

www.rigeo.org

REVIEW OF INTERNATIONAL GEOGRAPHICAL EDUCATION

ISSN: 2146-0353 • © RIGEO • 11(6), SPRING, 2021

Research Article

Usefulness of Hospital Management Information System at Teaching Hospital

Rokiah Kusumapradja¹ Universitas Esa Unggul rokiah.kusumapradja@esaunggul.ac.id

M.F. Arrozi Adhikara³ Universitas Esa Unggul arrozi@esaunggul.ac.id Victor Livinus² Universitas Esa Unggul victor.livinus@esaunggul.ac.id Ucu Nugraha⁴ Widyatama University

Corresponding author: Universitas Esa Unggul Email: rokiah.kusumapradja@esaunggul.ac.id

Abstract

This study examines the issue that hospitals as healthcare organizations in the field of services have a high complexity of resource systems, services, personnel, and infrastructure. Thus, it requires a complex adaptive system as an integrated system of all activities in order to improve performance and service. The purpose of this study is to obtain empirical evidence of the effect of usability, ease of use, computer self-efficacy, and intention to use, on the actual use of technology. The research design uses a quantitative approach to the type of explanatory causality of research. This type of research is hypothesis testing. Data collection by questionnaire survey. The unit of analysis is individual employees who use hospital management information systems. Time horizon uses cross section. The population and sample are the same as the sampling technique is saturated sampling. Data analysis using Path Analysis with AMOS Program software. The results showed that the use (Perceived Usefulness) had a positive effect on intention (Behavioral Intention to Use); usability (Perceived Usefulness) has a significant positive effect on actual technology use; ease of use (Perceived Ease of Use) significant positive effect on intention (Behavioral Intention to Use); ease of use (Perceived Ease of Use) has a significant positive effect on actual technology use; Computer Self Efficacy has no significant effect on intention (Behavioral Intention to Use); intention (Behavioral Intention to Use) has a positive effect on the actual use of technology (Actual technology use); Computer Self Efficacy has no significant effect on actual technology use. The research findings show that the Behavioral Intention to Use variable is not an intervening variable because the variable cannot mediate the effect of Perceived Usefulness, perceived ease of use, and computer selfefficacy toward actual technology use. These findings indicate that there is a mandatory management for users to use SIMRS applicatively.

Keywords

Perceived Usefulness, Perceived Ease of Use, Computer Self Efficacy, Behavioral Intention to Use, Actual Technology Use

To cite this article: Kusumapradja, R.; Livinus, V.; Adhikara, M, F, A.; and Nugraha, U. (2021) Usefulness of Hospital Management Information System at Teaching Hospital. Review of International Geographical Education (RIGEO), 11(6), 1280-1293. doi: 10.48047/rigeo.11.06.143

Submitted: 10-10-2020 • Revised: 12-12-2020 • Accepted: 14-02-2021

Introduction

Hospitals as health organizations in the field of public services have a high complexity and adaptive. Thus, hospitals need a management information system that is integrated throughout their activities in order to improve performance and service. Based on the National Health System (SKN) of 2004, the availability of data and information, the support of advances in health science and technology, the support of health law and health administration are crucial to the success of health management.

Hospital Management Information System (SIMRS) is a collection of integrated data processing mechanisms so that it is ready to be used for hospital management needs in achieving its goals. Management information systems function to manage information for organizational management both for the transaction process, control management and as a decision support system that uses computers and / or people as information processors and organizational leaders as those who carry out its control mechanism functions (Nugroho, 2008). Computers are information technology used in information systems that have 5 main roles in organizations, namely to increase efficiency, effectiveness, communication, collaboration and competition (Jogiyanto, 2005). RI Minister of Health Decree No. 228/2002 on Guidelines for Preparation of Hospital Minimum Service Standards stating that hospitals need reliable SIMRS support to provide standard health services to the community.

