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OPOTIMALIZATION OF HOSPITAL MANAGEMENT INFORMATION SYSTEM USING THE UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGYMETHOD

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ABSTRACT

Hospital started implementing SIMRS since 2011. Implementation of SIMRS at the hospital still has many obstacles or problems. There are no tools for coding diagnosis, in some units there is still a manual system implementation, based on observation there is one officer complaining about SIMRS performance, facilities (IT staff) have not been met to fix the problem with the program. The purpose of this study was to evaluate the hospital information system based on staff perceptions by using the Unified Theory of Acceptance and Use of Technology (UTAUT) method at Hospital. This type of research is quantitative analytic with cross sectional approach. This study uses a questionnaire method with 80 respondents used as a sample. Sampling was done using quota sampling technique. Based on the results of a simple logistic regression test conducted from the four variables only 1 variable that affects the use interest. These variables are business expectations that have an influence on interest in the use of information systems, while expectations of performance, social factors and facilities that help do not have an influence on the interest in using SIMRS in Hospital. Suggestions proposed by researchers related to the above problems are the need for socialization by the hospital regarding the benefits of the use of SIMRS and the benefits provided by the existence of the SIMRS. As well as further evaluations to assess whether the SIMRS contained in the hospital is in accordance with the needs ornot.

Key Words: Hospital, Hospital Management Information System, UTAUT

1. INTRODUCTION

The Hospital has an Information System to determine the speed of information flow needed by users and the hospital environment. Where in a hospital needs to be designed a good Information System, so that it can be used for decision support (Rustiyanto,2010).

Data management in hospitals is one important component in realizing an information system in a hospital. Managing data manually, has many weaknesses, in addition to requiring a long time, accuracy is also less acceptable, because the possibility of errors is very large. With the support of current information technology, the work of managing data manually can be replaced with an information system using a computer. Besides being faster and easier, data management has also become more accurate (Handoyo, 2008).

Evaluation is needed to identify the level of user acceptance of the current SIMRS, using the Unified Theory of Acceptance and Use of Technology (UTAUT) method. This method

is used to find factors that influence interest in using information systems based on human resources (officers) at Hospital.

2. METHOD

This type of research used in this research is quantitative analytic with cross sectional approach. Research on the evaluation of SIMRS using the UTAUT method was carried out at East Java Indonesia. The population in this study amounted to 100 people consisting of all officers who use the SIMRS in Hospital. After calculating using the Slovin formula, 80 samples were obtained. The sampling technique is done by using quota sampling techniques, namely sampling techniques using certain characteristics until the amount of the quota that has been determined. The analysis used is quantitative analytic based on the components that exist, namely many measures that can be used to assess information systems including the UTAUT (Unified Theory of Acceptance and Use of Technology) method which consists of Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions that affect behavioral intentions and use behavioral.

3. MATERIALSANDANALYSIS

a. The results of the identification of performance expectations (Performance Expectancy) officers related to the use of SIMRS inHospital

Table 1 Respondents Response Against Performance Expectancy Variables

Performance Ekspectancy							
Kriteria	Pertanyaan					Jumlah	%
	X1	X2	X3	X4	X5		
StronglyDisagree (STS)	0	7	7	15	12	41	10.3
Disagree (TS)	18	23	32	33	8	147	36.8
Neutral (N)	13	20	15	16	21	85	21.3
Agree (S)	43	13	19	11	14	100	25.0
Strongly Agree (SS)	6	4	7	5	5	27	6.8
TOTAL						400	100.0

Based on the results of research conducted by researchers at the Hospital on the variable performance expectations obtained from 80 respondents obtained a total score of 0.563 (56.3%) which means it has sufficient value criteria. These results state that performance expectations in the use of information systems at the Bhakti HusadaBanyuwangi General Hospital are sufficient to provide a beneficial effect in terms of performance improvement.

User opinion in this variable is 10.3% of respondents stated strongly disagree, 36.8% of respondents stated disagree, 21.3% of respondents stated neutral, 25.0% of respondents agreed and 6.8% of respondents strongly agreed that the value obtained from the questionnaire distribution. The highest respondent results obtained as many as 36.8% expressed disagreement in the sense that the use of SIMRS in the Bhakti HusadaBanyuwangi General Hospital did not provide benefits. In the results of the questionnaire obtained answers at least agree on the SIMRS question can produce and improve the quality of output in accordance with managementneeds.

