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Evaluation of hospital management information systems using the human organization and technology fit model in Goenawan Partowidigdo Pulmonary Hospital Bogor

Alvin Kosasih
Medical Director, Goenawan Partowidigdo Pulmonary Hospital, Jawa Barat, Indonesia
Corresponding author email: alvinkosasih@gmail.com

Ida Bagus Sila Wiweka
President Director, Goenawan Partowidigdo Pulmonary Hospital, Jawa Barat, Indonesia
Email: swiweka@yahoo.co.id

Dini Wulandari
Medical Coordinator, Goenawan Partowidigdo Pulmonary Hospital, Jawa Barat, Indonesia
Email: dinisabila80@gmail.com

Riki Permana Putra
Medical Record Coordinator, Goenawan Partowidigdo Pulmonary Hospital, Jawa Barat, Indonesia
Email: rikipermanaputra@gmail.com

Abstract---The purpose of this study was to determine the effect of the dimensions in the HOT-Fit framework on net profit and to determine the factors that support ERM information systems. The research method is quantitative with a cross-sectional research design. The number of samples was 87 respondents, namely medical record officers, doctors, nurses, and support unit officers. Research using a questionnaire in the form of Google Forms. The results showed that there is a strong positive relationship between aspects of organizational structure and aspects of organizational environment, there is a strong positive relationship between aspects of service quality, there is a moderate positive relationship between aspects of information quality and aspects of user satisfaction, there is a strong positive relationship between aspects of system quality and aspects of

real benefits, there is a moderate/quite strong positive relationship between tangible benefits and organizational structure aspects, there is a strong positive relationship between tangible benefits and organizational environmental aspects with a Sig value of 0.000 ($p<0.05$). It is suggested that the ERM usage guidelines, training on the use of ERM for each individual, and ease of access to ERM services can be further developed.

Keywords---Hospital management information system, human organization, technology fit model.

Introduction

The Ministry of Health has a long-term target of implementing integrated electronic health medical records by 2024 which can be realized in all hospitals in Indonesia (Sutejo et al., 2021). Electronic Medical Records is an innovation for documenting medical services that can be utilized by the aspects and value of using Medical Records (Mohamadali & Zahari, 2017). Goenawan Partowidigdo Pulmonary Hospital Bogor, which is a Vertical Hospital of the Ministry of Health, has a work program to achieve the objectives of the Ministry of Health, namely having an integrated electronic medical record according to the standards applied by the Ministry of Health (Erlirianto et al., 2015).

Having an electronic medical record system (EMR) is a necessity nowadays. This will greatly help to transform the healthcare system from traditional paper-based mechanisms to integrated electronics. Evaluation of electronic medical records is a real effort to find out the actual condition of an information system implementation (Simorangkir, 2020). With this evaluation, the achievements of ERM implementation activities can be identified and further actions can be planned to improve the implementation performance. In implementing a health information system, an evaluation needs to be carried out to see its suitability with the business process and the benefits provided (Herwati et al., 2022). One of the evaluation frameworks used to conduct evaluations in the health sector is HOT-Fit (Human, Organization, and Technology–Fit) (Errida & Lotfi, 2021). The HOT-Fit framework can assist in conducting evaluations by combining three aspects that are not found in other evaluation models. The HOT-Fit evaluation framework was developed by Maryati Mohd. Yusof from Malaysia and Anastasia Papazafeiropoulou, Ray J. Paul, Lampors K. Stergioulas, and Jasna Kuljis from England. The HOT-Fit framework was developed on the amalgamation of ISSM DeLone and McLean and the IT-Organization Fit Model. HOT-Fit was developed to assist in finding factors that influence the implementation of health information systems in terms of technology, people, and organization (Tummers et al., 2021).

Things that need to be considered when conducting an evaluation consist of three factors (Windari et al., 2023). The human factor is the first factor that needs to be considered when evaluating the system because it is still constrained by user satisfaction related to the lack of human resources who understand the use of hospital management information system (HMIS), the system still often errors, staff who are less disciplined in inputting data, too much workload, there is no

training for all officers and so on (Rifarsih et al., 2022). Organizational factors are the second factor that also needs to be considered because there are problems related to the absence of SOPs related to IT management in a health institution (Ross et al., 2016). Apart from that, there is also no training for every HMIS user, there is no reward for HMIS user officers to increase morale, lack of supervision of existing technology, and so on (Siddique et al., 2021). The technological factor is a third factor that also needs to be considered, such as network problems that often have errors, inconsistent data, lack of secure access for each user, difficulty finding patient data, and lack of system maintenance (Suryana et al., 2021).

