



## Performance Evaluation of Hospital Management Information System (SIMRS) HI Manambai Abdulkadir on User Satisfaction Using Pieces Analysis (Performance, Information, Economic, Control, Efficiency, Service)

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### **Abstract**

The purpose of this study is to evaluate the use of SIMRS at HL Manambai Abdulkadir Hospital based on user satisfaction perceptions using the PIECES method with a Likert scale approach and provide innovations so that SIMRS at HL Manambai Hospital can be better. Based on the results of the study, the level of satisfaction in the aspects of Performance was 3.61, which means that respondents were satisfied with the use of SIMRS, on the information aspect of 3.62, which meant that respondents were satisfied with the use of SIMRS, and the level of satisfaction of respondents in the economic aspect was 3.64%, which means respondents are satisfied with the use of SIMRS, the level of satisfaction of respondents in the control aspect is 3.7% which means that the respondents are satisfied with the use of SIMRS, the level of satisfaction of respondents in the efficiency aspect is 3.8% which means that the respondents are satisfied with the use of SIMRS, and the level of satisfaction of respondents on the aspects of service of 3.9% which means that respondents are satisfied with the use of SIMRS. While the innovations that need to be carried out by the hospital in order to improve SIMRS Performance and increase SIMRS user satisfaction are increasing the number of outputs produced by SIMRS, increasing the usefulness of SIMRS in helping the work process so that there are no more physical files that must be filled out manually on paper. before being input into the system, providing regular training from experts formally and being able to clarify the appearance of the menu that looks small on the screen.

**Keywords:** *SIMRS, Hospital; PIECES; Evaluation; Perception of Satisfaction*

### **Introduction**

In the current era of globalization, the need for information is increasing rapidly, along with the development and progress of information technology. Making use of information systems by agencies or companies as a tool to meet information needs quickly, timely, relevantly and accurately. With the application of information systems in various fields, it is a must to be able to utilize information as a basis for administration and data processing. With the intention of meeting these needs, every agency or company needs to implement activities related to computer-based application systems aimed at solving problems faster.(Gisnawan, 2017).

The hospital as one of the health service institutions by assigning various units of personnel who are trained and educated in dealing with and dealing with various medical problems to restore and maintain health. Currently the application of information technology has a very important role in health services. One of the important factors for the success of health care institutions is the application of information technology systems in health services (Setyawan D, 2016).

The application of information systems in hospitals is very necessary because it can facilitate access to the services provided, so that the administrative process can run optimally for health development providers by the government and the private sector in improving the quality of services in hospitals. This is in line with the regulation of the Minister of Health of the Republic of Indonesia no. 1171/MENKES/PER/VI/2011 which states that every hospital is obliged to implement a hospital information system (Bayu & Izzati, 2013). In general, the hospital information system aims to synchronize data information systems from various subsystems in collecting, presenting and managing data in the hospital so that it can produce the information needed in decision making by the hospital. But the fact is that at this time there are many hospitals that are not aware of the importance of data processing in hospitals, which are very large and not well structured, so that it has an impact on hospital services that do not run optimally.

The application of a computerized information system has advantages, namely in terms of speed and accuracy in managing data, and can minimize errors that occur. Hospital management information system or called SIMRS is a computerized system capable of processing data quickly, accurately and able to produce a collection of information that interacts to provide information to all management in the hospital. The results of information from data that have been processed are in the form of reports that can be used by users as a reference in making decisions to improve health services (Setiawan & Tapestry, 2016).

Efforts to implement an information system in hospitals are a step forward that needs to be implemented in solving hospital challenges that are very complex in the current era of globalization. If development is carried out late, it will have an impact on being left behind in meeting the needs of the community, so that it will be out of date. Today, several hospitals have started to implement SIMRS. This is because hospitals are always required to improve services to the community in the form of increasing hospital accreditation. However, the implementation of SIMRS is still experiencing many failures, especially the implementation of SIMRS at the HL Manambai Abdulkadir hospital. One of the problems based on the main tasks and functions faced by the H. (Kurniawan, 2019). In addition, the hospital has formulated anticipatory policies and steps to be taken, namely the development of SIMRS to be able to provide speed and improve the quality of service to patients. In addition, the hospital plans to improve and develop information technology (IT) that is effective, efficient and meets standards in order to smooth and accelerate information services. Based on observations made in the field, there are still internal problems, namely the pros and cons of implementing SIMRS, namely the assumption that SIMRS can slow down work and others, besides that employees are not compliant in carrying out inputting, and the unavailability of human resources who are experts in the field of information technology. capable of managing SIMRS. During the establishment of the H.