Theoretically and practically, TAM is the most appropriate model in explaining how users receive a system. The Technology Acceptance Model (TAM) was developed by Davis in 1985 to explain and predict the use of a system (Chuttur, 2009). This model is an adaptation of the Theory of Reasoned Action (TRA) model by Fishbein and Ajzen. But over time, many TAM models have been modified by adding external factors. Of the many external factors that have been used in previous studies, in this study focused on external factors, namely computer self-efficacy. The concept of self efficacy is defined by Bandura (1977, in Jogiyanto, 2008: 129) as a belief that a person has the ability to perform certain behaviors. Because this study examines SIMRS, self efficacy is adjusted to become computer self-efficacy.

The concept of computer self-efficacy is seen as one of the important variables for the study of individual behavior in the field of information technology (Agarwal et al. 2000). Computer self-efficacy is defined by Compeau and Higgins (1995) as judgment of a person's computer capabilities and expertise to perform tasks related to information technology. According to Compeau and Higgins, this study of computer self-efficacy is important in order to determine individual behavior and performance in the use of information technology.

Someone's perception of technology will be perceived differently. There is someone's perception that there is new technology which is very beneficial for their daily activities. But there is also the perception of someone who states that the existence of technology makes him uncomfortable and makes work more troublesome because it is not in accordance with one's abilities. Someone's perception of someone's interest in using technology can be grouped as follows, first, Perceived Usefulness (Perceived Usefulness) is one's belief when using technology can provide benefits and good results. Second, Perceived Ease of Use is a person's belief when using a technology that can be easily used and understood so that users do not feel heavy when there is new technology (Mulyana 2005). When the technology is easy to use, users will feel more comfortable and willing to use the system.

Behavioral intention to use is the tendency of behavior to keep applying a technology (Davis, 1989). The level of use of a computer technology on someone can be predicted from the attitude and attention of the user of the technology, for example is the desire to add supporting peripherals, the desire to keep using it, and the desire to influence other users (Saudi, 2018).

Motivation of this research was carried out because, first, hospitals that have a good management system are almost always certain that the service standards are good. Now, one indicator of having a good management system is that hospitals have been based on the utilization of hospital information systems (SIMRS). Second, this research is important because the changes in the hospital management information system (SIMRS), which used to be all manuals using paper for all records, now have to be done by computerization. In this transition process for some employees there is conflict in the adaptation process. Third, there are stages in the critical stages of the application of an information technology system is a condition where the presence of the system is accepted or rejected by prospective users. The adaptation process is hampered

due to the tendency of different perceptions regarding the benefits and ease of the new system to be operated. This is evident from the tendency for some employees too difficult to adapt to the new system.

The purpose of this study is to obtain empirical evidence of usefulness (perceived usefulness), ease of use (Perceived Ease of Use), computer self efficacy, and intention (Behavioral Intention to Use) affect the use of actual technology (Actual Technology Use) and provide empirical studies to deal with the problems.

The benefits of the research are to provide recommendations as well as a basis for consideration for hospitals to make policies in the use of SIMRS and for the creation of effective and productive health services.

Theory and Hypothesis Development

Actual Technology to Use

According to Pikkarainen et al (2003) that the use of actual technology (Actual technology use) is related to user acceptance of information technology systems. Acceptance of users of information technology systems can be defined as the will that appears in the user group to implement the information technology system in their work. The more accepted the new information technology system, the greater the willingness of users to change existing practices in the use of time and effort to actually start on a new information technology system. But if the user does not want to accept the new information technology system, the organization / company (Davis, 1989; Venkatesh and Davis, 1996 in Pikkarainen et al., 2003).

Perceived Usefulness

Davis F.D (1989) states that the definition of user benefits is the level where someone believes that the use of a particular system will be able to improve the work performance of that person. Meanwhile, according to Thompson et.al (1991) states that "The usefulness of IT is the benefits expected by IT users in carrying out their duties." According to Adam. et. al (1992) defines usefulness as a level where someone believes that the use of a particular subject will improve the work performance of that person.

