Gene Dora

867 ~ 874 - ID 841

ACADEMIC CANVAS 1

Document Details

Submission ID
trn:oid:::6065:146282993

Submission Date
Jul 23, 2026, 4:38 PM GMT+7

Download Date
Jul 23, 2026, 4:39 PM GMT+7

File Name
867 ~ 874 - ID 841.pdf

File Size
312.1 KB

8 Pages

2,866 Words

18,026 Characters

18% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography

Match Groups

29 Not Cited or Quoted 15%
Matches with neither in-text citation nor quotation marks

8 Missing Quotations 3%
Matches that are still very similar to source material

0 Missing Citation 0%
Matches that have quotation marks, but no in-text citation

0 Cited and Quoted 0%
Matches with in-text citation present, but no quotation marks

Top Sources

14% Internet sources
9% Publications
8% Submitted works (Student Papers)

Match Groups

- **29** Not Cited or Quoted 15%
  Matches with neither in-text citation nor quotation marks
- **8** Missing Quotations 3%
  Matches that are still very similar to source material
- **0** Missing Citation 0%
  Matches that have quotation marks, but no in-text citation
- **0** Cited and Quoted 0%
  Matches with in-text citation present, but no quotation marks

Top Sources

14% Internet sources
9% Publications
8% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	Internet	fahruddin.org 2%
2	Internet	ejournal.unibabwi.ac.id 2%
3	Student papers	Universitas Gadjah Mada on 2026-07-22 1%
4	Internet	jurnal.uinsu.ac.id <1%
5	Internet	www.gapgyan.org <1%
6	Internet	journalkhd.com <1%
7	Internet	journal.moestopo.ac.id <1%
8	Student papers	Charles University in Prague on 2026-05-31 <1%
9	Internet	avesis.inonu.edu.tr <1%
10	Internet	docksci.com <1%

11 Internet
www.multispecialityjournal.com <1%

12 Publication
Rahmi Amtha, Ferry Sandra, Rosalina Tjandrawinata, Indrayadi Gunardi, Anggrae... <1%

13 Student papers
University of Ulster on 2026-07-16 <1%

14 Internet
ijmedph.org <1%

15 Internet
ajernet.net <1%

16 Internet
www.sciencegate.app <1%

17 Publication
Evelyne Lee, Estralita Trisnawati. "Capital Intensity, Financial Performance On Ta... <1%

18 Internet
eprints.utar.edu.my <1%

19 Internet
mdpi-res.com <1%

20 Internet
scholar.archive.org <1%

21 Publication
Adhani Windari, Retnowati Retnowati, Subinarto Subinarto, Puput Sugiarto. "Mix... <1%

22 Student papers
IDEA College on 2026-07-16 <1%

23 Student papers
LL DIKTI IX Turnitin Consortium Part III on 2026-05-28 <1%

24 Student papers
University of Sunderland on 2025-08-29 <1%

25 Internet

journal.privietlab.org <1%

26 Internet

repository.unissula.ac.id <1%

27 Publication

"Overview Of a Hospital Management Information System Using The Hot-Fit Met... <1%

28 Student papers

Forum Perpustakaan Perguruan Tinggi Indonesia Jawa Tengah on 2026-06-25 <1%

29 Publication

Aulia Azzahra, Wisnu Wijayanto, Akbar Pahlevi. "The Influence of Content Marketi... <1%

JTH: Journal of Technology and Health ISSN: 3025-1168
Vol. 4, No. 1, 2026, pp. 867 ~ 874
Open Acces: https://doi.org/10.61677/jth.v4i1.841

THE RELATIONSHIP BETWEEN EMPLOYEE COMPETENCE AND THE SUCCESSFUL IMPLEMENTATION OF A HOSPITAL MANAGEMENT INFORMATION SYSTEM AT ADINDA MEDICAL CENTRE HOSPITAL SIDENRENG RAPPANG REGENCY

