

# **ANALYSIS OF ATTITUDE AND INTEREST AS INDICATORS OF THE EFFECTIVENESS OF IMPLEMENTING ELECTRONIC SIGNATURES ON THE ELECTRONIC MEDICAL RECORD DOCUMENTS IN IMPROVING THE QUALITY OF SERVICE (Survey Study at Marthen Indey Hospital Jayapura)**

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## **Abstract**

Along with the rapid development of information and communication technology, the health sector continues to transform in terms of management and information. Management of patient data is very important to support diagnostic decision making. Electronic Medical Records (eMR) emerged as a computerized solution for storing demographics, medical data and supporting decisions in making diagnoses. The eMR administration at Health Service Facilities can be equipped with an Electronic Signature (eSig). This signature is used as a verification and authentication tool in recording and documenting clinical information. Implementing the eMR application with eSig in hospitals can help improve the quality of health services and the efficiency of medical data processing. The aim of this research is to find out and analyze in more depth the policies, socialization, effectiveness, attitudes and interests in using eSig in eMR which can improve the quality of patient care. This research is a qualitative descriptive research using direct observation, interviews, documentation and literature. Informants in the research were the Head of the Hospital, doctors, nurses, medical records officers, patients, and experts. The results of research using Nvivo 15 Plus software via Matric Coding and Nodes by Project Map, show that attitudes and interests are influenced by age and socialization with officers. Ages 20-24 years have high attitudes and interest in using eSig in eMR, while ages over 40 years have low attitudes and interest. Socialization is carried out to improve skills that can improve officers' attitudes and interests in using eSig in eMR. High attitudes and interest support the success of implementing eSig on eMR which will improve the quality of service at Marthen Indey Hospital Jayapura.

**Keywords:** *eSig, eMR, attitudes, interests, Health Services*

## **INTRODUCTION**

Electronic Medical Records (eMR) emerged as a computerized solution to address these challenges, storing demographic, medical, and decision-support data in a health information system. The use of EMR involves various aspects, including registration records, polyclinics, inpatient wards, support units, and cashiers.

Although still in the development stage, understanding user perceptions is the main key to achieving successful implementation of eMR and improving the quality of patient care. This is in accordance with the results of previous research by Ariestin in 2022 on the analysis of factors influencing attitudes and intentions to use eMR at PKU Muhammadiyah Hospital, Surakarta. The results of the research that has been conducted show that the lower the risk generated, the higher the attitude and intention to use eMR.

Indonesia has regulations through Law Number 19 of 2016 concerning Electronic Information and Transactions also Government Regulation Number 71 of 2019 concerning the Implementation of Electronic Systems and Transactions, so that the use of electronic transactions must comply with these provisions. "Electronic medical records, which are a manifestation of the use and utilization of information technology in medical records, must comply with these provisions" (Cahyani et al., 2019).

The implementation of eMR in Health Care Facilities can be equipped with Electronic Signatures (eSig). This signature is used as a verification and authentication tool in recording and documenting clinical information. The implementation of eMR applications with eSig in hospitals can help improve the quality of health services and

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the efficiency of medical data processing. The use of eSig in the eMR in Indonesia is still relatively new and has not been widely developed in a number of hospitals. This is due to several factors, such as limited infrastructure and human resources, as well as concerns about the security and privacy of medical data. Improving the security of medical data in eMR applications is an important concern for users and application developers.



Figure 1 Front view of Marthen Indey Hospital, Jayapura

Marthen Indey Hospital Jayapura is a hospital owned by the Indonesian Army under the auspices of the Ministry of Defense of the Republic of Indonesia which has been operating since 1998. Marthen Indey Hospital Jayapura is located at Jalan Diponegoro no 57, Gurabesi Village, North Jayapura District, Jayapura City, Papua Province. Currently, Marthen Indey Hospital Jayapura operates as a type C hospital that has full accreditation by the Indonesian Health Facility Accreditation Institute Number 118 / LAFKI / AKREDITASI / II / 2023.

This study was conducted to determine and understand the attitudes and interests of medical personnel and other health workers, as an indicator of the effectiveness of eSig on the eMR. The researcher has conducted a preliminary study, by conducting an initial survey of 25 medical and non-medical personnel, with the aim of obtaining an initial picture of the attitudes and interests of medical personnel and other health workers in responding to changes in eMR by using eSig.