Based on the problems above, it is necessary to conduct an evaluation study on user satisfaction in the application of SIMRS at the HL Manambai Abdulkadir hospital to find out the advantages and disadvantages of SIMRS which have been implemented based on the perception of user satisfaction. The method used to analyze this is the PIECES method which stands for Performance, Information, Economic, Control, Efficiency, Service. This method will examine SIMRS in five aspects, namely performance aspects, information aspects, economic aspects, security aspects, efficiency aspects and service aspects based on user satisfaction perceptions with a Likert scale approach. (Riana, 2006).

## **Method**

This research is a quantitative descriptive study with a Likert scale approach, which is a type of research that is able to provide a description of user perceptions of the information system or SIMRS applied in HL Manambai Abdulkadir Hospital.

The research population is all staff, employees and health workers who act as SIMRS users in HL Manambai Abdulkadir hospital, totaling 125 people. The number of research samples amounted to 58 people who were determined by random sampling. Determination of the number of research samples using the Slovin . formula

The data used in this study is data on user perceptions of SIMRS obtained by submitting a questionnaire to the sample/subject of the study. Where the user's perception is assessed using a Likert scale which is grouped into five groups of answers, namely very good to very bad. The questionnaire consists of six groups of questions, namely Performance, Information, Economic, Control, Efficiency, Service.

Sources of data in this study are grouped into two, namely primary data and secondary data. Primary data were obtained from the results of filling out questionnaires by respondents regarding SIMRS in Indonesia HL Manambai Abdulkadir Hospital. In addition, primary data is also obtained from observations of hardware in running SIMRS. While the selected respondents are workers who are directly and indirectly involved in using SIMRS at the HL Manambai Abdulkadir hospital. Secondary data is data obtained to support primary data in obtaining an overview of the implementation of SIMRS in Indonesia HL Manambai Abdulkadir Hospital. Secondary data required is the organization's mission statement, policies regarding SIMRS, standard procedures regarding the use of SIMRS, organizational structure, description of the duties of each personnel in the medical record department and guidelines for implementing computer-based SIMRS. The secondary data was obtained from the medical record section

The tools used to achieve the objectives of this research in collecting data are questionnaires (based on the PIECES method), the questionnaires used are based on questionnaires that have been used by Riana (2006) previously. The technique used for data collection in this study was divided into three, namely questionnaires, interviews and observations. This technical data collection is done by giving questionnaires to all respondents who use SIMRS from the Planning and Finance Subdivision, General and Human Resources Subdivision, RT and Equipment Subdivision, Medical Services Section, Non-Medical Support Section, Nursing Planning and Development Section, to the Services Section. Nursing. The questionnaire includes employee opinions and perceptions about SIMRS that have been implemented so far. In-depth interviews were conducted on respondents who answered the lowest score on the questionnaire. Observations were made on daily activities by respondents to find out how the SIMRS operationalization had been implemented so far.

The type of data analysis method used is descriptive quantitative method, which aims to assess the performance of information systems regarding user satisfaction with the implementation of SIMRS that is being applied. First, the data from the questionnaire will be analyzed for validity and reliability using IMB SPSS Statistics 25. Furthermore, data regarding user perceptions of SIMRS will be statistically analyzed with the help of IMB SPSS Statistics 25. The research data are presented in the form of values contained on the Likert scale and frequency distribution. After knowing the respondent's perception, the respondent's opinion can be used as consideration to improve the performance of the SIMRS that is being used.

## Results and Discussion

### User Perception Based on Information Aspect (I)

Based on the data from the questionnaire, the data obtained from the user's perception of the information aspect of 58 respondents who answered 4 question items, a tabulation table of the information variables can be arranged which is presented in Table 1.

**Table 1.** Information variable

Information					
Answer score	1	2	3	4	5
Total answers	0	24	52	142	14

Based on Table 1, it can be determined the level of respondents' satisfaction with the use of SIMRS from the information aspect, namely:

$$JK = \frac{(1 \times 0) + (2 \times 24) + (3 \times 52) + (4 \times 142) + (5 \times 14)}{58 \times 4} = 3,62$$

Based on the above calculations on the information aspect obtained a value of 3.62, it can be concluded that the respondents were satisfied with the information aspect with the implementation of SIMRS.

