



Factors Influencing Hospital Management Information System Implementation Success in Indonesia: A Systematic Literature Review

Alifia Nurul Ramadhani^{1*}, Nurfardiansyah Burhanuddin²

^{1,2} Universitas Muslim Indonesia, Sulawesi Selatan, Indonesia

ramadhanialifia4@email.com^{1*}, nurfardiansyah.bur@umi.ac.id²

Received: 15/01/2026

Accepted: 27/01/2026

Published: 21/02/2026

ABSTRACT

Purpose: This study aimed to analyze the factors influencing the successful implementation of Hospital Management Information Systems (SIMRS) in Indonesia through a Systematic Literature Review (SLR). **Methods:** Articles were retrieved from Google Scholar and selected according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Full-text articles published between 2016 and 2026 that discussed SIMRS implementation or evaluation were included. A total of 21 articles met the inclusion criteria and were analyzed. **Results:** The findings revealed that successful SIMRS implementation is influenced by human factors, including user competence, training, and system acceptance; organizational factors, such as management support, organizational readiness, and policy commitment; and technological factors, including system quality, information quality, and service quality. The reviewed studies also demonstrated that effective SIMRS implementation contributes to improved service efficiency, enhanced information management, better decision-making, and higher healthcare service quality. Implications: These findings suggest that hospitals should strengthen the alignment between human, organizational, and technological dimensions to maximize the benefits and sustainability of SIMRS implementation. **Additional materials:** This review analyzed 21 articles and includes 2 tables and 1 PRISMA flowchart.

Keywords: Hospital Management Information System; SIMRS; HOT-Fit Model; Implementation Success; Systematic Literature Review.

INTRODUCTION

Digital transformation in the healthcare sector drives hospitals to optimize the use of information technology to support hospital services and management. One application of this is the Hospital Management Information System (SIMRS), which integrates service processes, data management, and reporting to enhance the efficiency and quality of healthcare services (Diantono & Winarno, 2018).

In Indonesia, the implementation of SIMRS is mandated by Minister of Health Regulation Number 82 of 2013 concerning Hospital Management Information Systems. Amidst the evolution of digital health transformation, the successful implementation of SIMRS has become a critical aspect, as it influences service effectiveness, information management, and decision-making within hospitals (Ministry of Health of the Republic of Indonesia, 2013).

Various studies indicate that the successful implementation of SIMRS is influenced by human, organizational, and technological factors. The Human, Organization, Technology-Fit (HOT-Fit) model is widely used to evaluate these factors, as it comprehensively assesses the relationships among users, the



organization, technology, and system benefits (Nur et al., 2022). However, existing research has yielded mixed findings regarding the factors that most significantly influence SIMRS implementation success, highlighting the need for a more comprehensive synthesis.

Given this context, this study conducts a Systematic Literature Review (SLR) of 21 articles addressing SIMRS implementation. The novelty of this research lies in the synthesis and mapping of success factors for SIMRS implementation based on the human, organization, technology, and net benefit dimensions of the HOT-Fit model. Therefore, this study aims to analyze the factors influencing the successful implementation of Hospital Management Information Systems (SIMRS) using a Systematic Literature Review approach.

METHOD

A systematic literature search was conducted using the **Google Scholar** database. The search targeted publications from the **2016–2026** period. The search process employed the keywords "SIMRS," "Sistem Informasi Manajemen Rumah Sakit," "Hospital Management Information System," "HOT-Fit," and "Evaluasi SIMRS." These keywords were used either individually or in specific combinations to identify articles relevant to the research objectives. All retrieved articles were subsequently screened based on established inclusion and exclusion criteria.

Table 1. Inclusion and Exclusion Criteria

Criteria	Inclusion Criteria	Exclusion Criteria
Research topic	Discussing SIMRS implementation or evaluation	Does not discuss the Hospital Information System (SIMRS)
Evaluation model	Utilizing the HOT-Fit framework or addressing Human, Organization, Technology, and Net Benefit factors	Not relevant to SIMRS success factors
Publication year	2016-2026	Outside the specified time range
Article type	Full-text scholarly articles	Articles where the full text is unavailable
Language	Indonesian and English	From countries other than Indonesia and the UK
Duplication	Original articles	Duplicate articles

Article selection was conducted using the PRISMA guidelines through title, abstract, and full-text screening based on the predefined inclusion and exclusion criteria Figure 1.

