



Implementation of the Use of a Hospital Management Information System to Improve the Quality of Services in the Bumi Panua Pohuwato Regional Public Hospital

***Marlina Due^a, Lisda Van Gobel^b, Laksmyn Kadir^c**

^a Universitas Bina Taruna Gorontalo, Jl. Jaksa Agung Soeprapto No. 40, Kota Gorontalo 96115, Indonesia

^b Universitas Bina Taruna Gorontalo, Jl. Jaksa Agung Soeprapto No. 40, Kota Gorontalo 96115, Indonesia

^c Universitas Negeri Gorontalo, Jl. Jendral Sudirman No. 06, Kota Gorontalo 96115, Indonesia

Doi: <https://doi.org/10.55248/gengpi.4.1223.123443>

ABSTRACT

This research aims to determine the implementation and factors that hinder the implementation of the use of the Hospital Management Information System in improving the quality of service at the Bumi Panua Pohuwato Regional General Hospital. This research uses a type of qualitative research, where researchers try to find solutions to problems by conducting in-depth interviews with respondents. The results of the research concluded that the implementation of the Hospital Management Information System had run optimally, both in terms of speed and also in improving services. Furthermore, the inhibiting factors in implementing the Hospital Management Information System, consist of human resources, use of technology, work culture, facilities, and infrastructure as well as Standard Operating Procedures for the Hospital Management Information System.

Keywords: Implementation; management information system; Service Quality; Hospital

1. Introduction

Hospital as institutions that give service to health experience changes early in their development and does not quite enough answer The same with institution service other health services to improve the level of public health. According to Aronowitz (1998), Role and not quite enough answer the moment this the more stand out along with exists changes in disease patterns in society, social changes economy public, nor the development of science knowledge and technology, [1].

(Lora, et al., 2022), Whether a hospital institution is good or bad can be assessed by the quality of service provided to patients, which is usually associated with quality of care services [2]. Therefore, (Periyakoi, et al., 2022) a hospital institution will always receive demands to continue to maintain and improve the quality of service so that the quality House the pain is still maintained whole [3].

Quality improvement will be realized if the hospital is capable make deciding To do service to patients well or effectively. According to Anthony (Luo, et al., 2022), whether or not something is effective in Such decision-making will depend on the quality of the information managed during the retrieval process the decision takes place [4].

Of That, process management information in a way Good For Supporting hospital operational activities is very important to do. (Alolayyan, et al., 2022) A system that manages information certain on an institution Hospital, can called a System Management Information Hospital, Which is a communication information technology system that helps process or integrate all aspects covering the hospital service process so that they are coordinated with each other, recording and system procedures to obtain information quickly, precisely and accurately and efficiently [5].

(Mucaraku & Ali, 2022), Computerized information systems have advantages in terms of accuracy and accuracy of data management processes, so they can minimize human errors that arise and affect service quality [6]. (Vaishnavi, et al., 2019), The quality of health services obtained from a system in a health organization is influenced by structural components and processes. Organization, management, human resources, technology, equipment, and finance are structural components [7].

The hospital management information system also regulates all service processes, operating procedures, information systems, administration systems, control systems, and guidelines are part of the process. (AlHamad, et al., 2022), The quality of human resources is the result of interaction and components to structure and process, so the implementation of medical audits in hospitals is an effective and efficient effort to monitor improvements in service quality through the Hospital Management Information System and the quality of human resources [7].

The Hospital Management Information System is an integrated information system prepared to handle the entire hospital management process starting from diagnosis and treatment services for patients, medical records, pharmacies, and pharmaceutical warehouses, Hospital Management Information Systems also handle computerized systems both hardware and home software. Hospitals include hospital internet network systems, websites, billing systems for patient services, and computer/printer repairs. Computerized system management includes developing and maintaining Hospital Management Information System application programs and processing improvements to hospital patient data. The presence of a Hospital Management Information System is expected to support various things within the hospital, in particular, to support the health service process provided by the hospital. This is as explained in the Minister of Health Regulation Number 82 of 2013 concerning Hospital Management Information Systems in Article 4 paragraph 2 point b, which states that the process of developing and managing a hospital management information system should include: Speed, accuracy, integration, service improvement, improvement efficiency, ease of reporting in operational implementation.