Hardiyanti[1*], Sunandar Said[2], Zulkarnain Sulaiman[3], Khaeriyah Adri[4]

Faculty of Health Sciences, Universitas Muhammadiyah Sidenreng Rappang, Indonesia
diyaanhaha@gmail.com[1], nandarnurse@gmail.com[2], zoelvoc56@gmail.com[3], reekhaeriyah@gmail.com[4]*
**Corresponding author*

Received May 13, 2026; Revised July 21, 2026; Accepted July 22, 2026; Published July 23, 2026

ABSTRACT

Successful implementation of a Hospital Management Information System (HMIS) depends not only on technological infrastructure but also on the competence of employees who use the system. This study examined the associations between employee motivation, knowledge, and skills and the success of HMIS implementation at Adinda Medical Centre Hospital, Sidenreng Rappang Regency. An analytical cross-sectional study was conducted from February to March 2026 among 103 employees selected by simple random sampling from 138 HMIS users. Data were collected using a structured questionnaire and analyzed using the Chi-square test at a significance level of 0.05. Motivation was significantly associated with successful HMIS implementation (p = 0.042), as were technical skills (p = 0.044). Knowledge was not significantly associated with implementation success (p = 0.845). These findings indicate that willingness to engage with the system and practical operating ability may be more closely related to successful HMIS use than theoretical knowledge alone. Hospital management should strengthen hands-on training, user mentoring, supervision, and motivational support while continuing to improve system reliability and organizational support.

Keywords: *Employee competence, hospital management information system, knowledge, motivation, skills.*

INTRODUCTION

Digital health has become an important component of healthcare transformation because it supports the integration, accessibility, and continuity of health information. The World Health Organization emphasizes that digital health initiatives require coordinated governance, an enabling workforce, and sustainable implementation strategies (World Health Organization, 2021). In Indonesia, Hospital Management Information Systems (HMIS) are expected to integrate administrative, clinical, financial, pharmacy, and reporting functions within hospital operations (Kementerian Kesehatan Republik Indonesia, 2022; Tangel et al., 2024).

The success of HMIS implementation is not determined solely by system availability. User readiness, organizational support, service quality, task–technology fit, and the reliability of technical infrastructure also shape whether the system is used effectively in daily work (Amalia & Ferdianto, 2022; Molly & Itaar, 2021; Suhartatik et

al., 2022). When these elements are weak, hospitals may experience incomplete data entry, processing delays, inconsistent use across units, and a return to manual procedures during system disruptions.

Employee competence is therefore an important human factor in HMIS implementation. Motivation encourages users to learn and consistently use the system, knowledge supports understanding of system functions and procedures, and technical skills enable accurate operation in real service situations. Previous studies have linked human resource competence and user readiness with employee performance and the effective use of hospital information systems (Alwi et al., 2023; Putra & Darmawan, 2021; Sahputri et al., 2024; Susanti et al., 2025). However, studies that distinguish the respective roles of motivation, knowledge, and skills in a private hospital context remain limited.

Prior Indonesian studies have examined HMIS through service quality and organizational structure (Amalia & Ferdianto, 2022), broad implementation-success factors (Kusmiranti et al., 2022; Syafira et al., 2024; Tangel et al., 2024), and task–technology fit (Suhartatik et al., 2022). Building on that literature, the novelty of the present study lies in separately testing motivation, knowledge, and practical skills as three employee-competence dimensions in a private hospital. This disaggregated approach is intended to identify which competence dimension is most closely associated with implementation success and to complement previous evidence that human-resource competence contributes to effective HMIS utilization (Sahputri et al., 2024; Susanti et al., 2025).

Preliminary observations at Adinda Medical Centre Hospital identified uneven employee understanding of HMIS workflows and features, limited information technology support, unstable network connections, and suboptimal data synchronization. During system disruptions, some administrative processes were temporarily completed manually. These conditions indicate that practical user readiness remains important for maintaining effective and continuous HMIS utilization.