Table 1 Results of Preliminary Study

No	Question	Yes	No
1	Are you aware that there is a regulation that hospitals must provide digital-based services?	16	9
2	Are you aware of the policy of changing from Sig to eSig?	23	2
3	Is the policy change socialized and explains the ease of using eSig?	25	0
4	Does understanding the use of eSig have any risks?	21	4
5	What is your attitude and interest towards eSig on the eMR?	13	12

From the results of the preliminary study, it can be explained that most medical personnel and other health workers at Marthen Indey Hospital Jayapura have known about the regulations for the digitalization of hospital information and management systems in the form of changing the paper-based medical record system to an electronic-based medical record system, followed by the implementation of the use of electronic signatures in the electronic medical record system. The management of Marthen Indey Hospital Jayapura has socialized the use of digital-based systems since mid-2023, and has started to be implemented in early 2024. The results of the preliminary study showed that around 50% of respondents still do not have a supportive attitude and high interest in using digital-based systems, this is possible because some of the health workers are elderly personnel and do not understand how to use computers or smartphones. The results of the study on the age groups presented in Table 2 show that most age groups aged 25-30 years and 31-40 years still have support for the implementation of eSig on the eMR, while the age group that does not appear to have an interest and supportive attitude is at the age of 51-60

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years. This is likely due to limitations in terms of skills and knowledge in the field of computerization. In addition, at that age there is a lack of interest in changes in the use of digitalization systems. This has an impact on the attitudes shown in the use of electronic medical records.

Table 2 Results of Preliminary Study on Age Groups

No	The problem	Age (in 25 respondents)			
		25-30	31-40	41-50	51-60
1	Knowing that there are regulations that hospitals must be digital-based in providing services	5/5	8/10	2/5	1/5
2	Knowing that there is a policy to change Sig to eSig	5/5	10/10	4/5	4/5
3	Knowing that there is socialization and explanation about the ease of using eSig	5/5	10/10	5/5	5/5
4	Understand the use of eSig has its risks	5/5	10/10	4/5	2/5
5	Have attitude and interest towards eSig on the eMR	5/5	8/10	0/5	0/5

## LITERATURE REVIEW

### Attitudes and Interests of Medical and Non-Medical Personnel in the Use of eSig for eMR Results

The research to be conducted is based on the theory put forward by Abdekhoda (2016) on Perceived Usefulness, Perceived Ease of Use. The theory states that there is an influence between the attitudes of doctors and users of eMR on the use and acceptance of eMR. According to Tubaishat (2018), every user who has a positive perception of a digitalized management system will certainly accept the technology with a positive attitude. This theory is in line with the results of research by Raharjana, Apriyana, and Taufik in 2018 which showed that a perception of benefits and perception of ease of use influenced attitudes towards the use of medical records.

Ariestin's 2022 study showed that attitudes will affect the interest in using eMR. This provides an illustration that the higher the attitude of wanting to use eMR, the stronger the interest of users in using a digitized medical record application system in a hospital. This is also in line with previous research by Kalayou, Endehabtu, and Tilahun (2020), that a high attitude of health professionals will have an impact on the desire or intention to use a digitized hospital management system such as eHealth. According to Tavakoli and Jahanbakhsh (2013), the attitude of application users will have a close relationship with behavioral intentions to use.

The results of Ariestin's (2022) research, in addition to showing interest, also show that the higher the benefits felt by users, the stronger the attitude produced in using digital-based applications. This will also have a long-term impact showing an increase in interest in using eMR. In addition, previous research also shows that the higher the convenience felt by users, the stronger the attitude produced in use, and in the long term it will have an impact on increasing interest in using eMR.

### eSig Effectiveness on the eMR Results Can Improve Service Quality

The eSig system in eMR helps maintain the effectiveness and efficiency of services, and reduces the risk of disease transmission due to long queues. This study will involve the study of information and system characteristics that successfully improve user attitudes and interests in implementing eSig on the eMR at Marthen Indey Hospital, Jayapura. The explanation above provides an overview of the conceptual framework in analyzing the relationship between perceptions of benefits, convenience, risks on attitudes and interests of eSig users in eMR at Marthen Indey Hospital, Jayapura according to Figure 2 which will certainly have an impact on the quality of health services provided to patients.

