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Factors Related to the Implementation of Hospital Management Information System at the Kendari City Regional General Hospital

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ABSTRACT

Introduction: The Hospital Management Information System (SIMRS) has been used at Kendari City Hospital. The use of the Hospital Management Information System has several obstacles including the Integrated Patient Development Record which is constrained by the network and slow internet network and the limited availability of computers and printers so that it is necessary to analyze factors related to the implementation of the Hospital Management Information System at the Kendari City Regional General Hospital.

Method: This type of research uses an observational design and is used as descriptive with a quantitative approach. Analytically, the data from the measurement of variables was carried out using descriptive analysis, inferential analysis, multivariate analysis to find out the factors related to the implementation of the Hospital Management Information System at Kendari City Hospital.

Result: The respondents' behavior related to people, organization, technology and net benefits had a value below the significant level (<0.05) and a chi-square test value of <3,841, so that the criteria showed that there was no significant relationship with the implementation of SIMRS.

Conclusion: The conclusion in this journal. There was no significant relationship between people, organizations, technology and net benefits to the implementation of SIMRS at Kendari Hospital.

Introduction

Hospital Management Information System (SIMRS) is a structured and systematic system-based information management consisting of administrative service systems, medical and nursing services, resource management to financial management and accounting systems for hospitals in a region/region.[1] A hospital must be supported by good service quality to provide efficient services, otherwise it will have a negative impact on health workers, this entire service is realized if SIMRS is of good quality.[2]

Information systems also have a vital role in providing assistance and improving the quality and

quality of public services. Information systems are very helpful in providing convenience and speed in policy-making on the quality of services for the community, so that information systems are one of the main requirements that must exist in all public service providers.[3]

Information systems have a vital role in providing assistance and improving the quality and quality of public services. This happens because the information system can operate quickly, transparently, productively, safely, structured, integrated and safe and effective so that the data needed for service information can be accessed more easily. Hospitals are part of public service facilities that require the procurement of quality information systems so that patients are well served.[4]

If the hospital does not have a quality information system, it will have a negative impact on health workers, such as decreasing safety patents so that there is dissatisfaction felt by hospital patients. In addition, the occurrence of reporting and reporting chaos, the increase in work errors in the form of administration to the provision of medical services and the potential for long management services are other problems caused by poor information systems.[5]

The HOT Fit theory is one of the theories that studies information systems that was first proposed in the XXXIX Hawaii International Conference on System Sciences. The HOT Fit theory also examines people, organizations and technology in information systems as very vital components and interrelated between one component and another.[6]

Factors that cause the implementation of the Hospital Management Information System (SIMRS) to not be maximized include the quality of existing human resources, organizations and technology. The quality of human resources who are able to keep up with technological developments will be different from human resources who cannot keep up with the times because it will be difficult to operate the system created. Meanwhile, organizational quality also plays an important role in determining that a system can run well, where organizations that are open to the application of technology will develop more than organizations that do not want to implement new information systems.[7]

The basis for this development is because the organizational environment indicators provide a very wide influence so that they are changed into indicators of leadership support and facility conditions that are considered by researchers to be easier to conduct research. A preliminary study as an initial study conducted at the Regional Public Service Center of Kendari City Hospital, Southeast Sulawesi Province was obtained that the implementation of SIMRS at the Kendari City Regional General Hospital had several obstacles including the integrated patient development record was constrained by the network and the internet network was not optimal, so it was slow.

Another obstacle in the implementation of SIMRS at Kendari City Hospital is in the facilities and infrastructure where the available computers and printers are only 1 (one) unit per room in the hospital, as a result of which the work of the employees becomes slow in providing services to patients. The existence of these obstacles will certainly affect the quality-of-service provision to patients at Kendari City Hospital. Moreover, the number of patient visits at Kendari City Hospital is always increasing from time to time, resulting in demands on the quality of services that must be provided to patients will increase. The purpose of this study is to find out what factors are related to the implementation of the Hospital Management Information System at Kendari City Hospital.

Method

This type of research uses an observational design and is used as descriptive with a quantitative approach. Analytically, the data from the measurement of variables was carried out using descriptive analysis, inferential analysis, multivariate analysis to determine the factors

related to the implementation of Hospital Management Information at Kendari City Hospital.