By paying attention to these six aspects, the use of hospital management information systems will be able to obtain maximum results, where public services that are oriented towards meeting community needs will be achieved through health services, as a basic right for every individual. An effective health information system can provide information support for the decision-making process at all levels of health administration, especially at the Bumi Panua Regional General Hospital Pohuwato is the main health service unit in Pohuwato Regency. One of the developments in the Hospital Management Information System at the Bumi Panua Regional General Hospital Pohuwato, at outpatient visits. The main objective of implementing this system is to improve efficiency, effectiveness, professionalism, and performance, as well as hospital access and services, as stated in Minister of Health Regulation No. 82 of 2013.

Use of the Hospital Management Information System at the Bumi Panua Regional General Hospital Pohuwato started in 2019, even for its development, the hospital has built collaborations with third-party vendors, to carry out use, development, and sustainability by service needs for outpatients through the hospital information system.

Implementation of the Hospital Management Information System at the Bumi Panua Regional General Hospital Pohuwato can provide various benefits. For the Regional Government, the implementation of this system supports the realization of the *e-government concept* by using technology in providing health services to the community. For hospitals, the use of a Hospital Management Information System can improve the quality of health services.

Patients do not need to directly (manually) register, which allows for no direct interaction between healthcare workers and patients, and minimizes long queues that generally occur if registration is done manually, because every year the total number of patients who register for health services, for more details as follows: Number of Outpatients at the Bumi Panua regional general hospital Pohuwato, in the last three years, in 2020 there were 22,887 patients, in 2021 there were 14,208 patients and in 2022 there were 16,172 patients. The total number of patients who registered to obtain outpatient services reached 53,267 patients. This number is relatively large and will affect the service process provided, one of which is the increase in patient queues which has an impact on the quality of service to patients.

In implementing the hospital management information system, patients themselves can obtain several main benefits when utilizing the hospital management information system in registering outpatients, to obtain health services at the Bumi Panua Regional General Hospital Pohuwato. First, the level of accessibility is very high by using web-based technology which has a multi-user nature, making it possible to use the hospital management information system application by more than one person at the same time in *real-time*. Second, it makes it easier for patients to obtain accurate information regarding the outpatient services they will receive, without having to queue at the hospital.

Thirdly, specifically for patients participating in the Social Security Administering Agency for Health who receive a Health Facility referral (Level I), who usually need to arrange a Participant Eligibility Letter or Service Guarantee Letter manually, using the Hospital Management Information System the Eligibility Letter will be printed automatically on the Hospital Management Information System platform at the Bumi Panua regional general hospital Pohuwato, after the patient registers in the hospital management information system application and confirms it by scanning the barcode on the hospital management information system platform in the hospital services section.

Although the implementation of the Hospital Management Information System can improve the provision of health services for outpatients at the Bumi Panua Regional General Hospital Pohuwato, in its implementation it has not been able to run optimally. Because three aspects cannot be maximally obtained from the use of this information system. Namely: speed, where the presence of the Hospital Management Information System registers old patients faster than new patients because new patients are still filling in patient identification and then improving services, as is the hope, that the health services provided do not only refer to meeting basic needs (health) only, but there is a need to optimize services. The Hospital Management Information System which should be able to improve services from the Bumi Panua Regional General Hospital Pohuwato has obstacles in the realization process.

Human resources are a very vital hospital asset that has an important role in managing and managing it. Human resources are so functional that they cannot be replaced by other resources. Even in the era of modern technology that is commonly used, or how much funding is sufficient, without professional human resources everything becomes meaningless, including the management and quality of the hospital information management system. (Anwar, G., & Abdullah, N. N., 2021) Good human resources can also increase organizational capacity through hospital management information systems to improve the quality of health services, increase efficiency, and are the most important factor in computerization [8].

