SJIF Impact Factor: 5.464

WORLD JOURNAL OF ADVANCE HEALTHCARE RESEARCH

ISSN: 2457-0400
Volume: 5.
Issue: 1.
Page N. 07-10
Year: 2021

Original Article www.wjahr.com

INFLUENCE OF SYSTEM QUALITY, INFORMATION QUALITY, AND SERVICE QUALITY ON ORGANIZATION AT PUBLIC HEALTH CENTER PASURUAN CITY

Nita Dwi Nur Aini*[1], Farida Wahyu Ningtyias[2] and Dewi Rokhmah[3]

[1]Postgraduate of Public Health, University of Jember, Indonesia.
[2,3]Faculty of Public Health, Jember University, Indonesia.

Received date: 24 October 2020 **Revised date:** 14 November 2020 **Accepted date:** 04 December 2020

***Corresponding author: Nita Dwi Nur Aini**

Postgraduate of Public Health, University of Jember, Indonesia.

ABSTRACT

Health policy in Indonesia requires every public health center to organize a Puskemas Management Information System (SIMPUS). SIMPUS implementation in Pasuruan City aims to improve the quality of health services, but in its implementation SIMPUS still faces many obstacles so that it has not run optimally. The purpose of this study is to identify and determine the effect of system quality, information quality and service quality on the organization. This type of research used analytic observational with cross sectional design. Total population 268 officers with a sample of 160 officers at the public health center. The results showed that the quality of the system had no effect on the organization. Meanwhile, information quality and service quality have an effect on the organization. Suggestions that can be given are improving network quality, holding training and technical guidance, evaluating and maintaining devices.

KEYWARDS: SIMPUS, system quality, information quality, service quality, organization.

INTRODUCTION

Every health care facilities are required to manage health information systems as part of a management system to support and ensure better health services at the first level and the advanced level. Based on Permenkes No.31 of 2019 concerning of the public health center Information System, which states that every public health center is required to organize a Puskemas Management Information System or called by SIMPUS. SIMPUS is a health center management applications where the primary function is to organize patient data starts from registration, examination, and treatment of patients. SIMPUS used to support the recording and documentation of health services at the health center using a computer and software (Thenu et al, 2016).

Based on the preliminary survey at the Pasuruan city public health centers in implementing the SIMPUS application, there are still several obstacles in terms of technology, namely the patient registration process at SIMPUS usually lasts 1-2 minutes now becomes 4-5 minutes, frequent errors occur at SIMPUS and slow connections due to SIMPUS connected in all Pasuruan city public health centers. Users also still ignore the SIMPUS operation procedures by not using it continuously and not filling in data completely. The lack of teamwork and management support for the use of SIMPUS can be seen from the absence of training or technical guidance related to SIMPUS operations for all users at the Pasuruan city public health centers.

Support from top management is also very meaningful to provide motivation in using SIMPUS. This study was conducted to identify and observe the effect of system quality, information quality and service quality of the organization of management support, teamwork and organizational culture in public health centers Pasuruan city. The results of this study are expected to be repair SIMPUS for the future so the implementation can be optimized and can improve the quality of service Pasuruan city public health centers.

METHOD

This research uses observational analytic with cross sectional study carried out by observation and measurement of the variables studied simultaneously at the same time. Place of research conducted at the public health centers in Pasuruan city health department, amounting to 8 health center on July 2020 to September 2020. The total sample consisted of 160 people using proportional random sampling. Variables consist of system quality, information quality, service quality and organization.

Sources of data in the study included the primary data and secondary data. The primary data consist of the results of the questionnaire obtained directly from respondents about the assessment and documentation of information systems. Secondary data is SIMPUS regulations issued by the Pasuruan city health department. The results of the study are presented in tables and narrative. Analysis of the data in this study were analyzed using program Partial Least Square (PLS) 3.0 with the analysis of SEM (Structural Equation Modeling). SEM is a statistical analysis technique which has the ability to analyze the pattern of the relationship between the latent variables and indicators (Wibisono et al, 2015).

RESULT

Identification System Quality, Information Quality, Service Quality SIMPUS

Assessment of system quality: 101 respondents (63%) said it was enough and 9 respondents (6%) said it was bad. Information quality: 99 respondents (62%) said it was enough and 6 respondents (4%) said that it was bad. Service quality: 81 respondents (51%) said it was enough and 5 respondents (3%) said it was bad. From the respondent's assessment above, it can be concluded that the system quality variable, the information quality variable, the service quality variable are in the enough category.

Table 1: Identification System Quality, Information Quality, Service Quality.

Variable	Category	N	%
System Quality	Bad	9	6
	Enough	101	63
	Good	50	31
	Total	160	100
Information Quality	Bad	6	4
	Enough	99	62
	Good	55	34
	Total	160	100
Service Quality	Bad	5	3
	Enough	81	51
	Good	74	46
	Total	160	100

Identification of Organization SIMPUS

The assessment of organization, the highest value, 90 respondents (56%) said that it was good and 4 respondents (3%) said it was bad.