#### 1. Description of Respondents Perception Regarding SIMRS Work Accuracy

Based on the results of processing questionnaire data using SPSS, respondents' perceptions of the accuracy of SIMRS work are obtained which are presented in Table 4.14 as follows.

**Table 2.** Respondents' perception of SIMRS' work accuracy

Division	Very Inaccurate		Careless		Somewhat Careful		Be careful		Very Thorough		Total	
	F	%	F	%	F	%	f	%	F	%	F	%
financial planning subsection	0	0%	0	0%	2	50%	2	50%	0	0%	4	100%
medical service section	0	0%	4	25%	6	37.5%	6	37.5%	0	0%	16	100%
non-medical support section	0	0%	0	0%	1	8.3%	10	83.3%	1	83.3%	12	100%
nursing service section	0	0%	0	0%	7	26.9%	19	73.1%	0	0%	26	100%
Total	0	0%	4	6.9%	16	27.6%	37	63.8%	1	1.7%	58	100%

Based on Table 2, the largest total percentage is 63.8% from all divisions stating that SIMRS performance has been thorough. In medical services, there are 25% who feel that the SIMRS performance is still not accurate, while 37.5% say that SIMRS is thorough.

#### 2. Description of Respondents Perception Regarding the Conformity of SIMRS Results with Information Needs

Based on the results of processing the questionnaire data using SPSS, the respondents' perceptions of the suitability of the SIMRS output with the information needs are presented in Table 3.

Table 3. Respondents' perceptions regarding the suitability of SIMRS output with information needs

Division	Very Incompatible		It is not in accordance with		Fairly Appropriate		In accordance		Very Suitable		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
financial planning subsection	0	0%	1	25%	1	25%	2	50%	0	0%	4	100%
medical service section	0	0%	4	25%	5	31.3%	7	43.8%	0	0%	16	100%
non-medical support section	0	0%	1	8.3%	1	8.3%	7	58.3%	3	25%	12	100%
nursing service section	0	0%	0	0%	7	26.9%	19	73.1%	0	0%	26	100%
Total	0	0%	6	10.3%	14	24.1%	35	60.3%	3	5.2%	58	100%

Based on Table 3, it is obtained that the largest total percentage is 60.3% of all divisions stating SIMRS output with information needs is appropriate. In the financial planning sub-section there are 25% who feel that the output of SIMRS with information needs is not appropriate, but as many as 50% of respondents stated that the output of SIMRS with information needs is appropriate.

### 3. Description of Respondents' Perceptions regarding the Suitability of the SIMRS Output Display

Based on the results of processing questionnaire data using SPSS, respondents' perceptions of the suitability of the SIMRS output display are obtained which are presented in Table 4.

Table 4. Respondents' perceptions of the suitability of the SIMRS output display

Division	Very Incompatible		It is not in accordance with		Fairly Appropriate		In accordance		Very Suitable		Total	
	F	%	F	%	F	%	f	%	F	%	F	%
financial planning subsection	0	0%	0	0%	1	25%	3	75%	0	0%	4	100%
medical service section	0	0%	6	37.5%	3	18.8%	7	43.8%	0	0%	16	100%
non-medical support section	0	0%	0	0%	1	8.3%	6	50%	5	41.7%	12	100%
nursing service section	0	0%	1	3.8%	6	23.1%	18	69.2%	1	3.8%	26	100%
Total	0	0%	7	12.1%	11	19%	34	58.6%	6	10.3%	58	100%

Based on Table 4, the largest total percentage is 58.6% from all divisions stating SIMRS output display is appropriate. In medical services there are 20% who feel that the SIMRS output display is not appropriate, but as many as 37% of respondents stated that the SIMRS output display is appropriate.

### 4. Description of Respondents Perception Regarding Data Storage on SIMRS as Needed

Based on the results of questionnaire data processing using SPSS, respondents' perceptions of data storage on SIMRS were obtained according to the respondents' needs which are presented in Table 5.

