

Evaluate The Use Of The Independent Registration Tools Outpatient Patients Using The Hot-Fit Method At Roemani Muhammadiyah Hospital Semarang

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Abstract. In Indonesia, the implementation of electronic medical records will begin to be implemented in health service facilities in December 2023 [1]. The HOT Fit method is a complete model in the aspect of the assessment carried out and is most suitable to existing problems compared to other models, where this model places three important parts, namely Human, Organization and Technology [2]. The aim of this research is to find out how to evaluate the use of the Outpatient Self-Registration Platform using the HOT – Fit Method. The method used is qualitative research with data for January until May 2024. The research instrument uses observation guidelines and interview and data collection method is by observation and interview. How to collect data by observation Data processing techniques include data reduction, data display and verification. The research results show that from the human aspect of system users, the self-registration platform was socialized at the beginning of the implementation of the new system for users in outpatient registration but there was no training, and users were not satisfied with the features in the self-registration platform. Organizational aspects, support and policies from management provide support in its implementation, but system monitoring and written policies regarding the implementation of independent registration platforms have not been carried out. In terms of system quality, the independent registration platform at Roemani Muhammadiyah Hospital Semarang ensures data security because each officer has a username and password. In terms of benefits, the self-registration platform at Roemani Muhammadiyah Hospital Semarang is useful for its use, namely helping and facilitating patient care, especially reducing patient backlogs.

Keywords: Evaluation, Electronic Medical Record, Independent Registration Tools.

I.BACKGROUND

In Indonesia it is regulated in UU no. 44 of 2009 concerning hospitals [3], where every hospital is obliged to record and report all hospital operations in the form of a Hospital Management Information System (SIMRS). Therefore, every hospital is obliged to run SIMRS using open source as regulated in Minister of Health Regulation No. 82 of 2013 concerning SIMRS [4]. Apart from that, in Indonesia the implementation of electronic medical records will begin to be implemented in health service facilities in December 2023 [1].

The Self-Registration Platform of this machine at first glance is like an ATM machine, which allows general patients and Social Security Administering Agency (BPJS) patients who have been registered and have received treatment at a hospital before to register and receive a Patient Eligibility Letter (SEP) without having to go through the registration counter [5].

The HOT Fit method is a model of success which can be used in assessing information systems proposed by [6] This model was chosen because this model is complete in terms of the assessment carried out and best suits the existing problems compared to other models, where this model places three important parts, namely Human, Organization and Technology [2]. Based on reports of queues for outpatient self-registration platforms from 01 to 30 November 2023, there was a percentage of 74% of patients who successfully used the self-registration platform, 35% of patients confirmed registration, and 4% of patients canceled their examination.

Patients who fail to use the self-administered platform must confirm at the outpatient registration counter to complete the inappropriate documents. Patients who failed to print on the self-container because the control did not match the doctor's orders, the doctor did not write down when the patient planned to return for control, the patient reference entered did not match the patient's destination policy, the patient's name did not match the reference, the patient's fingerprints were not detected, the patient with referrals from health facility 2, control patients after hospitalization and patients with consultation between doctors cannot print on the self-registration platform.

This evaluation aims to maximize the use of the outpatient self-registration platform so that its use is maximum and patients do not need to return to the registration counter to complete the documents. Based on the description above, researchers want

to evaluate the "Use of the Independent Registration tools outpatient using the HOT - Fit Method" at the Roemani Muhammadiyah Hospital Semarang.

II.METHOD

The method used is qualitative research to determine the evaluation of the use of the self-registration platform using the Hot-Fit method with data for January until May 2024. The research instrument uses observation guidelines and the data collection method is by observation. Data processing techniques include data reduction, data display and verification.