Identifying the competence dimensions most closely associated with HMIS success is practically useful for designing targeted hands-on training, mentoring, and organizational support, which prior studies have recommended to strengthen system utilization (Sahputri et al., 2024; Suhartatik et al., 2022; Syafira et al., 2024). Accordingly, this study aimed to analyze the associations between employee motivation, knowledge, and skills and the success of HMIS implementation at Adinda Medical Centre Hospital, Sidenreng Rappang Regency.

RESEARCH METHOD

This analytical observational study used a quantitative cross-sectional design because the exposure variables and outcome were measured at one point in time (Pérez-Guerrero et al., 2024; Wang & Cheng, 2020). The study was conducted at Adinda Medical Centre Hospital, Sidenreng Rappang Regency, from February to March 2026. The independent variables were motivation, knowledge, and skills, while the dependent

variable was the success of HMIS implementation.

The study population comprised all 138 employees who actively used HMIS. The sample size was calculated using the Slovin formula with a 5% margin of error, resulting in 103 respondents. Respondents were selected through simple random sampling. Employees were eligible when they actively used HMIS and agreed to participate; employees who were absent during data collection or did not complete the questionnaire were excluded.

Primary data were collected using a structured questionnaire after official permission was obtained from the hospital. Motivation items assessed employees' willingness, persistence, and encouragement to use HMIS in daily work. Knowledge items measured understanding of HMIS functions and procedures. Skills items assessed practical ability to operate the system, while HMIS implementation success was assessed through the effectiveness and smoothness of system utilization in supporting hospital services.

The questionnaire underwent validity testing using item–total correlations and reliability testing using Cronbach's alpha before data collection. A Cronbach's alpha coefficient of at least 0.70 was used as the reliability criterion. The completed questionnaires were checked, coded, and tabulated to ensure data completeness and consistency.

Data were analyzed using SPSS. Univariate analysis summarized categorical variables as frequencies and percentages. Bivariate analysis used the Chi-square test to assess the association of motivation, knowledge, and skills with HMIS implementation success. Statistical significance was defined as $p < 0.05$. Because this was a cross-sectional study, the findings were interpreted as associations rather than causal effects.

The conceptual framework is presented in Figure 1. It specifies motivation (X1), knowledge (X2), and skills (X3) as employee-competence dimensions associated with HMIS implementation success (Y).

Figure 1 illustrates the proposed relationships between the three independent variables and the dependent variable. The framework guided the formulation and testing of the study hypotheses.

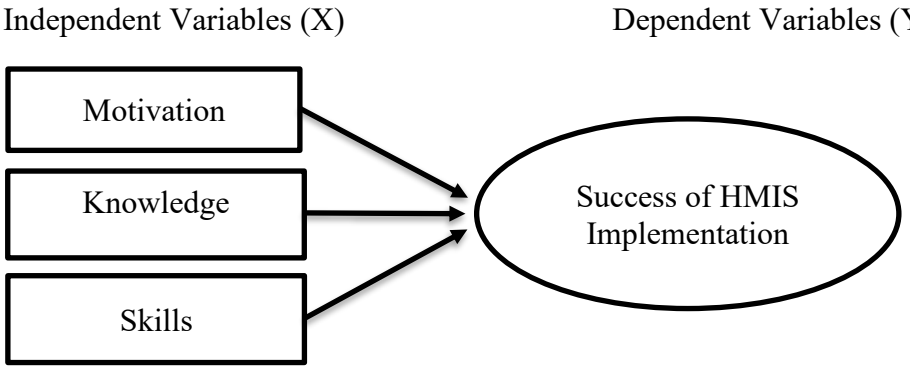

Figure 1. Conceptual Framework

As shown in Figure 1, motivation, knowledge, and skills were examined separately to determine their respective associations with successful HMIS implementation.