Table 5. Respondents' perception of the suitability of data storage on SIMRS

Division	Very Incompatible		It is not in accordance with		Fairly Appropriate		In accordance		Very Suitable		Total	
	F	%	F	%	F	%	f	%	F	%	F	%
financial planning	0	0%	0	0%	0	0%	4	100%	0	0%	4	100%

Division	Very Incompatible		It is not in accordance with		Fairly Appropriate		In accordance		Very Suitable		Total	
	F	%	F	%	F	%	f	%	F	%	F	%
subsection												
medical service section	0	0%	5	31.3%	5	31.3%	6	37.5%	0	0%	16	100%
non-medical support section	0	0%	0	0%	0	0%	8	66.7%	4	33.3%	12	100%
nursing service section	0	0%	1	3.8%	6	23.1%	19	73.1%	0	0%	26	100%
Total	0	0%	6	10.3%	11	19%	37	63.8%	4	6.9%	58	100%

Based on Table 5, the largest total percentage is 63.8% from all divisions stating data storage on SIMRS has been in accordance with the needs. In medical services, there are 31.3% who feel that data storage on SIMRS does not match their needs.

### User Perception Based on Economic Aspect (E)

Based on the data from the questionnaire, the user perception data on the economic aspect was obtained from 58 respondents who answered 4 question items, a tabulation table of the economic aspects can be compiled which is presented in Table 6.

**Table 6. Economic aspect**

Economy					
Answer score	1	2	3	4	5
Total answers	2	15	33	118	6

Based on Table 6, it can be determined the level of respondents' satisfaction with the use of SIMRS from the economic aspect, namely:

$$JK = \frac{(1 \times 2) + (2 \times 15) + (3 \times 33) + (4 \times 118) + (5 \times 6)}{58 \times 3} = 3,64$$

Based on the above calculation on the economic aspect obtained a value of 3.64, it can be concluded that respondents are satisfied with the economic aspect with the implementation of SIMRS.

#### 1. Description of Respondents' Perceptions Regarding Program Development at SIMRS

Based on the results of processing questionnaire data using SPSS, respondents' perceptions of program development at SIMRS were obtained which are presented in Table 7.

**Table 7. Respondents' perception of SIMRS program development**

Division	A huge amount		Lots		quite a lot		a little		The least		Total	
	F	%	f	%	F	%	f	%	f	%	F	%
financial planning subsection	0	0%	2	50%	0	0%	2	50%	0	0%	4	100%
medical service section	0	0%	0	0%	3	18.8%	13	81.3%	0	0%	16	100%
non-medical support section	0	0%	1	8.3%	1	8.3%	10	83.3%	0	0%	12	100%
nursing service section	0	0%	6	23.1%	1	3.8%	17	65.4%	2	7.7%	26	100%
Total	0	0%	9	15.5%	5	8.6%	42	72.4%	2	3.4%	58	100%

Based on Table 7, the largest total percentage is 72.4% from all divisions stating that there is a need for a lot of program development on SIMRS. In the financial planning sub-section there are 50% who propose a little development on SIMRS.

## 2. Description of Respondents Perception Regarding SIMRS Development Costs

Based on the results of processing questionnaire data using SPSS, respondents' perceptions of the costs of developing the SIMRS system were obtained which are presented in Table 8.

Table 8. Respondents' perception of SIMRS development costs

Division	A huge amount		Lots		quite a lot		A little		The least		Total	
	F	%	F	%	F	%	f	%	f	%	F	%
financial planning subsection	0	0%	0	0%	1	25%	3	75%	0	0%	4	100%
medical service section	0	0%	0	0%	3	18.8%	12	75%	1	6.3%	16	100%
non-medical support section	0	0%	1	8.3%	2	16.7%	9	75%	0	0%	12	100%
nursing service section	0	0%	0	0%	8	30.8%	18	69.2%	0	0%	26	100%
Total	0	0%	1	1.7%	14	24.1%	42	72.4%	1	1.7%	58	100%

Based on Table 8, the largest total percentage is 72.4% from all divisions stating that it takes a lot of money to develop SIMRS.

## 3. Description of Respondents' Perceptions Regarding the Number of HR Development of SIMRS

Based on the results of processing questionnaire data using SPSS, respondents' perceptions of the number of HR in SIMRS development are obtained which are presented in Table 9.