Result

Table 1, shows from the 31 employees of Kendari City Hospital, 38.7% are sufficient in understanding the application of SIMRS to human relations and 61.3% are lacking in understanding the application of SIMRS to human relations. Meanwhile, of the 237 respondents who were employees of Kendari City Hospital, there were 58.2% who did not understand the application of SIMRS to human relations and 41.8% were sufficient in understanding the application of SIMRS to human aspects. Based on the results of the statistical test using the chi-square test, X^2count < X^2table (0.122 < 3.841). This means that there is no relationship between humans and the implementation of SIMRS at Kendari City Hospital.

Table 2, shows from the 223 employees of Kendari City Hospital, there are 44.8% who are sufficient in understanding the application of SIMRS to organizational relations and 55.2% are lacking in understanding the application of SIMRS to organizational relations. Meanwhile, of the 45 respondents who were employees of Kendari City Hospital, there were 60.0% who did not understand the application of SIMRS to organizational relations and 40.0% who lacked understanding the application of SIMRS to organizational relations. Based on the results of the statistical test using the chi-square test, X^2count < X^2table (0.356 < 3.841). This means that there is no relationship between the organization and the implementation of SIMRS at the Kendari City Hospital.

Table 3, shows from the 118 employees of Kendari City Hospital, 19.5% are sufficient in understanding the application of SIMRS in technology relations and 80.5% are lacking in understanding the application of SIMRS in technology relations. Meanwhile, of the 150 respondents who were employees of Kendari City Hospital, there were 86.0% who did not understand the application of SIMRS in technology relations and 14.0% were sufficient in understanding the application of SIMRS in technology relations. Based on the results of the statistical test using the chi-square test, X^2count < X^2table (1,282 < 3,841). This means that there is no relationship between technology and the implementation of SIMRS at Kendari City Hospital.

Table 4, shows from the 61 employees of Kendari City Hospital, there are 11.5% who are sufficient in understanding the application of SIMRS on the relationship of net benefits and 88.5% are lacking in understanding the application of SIMRS on net benefit factors. Meanwhile, of the 207 respondents who were employees of Kendari City Hospital, there were 82.1% who did not understand the application of SIMRS on the relationship of net benefits and 17.9% lacked in understanding the application of SIMRS on the relationship of net benefits. Based on the results of the statistical test using the chi-square test, X^2count < X^2table (0.105 < 3.841). This means that there is no relationship between net benefits and the implementation of SIMRS at Kendari City Hospital.

Table 1.
Relationship between Human with Implementation of SIMRS

Human	Implementation of SIMRS						Statistical Analysis
	Enough		Less		Total		
	f	%	f	%	f	%	
Enough	12	38,7	19	61,3	31	100,0	X^2count = 0.122 X^2table = 3.841
Less	99	41,8	138	58,2	237	100,0	
Total	44	16,4	224	83,6	268	100,0	

Table 2.
Relationship between Organization with Implementation of SIMRS

Organization	Implementation of SIMRS						Statistical Analysis
	Enough		Less		Total		
	f	%	f	%	f	%	
Enough	100	44,8	123	55,2	223	100,0	X^2count = 0.356 X^2table = 3.841
Less	18	40,0	27	60,0	45	100,0	
Total	44	16,4	224	83,6	268	100,0	

Table 3.
Relationship between Technology with Implementation of SIMRS

Technology	Implementation of SIMRS						Statistical Analysis
	Enough		Less		Total		
	f	%	f	%	f	%	
Enough	23	19,5	95	80,5	118	100,0	X^2count = 1,282 X^2table = 3.841
Less	21	14,0	129	86,0	150	100,0	
Total	44	16,4	224	83,6	268	100,0	

Table 4.
Relationship between Net Benefits with Implementation of SIMRS

Net Benefits	Implementation of SIMRS						Statistical Analysis
	Enough		Less		Total		
	f	%	f	%	f	%	
Enough	7	11,5	54	88,5	61	100,0	X^2count = 0.105 X^2table = 3.841
Less	37	17,9	170	82,1	207	100,0	
Total	44	16,4	224	83,6	268	100,0	