RESULTS AND DISCUSSION

Results

Respondent Characteristics

Table 1 presents the demographic characteristics of the 103 employees who participated in the study. Respondents were drawn from clinical, administrative, diagnostic, pharmacy, and information technology units that routinely used HMIS.

Table 1. Respondent Characteristics

Variable	Category	Frequency	%
Gender	Male	24	23.3
	Female	79	76.7
Age	22-25 years	9	8.7
	26-35 years	85	82.5
	36-41 years	9	8.7
Educational Background	Diploma/Bachelor	96	93.2
	Master's Degree	7	6.8
Work Unit	Inpatient Unit	37	35.9
	Outpatient Unit	10	9.7
	Emergency Unit	23	22.3
	Administration	16	15.5
	Pharmacy	7	6.8
	IT	3	2.9
	Laboratory	4	3.9
	Radiology	3	2.9
Total		103	100.0

Source: Primary Data Processed, 2026.

As shown in Table 1, most respondents were female (76.7%), aged 26–35 years (82.5%), and had Diploma or Bachelor qualifications (93.2%). The largest proportion worked in the inpatient unit (35.9%), followed by the emergency unit (22.3%) and administration (15.5%). The distribution across work units provided representation from the principal hospital services that use HMIS.

Hypothesis Testing

The associations between the employee-competence variables and HMIS implementation success were tested using the Chi-square test. The results are summarized in Table 2.

Motivation was significantly associated with HMIS implementation success ($p = 0.042$), and skills were also significantly associated with implementation success ($p = 0.044$). Knowledge was not significantly associated with implementation success ($p = 0.845$). Therefore, H1 and H3 were supported, whereas H2 was not supported.

These results indicate that employees' willingness to engage with HMIS and their

practical operating ability were more closely associated with successful system use than knowledge alone.

Table 2. Results of Chi-Square Analysis

Variable	*p-value*	Interpretation
Motivation → HMIS Implementation Success	0.042	Significant
Knowledge → HMIS Implementation Success	0.845	Not Significant
Skills → HMIS Implementation Success	0.044	Significant

Source: Primary Data Processed, 2026.

Table 2 shows that motivation and skills met the statistical significance criterion of $p < 0.05$, whereas knowledge did not. The results should be interpreted as associations because the cross-sectional design does not establish temporal sequence or causality.

Discussion

Association between Motivation and HMIS Implementation Success

Motivation was significantly associated with HMIS implementation success ($p = 0.042$). Employees with stronger motivation may be more willing to learn system functions, complete data entry consistently, seek assistance when problems occur, and continue using HMIS despite technical constraints. This finding is consistent with Haryanto et al. (2023), who identified motivation as an important factor in SIMRS use, and with Syafira et al. (2024), who highlighted user readiness and organizational support as contributors to implementation success.

Motivation can connect organizational expectations with actual user behavior. Hospital management can strengthen this dimension through clear work standards, supportive supervision, timely feedback, recognition, and opportunities for employees to participate in system improvement. Such measures should complement, rather than replace, improvements in infrastructure and technical support.

Association between Knowledge and HMIS Implementation Success

Knowledge was not significantly associated with HMIS implementation success ($p = 0.845$). This finding suggests that understanding system functions and procedures did not necessarily translate into effective use in daily work. Knowledge may have shown limited variation among respondents, or its practical contribution may have been constrained by unstable networks, synchronization problems, or differences in access to technical assistance.

The non-significant result does not imply that knowledge is unimportant. Rather, knowledge may need to be combined with motivation, hands-on practice, reliable technology, and organizational support. This interpretation is consistent with evidence that HMIS success is multidimensional and involves the interaction of human, organizational, and technological factors (Amalia & Ferdianto, 2022; Farhiyah et al., 2025; Tangel et al., 2024).