The case study used in this research is the electronic medical record information system at dr. M. Goenawan Partowidigdo. The ERM information system was first used by dr. M. Goenawan Partowidigdo in 2008. This ERM information system is used to assist organizational business processes in integrating patient health data. The system is part of the realization of the organization's mission of providing health services by the development of science and technology (Ferdianti et al., 2022).

In this research, the implementation of the HOT-Fit framework will be carried out on the Electronic Medical Record (ERM) information system in Goenawan Partowidigdo Pulmonary Hospital Bogor. By implementing this framework, it will be known how the results of the implementation of the HOT-Fit framework are for evaluating the ERM information system in Goenawan Partowidigdo Pulmonary Hospital Bogor. To find out about this, the purpose of this study was to determine the effect of the dimensions of the HOT-Fit framework on the net benefits and to find out what factors support the ERM information system. From the results of the implementation of the framework, recommendations can be given to increase the benefits obtained by the organization through the ERM information system.

Method

Methods This research is a quantitative study, with a cross-sectional research design to study the dynamics of the correlation between risk factors and effects, using an observational approach, or data collection. The total sample is 87 respondents who were selected through simple random sampling. Respondents consisted of medical record officers, doctors, nurses, and support unit staff. The research was conducted from October 2021 to March 2022.

This study used an instrument in the form of a closed questionnaire with a Likert scale of 1 to 4 for data collection with the following categories Score 1 = Strongly Disagree (SD), Score 2 = Disagree (D), Score 3 = Agree (A), Score 4 = Strongly Agree (SA). The questionnaire was created in the Google Form for easy data access and cannot be edited after the respondent has filled out the questionnaire, then the research results are processed using application software.

Results and Discussion

There were 87 research respondents with professions and years of service at Goenawan Partowidigdo Pulmonary Hospital Bogor as follows:

Table 1. Characteristics of Respondents

PROFESSION	< 1 year	> 15 Years	1-5 years	6 - 10 Years	10 - 15 Years	> 15 Years	Grand Total
Laboratory Analyst			1				1
Pharmacy / D3 Pharmacy		1					1
Midwife				1			1
Dietician / Nutritionist			1	1			2
Doctor	2	1	6	1	6		16
It / Programmer			1		2		3
Head Of Nutrition Installation					1		1
Nurse	2	10	8	9	25	1	55
Medical Check Up			3	2	1		6
Radiographer					1		1
Grand Total	**4**	**12**	**20**	**14**	**36**	**1**	**87**

The majority of respondents are professional nurses and doctors with an average working period of 6-10 years

The results of the validity test were carried out using the Correlation product-moment method. where if the question item has a p-value (sig) <0.005 (α) or the calculated r value (correlation coefficient) of the question item > r table value. then the question item is said to be valid. Reliability was tested by looking at the value of Cronbach's Alpha on research instruments that had been declared valid previously. If the research instrument being tested has a Cronbach's Alpha value > 0.6 then the research instrument can be said to be reliable to use.

Based on the calculation of the SPSS results regarding the data validity test, it was found that it had a P-Value (sig) <0.005 and a Cronbach's Alpha value > 0.6, namely 0.799. Based on statistical tests, the research instruments used are valid and reliable.