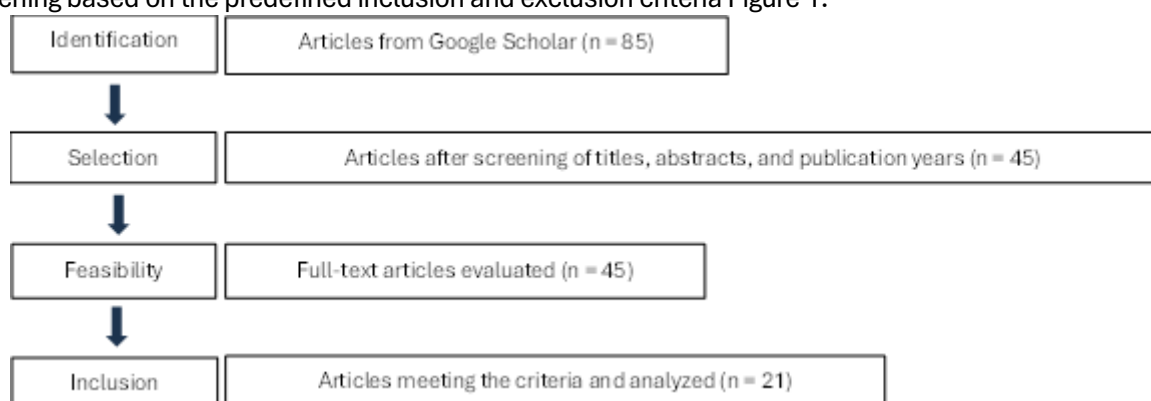


Figure 1. PRISMA Flowchart

Articles meeting the inclusion criteria were analyzed using a narrative synthesis method. Extracted data included author names, publication years, research locations, research methods, and key findings. Subsequently, the findings were categorized based on the Human, Organization, Technology, and Net Benefit dimensions of the HOT-Fit model to identify factors influencing the successful implementation of Hospital Management Information Systems (SIMRS).

RESEARCH RESULTS AND DISCUSSION

Research Results

A total of **21 articles** met the inclusion criteria following a systematic selection process involving the removal of duplicates and screening based on titles, abstracts, and full-text eligibility. The included studies examined the implementation of Hospital Management Information Systems (SIMRS) based on the HOT-Fit Model using various research designs.

Table 2.
 Synthesis of Characteristics of Studies Included in the Systematic Review