Association between Skills and HMIS Implementation Success

Skills were significantly associated with HMIS implementation success ($p = 0.044$). Practical skills are directly relevant to routine tasks such as navigating menus, entering patient data accurately, correcting input errors, retrieving information, and responding appropriately to system disruptions. The result supports previous findings that user competence and practical ability contribute to effective HMIS utilization (Sahputri et al., 2024; Susanti et al., 2025).

The finding also aligns with task–technology fit research, which emphasizes that users must be able to apply system functions to their actual work requirements (Suhartatik et al., 2022). Regular hands-on training, scenario-based simulation, peer mentoring, and readily available information technology support may therefore be more effective than one-time theoretical instruction alone.

The context-specific contribution of this study is the separate examination of motivation, knowledge, and skills in a private hospital. This focus extends prior studies that reported an overall relationship between human-resource competence and HMIS utilization (Sahputri et al., 2024; Susanti et al., 2025) by showing that the competence dimensions do not have identical associations with implementation success. In this setting, motivation and skills were associated with implementation success, whereas knowledge alone was not. Thus, employee competence should not be treated as a single undifferentiated construct.

The practical usefulness of these findings is that hospital managers can target interventions toward the competence dimensions most closely associated with successful HMIS use rather than relying only on general theoretical instruction. Previous evidence supports strengthening practical competence, user readiness, organizational support, service quality, technical reliability, and task–technology fit to improve HMIS utilization (Amalia & Ferdianto, 2022; Sahputri et al., 2024; Suhartatik et al., 2022; Syafira et al., 2024; Tangel et al., 2024). Accordingly, priorities include periodic hands-on training, scenario-based simulation, mentoring for users who experience difficulty, monitoring of data-entry quality, recognition for consistent system use, network stabilization, and responsive technical support. The study is limited by its cross-sectional design, use of self-reported questionnaire data, and focus on one hospital; future studies should use longitudinal or mixed-method designs and include objective indicators of system performance.

CONCLUSION

This study found that employee motivation and technical skills were significantly associated with successful HMIS implementation at Adinda Medical Centre Hospital, whereas knowledge was not significantly associated. The findings suggest that practical operating ability and willingness to engage consistently with the system may be more relevant to implementation success than theoretical understanding alone. Hospital management should prioritize continuous hands-on training, user mentoring, supportive supervision, motivational strategies, and reliable technical infrastructure. Because the

study used a cross-sectional design, the results indicate associations and should not be interpreted as causal effects.

REFERENCES

Alwi, F. A., Kurniawan, A. W., Natsir, U. D., Sahabuddin, R., & Haeruddin, I. M. (2023). Pengaruh kompetensi SDM terhadap kinerja pegawai Rumah Sakit Umum Daerah H.M. Djafar Harun Kolaka Utara. *SINOMIKA Journal: Publikasi Ilmiah Bidang Ekonomi dan Akuntansi, 2*(1), 95–102. https://doi.org/10.54443/sinomika.v2i1.865

Amalia, R., & Ferdianto, A. (2022). Pengaruh kualitas layanan terhadap implementasi SIMRS dengan penggunaan sistem dan struktur organisasi sebagai variabel intervining. *Jurnal Rekam Medis dan Informasi Kesehatan, 5*(2), 110–117. https://doi.org/10.31983/jrmik.v5i2.9251

Farhiyah, N. L., Faizah, H., Hartono, B., & Daud, A. G. (2025). Implementasi Sistem Informasi Manajemen Rumah Sakit (SIMRS) dalam pemenuhan pelayanan kesehatan. *RIGGS: Journal of Artificial Intelligence and Digital Business, 4*(3), 1716–1720. https://doi.org/10.31004/riggs.v4i3.2218

Haryanto, D., Zainuddin, & Topan, P. A. (2023). Pengaruh tingkat pengetahuan dan motivasi perawat terhadap penggunaan aplikasi SIMRS di Rumah Sakit Umum Daerah Sumbawa. *Atmosfer: Jurnal Pendidikan, Bahasa, Sastra, Seni, Budaya, dan Sosial Humaniora, 1*(1), 97–111. https://doi.org/10.59024/atmosfer.v1i1.36