Bumi Panua Pohuwato Regional General Hospital is a hospital owned by the Pohuwato Regency government located on Jl. Dr. Herizal Umar, Botubilotahu Village, Marisa District, Pohuwato Regency, Gorontalo Province. Bumi Panua Regional General Hospital is the only type C hospital in Pohuwato Regency.

Although the implementation of the Hospital Management Information System can provide improved health services for patients at the Bumi Panua Pohuwato Regional General Hospital, its implementation has not been able to run optimally. Because there is a lack of competent personnel in this field and the use of hospital management information systems is not yet by Standard Operating Procedures, this can cause slow service provided to patients so that patients are still waiting for a long time.

Panua Hospital Pohuwato has 14 specialist medical staff and only 7 (seven) D3 medical recording and health information graduates, human resources in terms of computer operations at Bumi Panua Hospital Pohuwato is still lacking, and not all medical personnel input the Hospital Management Information System because changing the culture from manual filling to filling using their system is difficult. Panua Regional General Hospital Pohuwato has 37 (thirty-seven) service places, both outpatient and inpatient have 47 computers, while 2 units must be used in each room because each uses its computer so that patients do not have to wait long for service.

Work culture is a factor that is evaluated because it can provide an overview of the adaptation of human resources who previously used a manual system to switch to a computerized and application-based system at the Bumi Panua Pohuwato Regional General Hospital. Work culture can be one aspect that supports employee competence in using hospital management information systems while carrying out work. The assessment of work experience is seen from the aspect of how long a person has worked in an institution or organization. Work experience is one aspect of assessment in determining employee competency. Work experience is assessed by the length of time an employee has worked in a field related to information systems. It is better as long as they understand application-based hospital information systems or hurt implementation because of the convenience of using manual systems using paper-based systems.

With the development of science and technology, Hospital Management Information Systems can be done digitally, with the help of a connected computer or a particular internet network. Good internet must be used. However, the network condition at the Bumi Panua Pohuwato Regional General Hospital is currently experiencing frequent disruptions because the amount of capacity currently used is not yet optimal and to use the Hospital Management Information System several specialist doctors are not very fluent in operating computers so it can hinder or affect the quality of service.

Apart from the problems above, there are factors inhibiting the implementation of the use of the Hospital Management Information System, including Human resources are still limited. The only operators of the application are medical personnel, who should be medical records officers because one of the requirements for the application to run optimally is that there must be one operator who is fully alert in responding to services from outpatients online and is also capable perform recovery tasks when the system needs maintenance.

2. Methods

Types of research

This research uses a type of qualitative research, where researchers try to find solutions to problems by conducting in-depth interviews with respondents.

Research design

This research uses a qualitative approach, where approach is used to understand the research object naturally and the researcher is the key instrument, this is based on the view of (Creswell, J. W., & Creswell, J. D. 2014) that a qualitative approach is used to research an object naturally, where the researcher is the main suggestion in research, using triangulation data collection techniques, data analysis is carried out inductively/qualitatively, and research results are oriented towards emphasizing meaning rather than generalizing [9].

Data Sources and Data Collection

Based on this type of descriptive research using a qualitative approach, the data obtained is the result of observations on the research object, then conducting interviews with informants and then analyzing the results to find conclusions. Primary data is a source of data obtained directly (without going through intermediaries). The forms are opinions from individuals or groups and also observations (from researchers). Secondary data is a source of data obtained indirectly by researchers (through an intermediary medium). Secondary data can be in the form of documents or reports.

Data collection techniques are a method used by researchers to obtain data used in research, the following are data collection techniques used by researchers in this research: Observation, this technique is used to obtain direct observations of events/phenomena that are the focus of the research. Through observation, researchers can study behavior and also the meaning of that behavior. Through research interviews, in-depth information regarding the focus of the research will be obtained, to make it easier for researchers to carry out interpretations. Interviews in this research were conducted with 10 informants. Documents are important records of the past, whether in written form or images. Through documentation, it becomes complementary data in preparing the research carried out

3. Results

The Regional General Hospital was started in 2002, Pohuwato is still affiliated with the main district, namely Boalemo. The building was originally located in the Plan Block which is now the Pohuwato District Health Office. In 2004, the construction site for the Pohuwato Regional General Hospital was moved to Botubilotahu Village, Marisa District. The hospital was inaugurated on April 6 2006 by the Governor of Gorontalo under the name Pohuwato regional general hospital.