Perceived Ease of Use

According to Davis (1989), perceived ease of use is a concept that has gained attention in user satisfaction in the flow of information systems and e-commerce research. All things being equal, an easy-to-use system will increase the intention to use as a virtue of an easier-to-use system. Considering clear arguments about an individual's efforts to become scarce resources, such that an individual should be willing to allocate more opportunities than systems that require greater effort.

Behavioral Intention to Use

According to Barata (2007), intention (Behavioral intention to use) is related to a person's tendency to take an action or behave in a certain way. In addition, according to Ajzen (2005), intention (Behavioral intention to use) can be explained through the theory of planned behavior which is the development of a theory of reasoned action. Intention (Behavioral intention to use) reflects the availability of individuals to try to do a certain behavior (Ajzen, 2005). In another reference, Ajzen in Teo & Lee (2010), states the definition of intention (Behavioral intention to use), which is an indication of how strong a person's beliefs will be to try a behavior, and how much effort will be used to perform a behavior.

Computer Self Efficacy

According to Compeau and Higgins (1995), CSE is defined as judgment of a person's capability to use a computer / information system / information technology. The study of CSE is important in order to determine individual behavior and performance in the use of information technology.



Research Model

The research model is shown in Figure 1 as follows:



Figure 1. Research Model

Hypothesis Development

Based on the things mentioned above, the hypothesis is formulated as follows:

H1: There is a significant influence between Perceived Usefulness, perceived ease of use, computer self-efficacy and intention (Behavioral intention to use) on actual technology use by employees at Hospital.

H2: There is a significant influence of the Perceived Usefulness of SIMRS on the intention (Behavioral intention to use) employees at the Hospital.

H3: There is a significant influence of the Perceived Usefulness of SIMRS on the actual technology use of employees at the Hospital.

H4: There is a significant influence of perceived ease of use SIMRS on the intention (Behavioral intention to use) employees at the Hospital.

H5: There is a significant influence of perceived ease of use SIMRS on the actual technology use of employees at the Hospital.

H6: There is a significant effect of computer self-efficacy on employee intention (Behavioral intention to use) in the Hospital.

H7: There is a significant influence of intention (Behavioral intention to use) on the actual use of technology employees in the Hospital.

H8: There is a significant influence of computer self-efficacy on the actual technology use of employees at the hospital.

Research Methods

Research Design

This type of research is explanatory causality to explain the causal relationship simultaneously between the variables of Use (Perceived Usefulness), Ease of Use (Perceived ease of use), computer self-efficacy, and Behavioral Intention to use against actual use (actual technology to use). Data collection method through survey. Primary data sources. Research data in the form of subject data expressing opinions, attitudes, experiences, or characteristics of individual subjects. The time dimension used is cross sectional study. The research respondents were employees at teaching hospital in DKI Jakarta Province who used SIMRS. Unit of analysis is individual. Data analysis using Path Analysis. The population and sample of the study were employees of teaching hospital in DKI Jakarta Province who used SIMRS, amounting to around 184 people. Sampling is done by using saturated sampling technique.

1283

Definition of Variable Operations

The operational definition of each variable can be explained as follows:

Perceived Usefulness is a situation where employess believe that using SIMRS will improve their performance or work performance at teaching hospital. The indicators are Working faster, Improving performance, Increasing productivity, More effective, Facilitating work, Helpful at work. The measurement scale uses a Likert Interval Scale.

Perceived Ease of Use is a situation where employees believe that using SIMRS makes it easier to do work. Variable indicators are ease of learning (easy of learn), easy system to be controlled (controllable), interaction with systems that are clear and easily understood (clear and understandable), flexibility of interaction (flexibility), easy to skillfully use the system (easy to become skillful), easy to use (easy to use). The measurement scale uses a Likert Interval Scale.

Computer Self Efficacy is the Judgment of the capabilities and expertise employee of Teaching hospital to perform tasks related to SIMRS. Variable dimensions are Magnitude, Strength, Generatio. The measurement scale of variables uses the Likert Interval Scale.