Kementerian Kesehatan Republik Indonesia. (2022). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 18 Tahun 2022 tentang Penyelenggaraan Satu Data Bidang Kesehatan melalui Sistem Informasi Kesehatan.* https://peraturan.bpk.go.id

Kusmiranti, Narmi, & Balaka, K. I. (2022). Faktor-faktor yang berhubungan dengan keberhasilan implementasi Sistem Informasi Manajemen Rumah Sakit (SIMRS) di RSUD Bahteramas Provinsi Sulawesi Tenggara. *Jurnal Ilmiah Karya Kesehatan, 2*(2), 58–66. https://doi.org/10.46233/jikk.v2i02.657

Molly, R., & Itaar, M. (2021). Analisis pemanfaatan Sistem Informasi Manajemen Rumah Sakit (SIMRS) pada RRSUD DOK II Jayapura. *Journal of Software Engineering Ampera, 2*(2), 95–101. https://doi.org/10.51519/journalsea.v2i2.127

Pérez-Guerrero, E. E., Guillén-Medina, M. R., Gutiérrez-Hurtado, I., & Martínez-González, M. A. (2024). Methodological and statistical considerations for cross-sectional, case-control, and cohort studies. *Journal of Clinical Medicine, 13*(14), 4005. https://doi.org/10.3390/jcm13144005

Putra, D. S., & Darmawan, M. A. (2021). Analisis kepuasan pengguna Sistem Informasi Administrasi Rumah Sakit (SIARS) dengan model DeLone and McLean. *Jurnal Sistem Informasi Bisnis, 11*(1), 78–85. https://doi.org/10.21456/vol11iss1pp78-85

Sahputri, A., Linda, H., & Surgia, P. (2024). Pengaruh kompetensi sumber daya manusia dalam pemanfaatan Sistem Informasi Manajemen Rumah Sakit (SIMRS). *Jurnal Promotif Preventif, 7*(6), 1268–1274. https://doi.org/10.47650/jpp.v7i6.1590

Suhartatik, Putra, D. S. H., Farlinda, S., & Wicaksono, A. P. (2022). Evaluasi keberhasilan implementasi SIMRS di Rumah Sakit X Kabupaten Jember dengan pendekatan metode TTF. *J-REMI: Jurnal Rekam Medik dan Informasi Kesehatan,*

3(3), 231–242. https://doi.org/10.25047/j-remi.v3i3.2586

Susanti, S., Gustini, S., & Husaini, M. (2025). Pengaruh kompetensi sumber daya manusia terhadap penerapan aplikasi Sistem Informasi Manajemen Rumah Sakit (SIMRS). *Malahayati Nursing Journal, 7*(3), 1078–1087. https://doi.org/10.33024/mnj.v7i3.17347

Syafira, A. C., Siregar, J. S., Farashati, J. I., Ramadiah, P. S., Megarani, S., & Purba, S. H. (2024). Faktor keberhasilan implementasi Sistem Informasi Manajemen Rumah Sakit (SIMRS). *Health Care: Jurnal Kesehatan, 13*(2), 305–315. https://doi.org/10.36763/healthcare.v13i2.516

Tangel, P. T., Manampiring, A. E., & Kapantow, N. H. (2024). Penerapan Sistem Informasi Manajemen Rumah Sakit di RSUD Dr. Sam Ratulangi Tondano. *e-CliniC, 12*(2), 121–133. https://doi.org/10.35790/ecl.v12i2.52755

Wang, X., & Cheng, Z. (2020). Cross-sectional studies: Strengths, weaknesses, and recommendations. *Chest, 158*(1S), S65–S71. https://doi.org/10.1016/j.chest.2020.03.012

World Health Organization. (2021). *Global strategy on digital health 2020–2025.* World Health Organization. https://www.who.int/publications/i/item/9789240020924