The quality of service is inseparable from patient satisfaction while receiving health services at the hospital. Patients can feel the level of quality through aspects such as long waiting time, friendly and good attitude of officers, fast service time, easy and fast registration and administration, easy access to use of services, and uncomplicated service flow (Ardiansyah et al., 2021; Agusiandy et al., 2022).

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## METHOD

### Research Approach Perspective

This type of research is qualitative research. Qualitative research is an investigation of social problems with a theoretical approach.

### Research Place

This research was conducted at Marthen Indey Hospital Jayapura which has implemented the use of the eMR system in early 2024 and developed the use of eSig on the eMR starting in mid-2024.

### Research Data Collection Sources and Procedures

The target population of this study is all doctors, nurses, midwives, or health workers who are eSig authenticated and have knowledge or have attended eMR training at Marthen Indey Hospital, Jayapura.

Table 3 SWOT Analysis in Research Planning

INTERNAL FACTORS EXTERNAL FACTORS	STRENGTH	WEAKNESS
	<ol style="list-style-type: none"> <li>1. The research subjects were health workers at the location.</li> <li>2. Facilities and equipment for research are adequate.</li> <li>3. The research was conducted in a short and simple time.</li> </ol>	<ol style="list-style-type: none"> <li>1. There are health workers who cannot use computers.</li> </ol>
OPPORTUNITY	SO	WO
<ol style="list-style-type: none"> <li>1. Development of more advanced hospital information and management systems.</li> <li>2. Engagement with government regulations in health services.</li> </ol>	<ol style="list-style-type: none"> <li>1. The research went well without disrupting patient care activities.</li> <li>2. The research went smoothly because it was supported by various parties.</li> <li>3. Research is fast and cheap.</li> </ol>	<ol style="list-style-type: none"> <li>1. Making efforts to find respondents who are cooperative and understand the use of hospital information and management systems.</li> </ol>
THREAD	ST	WT
<ol style="list-style-type: none"> <li>1. The internet connection and network were cut off in the Jayapura City area.</li> </ol>	<ol style="list-style-type: none"> <li>1. Anticipate by using manual data that has been stored in the hospital's digital archives.</li> <li>2. Always try to conduct research by choosing the right time.</li> </ol>	<ol style="list-style-type: none"> <li>1. Always emphasize on searching for data and respondents according to the internet network conditions at that time.</li> <li>2. Work well according to existing hospital regulations and SOPs so as not to harm patients.</li> </ol>

This type of research is descriptive qualitative and data collection conducted by researchers is observation, interviews, documentation, and literature studies.

- a. Observation is an activity of systematic observation and recording, either directly or indirectly, of the phenomena that occur at Marthen Indey Hospital, Jayapura. The observation method used is a descriptive and frank observation method where the research subjects already know that actual and direct observations will be carried out for research purposes. Observation aims to obtain data from subjects, both those who cannot communicate verbally and those who do not want to communicate verbally.
- b. Interviews are a means of proving information or lack of data collection through questions that have been provided by the researcher. The questions asked are in the form of answers that aim to support previously obtained data. The interview technique used in this study is an in-depth and structured interview. In this study, the researcher will use a structured interview where the answers from the respondents are recorded by the researcher using a questionnaire and documentation. To conduct interviews, the researcher will



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- select each informant who is competent in implementing tangibles, empathy, reliability, responsiveness and assurance.
- c. Documentation is a data collection technique that is shown to the research subjects. Data collection through this technique is used to complement the data obtained from the results of interviews and observations. Based on this documentation analysis, it is expected that the data treated will be truly valid. The documentation instrument in this study is in the form of photographs of observation results so that a visual picture of the process of implementing service quality at Marthen Indey Hospital Jayapura can be obtained.
  - d. Literature study is by searching for literature or library sources including regulatory documents and policies that are in accordance with the problems raised, and the information obtained is used to solve problems related to the research being conducted.

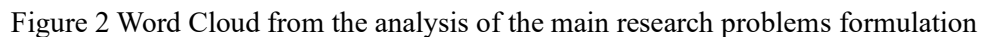
This research is a qualitative descriptive research that is explorative in nature with the aim of obtaining conclusions from the data obtained and analyzed, so that criteria can be compiled from the general description of the hospital as the object of research. Exploratory research is used because it is considered easier and more detailed in obtaining facts and realities so as to know the training needs to optimize the quality of service in the hospital. Data analysis was carried out using the Nvivo 15 Plus application software, through several stages of instrument testing.