Author (year)	Study Title	Method	Location/ Object	Key Results
Windari <i>et al.</i> (2023)	Organizational Effect on SIMRS Implementation: SLR	SLR (PRISMA)	6 SIMRS studies	Organizational factors influence SIMRS success (leadership, culture).
Wardhana <i>et al.</i> (2025)	HOT-Fit Evaluation of Hospital Information Systems	SLR HOT-Fit	Various hospitals	SIMRS success influenced by human, organization, and technology fit.
Wahyuni <i>et al.</i> (2026)	HOT-Fit Evaluation of SIMRS in Inpatient Care	Quantitative evaluative HOT-Fit	RS PMC (inpatient)	HR, organization, and technology affect SIMRS use and satisfaction.
Majdi <i>et al.</i> (2026)	SIMRS Evaluation in Medical Records Unit	Evaluative HOT-Fit	RSUD Welas Asih (medical records)	System is good but needs training and management support.
Handoko <i>et al.</i> (2026)	HOT-Fit Analysis of SIMRS Implementation	Quantitative analytic HOT-Fit	Universitas Sebelas Maret Hospital	HR, organization, and technology affect usage and benefits.
Wujani <i>et al.</i> (2024)	SIMRS Evaluation at RS Dharma Kerti	Evaluative HOT-Fit	RS Dharma Kerti	Training and management support need improvement.
Kumorowani & Mulyanti (2023)	HOT-Fit Analysis of SIMRS: SLR	SLR HOT-Fit	Various hospitals	Key factors: system quality, information, service, organization.
Wijayanti & Nurhayati (2024)	SIMRS Evaluation in Outpatient Unit	Evaluative HOT-Fit	RS PKU Muhammadiyah Kartasura	HR, organization, and technology affect outpatient SIMRS use.
Hardini & Ilmananda (2025)	SIMRS Evaluation at RS BOKOR Turen	Evaluative HOT-Fit	RS BOKOR Turen	System works well but needs optimization and training.
Faigayanti <i>et al.</i> (2022)	SIMRS Evaluation in Outpatient Services	Evaluative HOT-Fit	Outpatient unit hospital	HR and organization influence SIMRS effectiveness.
Benge <i>et al.</i> (2024)	SIMRS and EMR Implementation Evaluation	Evaluative HOT-Fit	RSUD Wangaya Denpasar (RME)	HR, system, and organization affect EMR implementation.
Serhalawan <i>et al.</i> (2023)	HOT-Fit Application in SIMRS Review	Literature review	Various hospitals	HOT-Fit is effective for SIMRS evaluation.
Kasmianti & Iskandar (2025)	HOT-Fit Case Study SIMRS Aloe Saboe	Case study HOT-Fit	RS Aloe Saboe	HR, organization, technology, and user satisfaction influence SIMRS.
Raharjo <i>et al.</i> (2024)	SIMRS Evaluation in Medical Records Demak	Evaluative HOT-Fit	RS Demak (medical records)	HR and organization affect SIMRS effectiveness.
Puspita & Wisnuwardhana (2026)	SIMRS & EMR Impact on Outpatient Care	Literature review	Various studies	SIMRS improves efficiency and service quality.
Pratiwi <i>et al.</i> (2025)	SIMRS Impact on Patient Satisfaction	Literature review	Indonesian hospitals	SIMRS improves patient satisfaction and service efficiency.
Septiyani & Sulistiadi (2022)	Systematic Review of SIMRS HOT-Fit	Systematic review	Various studies	HR, system, information, and management affect SIMRS.

Wirajaya & Nugraha (2022)	SIMRS Evaluation at RS Mangusada	Evaluative HOT-Fit	RS Mangusada	Organizational support and system quality are important.
Igiany (2019)	Factors Influencing SIMRS Implementation	Systematic review	Various studies	HR, technology, training, and management influence SIMRS.
Bambang <i>et al.</i> (2024)	HOT-Fit Evaluation of SIMRS	Literature review HOT-Fit	Various studies	System and information quality affect user satisfaction.
Abda'u <i>et al.</i> (2018)	HOT-Fit Evaluation of SIMRS Kebumen	Evaluative HOT-Fit	RSUD Dr. Soedirman Kebumen	HR, organization, and technology influence SIMRS success.

Based on Table 2, the majority of studies employ the HOT-Fit approach to evaluate SIMRS implementation. In general, the research findings indicate that the success of SIMRS implementation is influenced by human, organizational, and technological factors.

Discussion

Human Factor

The human dimension plays an important role in the successful implementation of Hospital Management Information Systems (SIMRS). User competence was identified as a key factor influencing system utilization and effectiveness (Wahyuni *et al.*, 2026). Continuous training is essential to improve user skills and reduce operational barriers during system use (Majdi *et al.*, 2026). User acceptance increases when the system supports daily work activities and is easy to operate (Juli *et al.*, 2024). In addition, strengthening user capacity can further optimize the benefits obtained from SIMRS implementation (Hardini *et al.*, 2025).

Organization Factor

Organizational support is a critical determinant of successful SIMRS implementation. Leadership commitment and supportive organizational culture contribute significantly to system adoption (Windari *et al.*, 2023). The provision of resources and management support strengthens the sustainability of system implementation (Luh *et al.*, 2024). Effective coordination and clear task distribution improve the utilization of SIMRS across hospital units (Raharjo *et al.*, 2024). Organizational readiness has also been recognized as one of the most influential factors in SIMRS implementation (Igiany, 2019).