III.RESULTS AND DISCUSSION

Identify Independent Registration tools outpatient at Roemani Muhammadiyah Hospital based on human factors

The outpatient self-registration platform at Roemani Muhammadiyah Hospital is operated by 2 information officers and 1 security guard

Table 1.Human Observation Results (Humans)

No	Observed Aspect	Yes	No	Information
1	There is a module/guidebook for using the SIMRS application outpatient registration		√	There are videos and procedures for using the standalone platform
2	There is socialization /training related SIMRS outpatient registration	√		The start of implementation will be April 2022
3	Users are satisfied with the appereance of the features in the independent registration tools		√	The complete visit history feature has not yet been implemented

The aspect of using the system is that there is no manual or module for using the Independent Registration Tools, it's just that guidance is given directly orally during training and socialization. From this statement it is known that official training for officers has never been carried out regarding the use of the Independent Registration Platform, only carried out at the start of implementation in 2022 and when there are requests, improvements or updates regarding the outpatient registration platform. Training is not carried out periodically, but if new employees come in, an orientation period is carried out for 2-3 days to introduce the systems at the Mandiri Registration Platform, then around 7-14 days after the orientation period, training is carried out at the registration directly while accompanied by old officer.

His is the same as the opinion of [7], that the scope of Human Resource Management (HRM) consists of 3 forms of training, namely Pre Service Training (pre-task training), In Service Training (on-duty training), and Post Service Training (after-duty training). post-task). Training for the outpatient self-registration platform at Roemani Muhammadiyah Hospital Semarang was carried out at the beginning of its implementation, namely in 2022 and until now there has been no further training for officers on a regular basis. Training should be carried out again to strengthen user mastery in operating the

outpatient self-registration platform to improve service performance. This is in line with [11], that officer performance is also influenced by the job training provided. Training is very important. The existence of training will hone the work skills of officers in increasing work productivity

Use of information systems or responses that officers have in using the bridge system that is currently running. This will be discussed in user satisfaction, namely what the user's experience is in using the existing system, whether the user (informant) feels satisfied in using the system. User satisfaction can be seen based on responses to the system that has been used so far, such as:

a. Menu or feature display

The menu display or features in the outpatient self-registration platform system are currently quite satisfactory, such as a patient history menu and a booking code if the patient does not have time to take a screenshot when completing self-registration via the platform.

b. Completeness of features

Based on the results obtained, the complete features of the outpatient self-registration platform at Roemani Muhammadiyah Hospital are still not available in the Play Store application because Roemani Muhammadiyah Hospital has not created a related application that is registered with Playstore so that patients can register independently either online from home or by registering directly via the hospital platform on the Roemani Muhammadiyah Hospital Semarang website. The data entry process into SIMRS has been carried out according to the applicable SOP, but the resulting data is still not valid, such as the system cannot read the complete analysis and is incomplete, such as the NIK, name, telephone number and address not yet filled in. Apart from that, users are not satisfied with the features in the self-registration platform because there is no complete visit history feature. According to Gursel 2014, the level of satisfaction directly affects system users. If the outpatient self-registration platform is satisfactory then the level of use will be more frequent and the service will be faster and more efficient in the time spent by patients in the hospital. Identify Independent Registration tools outpatient at Roemani Muhammadiyah Hospital based on organization factors. Support from top management and staff support is an important part in measuring the success of the system. The results of the outpatient self-registration platform at Roemani Muhammadiyah Hospital Semarang in the Organizational aspect can be seen in the following table :

Table 2 Organization Observation Results

No	Observed Aspect	Yes	No	Information
1	There is an SOP regarding patient registration	√		Still using the online registration SOP
2	Is there a guide or guidelines on the use of SIMRS		√	-
3	There are facilities from the hospital in the form of hardware (computers, printers, fingerprint equipment)	√		It is installed well

Based on the results on the organizational aspect, the self-registration platform has been supported in its implementation, such as the infrastructure and facilities available for outpatient registration, but there are no guidelines or guidelines for the use of the outpatient self-registration platform. There are only SOPs regarding the registration of outpatient general patients and BPJS patients. The written policy regarding the implementation of SIMRS adheres to the guidelines and

guidance related to the Minister of Health and is adapted to hospital regulations regarding what data may be released for patients to know when the patient registers via the bridge. However, monitoring of platform use has not been carried out to date. The written policy regarding the implementation of SIMRS adheres to the guidelines and guidelines of Minister of Health Regulation Number 1171/MENKES/PER/IV/2011 concerning Hospital Information Systems (SIRS), and is adjusted to hospital regulations regarding what data may be released for patients to know. when the patient registers via the bridge.