Discussion

Human Relations with the Implementation of SIMRS

According to the results of the research obtained from the questionnaire, it shows that the human factor for the implementation of SIMRS at Kendari City Hospital is mostly lacking, namely 56.0% and a small part, which is adequate, namely 44.0%. Of the 31 employees of Kendari City Hospital, 38.7% did not understand the application of SIMRS on human factors and 61.3% did not understand the application of SIMRS on human factors. The human factor is a determining factor for the success of the implementation of information technology systems because it is closely related to the operation of information systems. The human factor is related to the human resources themselves, which determine the skills/capabilities in the implementation and use of

technology-based information systems. Competence is a fundamental criterion in human beings that affects or can explain their performance. This means that competence is everything that outstanding performers carry out in a certain period of time with certain conditions, and with the best results, compared to everything that average performers do.[8]

The problems of SIMRS implementation that are often found in medical record units on the human component are the process of inputting patient data without discipline and responsibility of officers, the workload of officers is not proportional to the number of patients, officers are in accordance with education and there is no training in the use of the system, there is no procurement of routine training to improve human resource competence, officers neglect their responsibilities and there is no reward, no procedure for use.[9]

Organizational with the Implementation of SIMRS

According to the results of the research obtained from the questionnaire, it shows that the organizational factors for the implementation of SIMRS at the Kendari City Hospital are mostly adequate, namely 58.7%, and a small part is lacking, namely 41.3%. Of the 223 employees of Kendari City Hospital, 54.1% did not understand the application of SIMRS to organizational factors and 45.9% were sufficient in understanding the application of SIMRS to organizational factors. The implementation of SIMRS at Kendari City Hospital is still found by hospital employees who are not suitable to fill out SIMRS. This is related to the training support that has been carried out but is still limited to the head of the installation because it is hoped that in the process the head of the installation can provide information about the use of SIMRS in the employees of the Kendari City Hospital who are still facing work culture problems where some employees are still unable to adapt to the new computer-based work system. This condition is exacerbated by the lack of willingness or initiative from employees to learn to improve their competence and skills using the SIMRS application.

If the results of the T Statistics Test measurement are 0.732 < 1.96, P Value is 0.464 > 0.05 and path coefficient -0.016, which means that the more the use of the system increases, the better the organizational structure but the implementation of SIMRS is less effective and efficient.[10] Thus, organizational variables are not able to exert a significant influence on the implementation of SIMRS.

Technology with the Implementation of SIMRS

According to the results of the research obtained, the technological factor for the implementation of SIMRS at the Kendari City Hospital is mostly lacking, namely 83.6% and a small part, which is sufficient, namely 16.4%. Of the 150 employees of Kendari City Hospital, 14.0% understood the application of SIMRS to technology factors and 86.0% lacked in understanding the application of SIMRS to technology factors. The technology component consists of system quality, information quality and service quality. The quality of the system in the information system concerns the interrelationship of features in the system including system performance and user interface.[11] Ease of use, ease of study, response time, usability, availability, flexibility, and security. Criteria that can be used to assess the quality of information include completeness, accuracy, timeliness, availability, relevance, consistency, and data entry. Service quality focuses on the overall support received by the service provider, system, or technology. Service quality can be judged by response speed, assurance, empathy and service follow-up.[12]

Almost all aspects of SIMRS are constrained if the infrastructure is not fulfilled properly, because infrastructure is the most important need such as computer devices, connector cables, WIFI networks and other facilities and infrastructure.[13]

Net Benefits with the Implementation of SIMRS

According to the results of the study, the net benefit factor for the implementation of SIMRS at the Kendari City Hospital is mostly lacking, namely 83.6%, and a small part is sufficient, namely 16.4%. Of the 207 employees of Kendari City Hospital, 17.9% understood the application of SIMRS to the net benefit factor and 82.1% lacked in understanding the application of SIMRS to the net benefit factor. The net benefit component consists of system upgrades and productivity improvements. System improvement in information systems concerns the improvement of system user services. Meanwhile, increasing productivity in information systems concerns the ease of work of system users, reduction of employee workload, ease of determining system user decisions and helping to reduce system user expenses.