In 2011 the Pohuwato regional general hospital obtained the type/class as a Regional General Hospital with class C through the provisions of the Decree of the Minister of Health of the Republic of Indonesia Number: HK.03.05/I/1173/11 dated 13 May 2011 and was accredited 5 (five) services by obtaining an accreditation certificate from the Hospital Accreditation Commission of the Ministry of Health of the Republic of Indonesia in Jakarta with certificate number: KARS-SERT/126/XI/2011. On May 6, 2016, based on the Pohuwato Regent's Regulation Number: 21 of 2016 concerning the Naming of the Pohuwato Regional General Hospital, it has been changed to "BUMI PANUA Regional General Hospital". The address is Jl. Dr. Herizal Umar, Botubilotahu Village, Marisa District, Pohuwato Regency, Tel/Fax (0443) 210880 Email: pohuwato.rsud@gmail.com Web: www.rsud.pohuwatokab.go.id. Referring to the statutory regulations above, hospitals are required to prepare performance reports periodically, where preparing this report explains the process and results which are one of the benchmarks for realizing the hospital's vision, mission, and goals so that it can operate effectively and be responsive to aspirations. public.

Implementation of the Use of Hospital Management Information Systems in Improving Service Quality at the Bumi Panua Pohuwato Regional General Hospital

The health system is the main component of a country's health system. The Hospital Management Information System aims to maximize the health services provided to every citizen, so that health as a basic need for every individual can be met precisely and accurately. In the Minister of Health Regulation Number 82 of 2013 concerning Hospital Management Information Systems, it states: "Hospital Management Information System, hereinafter abbreviated as SIMRS, is a communication information technology system that processes and integrates the entire flow of hospital service processes in the form of a coordination, reporting, and communication network. administrative procedures to obtain information precisely, accurately, and are part of the Health Information System." Considering the importance of Hospital Management Information Systems, it is necessary to manage and develop hospital management information systems by paying attention to those that can support the health service process.

In Minister of Health Regulation Number 82 of 2013 it is clearly stated that in the Hospital Management Information System several benefits can be obtained when using a Hospital Management Information System, including:

Etymologically, speed is defined as a target of service time that has been determined by the service delivery unit. In Minister of Health Regulation Number 82 of 2013 concerning Hospital Management Information Systems, speed is one part that can be achieved when managing and developing Hospital Management Information Systems. In implementing the Hospital Management Information System, speed is an important part that supports and improves the health service process in the hospital.

Based on the research results, the speed of service, which is a form of improving the health service process at the Outpatient Installation of the Bumi Panua Pohuwato regional general hospital, has been running well and can provide convenience to patients in the Outpatient Installation. The speed of service referred to is the patient registration process which in general is still often faced with filling out forms and completing patient administrative files which is quite time-consuming. By using the Hospital Management Information System, service time becomes faster by around 2-5 minutes. With a multi-user system, the speed provided is evenly distributed to every patient who will register via the Hospital Management Information System. Even during the registration process, patients do not need to come directly to the hospital, because the service features in the Hospital Management Information System can be accessed via mobile devices such as smartphones and also computer devices or platforms that have been provided by the hospital.

However, to be able to realize the speed of service through the Hospital Management Information System, there are technical obstacles that can affect the speed of the Hospital Management Information System. This obstacle is the stability of the network connection, in this case, the stability of the network from the internet service provider which sometimes experiences problems. Based on the research results and concept strengthening, it can be concluded that the speed of improving the Hospital Management Information System service process in the Outpatient Installation at the Bumi Panua Pohuwato Regional General Hospital is not yet optimal. Based on these results, the Bumi Panua Pohuwato Regional General Hospital can implement constructive steps to optimize the speed of the health service process in the Outpatient Installation, such as increasing network stability, updating the system of the Hospital Management Information System so that system disruption problems do not occur future obstacles. So that the health service process in the Outpatient Installation can be faster.