However, monitoring of platform use has not been carried out to date. Organizational management is important in implementing, an information system that will be seen from the support and policies in its implementation. Support from organizational management plays an important role in the operation of an information system. This support determines the development of an information system. It can be said that the success or failure of implementing information depends on the policies and support obtained from the leadership or management in an organization. One form of system support is monitoring the implementation of the information system. Monitoring is an activity to observe the implementation of the program as it is running, and try to make improvements if there are errors so that at the end of completion, the program is expected to be implemented correctly [12].

One form of support provided in the implementation of the self-registration platform for outpatient registration at Roemani Muhammadiyah Hospital in Semarang is that monitoring is not carried out routinely, but if there are software and hardware problems, the IT team immediately executes the system. SOPs in management information systems are important because SOPs guide every hospital management activity and in the implementation of formal, clear and computer-based management information systems throughout service units, processes, tasks and roles of each individual can be easily detailed. fast and precise. [10].

Identify Independent Registration tools outpatient at Roemani Muhammadiyah Hospital based on technology factors

The results of observations at the outpatient self-registration platform at Roemani Muhammadiyah Hospital regarding aspects of system quality, information quality and service quality can be seen in the following table:

Table 3.1 System Quality Observation Results

N	Observed Aspect	Yes	No	Information
1	Availability of internet connection at the Independent Registration tools outpatient	√		Biznet
2	There are server computer specifications	√		Intel pentium G6400, RAM 4 128 GB
3	The speed of the internet network Application version SIMRS	√		Fluent (60 Mbps)
4	Application version SIMRS	√		Version 3.0 web based
5	The year the computer was purchased	√		2021
6	Display User ID and password when login to the application.	√		Guaranteed data security, each officer

Table 3.2 Information Quality Observation Results

No	Observed Aspect	Yes	No	Information
1	The system displays information that is relevant to the data entered	√		The patient data that has been entered is appropriate and there are no errors
2	The information provided by the system is accurate	√		The information provided is in accordance with the data
3	The information provided by the system is up to date	√		Information is processed in real time

Table 3.3 Service Quality Observation Results

No	Observed Aspect	Yes	No	Information
1	Registration system has fast respon time	√		Just respond fast
2	System service already have technical support according to function	√		SIMRS supported by adequate servers and computer

Information System Quality is seen from the aspects of system quality (ease, efficiency, system reliability), information quality (system information content, usability, level of data reliability), service quality (response speed, guarantees and technical support to system users) [10]. The quality aspect of the outpatient self-registration platform system at Roemani Muhammadiyah Hospital Semarang is good, but there are still incomplete features and menus in the bridge system. Sometimes there are problems when loading the system and patients often forget to save the booking code number so they have to take the registration queue number to meet with the registration officer and there is no visit history feature on the bridge system.

Service quality will assess the overall support received from system service providers, which includes speed of response, guarantees, and follow-up or technical support to system users. Observation results at the outpatient self-registration platform at Roemani Muhammadiyah Hospital on the service aspect. The quality aspect of the service at the outpatient registration platform at Roemani Muhammadiyah Hospital Semarang is good with infrastructure in the form of adequate hardware, it's just that there are server problems or internet connections that are disrupted, but the IT team has provided a quick response if the system experiences problems that occur when is providing services to patients. Service quality focuses on overall support by system or technology service providers [8.9].