## RESULTS AND DISCUSSION

This study was conducted at Marthen Indey Hospital Jayapura located at Jalan Diponegoro no 57 Gurabesi Village, North Jayapura District, Jayapura City, Papua Province. Currently, Marthen Indey Hospital Jayapura operates as a type C hospital. Outpatient services at Marthen Indey Hospital Jayapura are open to all people without exception. Currently, Marthen Indey Hospital Jayapura has provided 29 specialist doctors and 5 general practitioners. Outpatient services are open from 08.00AM in the Obsgyn Polyclinic, Internal Medicine Polyclinic, General Surgery Polyclinic, Children's Polyclinic, Heart and Blood Vessel Polyclinic, Orthopedic Polyclinic, Oncology Polyclinic, Dental and Oral Polyclinic, Urology Polyclinic, ENT Polyclinic, Mental Health Polyclinic, Skin and Venereology Polyclinic, Eye Polyclinic, Medical Rehabilitation Polyclinic, Neurology Polyclinic, Lung Polyclinic, and Executive Polyclinic. Marthen Indey Hospital Jayapura provides inpatient care, namely ICU, Delivery Room, and Surgical Room, as well as MCU. Each inpatient room has a different number of beds. In addition, since Covid-19, Marthen Indey Hospital Jayapura now has an isolation room. An isolation room is a special room that keeps patients with certain medical conditions separate from others.

In this study, researchers took 20 research subjects as informants, 17 of whom worked as employees at Marthen Indey Hospital Jayapura, 2 patients, and 1 expert in the field of medical records. Each research subject was a representative of each work unit involved in electronic signatures and writing electronic medical records. Research subjects were taken based on the availability of the researcher's time and randomly without looking at special criteria. Research subjects taken from employees of Marthen Indey Hospital were those who worked as Head of Hospital, Doctors, Nurses, Midwives, Other Health Workers, and medical records officers. Research subjects who were not hospital employees were experts in the field of medical records and patients. The data presented in this chapter will be described descriptively obtained from the results of interviews, namely on 20 informants. The informants are the Head of Marthen Indey Hospital Jayapura, doctors, nurses, midwives, medical record officers, other health workers, medical record experts, and patients.

The results of the problem analysis can be presented in the form of a word cloud image shown in Figure 2 below. A word cloud is an image or visualization of a collection of statements or words that are often mentioned in the interview results. A word cloud is a topic of the answer to the problem formulation, or sentences from other media.



This study focuses on 6 problem formulations in Marthen Indey Hospital Jayapura. The size of the hierarchy chart is based on the frequency of the emergence of the problem during the interview. The sentence was taken through the coding process on the nodes in the interview text that had been conducted with 20 informants.

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The results of the hierarchy chart in Figure 3 show that all problem formulations have almost the same size, which indicates that all problem formulations have been discussed by informants evenly and in balance. No informant dominates the interview results. This is in accordance with the dominance of letters that are often repeated by informants in the interview documents.

There are 6 problem formulations outlined in the chart hierarchy, namely those related to the regulation of the use of eSig and eMR, socialization carried out to officers regarding the use of eSig in eMR, the attitudes of officers, the interests of officers, the use of eSig on the eMR which has an impact on the flow of patient services, and improving the quality of patient services.

Discussion related to the formulation of the problem put forward by each informant has been presented in the project map presented in Figure 4 in general. While the discussion related to each problem will be presented in a simpler project map. The project map is very helpful in reading the results of the summary of interviews that have been conducted with 20 informants. The analysis will be displayed based on the dominance of letters from the results of the interview with each informant, which is presented in a flowchart. The coding results will show the direction of the arrow which is interpreted as the relationship or correlation between the informant and the formulation of the problem discussed.