Service improvement is one part of supporting the process of improving health services in hospitals through the implementation of the Hospital Management Information System. Service improvement is defined as providing services by increasing the degree, level, quality, and quantity of service. This means that in the services provided, there is a change for the better and this condition occurs continuously. According to Kohlmeyer III, J. M., & Blanton, J. E. (2000) improving service is also defined as service quality [10]. In health services, the quality of health services is a step towards improving health services both for individuals and for the population by the expected health outcomes. This view means that the quality of health services is seen from the transition or change in services in a better direction so that it can provide benefits to the community and also the hospital. If this view is linked to research findings, it can illustrate that the implementation of the Hospital Management Information System in Outpatient Installations has provided improved services. This is proven by research results, that there is a transition in the form of service, from manual to digital. Then, the implementation of the Hospital Management Information System provides many benefits to the hospital and patients.

For hospitals, the benefit obtained is the availability of a very useful database to support the accreditation process, decision-making, and policy-making for the Bumi Panua Pohuwato Regional General Hospital. Meanwhile, patients will receive faster service, because the Hospital Management Information System allows hospital operators to verify and validate patient data in just one stage. Then for the overall benefit, services at the Outpatient Installation will be more effective because it saves time in the service process, as well as minimizing long queues that often occur during the patient registration process.

Based on the research results and concept strengthening, it can be concluded that improving services in the Hospital Management Information System service process in the Outpatient Installation at the Bumi Panua Pohuwato Regional General Hospital is optimal. The implementation of the Hospital Management Information System in the Outpatient Installation at the Bumi Panua Pohuwato Regional General Hospital can be concluded to have been carried out according to applicable regulations. However, if we look at each aspect, both speed and service improvement, there is only one aspect that is by implementation based on Minister of Health Regulation Number 82 of 2013, namely the service improvement aspect, while the speed aspect cannot yet run optimally because there are several obstacles such as connection stability. The results of this research are in line with research from Quarm, R. N. (2016) that using an online registration system in hospitals has been proven to be able to reduce the length of waiting time for patients, thereby reducing the number of patient queues piling up [11].

Factors Inhibiting the Implementation of the Use of Hospital Management Information Systems in improving the quality of service at the Bumi Panua Pohuwato Regional General Hospital

In implementing the Hospital Management Information System some factors hinder the implementation process, so the main goal of the Hospital Management Information System to improve the health service process is hampered. Factors inhibiting the implementation of the Hospital Management Information System in the Outpatient Installation of the Bumi Panua Pohuwato Regional General Hospital can be seen from: Human resources are an important part of an organization, because in meaning human resources can be interpreted as subjects and objects in the organization. In this research, the human resources referred to are all officers within the Outpatient Installation of the Bumi Panua Pohuwato Regional General Hospital, including medical personnel consisting of general practitioners, dentists, and specialist doctors. The nursing staff consists of nurses, midwives, other health workers, pharmacists, nutritionists, sanitation workers, analysts, radiographers, and physiotherapists. Elements of hospital management, security, and all other supporting staff.

According to Sun, et al., (2012), human resources in using information systems have two important indicators, namely system use and user satisfaction [12]. Where in these two things we will see the extent of the implementation of information system management in Regional General Hospital hospitals Bumi Panua Pohuwato. System use; refers to the frequency and scope of use of system functions, training, knowledge, expectations, acceptance, or rejection. If it is related to research findings, it can be seen that health workers and medical staff do not fully understand the use of the Hospital Management Information System, so there are still problems in its implementation. Apart from that, the training organized by the hospital was considered less than optimal, because time was limited. This time limitation is adjusted to the workload they bear, especially for Medical Personnel and Health Personnel who have large job responsibilities, so hospital management experiences difficulty in determining the right training schedule.