Identify Independent Registration tools outpatient at Roemani Muhammadiyah Hospital based on net benefit factors

An overview of support for the use of APM (Independent Registration Platform) in Outpatient Services in Hospitals at Roemani Muhammadiyah Hospital includes, among other things, there are SOPs for the use of APM and infrastructure such as: computers, computer desks, data storage, printers, keyboards, mice, patient waiting chairs , HVS Paper, Hand Sanitizer, and Internet Network (WIFI). Table 4. Number of queues Independent Registration tools outpatient period 01 May 2023 until 01 May 2024

NO	Information	Amount	(%)
1	Independently succeeded	75094	74
2	Cancelled	3885	4
3	Confirmation registration	22326	22
Total		101305	100

With a percentage of 74% of patients successfully using the self-registration platform, 35% of patients confirmed registration, and 4% of patients canceled their check-up. Patients who fail to use the self-administered platform must confirm at the outpatient registration counter to complete the inappropriate documents. Patients who failed to print on the self-container because the control did not match the doctor's orders, the doctor did not write down when the patient planned to return for control, the patient reference entered did not match the patient's destination policy, the patient's name did not match the reference, the patient's fingerprints were not detected, the patient with referrals from health facility 2, control patients after hospitalization and patients with consultation between doctors (internal referrals) cannot print on the self-registration platform.

The following is the patient flow after registering at the self-contained platform:

- Patients who have registered via online registration will receive a reply notification via WA regarding the queue number and booking code.
- Do the SS notification, to save the booking code.
- When a patient comes to the hospital according to the control schedule chosen online, the patient is required to print the SEP at Mandiri Print SEP before coming to the polyclinic.
- Enter the booking code, select registration.
- Wait for the control letter to be printed
- After receiving the control letter, please go to the polyclinic.

Note: If when entering the booking code there is a notification on the monitor screen "REGISTRATION FAILED, PLEASE GO TO REGISTRATION"

With this platform, outpatient registration services for patients are faster, reducing patient queues at the outpatient registration counter. Before the implementation of the self-registration platform system, everything was done manually, that is, patients had to come to the registration counter to register at the polyclinic. So there are often complaints from patients regarding the narrow waiting room and doctors who have finished their practice hours. Benefits are a balance between positive and negative impacts on system users. The performance of the self-registration platform system is influenced by indicators such as direct perceived benefits to work, efficiency and effectiveness as well as reducing system error rates. The higher the positive impact produced, the more successful the implementation of the information system [13]. The outpatient self-registration platform at the Roemani Muhammadiyah Hospital in Semarang provides very good benefits, namely helping and facilitating patient care, especially reducing patient pile-up and making it faster. This improves the

quality of service and is useful for supporting improved services at hospitals, especially outpatient registration. Benefits are directly influenced by user satisfaction, the higher the benefits felt by the user in using the self-registration platform, the higher the user satisfaction [14,15]

IV. CONCLUSIONS AND SUGGESTIONS

Evaluation of the use of the independent registration tools outpatient platform from the human aspect of system users, socialization of the self-registration platform was carried out at the beginning of the implementation of the new system for users in outpatient registration but there was no training, and users were not satisfied with the features in the self-registration platform. Organizational aspects, support and policies from management provide support in its implementation, but system monitoring and written policies regarding the implementation of independent registration platforms have not been carried out. Aspects of system quality, the independent registration platform at Roemani Muhammadiyah Hospital Semarang, data security is guaranteed because each officer has a username and password, while the quality of service is good with

infrastructure in the form of adequate hardware, when there are server problems or disrupted internet connections The IT side has provided a quick response if the system experiences problems or obstacles. In terms of benefits, the self-registration platform at Roemani Muhammadiyah Hospital Semarang is useful for its use, namely helping and facilitating patient care, especially reducing patient backlogs.

It is suggested that the IT team carry out assistance if there are new application updates and regular training. It is better if monitoring and evaluation can be carried out regularly because monitoring can easily avoid network problems and problems that occur to maintain quality, and it is better to add a feature for visit history so that patients Find out about previous visits.

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