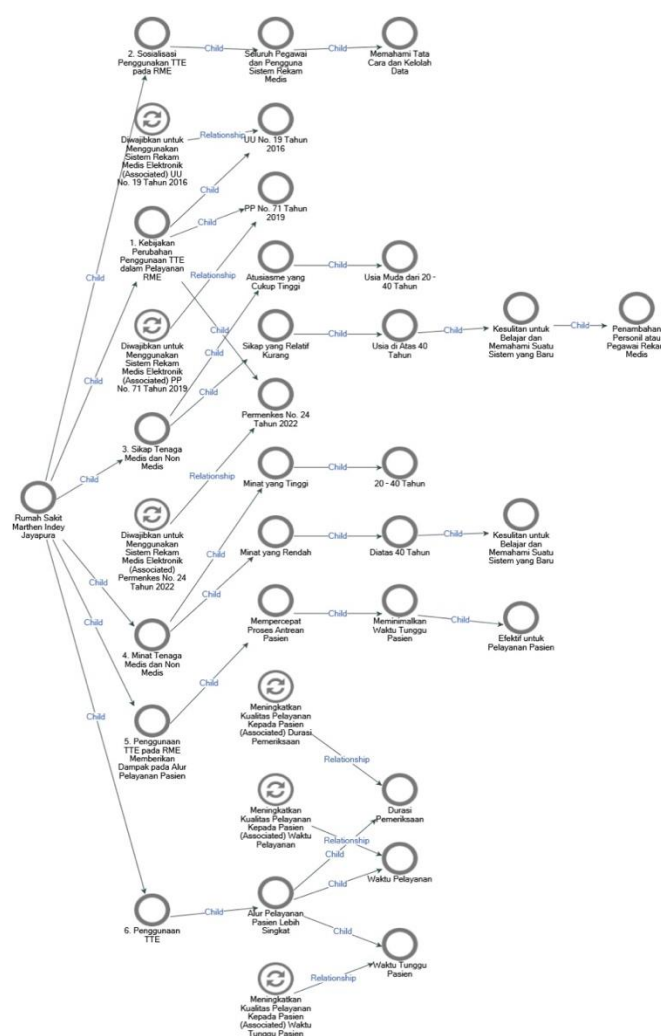


Figure 4 Project map of research on the use of eSig on the eMR documents at Marthen Indey Hospital, Jayapura

The project map results show that all problem formulations have a balanced number of arrow directions according to the discussion in interviews with all informants, which shows that all problem formulations have been discussed by informants evenly and in balance. This is in accordance with the dominance of letters that are often repeated by informants in the interview document.

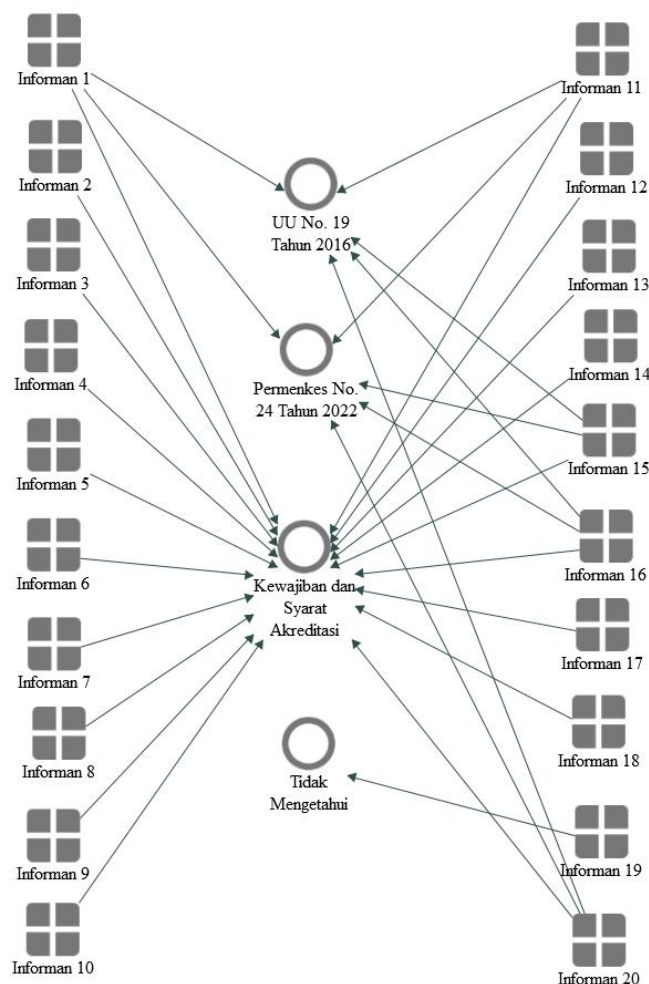


Figure 5 Project map related to knowledge about eSig and eMR regulations at Marthen Indey Hospital, Jayapura

The results of the project map in Figure 5 show that the formulation of the problem related to knowledge of eSig and eMR regulations is dominant. Most informants know the regulations regarding changes to the digitalization system. Only 1 informant did not know about this. Thus, it can be assumed that most officers at Marthen Indey Hospital Jayapura know and understand government regulations and laws related to eSig and eMR. This is in accordance with the dominance of letters that are often repeated by informants in the interview documents.