Table 2. Validity Test Results

Correlations

		ASPEK STRUKTUR ORGANISASI	ASPEK LINGKUNGAN ORGANISASI	KUALITAS LAYANAN	KUALITAS SISTEM	KUALITAS INFORMASI	KEPUASAN PENGGUNA	MANFAAT NYATA (Net Benefits)	Total_All
ASPEK STRUKTUR ORGANISASI	Pearson Correlation	1	,749**	,648**	,783**	,715**	,697**	,653**	,893**
	Sig. (2-tailed)		,000	,000	,000	,000	,000	,000	,000
	N	87	87	87	87	87	87	87	87
ASPEK LINGKUNGAN ORGANISASI	Pearson Correlation	,749**	1	,627**	,714**	,709**	,754**	,702**	,858**
	Sig. (2-tailed)	,000		,000	,000	,000	,000	,000	,000
	N	87	87	87	87	87	87	87	87
KUALITAS LAYANAN	Pearson Correlation	,648**	,627**	1	,821**	,820**	,621**	,746**	,852**
	Sig. (2-tailed)	,000	,000		,000	,000	,000	,000	,000
	N	87	87	87	87	87	87	87	87
KUALITAS SISTEM	Pearson Correlation	,783**	,714**	,821**	1	,826**	,770**	,691**	,918**
	Sig. (2-tailed)	,000	,000	,000		,000	,000	,000	,000
	N	87	87	87	87	87	87	87	87
KUALITAS INFORMASI	Pearson Correlation	,715**	,709**	,820**	,826**	1	,698**	,764**	,901**
	Sig. (2-tailed)	,000	,000	,000	,000		,000	,000	,000
	N	87	87	87	87	87	87	87	87
KEPUASAN PENGGUNA	Pearson Correlation	,697**	,754**	,621**	,770**	,698**	1	,512**	,816**
	Sig. (2-tailed)	,000	,000	,000	,000	,000		,000	,000
	N	87	87	87	87	87	87	87	87
MANFAAT NYATA (Net Benefits)	Pearson Correlation	,653**	,702**	,746**	,691**	,764**	,512**	1	,832**
	Sig. (2-tailed)	,000	,000	,000	,000	,000	,000		,000
	N	87	87	87	87	87	87	87	87
Total_All	Pearson Correlation	,893**	,858**	,852**	,918**	,901**	,816**	,832**	1
	Sig. (2-tailed)	,000	,000	,000	,000	,000	,000	,000	
	N	87	87	87	87	87	87	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3. Reliability Test Results

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,799	,961	8

Table 4. Kendall's tau and Spearman's rho test results

Correlations

			ORGANIZATIONAL STRUCTURE ASPECT	ORGANIZATIONAL ENVIRONMENTAL ASPECT
Kendall's tau_b	ORGANIZATIONAL STRUCTURE ASPECT	Correlation Coefficient	1,000	,546**
		Sig. (2-tailed)	.	,000
		N	87	87
	ORGANIZATIONAL ENVIRONMENTAL ASPECT	Correlation Coefficient	,546**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87
Spearman's rho	ORGANIZATIONAL STRUCTURE ASPECT	Correlation Coefficient	1,000	,665**
		Sig. (2-tailed)	.	,000
		N	87	87

ORGANIZATIONAL ENVIRONMENTAL ASPECT	Correlation Coefficient	,665**	1,000
	Sig. (2-tailed)	,000	.
	N	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis
Ho: There is no relationship between the Organizational Structure Aspect and the Organizational Environment Aspect.
Ha : There is a relationship between the Organizational Structure Aspect and the Organizational Environment Aspect

Basis for decision making
Ho is accepted if Sig > 0.05
Ho is rejected if Sig < 0.05

From the results of the analysis with Kendall's tau_b and Spearman's rho, the results show that all of the Sig values have a Sig value of 0.000 (p <0.05) so the decision is to reject Ho. This means that there is a relationship / Correlation between Organizational Structure Aspects and Organizational Environment Aspects with a Strong Positive relationship.

Table 5. Relationship Between Service Quality Aspects and System Quality Aspects

			QUALITY OF SERVICE	SYSTEM QUALITY
Kendall's tau_b	QUALITY OF SERVICE	Correlation Coefficient	1,000	,652**
		Sig. (2-tailed)	.	,000
		N	87	87
	SYSTEM QUALITY	Correlation Coefficient	,652**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87
Spearman's rho	QUALITY OF SERVICE	Correlation Coefficient	1,000	,773**
		Sig. (2-tailed)	.	,000
		N	87	87
	SYSTEM QUALITY	Correlation Coefficient	,773**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis
Ho : There is no relationship between Service Quality Aspects and System Quality Aspects.