Technology Factor

Technology-related factors influence both system performance and user experience. High system quality contributes to successful implementation and greater system utilization (Wardhana *et al.*, 2025). Accurate and reliable information supports healthcare services and operational processes within hospitals (Kumorowani, 2023). Technical support and service quality help maintain user engagement with the system (Serhalawan *et al.*, 2023). Furthermore, information and system quality are closely associated with user satisfaction (Sugiyarto *et al.*, 2024).

Net Benefit

The implementation of SIMRS provides several benefits for healthcare organizations. SIMRS improves service efficiency by facilitating faster data processing and information access (Puspita & Wisnuwardhana, 2026). The system also contributes to higher patient satisfaction through more integrated healthcare services (Pratiwi *et al.*, 2025). Better information availability supports decision-making processes within hospitals (Wirajaya & Nugraha, 2022). Overall, SIMRS creates added value by improving operational performance and service quality (Diantono & Winarno, 2018).

Relationship Among HOT-Fit Components

Successful SIMRS implementation depends on the interaction between human, organizational, and technological factors (Luthfiyyah *et al.*, 2026). The integration of electronic medical records demonstrates the importance of balancing these dimensions during implementation (Benge *et al.*, 2024). Alignment between users, organizational support, and technology contributes to higher system utilization and satisfaction (Kasmianti & Iskandar, 2025). Similar findings indicate that the effectiveness of SIMRS is influenced by the harmony among HOT-Fit components (Nur *et al.*, 2022). The HOT-Fit framework therefore provides a comprehensive approach for evaluating health information systems in hospitals ((Alali *et al.*, 2016).

CONCLUSION

This review of 21 articles indicates that the successful implementation of Hospital Management Information Systems (SIMRS) is influenced by the alignment of human, organizational, and technological factors. User competence, management support, and system quality were identified as key determinants of success. Furthermore, effective SIMRS implementation contributes to improved service efficiency, information management, and overall healthcare service quality.