Behavioral Intention to Use is a situation related to the tendency of employees of Teaching hospital in DKI Jakarta Province to use SIMRS. Variable indicators namely the use of the system to complete the work (carrying out the task), plans for future utilization (planned utilization in the future). The variable measurement scale is the Likert Interval Scale.

Actual technology to use is the will or acceptance employees to implement SIMRS in their work. Indicator variables are relative advantage (technology offers improvement), compatibility (consistent with social practices and norms that exist in technology users), Complexity (ease of using or learning technology), Trialability (opportunity to innovate before using technology that), Observability (technological advantages can be seen clearly). The measurement scale uses a Likert Interval Scale.

Research Result

Data Collection

Research data were collected through surveys. Questionnaires were distributed to employess of 184 copies and returned complete of 184 sheets. Questionnaires that can be processed for analysis are 181 copies. Data for receiving questionnaires in Table 1.

Table 1

Overview of Distribution and Acceptance of Questionnaires

Information	Total	Ec
Questionnaire given	184 eksemplar	
Returned questionnaire	184 eksemplar	
Percentage returned	100 %	
Questionnaire that can be used	181 eksemplar	
Percentage that can be used	98,36 %	

Source: Data processed by researchers, 2019

Characteristics of Respondents

The object of research is employees at teaching hospital in DKI Jakarta Province using SIMRS. The characteristics of the largest respondents based on demographics indicate that the age of the respondents was at the age of 20-35 years, sex in women, length of work in the hospital less than 5 years were women.

Table 2

Respondent Demographics

Respondents	Total	Age 20-35	Working Time <5 years
Woman	67,96%	<mark>32,60</mark> %	28,18%
Man	32,04%	20 ,44%	16,02%

Source: Data processed by researchers, 2019

Validity and Reliability Test Results

Table 3 shows the reliability testing using Cronbach alpha with a value between 0.681-0.948 above the value of 0.60 is reliable (Nunnally, 1978). Meanwhile, validity testing uses factor analysis with the Kaiser-Meyer-Olkin (KMO) approach with results ranging from 0.596 to 0.902. The results of validity and reliability are in table 3.

Table 3

Test Results of Variable Validity and Reliability

Variabel	Validitas	Reliabilitas	
Perceived Usefulness	0,902	0,948	Univ
Perceived ease of use	0,892	0,948	
Computer Self Efficacy	0,596	0,681	
Behavioral Intention to use	0,813	0,905	
Actual technology to use	0,867	0,900	

Source: SPSS Processed Data 19, 2019

Descriptive Statistics

From table 4 Perceived Usefulness, this variable shows an average value of 3.5534 that teaching hospital employees feel quite useful or useful. The variable Perceived ease of use shows an average value of 3.5359 that SIMRS is quite easy to use by Teaching hospital employees. The Computer Self Efficacy variable shows an average value of 3.4365 that employees feel capable enough in terms of using SIMRS. Behavioral Intention to use variable shows an average value of 3.6575 that teaching hospital employees have intention or intention that is good enough to use SIMRS. Actual technology to use shows an average value of 3.5956 that the employees of teaching hospital are quite serious about using the technology.

Table 4

Statistical Descriptive Test Results

Variabel	N	Min	Max	Mean	Str Deviation	
Perceived Usefulness	181	2.00	5.00	3.5534	0.73361	
Perceived ease of use	181	1.67	5.00	3.5359	0.66766	
Computer Self Efficacy	181	2.00	5.00	3.4365	0.67526	
Behavioral Intention to use	181	2.00	5.00	3.6575	0.68572	
Actual technology to use	181	2.00	5.00	3.5956	0.70110	

Source: SPSS Processed Data 19, 2019

Three Box Method - Intention Behavior Using SIMRS

The results of the description of respondents' answers about attitudes in behavior are shown in the behavior matrix in table 5 as follows:

From Table 5 above we get the behavior of Teaching hospital in DKI Jakarta Province employees in using SIMRS technology, which actually is that the use of SIMRS provides benefits because SIMRS has uses and is easy to use in its work; consider the capabilities of SIMRS in assisting work tasks; interested in using SIMRS; and implementing SIMRS in his work.