Table 9. Respondents' perceptions of the number of human resources in SIMRS development

Division	A huge amount		Lots		quite a lot		A little		The least		Total	
	F	%	F	%	F	%	f	%	F	%	f	%
financial planning subsection	1	25%	0	0%	1	25%	2	50%	0	0%	4	100%
medical service section	0	0%	0	0%	5	31.3%	11	68.8%	0	0%	16	100%
non-medical support section	0	0%	2	16.7%	1	8.3%	9	75%	0	0%	12	100%
nursing service section	0	0%	2	7.7%	7	26.9%	14	53.8%	3	11.5%	26	100%
Total	1	1.7%	4	6.9%	14	24.1%	36	62.1%	3	5.2%	58	100%

Based on Table 9, the largest total percentage is 62.1% from all divisions stating that a lot of human resources are needed in SIMRS development. In the financial planning sub-section there are 25% who propose a very small number of human resources in SIMRS development.

### User Perception Based on Aspect of Control (C)

Based on the data from the questionnaire, the user perception data on the control aspect was obtained from 58 respondents who answered 4 question items, a tabulation table for the control aspect can be arranged which is presented in Table 10.

Table 10. control aspect

Control					
Answer score	1	2	3	4	5
Total answers	0	12	22	70	12

Based on Table 10 and equation (2.1) it can be determined the level of respondents' satisfaction with the use of SIMRS from the control aspect, namely:

$$JK = \frac{(1 \times 0) + (2 \times 12) + (3 \times 22) + (4 \times 70) + (5 \times 12)}{58 \times 2} = 3,7$$

Based on the above calculation on the control aspect obtained a value of 3.62, it can be concluded that the respondents were satisfied with the control aspect with the implementation of SIMRS.

#### 1. Description of Respondents' Perceptions regarding the Suitability of Access Restrictions on SIMRS

Based on the results of processing the questionnaire data using SPSS, the respondents' perceptions regarding the access limits to SIMRS are obtained which are presented in Table 11.

Table 11. Respondents' perceptions of the suitability of SIMRS access limits

Division	Very Incompatible		It is not in accordance with		Fairly Appropriate		In accordance		Very Suitable		Total	
	f	%			F	%	f	%	f	%	F	%
financial planning subsection	0	0%	1	25%	1	25%	2	50%	0	0%	4	100%
medical service section	0	0%	5	31.3%	1	6.3%	10	62.5%	0	0%	16	100%
non-medical support section	0	0%	0	0%	2	16.7%	6	50%	4	33.3%	12	100%
nursing service section	0	0%	1	3.8%	8	30.8%	17	65.4%	0	0%	26	100%
Total	0	0%	7	12.1%	12	20.7%	35	60.3%	4	6.9%	58	100%

Based on Table 11, the largest total percentage is 60.3% from all divisions stating that the access restrictions on SIMRS are appropriate. In the financial planning sub-section there are 25% who feel that access restrictions are still very inappropriate, but there are 50% who say Access restrictions on SIMRS are appropriate.

#### 2. Description of Respondents' Perceptions Regarding Data Security on SIMRS

Based on the results of questionnaire data processing using SPSS, respondents' perceptions of data security on SIMRS were obtained which are presented in Table 12.



Table 12. Respondents' perceptions of data security on SIMRS

Division	Very Unsafe		Not safe		Somewhat Safe		Safe		Very safe		Total	
	f	%	f	%	F	%	f	%	f	%	F	%
financial planning subsection	0	0%	0	0%	1	25%	3	75%	0	0%	4	100%
medical service section	0	0%	4	25%	2	12.5%	8	50%	2	12.5%	16	100%
non-medical support section	0	0%	0	0%	0	0%	7	58.3%	5	33.3%	12	100%
nursing service section	0	0%	0	0%	7	26.9%	17	65.4%	0	0%	26	100%
Total	0	0%	4	6.9%	10	17.2%	35	60.3%	9	15.5%	58	100%

Based on Table 12, the largest total percentage is 60.3% from all divisions stating that the data security at SIMRS is safe. In the financial planning subsection there are 25% who feel they are not safe but there are 50% who say data security on SIMRS is safe.

### User Perception Based on Aspect of Efficiency (E)

Based on the data from the questionnaire, data on user perceptions of the efficiency aspect were obtained from 58 respondents who answered 4 question items, a tabulation table of the efficiency aspect can be drawn up which is presented in Table 13.