Ha : There is a relationship between the Service Quality Aspect and the System Quality Aspect

Basis for decision making
Ho is accepted if Sig > 0.05
Ho is rejected if Sig < 0.05

From the results of the analysis with Kendall's tau_b and Spearman's rho, the results show that all of the Sig values have a Sig value of 0.000 (p <0.05) so the decision is to reject Ho. This means that there is a relationship/correlation between the Service Quality Aspect and the System Quality Aspect with a strong positive relationship.

Table 6. Relationship Between Information Quality Aspects and User Satisfaction Aspects

			INFORMATION QUALITY	USER SATISFACTION
Kendall's tau_b	INFORMATION QUALITY	Correlation Coefficient	1,000	,476**
		Sig. (2-tailed)	.	,000
		N	87	87
	USER SATISFACTION	Correlation Coefficient	,476**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87
Spearman's rho	INFORMATION QUALITY	Correlation Coefficient	1,000	,594**
		Sig. (2-tailed)	.	,000
		N	87	87
	USER SATISFACTION	Correlation Coefficient	,594**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis
Ho: There is no relationship between the Information Quality Aspect and the User Satisfaction Aspect.
Ha : There is a relationship between the Information Quality Aspect and the User Satisfaction Aspect
Basis for decision making
Ho is accepted if Sig > 0.05
Ho is rejected if Sig < 0.05

From the results of the analysis with Kendall's tau_b and Spearman's rho, the results show that all of the Sig values have a Sig value of 0.000 (p <0.05) so the decision is to reject Ho. This means that there is a relationship/correlation

between the Aspects of Information Quality and the Aspects of User Satisfaction with a Moderate Positive relationship.

Table 7. Relationship Between System Quality Aspects and Real Benefit Aspects

			SYSTEM QUALITY	REAL BENEFITS (Net Benefits)
Kendall's tau_b	SYSTEM QUALITY	Correlation Coefficient	1,000	,528**
		Sig. (2-tailed)	.	,000
		N	87	87
	REAL BENEFITS (Net Benefits)	Correlation Coefficient	,528**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87
Spearman's rho	SYSTEM QUALITY	Correlation Coefficient	1,000	,619**
		Sig. (2-tailed)	.	,000
		N	87	87
	REAL BENEFITS (Net Benefits)	Correlation Coefficient	,619**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis
Ho: There is no relationship between the Quality Aspect of the System and the Aspect of Real Benefits.
Ha : There is a relationship between the System Quality Aspect and the Real Benefit Aspect.

The basis for decision making
Ho is accepted if Sig > 0.05
Ho is rejected if Sig < 0.05

From the results of the analysis with Kendall's tau_b and Spearman's rho, the results show that all of the Sig values have a Sig value of 0.000 ($p < 0.05$) so the decision is to reject Ho. This means that there is a relationship/correlation between the Aspects of System Quality and the Aspects of Real Benefits by having a strong positive relationship.

Table 8. Relationship Between Aspects of Real Benefits and Aspects of Organizational Structure

			REAL BENEFITS (Net Benefits)	ORGANIZATIONAL STRUCTURE ASPECT
Kendall's tau_b	REAL BENEFITS (Net Benefits)	Correlation Coefficient	1,000	,487**
		Sig. (2-tailed)	.	,000
		N	87	87
	ORGANIZATIONAL STRUCTURE ASPECT	Correlation Coefficient	,487**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87
Spearman's rho	REAL BENEFITS (Net Benefits)	Correlation Coefficient	1,000	,586**
		Sig. (2-tailed)	.	,000
		N	87	87
	ORGANIZATIONAL STRUCTURE ASPECT	Correlation Coefficient	,586**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis
Ho: There is no relationship between the Aspect of Real Benefits and the Aspect of Organizational Structure.
Ha : There is a relationship between the Aspect of Real Benefits and the Aspect of Organizational Structure.

The basis for decision making
Ho is accepted if Sig > 0.05
Ho is rejected if Sig < 0.05

From the results of the analysis with Kendall's tau_b and Spearman's rho, the results show that all of the Sig values have a Sig value of 0.000 ($p < 0.05$) so the decision is to reject Ho. This means that there is a relationship/correlation between the tangible benefits aspect and the organizational structure aspect with a moderate/strong positive relationship.