Classic Assumption Test

1. Normality Test

From the results of the normality test it can be shown that the significance level is that the significance level is less than 2.58. So that all variables tested in this study are normal.



2. Multicollinearity Test

From the results of the multicollinearity test it can be seen that the value of the covariance matrix is 0.001, which means there is no correlation between the independent variables or all variables in the model so that it shows no multicollinearity problems.

Table 5.

Three Box Method Behavior Matrix

	Posisi Three Box Methode				
No	Variabel	Low Moderat	e High	Behavior	
1	Perceived Usefulness	*		Useful	
2	Perceived ease of	rsitas*		Easy	
	USE				
3	Computer Self	*		Act	
4	Behavioral Intention	*		Intention	
5	Actual technology	*		Applicative	
	to use				

Source: Processed data, 2019

Hypothesis Test

1. Model Conformity Test (Simultaneous Test)

Hypothesis 1 test results on the AMOS program are as follows:

Minimum was achieved Chi-square = .000 Degrees of freedom = 0 Source: AMOS 21 output data, 2019

Hypothesis 1 is accepted because the Chi-square count shows a value of 0,000 that is smaller than the Chi-square table value. The results of this very small Chi-square value indicate that there is no difference between the theory and the empirical data environment, so hypothesis 1 is accepted. This means that the variable Perceived Usefulness, perceived ease of use, computer self-efficacy, and Behavioral intention to use significantly influence Actual technology use.

2. Coefficient of Determination (R²)

The coefficient of determination shows the value of how much the simultaneous influence of independent and intervening variables on the dependent variable. The value of the effect of Perceived Usefulness, perceived ease of use, computer self-efficacy, on Behavioral intention to use is 0.567 or 56.7%. Meanwhile, the value of the effect of Perceived Usefulness, perceived ease of use, computer self-efficacy, and Behavioral intention to use on Actual technology use is 0.761 or 76.1%.

Table 6

Squared Multiple Correlations

Variable	Estimate
Behavioral Intention to use	.567
Actual technology to use	.761
Source: AMOS 21 output data, 2019	

3. Partial test

Partial Test Results with Structural Equation Modeling (SEM) are in the table below:

1286

Structural Equa	ation Modelli	ng (SEM) Test		1	
Information			P	Information	-
BITU	<	PU	***	H2 accepted	
BITU	<	PEOU	***	H4 accepted	
BITU	<	CSE	.182	H6 rejected	
ATU	<	BITU	***	H7 accepted	
ATU	<	CSE	.535	H8 rejected	
ATU	<	PU	***	H3 accepted	
ATU	<	PEOU	.003	H5 accepted	

Source: AMOS 21 output data, 2019

Intervening Variable

In this study, the behavioral intention to use variable is an intervening variable. Proof of intervening behavior intention to use variables is done by testing by comparing the number of Indirect Effects with Direct Effects. Calculation of the comparison process between indirect effects and direct effects can be seen in the following table:

Table 8

Table 7

Standardized Direct Effects

Variable	CSE	PEOU	PU	BITU
Intention	085	.368	.504	.000
Actual Use	.030	.173	.341	.438
Cause a ANAOC 01 auto				

Source: AMOS 21 output data, 2019

Table 9

Variable	CSE	PEOU	PU	BITU	
Intention	.000	.000	.000	.000	
Actual Use	037	.161	.221	.000	

Source: AMOS 21 output data, 2019

Based on the calculation results obtained direct and indirect results, where if we look at the comparison it will be seen that direct is greater than indirect. This is indicated by the value of CSE directly which is 0.30 greater than indirectly which is -0.37; ease of use directly 0,173 is greater than indirectly 0,161; and the direct use of 0.341 is greater than the indirect value of 0.221. This explains that behavior intention to use is not able to mediate the influence of Perceived Usefulness, perceived ease of use, and computer self-efficacy against Actual technology use.