User Satisfaction; is an overall evaluation of the user's experience in using the information system and the potential influence of the information system. Research findings show that medical personnel and health workers are not yet fully able to accept digitalization changes, because they tend to be familiar with manual systems, this becomes an obstacle when system changes occur that lead to digitalization. Apart from that, the absence of service personnel on the Hospital Management Information System platform is also an obstacle to the implementation of the Hospital Management Information System. Based on the research results and concept strengthening, it can be concluded that human resources are an inhibiting factor in the implementation of the Hospital Management Information System in improving the Hospital Management Information System service process in the Outpatient Installation of the Bumi Panua Pohuwato Regional General Hospital.

The hospital management information system is a system that must be implemented by the hospital, and ongoing development related to the system is carried out so that it can encourage the provision of quality services with the principles of efficiency and effectiveness that can be accepted by every hospital patient. According to the Minister of Health Regulation Number 82 of 2013, the Hospital Management Information System is an information communication technology system that processes and integrates the entire flow of hospital service processes in the form of a network of coordination, reporting, and administrative procedures to obtain information precisely and accurately, which is part of the Health Information System." This regulation clearly describes the main objectives of the Information System. Hospital management is nothing more than providing precise and accurate information, and this is an important part of implementing health services for the community. Further information regarding the objectives of the Hospital Management Information System can be found in Article 2 of the same regulation, which reads: "Regulation of the Hospital Management Information System aims to improve efficiency, effectiveness, professionalism, performance, access, and hospital services."

Based on the research results, the use of technology is very influential in inputting the Hospital Management Information System in the Outpatient Installation of the Bumi Panua Pohuwato Regional General Hospital. Implementing information systems requires hard work and smart work. This is supported by people who like change, like work patterns that relate to people, and like challenging work to create changes that can make work more efficient. According to Khalifa, M. (2014), In general, the problem in implementing integrated information systems in hospitals is that implementing information systems must be the main job [13]. This makes users reluctant, burdened, and unmotivated to carry out simulation trials, and implementations to input data into new, unknown information systems and changes in ways of working and thinking patterns. Based on the research results, work culture is a factor that is evaluated because it can provide an overview of the adaptation of human resources who previously used a manual system to switch to a computerized and application-based system at the Bumi Panua Pohuwato Regional General Hospital. Work culture can be one aspect that supports employee competence in using hospital management information systems while carrying out work.

In implementing the Hospital Management Information System, facilities are supporting devices that can maximize the implementation of the Hospital Management Information System in Outpatient Installations. Means are anything that can be used as a tool to achieve a goal or objective.

Based on the research results, all the facilities needed to support the implementation of the Hospital Management Information System have been made by the hospital to be available at every outpatient installation service polyclinic, so that the service process at each polyclinic can run optimally. Every

service polyclinic has a device the main facility unit used to access the Hospital Management Information System. These devices consist of a PC (Personal Computer) and a Printer, which are the main means of supporting the service process for patients using the Hospital Management Information System. All devices in each polyclinic are connected and can also be accessed in real-time, according to the user's needs. The findings of this research are in line with the concept of Wager, et al., (2021)) which explains that the advice needed in operating a Hospital Management Information System consists of computer units, program applications, and other supporting devices [14]. Based on research findings and strengthening the concept, it can be concluded that facilities are a supporting factor in the implementation of the Hospital Management Information system in improving the service process of the Hospital Management Information System in the Outpatient Installation of the Bumi Panua Pohuwato Regional General Hospital.

In implementing the Hospital Management Information System at the Outpatient Installation at the Bumi Panua Pohuwato Regional General Hospital, it is necessary to use Standard Operating Procedures, as a rule to create regularity in the use of the Hospital Management Information System. Abdussamad, Z. (2021) explains that Standard Operating Procedures, also known as "procedures", are clearer and more detailed documents to describe the methods used to implement and carry out within an organization as specified in the guidelines [15].

Based on the research results, the implementation of the Hospital Management Information System is supported by the procedures for implementing the hospital management information system published by the IT Department and the Data and Information Center of the Bumi Panua Pohuwato Regional General Hospital as well as the established service flow that regulates the patient registration or registration process. printing queue numbers, providing services, and processing pharmaceutical services.