Project map is a visualization tool used to explore ideas and display connections between data. Project map is a graphical representation of various items that have been created in the research (Bazeley and Jackson, 2015). In this stage, researchers create an analysis map of coding, cases, and related source data to display the data process flow and the relationship of each data that has been carried out by researchers from the beginning to the end of the process.

Data obtained from interviews with 20 informants at Marthen Indey Hospital, Jayapura, were collected for analysis using Nvivo 15 Plus. The results of the analysis are presented in the form of a project map. This project map will help researchers to see the relationship between each informant and the problem formulation discussed in the study. In addition, it can also see how often each informant raises things that are considered important. The important things in question are words such as eSig, eMR, government regulations and rules or legislation, socialization, service flow, and quality of patient care.



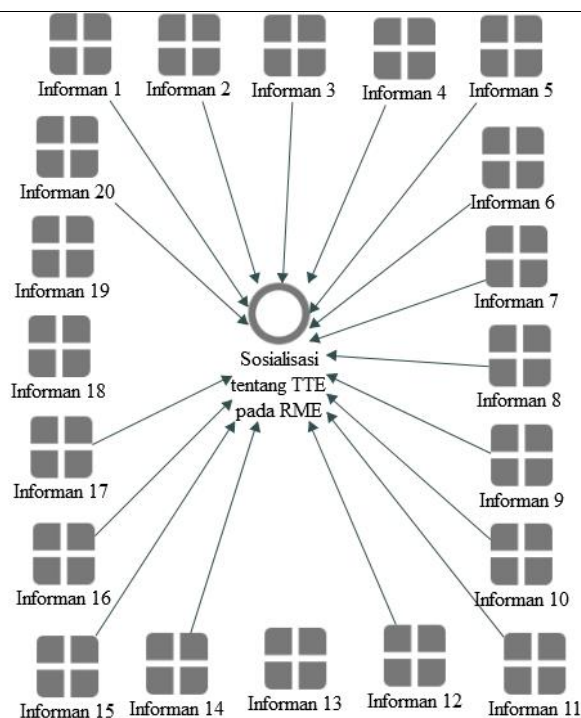


Figure 6 Project map related to socialization of the use of eSig and eMR at Marthen Indey Hospital, Jayapura

The results of the project map in Figure 6 show that all problem formulations have almost the same size, which indicates that all problem formulations related to the socialization of the use of eSig and eMR have been discussed by informants evenly and in balance. There are only 3 informants who do not know about the socialization activities carried out at Marthen Indey Hospital Jayapura. The results of the arrows illustrate the dominance of letters that are often repeated by the 17 informants contained in the interview document.

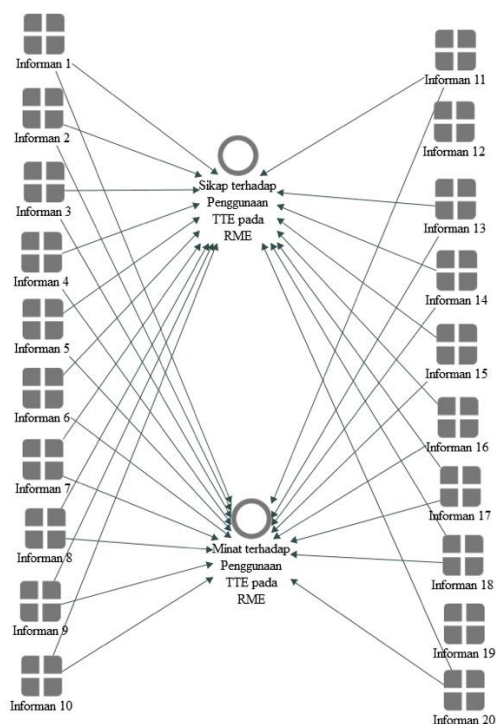


Figure 7 Project map related to attitudes and interests towards the use of eSig and eMR at Marthen Indey Hospital, Jayapura

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The results of the project map in Figure 7 show that the formulation of the problem related to attitudes and interests in the use of eSig and eMR has balanced results. All informants discussed attitudes and interests simultaneously. This shows that all informants have high attitudes and great interest in implementing the use of eSig on the eMR documents at Marthen Indey Hospital, Jayapura. This is in accordance with the dominance of letters that are often repeated by the 20 informants contained in the interview document.