Table 9. Relationship Between Aspects of Real Benefits and Organizational Environmental Aspects

			REAL BENEFITS (Net Benefits)	ORGANIZATIONAL ENVIRONMENTAL ASPECT
Kendall's tau_b	REAL BENEFITS (Net Benefits)	Correlation Coefficient	1,000	,535**
		Sig. (2-tailed)	.	,000
		N	87	87
	ORGANIZATIONAL ENVIRONMENTAL ASPECT	Correlation Coefficient	,535**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87
Spearman's rho	REAL BENEFITS (Net Benefits)	Correlation Coefficient	1,000	,622**
		Sig. (2-tailed)	.	,000
		N	87	87
	ORGANIZATIONAL ENVIRONMENTAL ASPECT	Correlation Coefficient	,622**	1,000
		Sig. (2-tailed)	,000	.
		N	87	87

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis
Ho: There is no relationship between the Aspect of Real Benefits and the Organizational Environment Aspect.
Ha : There is a relationship between the Aspect of Real Benefits and the Organizational Environment Aspect.

The basis for decision making
Ho is accepted if Sig > 0.05
Ho is rejected if Sig < 0.05

From the results of the analysis with Kendall's tau_b and Spearman's rho, the results show that all of the Sig values have a Sig value of 0.000 ($p < 0.05$) so the decision is to reject Ho. This means that there is a relationship/correlation between the Aspects of Real Benefits and the Organizational Environment Aspects with Strong Positive relationship.

Based on the relationship test between the variables tested, it can be concluded that all have a positive relationship with moderate to strong influence. This indicates that all aspects of the implementation of electronic medical records are related to one another. Based on the results of this study, it can be said that from the existing values, ERM implementation is running well and it is necessary to

make several additional efforts and innovations to improve system quality and real benefits for ERM users.

The research that serves as the basis and guideline for carrying out a study is the Evaluation of the Application of the hospital management information system using the HOT-Fit Method at Goenawan Partowidigdo Pulmonary Hospital Bogor in 2021-2022. This research focuses on showing that the success of the application in the case study is determined by the aspects of Technology, Humans, and Organization, and seen from the variable user satisfaction has a positive influence on benefits by replacing the organizational environment variable with the condition of the facility. Based on the results of research conducted using SmartPLS, shows that user satisfaction is the variable that has the greatest influence on the benefits obtained from HMIS (Yusof, 2015). Other research was also conducted by Hapsari regarding the Evaluation of the Success of Gojek Implementation Using the Hot Fit Model Method in 2021 (Hapsari et al., 2021). The results of this study state that user satisfaction is an important thing in demonstrating the successful implementation of the Gojek application, by focusing on the variable of user satisfaction where measurement of satisfaction using human factors, organization, and technology (Engin & Gürses, 2019). The third study, entitled "Evaluation of the Successful Implementation of E-Learning Using the HOT Fit Model Method" by Vantissha et al in 2022 focuses on showing that the success of implementing e-learning where each variable influences each other on the benefits adopted from HOT Fit Models (Vantissha et al., 2022).

In a study entitled "F-Learn Utilization Analysis Using the Technology Acceptance Model Approach on SWCU FTI Lecturers" by (Eslami Andargoli et al., 2017). This study used the Technology Acceptance Model (TAM) method to investigate technology acceptance by an SWCU FTI lecturer, Kezia, et., al [Evaluation of F-Learn Success Using the Human Organization Technology (HOT) Fit Model at Satya Wacana Christian University] by having 2 different variables (Setiorini et al., 2021). The result of this research found that in completing work in terms of benefits and convenience, lecturers can accept the F-Learn online learning system (Alolayyan et al., 2020). In terms of the four studies that have been conducted, it can be seen that the first, second, and third studies have similarities in the use of the HOT Fit method for implementing the system (Alam et al., 2016). Based on the research mentioned, it is known that the HOT Fit evaluation model is a model that has all the components contained in the evaluation needs of the F-Learn (Letlora et al., 2023).