The variable of performance expectations is a person's trust when using information systems will help improve performance in doing work. This variable has a good effect on the acceptance of information systems Wulandari, et al (2016).Based on the results of the questionnaire obtained, the respondent stated that it was sufficient to use SIMRS because there were tools that were not optimally used for coding so that it had a negative impact on performance where the coding was still done manually. Therefore, the hospital should develop and improve the system so that it can produce information systems according to the needs of the users, so that user satisfaction can beachieved.

b. Results of the identification of business expectations (Effort Expectancy) of officers related to the use of SIMRS in Hospital

Table 2 Respondents' Responses to Effort Expectancy Variables

Effort Ekspectancy							
Kriteria	Pertanyaan					Jumlah %	
	X1	X2	X3	X4	X5		
StronglyDisagree (STS)	7	9	9	7	9	41	10.3
Disagree (TS)	18	14	12	20	18	82	20.5
Neutral (N)	18	20	18	20	17	93	23.3
Agree (S)	30	30	37	31	34	162	40.5
Strongly Agree (SS)	7	7	4	2	2	22	5.5
TOTAL						400	100.0

Based on the results of research conducted by researchers at the Hospital on the business expectation variables obtained from 80 respondents obtained a total score of 0.621 (62.1%) which means it has strong value criteria. These results state that business expectations in the use of the system at Bhakti Husada General Hospital have an impact on the ease of use of SIMRS.

User opinion in this variable is 10.3% of respondents stated strongly disagree, 20.5% of respondents stated disagree, 23.3% of respondents stated neutral, 40.5% of respondents agreed and 5.5% of respondents strongly agreed that the value was obtained from the results of questionnaires. The highest respondent results obtained as much as 40.5% agreed in the sense that the use of SIMRS in the Bhakti HusadaBanyuwangi General Hospital had an impact on the ease of use of SIMRS. In the results of the questionnaire obtained answers most agree on the question the work done can be completed easily usingSIMRS.

Business expectation is defined as the ease of user system that users feel. This convenience will lead to someone's belief that the system has benefits so that they feel comfortable when using it. The ease of operation of the system will affect the use of the system itself. Wulandari, et al (2016).Based on the results of the questionnaire obtained, the respondents stated strongly against the use of SIMRS because if an error occurs then it will return to the manual system so that the performance of officers in performing services will be hampered.

To prevent this problem the hospital should add more competent human resources in the information system.

c. Social Identification Results (officers) related to the use of SIMRS atHospital

Table 3 Respondents' Responses to Social Influence Variables

Social Influence							
Kriteria	Pertanyaan					Jumlah %	
	X1	X2	X3	X4	X5		
StronglyDisagree (STS)	0	8	10	10	14	42	10.5
Disagree (TS)	22	35	34	33	33	157	39.3
Neutral (N)	24	26	21	26	23	120	30.0
Agree (S)	31	10	14	11	9	75	18.8
Strongly Agree (SS)	3	1	1	0	1	6	1.5
ΣTOTAL						400	100.0

Based on the results of research conducted by researchers at the Hospital on social factors variables obtained from 80 respondents obtained a total score of 0.523 (52.3%) which means it has sufficient criteria. These results state that the social factors in the use of the system at Bhakti Husada General Hospital are quite influential to other individuals to use SIMRS.

User opinion in this variable is 10.5% of respondents stated strongly disagree, 39.3% of respondents stated disagree, 30.0% of respondents stated neutral, 18.8% of respondents agreed and 1.5% of respondents strongly agreed that the value was obtained from the results of questionnaires. The highest respondent results obtained as many as 39.3% expressed disagreement in the sense that the use of SIMRS in Bhakti HusadaBanyuwangi General Hospital had no effect. In the results of the questionnaire, it was found that the answers at least agree with the questions that some of my colleagues influenced me to use SIMRS to do work.

Social factors are defined as the level of individual confidence that there is an influence of the surrounding environment to use the new system. Someone's social status will increase if someone uses the information system. explained that this variable is the dominant factor influencing the dependent variable in the research they conducted Wulandari, et al (2016).