Table 13. Efficiency aspect

Efficiency					
Answer score	1	2	3	4	5
Total answers	0	4	45	97	28

Based on Table 13, it can be determined the level of respondents' satisfaction with the use of SIMRS from the efficiency aspect, namely:

$$JK = \frac{(1 \times 0) + (2 \times 4) + (3 \times 45) + (4 \times 97) + (5 \times 28)}{58 \times 3} = 3,8$$

Based on the above calculation on the efficiency aspect, it can be concluded that the respondent is satisfied with the efficiency aspect with the implementation of SIMRS.

#### 1. Description of Respondents Perception Assisted in Decision Making

Based on the results of processing questionnaire data using SPSS, the perception of helping or not making decisions with SIMRS is obtained which is presented in Table 14.

Table 14. Respondents' perceptions of the suitability of SIMRS access limits

Division	Yes		Not		Total	
	F	%	F	%	F	%
financial planning subsection	4	100%	0	0%	4	100%
medical service section	9	56.3%	7	43.8%	16	100%
non-medical support section	12	100%	0	0%	12	100%
nursing service section	21	80.8%	5	19.2%	26	100%
Total	46	88.9%	12	20.7%	58	100%

Based on Table 14, the largest total percentage is 88.9% from all divisions stating that the use of SIMRS can help decision making, the remaining 20.7% feel not.

#### 2. Description of Respondents' Perceptions of Using SIMRS in Work So Efficient and Effective

Based on the results of processing questionnaire data using SPSS, the perception that using SIMRS is that the work is efficient and effective is presented in Table 15.

Table 15. Respondents' perceptions of the suitability of SIMRS access limits

Division	Yes		Not		Total	
	F	%	F	%	F	%
financial planning subsection	4	100%	0	0%	4	100%
medical service section	10	62.5%	6	37.5%	16	100%
non-medical support section	12	100%	0	0%	12	100%
nursing service section	23	88.5%	3	11.5%	26	100%
Total	49	84.5%	9	15.5%	58	100%

Based on Table 15, the largest total percentage is 84.5% from all divisions stating that by using SIMRS work becomes efficient and effective the remaining 8.9% feel no.

### 3. Description of Respondents Perception Regarding Ease of Correction on SIMRS

Based on the results of processing questionnaire data using SPSS, respondents' perceptions of the ease of correction on SIMRS are obtained which are presented in Table 16.

Table 16. Respondents' perception of the ease of correction on SIMRS

Division	Very difficult		Difficult		Kinda easy		Easy		Very easy		Total	
	f	%	F	%	F	%	f	%	f	%	F	%
financial planning subsection	0	0%	0	0%	0	0%	4	100%	0	0%	4	100%
medical service section	0	0%	0	0%	9	56.3%	7	43.8%	0	0%	16	100%
non-medical support section	0	0%	0	0%	0	0%	5	41.7%	7	58.3%	12	100%
nursing service section	0	0%	1	3.8%	8	30.8%	15	57.7%	2	7.7%	24	100%
Total	0	0%	1	1.7%	17	29.3%	31	53.4%	9	15.5%	58	100%

Based on Table 16, the largest total percentage is 63.4% from all divisions stating that it is easy to make corrections on SIMRS. In the nursing service section there are 3.8% who feel it is not easy but there are 57.7% who say easy to make corrections on SIMRS.

### 4. Description of Respondents' Perceptions Regarding Ease of Tracing Errors When Inputting on SIMRS

Based on the results of questionnaire data processing using SPSS, respondents' perceptions of the ease of tracking errors when inputting to SIMRS were obtained, which are presented in Table 17.

Table 17. Respondents' perceptions of the ease of tracing input errors on SIMRS

Division	Very difficult		Difficult		Kinda easy		Easy		Very easy		Total	
	f	%	F	%	F	%	f	%	f	%	F	%
financial planning subsection	0	0%	0	0%	0	0%	4	100%	0	0%	4	100%
medical service section	0	0%	0	0%	10	62.5%	6	37.5%	0	0%	16	100%
non-medical support section	0	0%	0	0%	1	8.3%	3	25.0%	8	88.7%	12	100%
nursing service section	0	0%	0	0%	8	30.8%	16	61.5%	2	7.7%	26	100%
Total	0	0%	0	0%	19	32.8%	29	50%	10	17.2%	58	100%

Based on Table 17, the largest total percentage is 50% from all divisions stating that it is easy to trace input errors on SIMRS. In the medical field, there are 62.5% who feel it is rather easy.