Conclusion

Based on the analysis conducted, the conclusion in this study is that there is a relationship between human, organizational, and technological variables in the net benefit or performance of ERM implementation. This means that people, organizations, and technology are simultaneously improving so that the performance of ERM implementation will also increase. There is a positive relationship between the Human variable and the Net Benefit or ERM implementation performance at Goenawan Partowidigdo Pulmonary Hospital Bogor. This could mean that the human component consisting of application user satisfaction and also the use of ERM has increased so the performance of ERM

implementers has also increased. In this study, the biggest relationship is about the use of the system that is understood by employees. There is a positive relationship between organizational variables about the real benefits of ERM implementation. This means that the organizational components consisting of organizational structure and organizational environment have a strong positive relationship so that the performance of ERM implementation also increases. In this study, the biggest influence was the use of ERM in line with the goals of the Goenawan Partowidigdo Pulmonary Hospital Bogor organization and the Goenawan Partowidigdo Pulmonary Hospital Bogor service target, which in the future is electronically based. There is a positive relationship between the application and system users, but it is not felt to have a strong positive relationship, it is recommended that the ERM use guide, training on the use of ERM for each individual, and ease of access to ERM services can be developed further.

Hopefully, we can develop ERM-based service innovations, improve intranet and internet network performance to overcome network error problems and evaluate the use of ERM at Goenawan Partowidigdo Pulmonary Hospital Bogor at least per semester.

Conflict of interest statement
The authors declared that they have no competing interests.

Statement of authorship
The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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References

Alam, M. G. R., Masum, A. K. M., Beh, L.-S., & Hong, C. S. (2016). Critical Factors Influencing Decision to Adopt Human Resource Information System (HRIS) in Hospitals. *PLOS ONE*, *11*(8), e0160366. https://doi.org/10.1371/journal.pone.0160366

Alolayyan, M. N., Alyahya, M. S., Alalawin, A. H., Shoukat, A., & Nusairat, F. T. (2020). Health information technology and hospital performance the role of health information quality in teaching hospitals. *Heliyon*, *6*(10), e05040. https://doi.org/10.1016/j.heliyon.2020.e05040

Engin, M., & Gürses, F. (2019). Adoption of Hospital Information Systems in Public Hospitals in Turkey: An Analysis with the Unified Theory of Acceptance and Use of Technology Model. *International Journal of Innovation and Technology Management*, *16*(06), 1950043. https://doi.org/10.1142/S0219877019500433

Erlirianto, L. M., Ali, A. H. N., & Herdiyanti, A. (2015). The Implementation of the Human, Organization, and Technology–Fit (HOT–Fit) Framework to Evaluate the Electronic Medical Record (EMR) System in a Hospital. *Procedia Computer Science*, *72*, 580–587. https://doi.org/10.1016/j.procs.2015.12.166

Errida, A., & Lotfi, B. (2021). The determinants of organizational change management success: Literature review and case study. *International Journal of Engineering Business Management*, *13*, 184797902110162. https://doi.org/10.1177/18479790211016273

Eslami Andargoli, A., Scheepers, H., Rajendran, D., & Sohal, A. (2017). Health information systems evaluation frameworks: A systematic review. *International Journal of Medical Informatics*, *97*, 195–209. https://doi.org/10.1016/j.ijmedinf.2016.10.008

Ferdianti, D. L., Lestari Ramadhani Nasution, S., Girsang, E., & Suryono, T. (2022). Implementation Of Hospital Management Information System (SIMRS) At Royal Prima Hospital. *International Journal of Health and Pharmaceutical (IJHP)*, *2*(3), 540–545. https://doi.org/10.51601/ijhp.v2i3.79

Hapsari, W. P., Labib, U. A., Haryanto, H., & Safitri, D. W. (2021). *A Literature Review of Human, Organization, Technology (HOT) – Fit Evaluation Model:* 6th International Seminar on Science Education (ISSE 2020), Yogyakarta, Indonesia. https://doi.org/10.2991/assehr.k.210326.126

Herwati, I., Ayu, J. P., Mustafidah, L., Ningrum, L. R., Aini, I. N., . M., & Kodriyah, L. (2022). Evaluation of the Implementation of Hospital Management Information Systems: Literature Review. *International Journal of Scientific and Research Publications (IJSRP)*, *12*(7), 474–482. https://doi.org/10.29322/IJSRP.12.07.2022.p12754

Letlora, L. C., Ruru, Y., Togodly, A., Anggai, M., Rantetoding, S., & Makaba, S. (2023). Evaluation of the Implementation of Hospital Management Information System at Yowari Public Hospital, Jayapura Regency, Papua Province. *International Journal of Sciences*, *67*(2).