Based on the results of the questionnaire obtained, the respondent stated that he disagreed with the use of SIMRS due to a shortage, one of the officers in the hospital still complained about the performance of SIMRS so that this could result in or influence other user officers. the hospital related the benefits of using SIMRS and the benefits provided by the existence of the SIMRS. As well as further evaluations to assess whether the SIMRS contained in the hospital is in accordance with the needs or not.

d. The results of identification of conditions that help (Facilitating Conditions) of officers related to the use of SIMRS inHospital

Table 4 Respondents' Responses to Facilitating Condition Variables

Social Influence							
Kriteria	Pertanyaa n					Jumlah	%
	X1	X2	X3	X4	X5		
StronglyDisagree (STS)	0	8	10	8	26	8.1	0
Disagree (TS)	28	34	32	32	126	39.4	28
Neutral (N)	26	29	26	27	108	33.8	26
Agree (S)	22	8	11	13	54	16.9	22
Strongly Agree (SS)	4	1	1	0	6	1.9	4
TOTAL						400	100.0

Based on the results of research conducted by researchers at the General Hospital of Bhakti HusadaBanyuwangi on facilitating conditions variables obtained from 80 respondents obtained a total score of 0.530 (53.0%) which means it has sufficient value criteria. These results state that the conditions that facilitate the use of the system at Bhakti Husada General Hospital are quite impactful in the use of SIMRS.

Users' opinions on this variable, namely 8.1% of respondents said strongly disagree, 39.4% of respondents stated disagree, 33.8% of respondents stated neutral, 16.9% of respondents agreed and 1.9% of respondents strongly agreed that the value was obtained from the questionnaire distribution. The highest respondent results obtained as many as 39.4% expressed disagreement in the sense that the use of SIMRS at the Bhakti HusadaBanyuwangi General Hospital did not provide convenience. In the questionnaire results obtained answers do not agree on the question of innovation that is felt consistent with SIMRS, consistent with user needs and prior experience and the availability of human resources who understand about informationsystems.

Facilitating conditions represent the level of comfort of individuals to use systems that are supported by technical and organizational infrastructure. Facilitating conditions have a positive influence on interest in the use of information systems but are not significantly affected. Also explains that facilitating conditions significantly influence the behavior of interests even though the variables of performance expectations and business expectations are included in the research model of Wulandari, et al (2016).

Based on the results of the questionnaire obtained, the respondent stated that he disagreed with the use of SIMRS due to the lack of facilities (IT staff) not yet being met to fix the problem with the program. The negative impact of the problem is that if an error occurs it will return to the manual system. In the above problem, the hospital should add competent human resources in the field of informationtechnology.

e. Behavioral Intention Identification Results related to the use of SIMRS officers in Hospital

Table 5 Respondents' Responses to Behavioral Intention Variables

Social Influence						
Kriteria	Pertanyaan				Jumlah %	
	X1	X2	X3	X4		
StronglyDisagree (STS)	3	9	7	8	27	8.4
Disagree (TS)	22	29	29	29	109	34.1
Neutral (N)	29	33	31	31	124	38.8
Agree (S)	23	8	13	12	56	17.5
Strongly Agree (SS)	3	1	0	0	4	13
TOTAL					320	100.0

Based on the results of research conducted by researchers at the General Hospital of Bhakti HusadaBanyuwangi on the variable interest in use obtained from 80 respondents obtained a total score of 0.538 (53.8%) which means it has sufficient value criteria. These results state that the interest in using the system in the Bhakti HusadaBanyuwangi General Hospital is able to impact the interest of officers in using SIMRS.

User opinion in this variable is 8.4% of respondents stated strongly disagree, 34.1% of respondents stated disagree, 38.8% of respondents stated neutral, 17.5% of respondents agreed and 13% of respondents strongly agreed that the value was obtained from the results of questionnaires. The highest respondent results obtained as much as 38.8% stated neutral in the sense that the use of SIMRS in the Bhakti HusadaBanyuwangi General Hospital was not interested or interested. In the results of the questionnaire, we got a neutral answer to the statement. I estimate that I will often use / utilizeSIMRS.

Interest in use (Behavioral Intention) is a measure of the strength of a person's intention to perform a certain behavior Wulandari, et al (2016). Based on the results of the questionnaire obtained, the respondent stated neutral on the use of SIMRS because the results of the questionnaire showed the value of the officers when using or not using SIMRS did not have an effect on hospital profits. So the interest from using SIMRS is neutral.

f. Analyzing the Effect of Social Influence on Behavioral Intention (Interest in Use) SIMRS at Bhakti HusadaHospital

Table 1 Simple Logistic Regression Analysis

Variabel	Negelkerke R Square	Sig (b)	Exp B	Sig (c)
Performance expectations	0,411	0.323	2.103	0,206
Business expectations			6.026	0,005
Social factors			2.941	0,096
Facilities that help			731	0,621

Based on the results of calculations with a simple logistic regression statistical test obtained the value of R2. The negative value of R can be interpreted as the value of R2 in multiple regression. Negelker's value of 0.411 which means that the variable performance expectations, business expectations, social factors and facilities that help influence as much as 41.1% of the variable user interest and as much as 58.9 are influenced by other factors not examined. Statistical test results can be seen in theappendix.