Attitude is a response or reaction to a stimulus of an object, siding or not siding, positive or negative towards various social circumstances. While interest is a sense of interest shown in an object, either animate or inanimate. This is in the form of a desire from within towards something desired (Putri and Rifai, 2019).

Most informants according to the results of the Nvivo analysis showed a positive attitude and interest in the use of eSig on the eMR. It can be seen from the project map in Figure 6 which shows 18 out of 20 informants have an arrow image on the attitude and interest nodes. This can be assumed that the attitude and interest of officers at Marthen Indey Hospital are very high in implementing the use of eSig on the eMR.

Figure 8 shows the results of the project map related to the impact of the use of eSig and eMR on the flow of patient services and the quality of patient services, showing that most informants stated in interviews that action needs to be taken so that the implementation of eSig on the eMR at Marthen Indey Hospital, Jayapura can run well. Several things that can hinder the implementation of eSig on the eMR at Marthen Indey Hospital, Jayapura include the presence of officers with a relatively senior age who do not have the skills to operate computers, internet networks that often go down, eMR applications that are difficult and incomplete, and officers who feel they are not yet accustomed to the flow of services with a digital-based system. To deal with these things, Marthen Indey Hospital, Jayapura has done several things such as officer regeneration, adding internet quotas, adapting technology, and adding features to the eMR application.

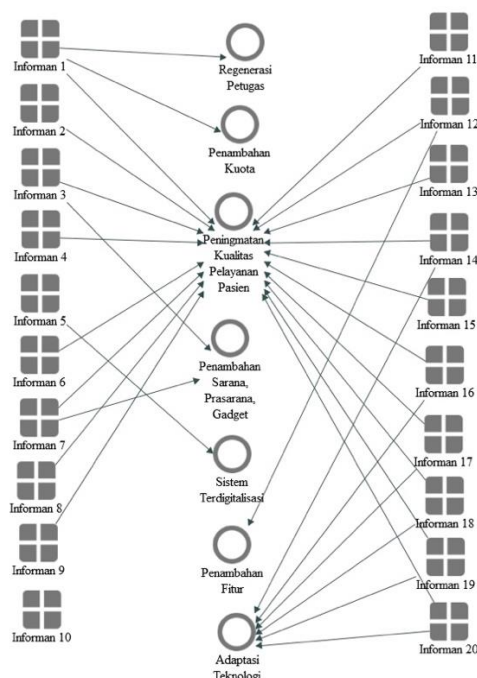


Figure 8 Project map related to the impact of the use of eSig and eMR on the flow of patient services and the quality of patient services at Marthen Indey Hospital, Jayapura

According to Sartika and Gunawan (2021), the eMR system will help shorten patient service time. Searching for data during registration, filling out documents during examination, until the patient finishes taking medication, becomes faster with a digitalized system. This is in line with what is implemented at the Marthen Indey Jayapura Hospital. In accordance with Figure 8, it has been explained that most informants stated that the eSig system on the eMR would improve the quality of patient service. The obstacles faced in implementing eSig on the eMR at the Marthen Indey Jayapura Hospital can be anticipated by regenerating officers, adapting technology, adding features to the eMR, adding internet network quotas at the hospital, adding facilities and infrastructure including computers and gadgets.

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Regeneration of officers is very important. This is very dependent on the work program of Marthen Indey Jayapura Hospital in the field of personnel. The addition of younger officers with computer skills can help in the implementation of eSig on the eMR, so that the work program can run optimally.

Adding internet quota is a very important part. Contributing to providing a wider network because it is to anticipate the occurrence of lost signal for several days in Jayapura City. The occurrence of lost internet network is very disruptive to the running of eMR. Adding internet quota is expected to be able to mitigate irresponsible incidents.