Judging from the aspect of net benefits, the implementation of SIMRS in Kendari City is quite useful. The implementation of SIMRS provides significant benefits to hospital services. It's just that in order to benefit from the implementation of SIMRS in a hospital, it is necessary to carry out training activities carried out by the hospital to prospective new SIMRS users in order to support and provide extra services, and there should be an agenda for evaluating the use of SIMRS regularly so that it can be known what shortcomings exist in SIMRS in meeting the needs of users so that it can be fulfilled by the system provider.[2]

Based on the results of the study using a multivariate test, it was shown that there was no significant relationship between human variables, organization, technology and net benefits with the implementation of SIMRS at Kendari Hospital. This may be due to problems related to the implementation of SIMRS such as loading when accessing SIMRS is sometimes still long, Social Security Administering Agency bridging often cannot be stored on SIMRS, LAN networks are often hampered and patient data is found to be blank, problems with technological components such as poor networks and damaged LAN networks.[13]

Conclusion

According to the results of the research and discussion, it can be concluded that there is no significant relationship between humans, organizations, technology and net benefits to the implementation of SIMRS at Kendari Hospital.

Reference

1. Mustofa Z, Susilo H, Muhdhar I. The application of the Problem Based Learning learning model through a contextual approach based on lesson study to improve the problem-solving ability and cognitive learning outcomes of high school students. *Journal of Education*. 2016; 885-889.
2. Putra A, Dangga M, Majid M. Evaluation of the Hospital Management Information System (SIMRS) with the HOT FIT Method at Andi Makkasau Hospital, Pare-Pare City. *Journal of Social Sciences and Health*. 2020;1(1):61-68.
3. Puspita S, Supriyantoro, Hasyim. Analysis of Hospital Information System Implementation Using the Human-Organization-Technology (HOT) Fit Method: A Case Study Hospital in Indonesia. *Journal of System for Public Health*. 2020;5(6).
4. Sondakh, V., LENGKONG, F., & PALAR, N. Kualitas Pelayanan Kesehatan Rawat Jalan Di Rumah Sakit Umum Daerah Noongan. *Journal of Public Administration.* 2022;8(4):244-253.
5. Handiwidjojo. Research on the Relationship between Obesity and Type II DM. *Journal of Duta Wacana Christian University Yogyakarta.* 2009;2(1):36–41.
6. Rasid K, Lutfi, Abdullah S. Application Of The Human Organization Technology and Benefit (HOT Fit) Method for Evaluation of the Success Rate of System Services (Case Study: Academic Information System (SIMAK) Version 2 of Khairun Ternate University). *Journal of Network and Information Technology*. 2022;1(1):19-27.

7. Kusmiranti K, Narmi N, Idris B. Factors Related to the Successful Implementation of the Hospital Management Information System (SIMRS) at Bahteramas Provincial Hospital. South Sulawesi. *Scientific Journal of Health Work*. 2022;2(2):1-7.
8. Zainal, Veithzal R. *Human Resource Management for Companies.* 7th edition. PT. Rajagrafindo; 2015.
9. Oktarini A, Pertiwi Ts. Review of the Implementation of the Hospital Management Information System (SIMRS) at the Medical Record Unit of Central Bangka Hospital. *Celebes Journal of Public Health.* 2023;4(1):20-30.
10. Amalia R, Ferdianto A. The Effect of Service Quality on SIMRS Implementation with the Use of Systems and Organizational Structures as Intervening Variables. *Journal of Medical Records and Health Information.* 2022;5(2):110-117.
11. Wirajaya K, Nugraha INA. Evaluation of Hospital Management Information System (SIMRS) with the HOT-Fit Method at Mangusada Regional Hospital. *Jurnal Manajemen Hospital Foundation Health. Dr. Soetomo.* 2022;8(1):124-136.
12. Faigayanti A, Suryani L, Rawalilah H. Evaluation of the Hospital Management Information System (SIMRS) in the Outpatient Section with the HOT-Fit Method. *Saelmakers Health Journal PERDANA*. 2022;5(2):245-253.
13. Wulandari T. Study Literature Review on the Implementation of Simrs in Outpatient Medical Record Work Units with Hot-Hit Method. *Administration & Health Information of Journa*l. 2020;1(2):157-170.