Discussion

The effect of Perceived Usefulness, perceived ease of use, computer self-efficacy, and Behavioral intention to use on Actual technology use in hospital

Hypothesis 1 is accepted because of the results of the study that the variable Perceived Usefulness, perceived ease of use, computer self-efficacy, and Behavioral intention to use have a significant effect on Actual technology use. These results indicate that there is support from the variable Perceived Usefulness, perceived ease of use, computer self-efficacy, and Behavioral intention to use have a significant effect on Actual technology use.

The results of this study are supported by the results of research by Napitupulu et al. (2017) regarding the Validity Testing of Technology Acceptance model based on Factor Analysis Approach that all indicators are valid and can represent each dimension of TAM, namely perceived usefulness, perceived ease of use and behavioral intention to use. In addition, research by Helia et al. (2018) on the Modified Technology Acceptance Model for Hospital Information Syestem Evaluation - a Case Study that TAM can be used to evaluate Hospital Information System.

© **RIGEO** • Review of International Geographical Education

Effect of SIMRS Perceived Usefulness on Behavioral intention to use of employees in hospital

Hypothesis 2 is accepted because from the results of this study the perceived usefulness variable has a significant positive effect on the behavioral intention to use variable. This result is supported from the statement of perceived usefulness that employees of Teaching hospital in DKI Jakarta Province can complete tasks faster, improve performance, increase productivity, increase effectiveness, and complete tasks more easily when using SIMRS and find SIMRS useful. So these results will affect the behavioral intention to use for employees. This result also states the perception of employees' answers that they have the intention or intend to always try to use SIMRS and will continue to use SIMRS in the future.

The results of this study support the results of research by Ho et al. (2019) concerning Theoritical Integration of User Satisfaction and Technology Acceptance of the Nursing Process Information System that the perception of usefulness / benefit, perceived ease of use, and enjoyment perceived to influence behavior and intention / intention to use the system. In addition, a study by Alamanda (2015) regarding the Effect of Perceived Ease of Use on Behavioral Intentions through Perception of Benefits and Attitudes on E-Banking Information Systems that benefit perception has a significant effect on the attitudes of Bank CIMB Niaga's internet banking. Attitude has a significant effect on behavioral intentions of Bank CIMB Niaga's internet banking.

Effect of SIMRS Perceived Usefulness on the actual technology use of employees in hospital.

Hypothesis 3 was accepted because of the results of this study; the Perceived Usefulness variable had a significant positive effect on actual technology use. This result is supported from the statement of perceived usefulness that is employess of Teaching hospital in DKI Jakarta Province can complete tasks faster, improve performance, increase productivity, increase effectiveness, and complete tasks easier when using SIMRS and feel SIMRS is useful. So that the use of SIMRS can make changes for the better in accordance with daily use of practice, feels easy to use and learn, and given the opportunity to innovate before using SIMRS, and feels SIMRS can provide very clear benefits.

This result supports research by Changay et al. (2017) regarding Factors Affecting Ubaya Learning Space Acceptance based on Technology Acceptance Model that acceptance and use of ULS are directly influenced by perceived usefulness and indirectly influenced by perceived ease of use. The biggest indirect effect is also given by the technical support factor, so that technical support has an impact on the use of ULS.

The effect of SIMRS perceived ease of use on employee Behavioral intention to use at the Hospital.

Hypothesis 4 is accepted, because the results of this study, Perceived Ease of Use has a significant positive effect on Behavioral Intention to Use, these results are supported by a high-scale Perceived Ease of Use statement, namely that employees of Teaching hospital in DKI Jakarta Province find it easy to learn to operate SIMRS and overall feel SIMRS is easy to use and the scale is contained in the statement of easy to operate SIMRS according to their own desires, interactions with SIMRS are easy to understand, feel flexible, and easy to become skilled in using SIMRS. The Employees of Teaching hospital in DKI Jakarta Province always trying to use SIMRS and will continue to use SIMRS in the future, they are planning to use SIMRS, and intends to use SIMRS in the future.