The Hosmer-Lemeshow table is used to test the null hypothesis whether the empirical data fits the model. If the Hosmer-Lemeshow value is <0.05, Ha is accepted and the model is said to be unfit. Based on the Hosmer-Lemeshow table, the significance value obtained at 0.323 means that the model can be said to be fit and the model can be accepted in other words that simple logistic regression can explain the data and there is no difference between the model and its observationvalue.

Based on table 1 the variable social factors have a significant value of 0.096. Based on these results it can be concluded that social factor variables do not affect the use interest, because more than 0.05 Based on the value of Exp B, the results show that social factor variables cause the SIMRS user interest as much as 2,941 times.The results of this study are also consistent with the results of research conducted by Bendi and Andayani (2013), Wahyuni and Maita (2015), which means that the environment around the respondents did not influence them in usingSIMRS.

g. Analyzing the Effect of Facilitating Influence on Behavioral Intention (Interest in Use) SIMRS at Bhakti HusadaHospital

Table 2 Simple Logistic Regression Analysis

Variabel	Negelkerke R Square	Sig (b)	Exp B	Sig (c)
Performance expectations	0,411	0.323	2.103	0,206
Business expectations			6.026	0,005
Social factors			2.941	0,096
Facilities that help			731	0,621

Based on the results of calculations with a simple logistic regression statistical test obtained the value of R2. The negative value of R can be interpreted as the value of R2 in multiple regression. Negelker's value of 0.411 which means that the variable performance expectations, business expectations, social factors and facilities that help influence as much as 41.1% of the variable user interest and as much as 58.9 are influenced by other factors not examined. Statistical test results can be seen in theappendix

The Hosmer-Lemeshow table is used to test the null hypothesis whether the empirical data fits the model. If the Hosmer-Lemeshow value is <0.05, Ha is accepted and the model is said to be unfit. Based on the Hosmer-Lemeshow table, the significance value obtained at 0.323 means that the model can be said to be fit and the model can be accepted in other words that simple logistic regression can explain the data and there is no difference between the model and its observationvalue.

Based on table 2 the condition variables that helped have a significant value of 0.621. Based on these results it can be concluded that the condition variables that help do not affect the interest in use, because more than 0.05. Based on the value of Exp B, the results show that condition variables that help cause SIMRS user interest 731 times.

The results of this study are also consistent with the results of research conducted by Venkatesh, et al (2003). This might be caused by differences in the environment in which the research was conducted. From the facts and theories above it can be concluded that the facilities that help do not have an influence on interest in use. These results are also in accordance with research conducted by several researchers above. With the results obtained that this might be caused by differences in the environment in which the research was conducted.

4. CONCLUSION

a. Business expectations obtained a total score of 0.621 (61.1%) this value has strong criteria, recommendations from researchers related to the problem of business expectation variables should the hospital make additional competent human resources in the informationsystem

b. Performance Expectation (Performance Expectancy) has no effect on SIMRS Behavioral

Intention (Interest in Use) at RSU Bhakti HusadaBanyuwangi with a significance value of 0.206 greater than 0.05. From these results the respondents were not sure that using SIMRS would help in improving theirperformance

c. Effort Expectation influences the SIMRS Behavioral Intention (Interest in Use) at Bhakti HusadaBanyuwangi Hospital with a significance value of 0.005 less than 0.05. Respondents have confidence that using SIMRS can reduce their efforts both energy and time in savingjobs

d. Social factors (Social Influence) do not affect the Behavioral Intention (Interest in Use) SIMRS at Bhakti HusadaBanyuwangi General Hospital with a significance value of 0.096 greater than 0.05. the environment around the respondents did not affect them in using SIMRS

Facilitating Conditions do not affect the Behavioral Intention (Interest in Use) of SIMRS in Bhakti HusadaBanyuwangi General Hospital with a significance value of 0.621 greater than 0.05. Due to differences in the environment in which the research was conducted.

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