#### 5. Description of Respondents Perception Regarding Ease of Learning SIMRS

Based on the results of questionnaire data processing using SPSS, respondents' perceptions of the ease in tracing errors when input to SIMRS were obtained, which are presented in Table 18.

Table 18. Respondents' perceptions of the ease of tracing input errors on SIMRS

Division	Very difficult		Difficult		Kinda easy		Easy		Very easy		Total	
	f	%	F	%	F	%	F	%	f	%	F	%
financial planning subsection	0	0%	0	0%	0	0%	4	100%	0	0%	4	100%
medical service section	0	0%	2	12.5%	3	18.8%	11	68.8%	0	0%	16	100%
non-medical support section	0	0%	0	0%	1	8.3%	5	41.7%	6	50%	12	100%
nursing service section	0	0%	1	3.8%	5	19.2%	17	65.4%	3	11.5%	26	100%
Total	0	0%	3	5.2%	9	15.5%	37	63.8%	9	15.5%	58	100%

Based on Table 18, the largest total percentage is 63.8% from all divisions stating that it is easy to trace input errors on SIMRS. In medical services there are 40% who feel it is rather easy but there are 60% who say easy to do input search on SIMRS.

#### User Perception Based on Service Aspect (S)

Based on the data from the questionnaire, the user perception data on the Service aspect was obtained from 58 respondents who answered 2 question items, a tabulation table of the Service aspect can be arranged which is presented in Table 19.

Table 19. Service Aspect

Service					
Answer score	1	2	3	4	5
Total answers	0	4	45	97	28

Equation Increase respondents' satisfaction with the use of SIMRS from the efficiency aspect, namely:

$$JK = \frac{(1 \times 0) + (2 \times 4) + (3 \times 45) + (4 \times 97) + (5 \times 28)}{58 \times 3} = 3,9$$

Based on the above calculations on the aspects obtained *Service* the value of 3.9, it can be concluded that the respondents were satisfied with the service aspect with the implementation of SIMRS.

#### 1. Description of Respondents' Perceptions Regarding the Existence of Training

Based on the results of processing questionnaire data using SPSS, the user's perception of the existence of training before using SIMRS is obtained which is presented in Table 20.

Table 20. Respondent's perception of the existence of training

Division	Yes		Not		Total	
	F	%	f	%	f	%
financial planning subsection	3	75%	1	25%	4	100%
medical service section	8	50%	8	50%	16	100%
non-medical support section	12	100%	0	0%	12	100%

Division	Yes		Not		Total	
	F	%	f	%	f	%
nursing service section	17	65.4%	9	34.6%	26	100%
Total	40	69%	18	31%	58	100%

Based on Table 20, the largest total percentage is 69% from all divisions stating that by using SIMRS work becomes efficient and effective the remaining 31% feel no.

### Description of Respondents Perception Regarding Ease of Data Input

Based on the results of processing questionnaire data using SPSS, respondents' perceptions of the ease of data input on SIMRS were obtained which are presented in Table 21.

Table 21. Respondents' perceptions of the ease of data input

Division	Very difficult		Difficult		Kinda easy		Easy		Very easy		Total	
	F	%	f	%	F	%	F	%	F	%	F	%
financial planning subsection	0	0%	0	0%	0	0%	4	100%	0	0%	4	100%
medical service section	0	0%	3	18.8%	2	12.5%	11	68.8%	0	0%	16	100%
non-medical support section	0	0%	0	0%	0	0%	2	16.7%	10	83.3%	12	100%
nursing service section	0	0%	1	3.8%	6	23.1%	17	65.4%	2	7.7%	26	100%
Total	0	0%	2	6.9%	8	13.8%	34	58.6%	12	20.7%	58	100%

Based on Table 21, the largest total percentage is 58.6% from all divisions stating that it is easy to make corrections on SIMRS. In the medical service section there are 18.2% who feel it is not easy but there are 58.3% who say easy to make corrections on SIMRS.

### 2. Description of Respondents Perception Regarding Ease of Data Access

Based on the results of processing questionnaire data using SPSS, respondents' perceptions of the ease of access to data on SIMRS are obtained, which are presented in Table 22.

