and provide a basis for policy improvement. Yuwono (2015:141) adds that policy evaluation includes measuring impacts, analyzing outcomes, comparing impacts with objectives, and contributing to future decision-making.

2.3 Process Evaluation

Tayibnapi (2018:119) explains that process evaluation provides an overview of what is occurring within a program and ensures the availability and accessibility of its physical and structural components. Wibawa (2014:271) defines process evaluation as a series of deliberate activities aimed at assessing the success level of policy processes. Ripley (in Kusumanegara, 2019:125) identifies two key aspects of implementation evaluation: the compliance perspective and the what's happening perspective. The compliance perspective focuses on whether implementation aligns with established plans, while the what's happening perspective seeks to identify influencing factors and short-term outcomes of implementation.

3. RESEARCH METHOD

This study employs a descriptive qualitative research design. According to Nazir (2016:63), descriptive research examines the status of a group, object, condition, system of thought, or class of events in the present. Moleong (2013:6) states that qualitative research aims to understand phenomena experienced by research subjects. The study was conducted at dr. Rubini Mempawah Regional General Hospital, Mempawah Regency, West Kalimantan Province. Research subjects were selected using purposive sampling, including the Acting Director (Head of Service Division), Head of Control Division, Head of Information and Public Complaints Section, Head of Medical Records and Accreditation Section, Head of IT Unit, Head of Medical Records Unit, medical and non-medical staff, and patients' families. Data collection techniques included observation, in-depth interviews, and documentation studies (Sugiyono, 2016:63). Data analysis followed qualitative procedures consisting of data collection, data reduction, data display, and conclusion drawing. Data validity was ensured through triangulation of techniques by combining interview, observation, and documentation results (Sugiyono, 2014:273).

4. RESULTS AND DISCUSSION

4.1 Compliance Perspective

4.1.1 Compliance of Implementing Agents

The compliance of implementing agents in the EMR application shows a fairly good level of commitment but is not yet uniform or fully consistent. Some healthcare workers still use manual forms in services such as laboratories, radiology, and prescriptions. This condition is influenced by differences in digital literacy and insufficient comprehensive training, leading to data input errors and delays in updating medical information.

4.1.2 Policy Implementation

The implementation of EMR digital transformation has followed internal regulations referring to Minister of Health Regulation No. 24 of 2022. However, challenges remain in coordination, inter-unit integration, and monitoring. Compliance with national regulations is still in the adaptation phase, requiring further attention to governance and legal risks.

4.1.3 Facilities and Resources

Supporting facilities and resources require strengthening, particularly in terms of equipment availability, network stability, and human resource readiness. Frequent internet disruptions cause delays in data input and access, especially during peak hours. Limited internal IT personnel prolong system repair processes during disruptions.

4.2 What's Happening Perspective

4.2.1 Factors Influencing Implementation

EMR implementation is influenced by several factors: (1) Human Resource Readiness — some staff lack proficiency and show resistance to digital systems; (2) Infrastructure — inadequate bandwidth and reliance on a single provider; (3) Data Security — incomplete encryption standards pose risks to patient data; and (4) Data Integration — limited synchronization across units prevents real-time information access.

4.2.2 Short-Term Outcomes

EMR implementation has produced positive short-term impacts. Patient data recording and retrieval have become faster and more integrated, facilitating access to medical history. Medical record staff report improved data completeness and organization. Service staff experience more structured workflows, improved coordination, and better document management. However, patients' families report service delays due to system performance issues and staff adaptation challenges.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The evaluation of the EMR digital transformation policy indicates that implementation has been carried out but not yet maximized. From the compliance perspective, implementation is not fully consistent, structured, or integrated, and resources remain limited. From the what's happening perspective, challenges include human resources, infrastructure, data security, and integration, despite observed improvements in administrative efficiency and data accessibility.

5.2 Recommendations

The study recommends: (1) strengthening discipline and commitment through continuous training and socialization; (2) improving cross-unit coordination, SOP refinement, and monitoring mechanisms; (3) enhancing IT infrastructure and human resource capacity; and (4) conducting regular evaluation and monitoring to support sustainable digital work culture.

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