Technology adaptation has been done by participating in socialization and short training organized by internal parties of the hospital or external parties. Socialization aims to increase insight and knowledge of officers. Socialization has provided information on how to use eSig on the eMR.

The addition of features is done to complete some aspects of the menu that are still lacking in the eMR application. The addition of features is done according to the needs and uses that exist in the menu list in the eMR application. Thus, the eMR application will be better.

The overall results of Nvivo analysis show very good results. Mostly, each aspect of the problem formulation has been discussed by the informants with almost the same results. This broadly shows that all problem formulations have been discussed by the informants evenly and in balance according to the dominance of letters that are often repeated by the informants contained in the interview documents.

By using the Project Map feature on Nvivo, it can make it easier for researchers to provide explanations related to one topic regarding informant opinions, including:

1. The regulations underlying the document digitization process at Marthen Indey Hospital Jayapura are Law No. 19 of 2016, PP No. 71 of 2019, and Permenkes No. 24 of 2022.
2. Socialization is carried out to provide understanding regarding the procedures for using eSig and eMR.
3. High attitudes are shown in medical and non-medical personnel aged 20-40 years.
4. Low attitudes are shown in medical and non-medical personnel who are over 40 years old.
5. High interest was shown in medical and non-medical personnel aged 20-40 years.
6. Low interest was shown in medical and non-medical personnel who were over 40 years old.
7. The use of eSig on the eMR has an impact on patients, especially on the flow of patient services. Matters related to patient services include service time, examination duration, and patient waiting time.
8. The use of eSig on the eMR will improve the quality of patient services at Marthen Indey Hospital, Jayapura.

From the description above, it can be explained briefly that the use of eSig on the eMR cannot be separated from the attitudes and interests of the officers. Officers are given socialization from the hospital so that they understand the use of eSig on the eMR according to laws and regulations and government regulations. The use of eSig on the eMR will be more effective in improving the quality of patient care.

## CONCLUSION

The conclusion obtained from the research conducted at Marthen Indey Hospital, Jayapura is

1. The policy of changing the use of Sig to become eSig on the eMR services refers to the regulation of Law No. 19 of 2016, which is a replacement for the ITE Law, namely Law No. 11 of 2008, which is strengthened by the PP concerning the Implementation of Electronic Systems and Transactions, namely PP No. 71 of 2019. The implementation of the eMR itself is guided by Permenkes No. 24 of 2022 concerning Medical Records. Health facilities are currently required to use an electronic medical record system.
2. The socialization of the use of eSig on the eMR has been carried out by the Board of Directors of Marthen Indey Hospital Jayapura with the aim that all employees and users of the medical record system can understand the procedures and management of medical record data digitally before the implementation process is carried out in the field.
3. The attitude of medical and non-medical personnel towards the policy of using eSig on the eMR shows quite high enthusiasm, this is seen in employees with a young age range of 20-40 years. In the age range above 40 shows a relatively poor attitude. The factor that causes it is usually because at that age it is very difficult to learn and understand a new system. Anticipation of this is the addition of personnel or medical record employees who help operate the system. For senior doctors who have difficulty using the system, they will be assisted in filling out medical records by the nurse on duty in the room.
4. The interest of medical and non-medical personnel in the policy of using eSig on the eMR shows the same thing as the attitude, which is quite high, especially for employees with a young age range of 20-40 years.

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In the age range above 40, there is relatively less interest. The factors that cause it are in line with the attitude aspect, this happens because at that age it is very difficult to learn and understand a new system. Anticipation of this is the addition of personnel or medical record employees who help operate the system. For senior doctors who have difficulty using the system, they will be assisted in filling out medical records by the nurse on duty in the room. The process of using eSig on the eMR in patient care continues to run well.

5. The use of eSig on the eMR has an impact on the flow of patient services. The digitalization system can speed up the patient queue process. Writing medical records and the signing process can be done with a computer or gadget so that officers do not need to bring paper medical records to the rooms. This minimizes patient waiting time, so the use of a digitalized system is very effective for patient services.
6. The use of eSig can improve the quality of service to patients. This is based on a shorter patient service flow. The digitalization system allows doctors to check and sign the results of examinations such as radiology, laboratory, or other examinations digitally. This process will shorten the service time and duration of the examination, so that the patient's waiting time is faster. Thus, of course, patients will receive services faster from each installation at the Marthen Indey Hospital Jayapura.



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