If related to the concept of Katili, et al., (2021) Standard Operating Procedure is a series of written work instructions that are standardized (documented) regarding the process of carrying out company administration, how and when it must be done, where and by whom it is done [16]. Based on research findings, the established procedures are by the concept of standard operating procedures that have been described. This is proven by the patient service flow procedures which contain rules in the form of a flow that provides an overview of the overall services provided at the Outpatient Installation at the Bumi Panua Pohuwato Regional General Hospital and which are carried out by Medical Personnel and Health Personnel.

Based on the research results and concept strengthening, it can be concluded that the Standard Operational Procedures for the use of the Hospital Management Information System in the Outpatient Installation of the Bumi Panua Pohuwato Regional General Hospital, is an inhibiting factor in the implementation of the Hospital Management Information System in improving the Home Management Information System service process Sickness in the Outpatient Installation at the Bumi Panua Pohuwato Regional General Hospital.

From the overall description of the five aspects above, it can be concluded that the five aspects consist of human resources, use of technology, work culture, facilities, and Standard Operating Procedures for Hospital Information Systems. These are inhibiting factors in implementing the use of the Hospital Information System to improve the quality of service at the Bumi Panua Pohuwato Regional General Hospital. This is evidenced by human resources that are not yet optimal, the main facilities and infrastructure for implementing the Hospital Information System at each Outpatient Polyclinic at the Bumi Panua Pohuwato Regional General Hospital are inadequate. The availability of facilities and infrastructure as supporting facilities in the implementation of the Hospital Management Information System is very influential, this is in line with findings from Kimama, F. M. (2011) which states that facilities and infrastructure are influential factors in the implementation of the Hospital Management Information System [17]. Then, according to standard operational procedures, a patient's service flow is available and displayed at the Outpatient Installation at the Bumi Panua Pohuwato Regional General Hospital, so that each patient can see the certainty of the service they will receive.

4. Conclusion

The speed of improving the Hospital Management Information System service process at the Outpatient Installation at the Bumi Panua Pohuwato Regional General Hospital is not yet optimal. Because there are technical obstacles that can affect the speed of the Hospital Management Information System. These obstacles are network connection stability and downtime. Improved service in improving the Hospital Management Information System service process in the Outpatient Installation of the Bumi Panua Pohuwato Regional General Hospital is optimal and running by applicable regulations because using the online registration system at the Hospital has been proven to be able to reduce the length of waiting time for patients so that reducing the number of patient queues piling up. Human resources in the Outpatient Installation of the Bumi Panua Regional General Hospital Pohuwato has not yet optimally operated the Hospital Management Information System, such as health workers and medical personnel who have a high density of health service duties. The technology used in the hospital is good using data click vendors and has met the hospital's needs in using the Hospital Management Information System in the Outpatient Installation of the Bumi Panua Pohuwato Regional General Hospital, the current problem is that the network is unstable or application errors. Work culture can be one aspect that supports employee competence in using hospital management information systems while carrying out work. There are still several polyclinics and medical personnel who fill in the hospital management information system application manually and do not want to release the medical record files. Work culture is a factor that is evaluated because it can provide an overview of the adaptation of human resources. The facilities needed to support the implementation of the Hospital Management Information System are adequate. Because Every polyclinic has a computer. The Hospital Management Information System in the Outpatient Installation at the Bumi Panua Pohuwato Regional General Hospital is procedures and is supported by procedures for implementing the hospital management information system and the flow of outpatient services. Overall, the implementation of the use of a hospital management information system to improve services at the Bumi Panua Pohuwato Regional General Hospital has been carried out well. What can be seen from the aspect of speed and improvement of service is optimal, human resources are not optimal in operating the Hospital Management Information System, the technology used has unstable network constraints, work culture can be one aspect that supports employee competence in using the home information system sick while carrying out work, the facilities are adequate, the Hospital Management

Information System is implemented by the procedures for implementing the hospital management information system and the flow of outpatient services. This research has been attempted and carried out by scientific principles or procedures. However, it is realized that there are still several limitations in carrying out this research. The limitations of the research in question are: The researcher only used two aspects from several aspects contained in Minister of Health Regulation 83 of 2013. To be able to explain the policy implementation process, such as the policy implementation approach from Van Meter and Van Horn.