Mohamadali, N. A., & Zahari, N. A. (2017). The Organization Factors as Barrier for Sustainable Health Information Systems (HIS) – A Review. *Procedia Computer Science*, *124*, 354–361. https://doi.org/10.1016/j.procs.2017.12.165

Rifarsih, D. K., Purwani, F., & Zulfikar, D. H. (2022). Management Information System Success Rate on Pusri Palembang Hospital Using HOT-FIT Models. *Journal of Information Systems and Informatics*, *4*(1), 167–190. https://doi.org/10.51519/journalisi.v4i1.232

Ross, J., Stevenson, F., Lau, R., & Murray, E. (2016). Factors that influence the implementation of e-health: A systematic review of systematic reviews (an update). *Implementation Science*, *11*(1), 146. https://doi.org/10.1186/s13012-016-0510-7

Setiorini, A., Natasia, S. R., Wiranti, Y. T., & Ramadhan, D. A. (2021). Evaluation of The Application of Hospital Management Information System (SIMRS) in RSUD Dr. Kanujoso Djatiwibowo Using The HOT-Fit Method. *Journal of Physics: Conference Series*, *1726*(1), 012011. https://doi.org/10.1088/1742-6596/1726/1/012011

Siddique, S. M., Tipton, K., Leas, B., Greysen, S. R., Mull, N. K., Lane-Fall, M., McShea, K., & Tsou, A. Y. (2021). Interventions to Reduce Hospital Length of Stay in High-risk Populations: A Systematic Review. *JAMA Network Open*, *4*(9), e2125846. https://doi.org/10.1001/jamanetworkopen.2021.25846

Simorangkir, A. D. (2020). The Implementation of Hospital Management Information Systems Using Human, Organization, Technology, And Benefit Models at Dinda Hospital Tangerang. *Journal of Multidisciplinary Academic, 04*(06).

Suryana, A., Adikara, F., Arrozi, M., & Taufik, A. (2021). Model Peningkatan Pemanfaatan Sistem Informasi Rumah Sakit Berdasarkan Metode HOT-Fit di RSPI Prof. Dr. Sulianti Saroso. *Salus Cultura: Jurnal Pembangunan Manusia dan Kebudayaan*, *1*(2), 153–166. https://doi.org/10.55480/saluscultura.v1i2.23

Sutejo, S., Prasetijo, A. B., & Agushyban, F. (2021). The Role of Information System for Risk Management in Hospital: A Narrative Review. *Jurnal Aisyah : Jurnal Ilmu Kesehatan*, *6*(3). https://doi.org/10.30604/jika.v6i3.1014

Tummers, J., Tekinerdogan, B., Tobi, H., Catal, C., & Schalk, B. (2021). Obstacles and features of health information systems: A systematic literature review. *Computers in Biology and Medicine*, *137*, 104785. https://doi.org/10.1016/j.compbiomed.2021.104785

Vantissha, D., Azizah, A. H., & Arifin, S. (2022). Assessing Hospital Management Information Systems Success Using Human Organization and Technology Fit Model. *Applied Information System and Management (AISM)*, *5*(1), 37–44. https://doi.org/10.15408/aism.v5i1.24738

Windari, A., Kismartini, K., Doctoral Program in Public Administration Science, Universitas Diponegoro, Luqman, Y., Doctoral Program in Public Administration Science, Universitas Diponegoro, Wijanarko, B., & Doctoral Program in Public Administration Science, Universitas Diponegoro. (2023). Organizational Effect on the Implementation of "SIMRS" (Hospital Management Information Systems) in Hospital: A Systematic Review. *Journal of Health Policy and Management*, *8*(1), 13–22. https://doi.org/10.26911/thejhpm.2023.08.01.02

Yusof, M. Mohd. (2015). A case study evaluation of a Critical Care Information System adoption using the socio-technical and fit approach. *International Journal of Medical Informatics*, *84*(7), 486–499. https://doi.org/10.1016/j.ijmedinf.2015.03.001