Table 2: Identification of Organization.

Variable	Category	N	%
Organization	Bad	4	3
	Enough	90	56
	Good	66	41
	Total	160	100

Based on the respondent's assessment, the organization was in the enough category 66 respondent (41%).

Table 3: Result Test Direct Effect.

Exogenous Variable	Endogenous Variable	T Statistics (lO/STDEV)	P Values	Information
System Quality	Organization	1,136	0,432	Not Significant
Information Quality	Organization	3,152	0,002	Significant
Service Quality	Organization	3,826	0,000	Significant

DISCUSSION

Quality is the most important criteria for the success of an information system which refers to the desired features of an information system such as ease of access, flexibility, system integration, system response time, system reliability, the use of new technologies, the detection of user expectations, ease of learning and use. The quality of the system is in the moderate category (63%) because SIMPUS is easy to learn and easy to use in data entry, flexible in providing information and safe because SIMPUS is equipped with a username and password. In term speed of access, because the SIMPUS application is accessed simultaneously in all public health centers in Pasuruan city, sometimes it causes the internet connection to be slow and errors so that the work of the officers is slightly disrupted.

The quality of information generated by SIMPUS in the category enough (62%) because in terms of completeness, there are several columns of information that are not filled in completely and not appropriate with the user's needs for example, only at the pharmacy because of lack of information about the amount of drug stocks at SIMPUS then the officer did check manually. The information that is generated or required must have good completeness because it will influence the decision making or determine the overall action. The quality of good information that includes a complete, accurate, timely and consistent.

Service quality is the level of satisfaction from service interactions received by users. Service quality consists of indicators of response speed, assurance and empathy. In response speed indicator, service providers SIMPUS always fast response in serving users. But sometimes service providers are also slow in dealing with certain problems that occur in SIMPUS. On the assurance indicators, service providers is already provides technicians who are competent in dealing with problems that occur in SIMPUS and always do a reconsideration after repair on SIMPUS. The success of information systems depends on the importance of technology resource infrastructure, technical skills and the quality of service provided by the developer.

Organizational factors can be assessed through leadership, top management support, and team work procedures. In terms of organizational culture, data re-checking is often forgotten because of the large number of patient queues. But, until now, data errors are still rare. Management support provided by the leadership is still not optimal because it tends to be indifferent and does not pay much attention to the implementation of SIMPUS. In addition, to support the successful implementation of SIMPUS, there has never been any training or socialization related to SIMPUS so that users feel that they are not very good at operating SIMPUS. It is important for management to understand the structure and needs of users in the successful implementation of the system that will have an impact on the performance and organization.

The result of the calculation of system quality to organization generate statistical value 1.136> 1.96, which means do not show the influence and the p-value 0.432 <0.05, which indicates that the value is not significant. This study proves that system quality have no effect on organization. The benefits of the system quality that are not implemented by users are related to several functions and features that exist in SIMPUS which causes organizations to make less strategies, especially in terms of training and evaluation for the implementation of SIMPUS.

Information quality have a positive influence on organization. The results of the calculation show that the t statistical value is 3.152> 1.96, which means there is an influence between the two variables. Meanwhile, the p value is 0.002 <0.05, which means that the value is significant. The higher quality of information produced by SIMPUS it will facilitate the organization in decision making.

Service quality also affects the organization. The result of the calculation produces a value of t statistic of 3.826> 1.96, which means that there is influence between the quality of service to the organization. The p value is 0.000 <0.05, which means that the resulting value is significant. This research shows that the better the quality of services provided by the service provider SIMPUS it can allow organizations to define a better strategy.

CONCLUSION

Based on the identification results, the system quality, information quality, service quality and organization are in the sufficient category because there are still some factors that are still less than optimal, including speed of access, completeness, speed of response, and management support. Therefore, it should be an improvement on the factors that are lacking to support the successful implementation of SIMPUS.

Advice can be given to improve the quality SIMPUS to fit the vision and mission of the organization in terms of decision making and improve the quality of health services is improve the quality of the network or internet connection so that the connection is running fast, providing training and technical guidance on procedures for the operation of SIMPUS organized by public health center and health department every 3 months to all SIMPUS users in Pasuruan City to improve users' skills and knowledge about the SIMPUS application. In addition, it is necessary for evaluation and periodic maintenance on the hardware and software to support SIMPUS to run optimally.