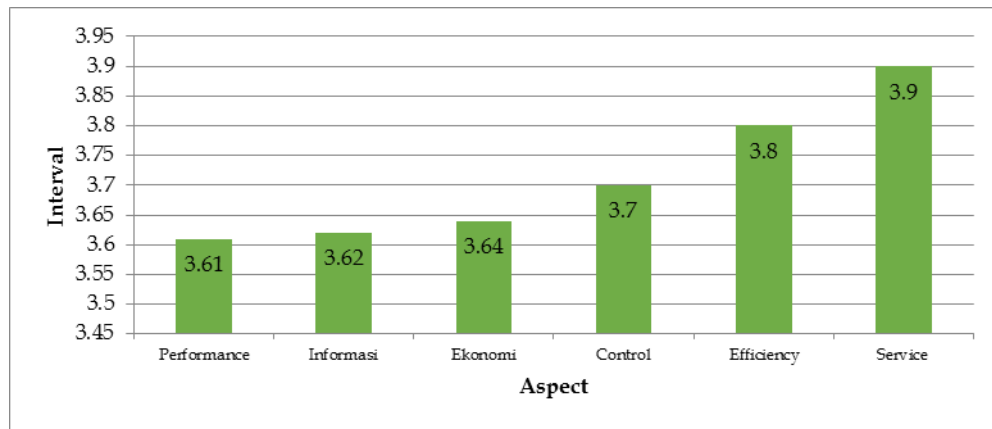
Table 22. Respondents' perceptions of the ease of data access

Division	Very difficult		Difficult		Kinda easy		Easy		Very easy		Total	
	F	%	f	%	F	%	F	%	F	%	F	%
financial planning subsection	0	0%	0	0%	0	0%	4	100%	0	0%	4	100%
medical service section	0	0%	3	18.8%	2	12.5%	11	68.8%	0	0%	16	100%
non-medical support section	0	0%	0	0%	0	0%	8	66.7%	4	33.3%	12	100%
nursing service section	0	0%	0	0%	7	26.9%	17	65.4%	2	7.7%	26	100%
Total	0	0%	3	5.2%	9	15.5%	40	69.0%	6	10.3%	58	100%

Based on Table 22, the largest total percentage is 69% from all divisions stating that it is easy to make corrections on SIMRS. In the medical service section there are 18.3% who feel it is not easy but there are 68.8% who say easy to make corrections on SIMRS.

### Innovation Performance Improvement Strategy

The HL Manambai Abdulkadir hospital has implemented innovations to support the smooth running of work, one of which is the use of SIMRS. Therefore, it is necessary to pursue strategies that need to be carried out to improve the performance of these innovations, one of which is by paying attention to the level of user satisfaction. Based on the previous data processing, the average score of respondents' satisfaction with the use of SIMRS is presented in Figure 1.



**Figure 1. Satisfaction level**

In Figure 1 it is known that all the aspects studied have a satisfied category but the lowest level of respondent satisfaction is in the Performance aspect. Therefore, this aspect will be analyzed to increase the perception of respondents' satisfaction by using the tree diagram method.

### Conclusion

Based on the objectives and results of the study, it can be concluded that: (1) The level of satisfaction of respondents in the Performance aspect is 3.61, which means that respondents are satisfied with the use of SIMRS; (2) The level of satisfaction of respondents in the information aspect is 3.62, which means that respondents are satisfied with the use of SIMRS; (3) The level of satisfaction of respondents in the economic aspect is 3.64, which means that respondents are satisfied with the use of SIMRS; (4) The level of satisfaction of respondents in the control aspect is 3.7, which means that respondents are satisfied with the use of SIMRS; (5) The level of satisfaction of respondents in the efficiency aspect is 3.8, which means that respondents are satisfied with the use of SIMRS; (6) The level of satisfaction of respondents in the service aspect is 3.9, which means that respondents are satisfied with the use of SIMRS.

Innovations that need to be made by the hospital to improve SIMRS performance and increase SIMRS user satisfaction are increasing the number of outputs produced by SIMRS, increasing the usefulness of SIMRS in helping the work process so that there are no more physical files that must be filled out manually on paper before input into the system, providing regular training from experts formally and being able to clarify the appearance of the menu that looks small on the screen, the hospital must improve supporting facilities and infrastructure in order to improve the operating performance of SIMRS.

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