References

- [1] R. A. Aronowitz, *Making sense of illness: Science, society and disease*. Cambridge University Press, 1998.
- [2] A. Lora et al., "The quality of mental health care delivered to patients with schizophrenia and related disorders in the Italian mental health system. The QUADIM project: a multi-regional Italian investigation based on healthcare utilisation databases," *Epidemiol. Psychiatr. Sci.*, vol. 31, p. e15, 2022.
- [3] V. S. Periyakoil, C. F. von Gunten, D. Check, B. Kaufman, T. L. Maxwell, and J. M. Teno, "Accountable and transparent palliative quality measures will improve care," *J. Palliat. Med.*, vol. 25, no. 4, pp. 542–548, 2022.
- [4] J. Luo, J. Xu, O. Aldosari, S. A. Althubiti, and W. Deebani, "Design and Implementation of an Efficient Electronic Bank Management Information System Based Data Warehouse and Data Mining Processing," *Inf. Process. Manag.*, vol. 59, no. 6, p. 103086, 2022.
- [5] M. Alolayyan et al., "The mediating role of operational Flexibility on the relationship between quality of health information technology and management capability," *Uncertain Supply Chain Manag.*, vol. 10, no. 4, pp. 1131–1140, 2022.
- [6] L. Mucaraku and M. Ali, "Importance of information systems in the healthcare sector," in *2022 International Conference on Computing, Electronics & Communications Engineering (iCCECE)*, 2022, pp. 112–117.
- [7] V. Vaishnavi, M. Suresh, and P. Dutta, "Modelling the readiness factors for agility in healthcare organization: a TISM approach," *Benchmarking An Int. J.*, vol. 26, no. 7, pp. 2372–2400, 2019.
- [8] G. Anwar and N. N. Abdullah, "The impact of Human resource management practice on Organizational performance," *Int. J. Eng. Bus. Manag.*, vol. 5, 2021.
- [9] J. W. Creswell and J. D. Creswell, "Qualitative methods," *Res. Des. Qual. Quant. Mix. methods approaches*, pp. 183–213, 2014.
- [10] J. M. Kohlmeyer III and J. E. Blanton, "Improving IS service quality," *J. Inf. Technol. Theory Appl.*, vol. 2, no. 1, p. 3, 2000.
- [11] R. N. Quarm, "Modelling Queuing system in Healthcare centres. A case study of the dental department of the Essikado Hospital, Sekondi." 2016.
- [12] Y. Sun, Y. Fang, K. H. Lim, and D. Straub, "User satisfaction with information technology service delivery: A social capital perspective," *Inf. Syst. Res.*, vol. 23, no. 4, pp. 1195–1211, 2012.
- [13] M. Khalifa, "Technical and human challenges of implementing hospital information systems in Saudi Arabia," *J. Health Inform. Dev. Ctries.*, vol. 8, no. 1, 2014.
- [14] K. A. Wager, F. W. Lee, and J. P. Glaser, *Health care information systems: a practical approach for health care management*. John Wiley & Sons, 2021.
- [15] Z. Abdussamad, A. Tahir, and I. K. S. Arsana, "ANALISIS TINGKAT KEPUASAN MASYARAKAT DALAM PELAYANAN PUBLIK (STUDI KASUS: DI GORONTALO UTARA)," *Efisiensi Kaji. Ilmu Adm.*, vol. 18, no. 1, pp. 45–62, 2021.
- [16] A. Y. Katili, I. K. S. A. Arsana, E. Rachman, and L. Van Gobel, "ANALYSIS OF IMPLEMENTATION OF NON-SMOKING REGIONAL POLICIES IN A TASK FORCE ENVIRONMENT," in *Proceedings of International Interdisciplinary Conference on Sustainable Development Goals (IICSDGs)*, 2021, vol. 4, no. 1, pp. 74–79.
- [17] F. M. Kimama, "Challenges facing the implementation of hospital management information systems in hospitals in Nairobi." University of Nairobi, 2011.