REFERENCES

1. Abubakar, A. M., Elrehail, H., Alatailat, M. A., Elci, A. Knowledge Management, Decision-Making Style and Organizational Performance. *Journal of Innovation and Knowledge*, 2019; 4(2): 104-114.
2. Alshikhi, O. A. and Abdullah, B. M. Information Quality: Definitions, Measurement, Dimensions, and Relationship with Decision Making. *European Journal of Business and Innovation Research*, 2018; 6(5): 36-42.
3. Anggraeni, E.T. dan R. Irviani. *Pengantar Sistem Informasi*. Yogyakarta: Andi Offset, 2017.
4. Azeez, R. T., and Yaakub, K. B. The Effect of Management Information System on Organizational Performance: A Survey Study at Missan Oil Company in Iraq. *Journal of Global Scientific Research*, 2019; 2: 135-165.
5. Barsasella, D. *Sistem Informasi Kesehatan*. Jakarta: Mitra Wacana Medika, 2012.
6. Bassam, A., Hussein, and Hafseld, K. Impact of Organizational Factors on Information Systems Projects. *International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications*, 2014.
7. Esene, H.A., A.I. Obi, P.W. Okojie, V.O. Omuemu, dan O. H. Okojie. Health Infrastructural Correlates and data Quality in Primary Health Care-Health Management Information System in EDO State, Nigeria, 2017; 23(6): 1-10.
8. Gorla, N., Somers, T.M., and Womg, B. Organizational Impact of System Quality, Information Quality, and Service Quality. *Journal of Strategic Information Systems*, 2010; *19: 207-228.*
9. Hausvik, G. I. The Role of Information Quality in Healthcare Organizations: A Multi-Disciplinary Literature Review. *Proceedings of the 50th Hawaii International Conference on System Sciences*, 2017.
10. Ishafani, S. S., Saeedbakhsh, S., Jahanbakhsh, M., and habibi, M. Analysis of The Quality of Hospital Information Systems in Ishafan Teaching Hospitals Based on The DeLone and McLean Model. *Journal Education and Health Promotion*, 2015; 4(5): 1-8.
11. Kuraesin, A. D. The Influence of Organizational Culture on Management Information System. *International Journal of Scientific & Technology Research*, 2017; 6(3): 140-141.
12. Lee, T., Ghapanchi, A.H., Khoei, A., Ray, P. Strategic Information System Planning in Healthcare

Organizations. *Journal of Organizational and End User Computing*, 2015; 27(2): 1-31.
13. Lingamallu, K., and Nayakvadi, S. Role of HIS and RIS in Improving Quality of Patient Care. *International Journal of Collaborative Research on Internal Medicine & Public Health*, 2017; 9(7): 725-734.
14. Salleh, M. I. M, Zakaria, N., and Abdullah, R. The Influence of System Quality Characteristics on Health Care Providers Performance: Empirical Evidence from Malaysia. *Journal of Infection and Public Health*, 2016; 9(6): 698-707.
15. Sarwono, J. dan Narimawati, U. *Membuat Skripsi, Tesis, dan Disertasi Partial Least Square SEM (PLS-SEM)*. Yogyakarta: CV. Andi Offset, 2015.
16. Peraturan Menteri Kesehatan Republik Indonesia Nomor 46 Tahun. *Sistem Informasi Kesehatan*. 30 Mei 2014. Berita Negara Republik Indonesia Tahun 2014 Nomor 126. Jakarta, 2014.
17. Peraturan Menteri Kesehatan Republik Indonesia Nomor 31 Tahun. *Sistem Informasi Puskesmas*. 3 September 2019. Berita Negara Republik Indonesia Tahun 2019 Nomor 999. Jakarta, 2019.
18. Ross, D. S. and Venkatesh, R. Role of Hospital Information Systems in Improving Healthcare Quality in Hospitals. *Indian Journal of Science and Technology*, 2016; 9(26): 1-5.
19. Thenu, V. J., E. Sediyono, dan C. T. Purnami. Evaluasi Sistem Informasi Manajemen Puskesmas Guna Mendukung Penerapan Sikda Generik Menggunakan Metode Hot Fit di Kabupaten Purworejo. *Jurnal Manajemen Kesehatan Indonesia*, 2016; 4(2): 130-131.
20. Wibisono, A., M. Anwar, dan I. Kirono. Structural Equation Modelling Partial Least Square (SEM PLS) untuk Mengetahui Kinerja Karyawan pada PT. Dempo Laser Metalindo Surabaya. *Jurnal Statistika*, 2015; 7: 14-16.
21. Widyanata, Y., dan Toly, A. A. Pengaruh Kualitas Sistem Aplikasi dan Kualitas Informasi, Ketepatan Waktu, dan Kerahasiaan terhadap Kepuasan Wajib Pajak Pengguna E-Filling. *Tax and Accounting Review*, 2015; 4(1): 1-13.
22. Yassine, A. The Role of Management Information Systems in the Effectiveness of Managerial Decision Making in Greater Irbid Municipality. *Arabian Journal of Bussiness and Management Review*, 2017; 7(4): 1-10.
23. Yusof, M. M., Kuljis, J., Papazafeiropoulou, A., & Stergioulas, La. K. An evaluation framework for Health Information Systems: human, organization and technology-fit factors (HOT-fit). *International Journal of Medical Informatics*, 2008; 77(6): 386-398.