REFERENCE

- Alali, H., Alweshah, M., & Wishah, R. (2016). *Australian Journal of Basic and Applied Sciences Hospital Information Systems Success : Towards an Evaluation Framework*. 8(June), 45–51.
- Benge, S. S. M. A., Rayne, K., & Patut, I. A. (2024). *Evaluasi Sistem Informasi Manajemen Rumah Sakit dalam Penerapan Rekam Medis Elektronik Menggunakan Metode HOT- FIT di Rumah Sakit Umum Daerah Wangaya Denpasar*. 7, 269–276.
- Diantono, P., & Winarno, W. W. (2018). *Evaluasi Penerapan SIMRS Menggunakan Metode Hot-Fit Di RSUD Dr . Soedirman Kebumen*. 2(1), 46–56.
- Hardini, R. A., Ilmananda, A. S., Studi, P., Informasi, S., Informasi, F. T., Malang, U. M., & Malang, K. (2025). *Evaluasi Implementasi SIMRS di Rumah Sakit Bala Keselamatan " BOKOR " Turen Dengan Pendekatan HOT-Fit*. 3(2), 127–134. <https://doi.org/10.26905/jisad.v3i2.16186>
- Igiany, P. D. (2019). *Systematic Review: Faktor yang Mempengaruhi Implementasi Sistem Informasi Manajemen Rumah Sakit (SIMRS)*.
- Juli, N., Wijayanti, E. P., Nurhayati, A., & Surakarta, U. A. (2024). *Evaluasi Sistem Informasi Manajemen Rumah Sakit (SIMRS) dengan Metode Hot-Fit pada Unit Rawat Jalan di Rumah Sakit PKU Muhammadiyah Kartasura*. 2(3).
- Kasmianti, & Iskandar, D. (2025). *Evaluating the Implementation of Hospital Information Sys- tem Using the HOT-Fit Framework : A Case Study at RSUD Prof. Dr. H. Aloei Saboe, Indonesia*. 5236.
- Kumorowani, R. P. (2023). *Analisis Penerapan Sistem Informasi Manajemen Rumah Sakit (SIMRS) Dengan Pendekatan HOT FIT : Systematic Literature Review*. 1(2).
- Luh, N., Prapti, G., Karma, M., Wirajaya, M., Laksmini, P. A., & Tunas, I. K. (2024). *Evaluasi Sistem Informasi Manajemen Rumah Sakit (SIMRS) Dengan Metode Hot-Fit di Rumah Sakit Dharma Kerti*. 12(2), 91–101. <https://doi.org/10.47007/inohim.v12i2.621>
- Luthfiyyah, A., Handoko, S., Putri, F. R., & Sukmaningsih, R. (2026). *Analisis Penerapan Sistem Informasi Manajemen Rumah Sakit Menggunakan Metode HOT-Fit Di Rumah Sakit Universitas Sebelas Maret Analysis of the Implementation of Hospital Management Information Systems Using the HOT-Fit Method at Sebelas Maret University Hospital*. 7(1), 42–47.
- Majdi, F. M., Setiatin, S., & Soelistijaningroem, M. (2026). *Evaluation of the Hospital Information Management System (SIMRS) in the Medical Records Unit Using the Hot-Fit Method at RSUD Welas Asih*. 10(1), 1–6.
- Nur, S., Septiyani, D., Sulistiadi, W., Masyarakat, K., Indonesia, U., & Info, A. (2022). *Penerapan Sistem Informasi Manajemen Rumah Sakit (Simrs) Dengan Menggunakan Metode Hot-Fit : Systematic Review*. 08(2), 136–147. <https://doi.org/10.35329/jkesmas.v8i2.3706>
- Pratiwi, W., Paramarta, V., & Yuliaty, F. (2025). *Dampak Penerapan Sistem Informasi Manajemen Rumah Sakit (SIMRS) terhadap Kepuasan Pasien Menggunakan Metode HOT-Fit di Indonesia : Literature Review. Journal of Economics and Management Scienties*, 156–163. <https://doi.org/10.37034/jems.v7i3.103>
- Puspita, M., & Wisnuwardhana, I. A. (2026). *Implementasi Sistem Informasi Manajemen Rumah Sakit (Simrs) Dan Rekam Medis Elektronik (Rme) Terhadap Kualitas Pelayanan Rawat Jalan: Literature Review*. 3(1).

- Raharjo, T. T., Wulandari, F., & Kurniadi, A. (2024). Evaluasi Sistem Informasi Manajemen Rumah Sakit (SIMRS) pada Instalasi Rekam Medis Rumah Sakit di Kabupaten Demak Menggunakan Model Hot-Fit. *Jurnal Kesehatan*, 12(1).
- Serhalawan, R. P., Rumana, N. A., Putra, D. H., & Fannya, P. (2023). Penerapan Metode Hot-Fit dalam Mengevaluasi Sistem Informasi Manajemen Rumah Sakit (Literature Review). 3(8), 3058–3071.
- Sugiyarto, B., Matandung, O. M., Silvia, S., Darurahmi, V., & Veranita, M. (2024). Evaluation Of Hot-Fit Method Of Hospital Management Information Systems (Simrs): Literature Review. 6(1), 896–906.
- Wahyuni, S., Ismainar, H., Melyanti, R., Hartono, B., & Hamid, A. (2026). Evaluasi Implementasi Simrs Menggunakan Metode Human Organization Technology (Hot) -Fit Di Rawat Inap. 09(02), 33–38.
- Wardhana, E. S., Yaniawati, P., & Santoso, B. (2025). A comprehensive evaluation of hospital information systems based on the hot-fit framework. 89–99.
- Windari, A., Luqman, Y., & Wijanarko, B. (2023). Organizational Effect on the Implementation of “ SIMRS ” (Hospital Management Information Systems) in Hospital : A Systematic Review. 08, 13–22.
- Wirajaya, M. K. M., & Nugraha, I. N. A. (2022). Evaluasi Sistem Informasi Manajemen Rumah Sakit dengan Metode HOT- Fit di Rumah Sakit Daerah Mangusada Evaluation of the Hospital Management Information System With The HOT- Fit Method At The Mangusada Regional Hospital. 8(1), 124–136.