These results support research by Diop et al, (2019) regarding An Extension of the Technology Acceptance Model for Understanding Travelers; Adoption of Variable Message Signs (VMS) that perception of ease of use significantly positively influences the perception of benefits and intention / intention to use VMS. In addition, a study by Aribowo et al. (2018) regarding the Evaluation of the Implementation of Dental and Mouth Hospital Information Systems at the Muhammadiyah University of Yogyakarta in terms of TAM that Perceptions of Use and Perceived Ease of Use affect Behavior Intention in the use of hospital information systems at Dental Hospital of Muhammadiyah University of Yogyakarta.

1288

The effect of perceived ease of use SIMRS on the actual technology use of employees at the Hospital.

Hypothesis 5 is accepted because of the results of this study; the Perceived Ease of Use variable has a significant positive effect on actual technology use. This result is supported by the statement of perceived ease of use, which is that the employees of Teaching hospital in DKI Jakarta Province find it easy to learn to operate SIMRS and overall feel SIMRS is easy to use, easy to operate SIMRS according to their own desires, interactions with SIMRS are easy to understand, feel flexible, and easy to become skilled in using SIMRS.

The results of this study are supported by the results of research by Aji et al. (2017) regarding Evaluation of the Application of Management Information Systems at RSIA Bhakti Persada Magetan Hospital using TAM that simultaneously system quality variables, perceived ease of use significantly influence the application of information systems. In addition, a study by Ernawati and Lutfi (2015) regarding the factors affecting the application of WEB-based Academic service Information System that the easier it is for users to use WEB-based Academic service Information System, will provide significant benefits and influence attitudes in using Sis- This information system, and will influence the real behavior in using the Information System.

The influence of computer self-efficacy on Behavioral intention to use employees at the hospital.

Hypothesis 6 is rejected, from the results of the study that the Computer Self Efficacy variable does not significantly influence Behavioral Intention to Use in the negative direction. This result is supported by statement on Computer Self Efficacy, namely that employees of Teaching hospital in DKI Jakarta Province are able to use SIMRS without help from anyone, believe that they can use SIMRS well and understand well about everything about SIMRS. Then on the Behavioral Intention to Use statement there is a statement about the Employees of Teaching hospital in DKI Jakarta Province always trying to use SIMRS and will continue to use SIMRS in the future.

The results of this study differ from the results of the study by Prasetyo et al. (2017) regarding the acceptance level of Bobotsari Puskesmas Management Information System Users that the External Self Efficacy Factor has a significant influence on Perceived Usefulness (Usability) by 66%, Perceived Ease of Use (ease of use) of 62.7%, Attitude towards using (attitude towards technology use) in the use of SIMPUS by 62.5%, Behavioral intention by use (Intention) by 83.6%, Actual technology use) in the use of SIMPUS by 62.5%, Behavioral intention by use (Intention) of 83.6%, Actual technology use) in the use of SIMPUS by 62.5%, Behavioral intention by use (Intention) of 83.6%, Actual technology use) in the use of SIMPUS by 62.5%, Behavioral intention by use (Intention) of 83.6%, Actual technology use) in the use of SIMPUS by 62.5%, Behavioral intention by use (Intention) of 83.6%, Actual technology use) in the use of SIMPUS by 62.5%, Behavioral intention by use (Intention) of 83.6%, Actual technology use) in the use of SIMPUS by 62.5%, Behavioral intention by use (Intention) of 83.6%, Actual technology use (82.3%).

Effect of Behavioral intention to use on Actual technology use of employees in hospital.

Hypothesis 7 is accepted because of the results of this study, the Behavioral Intention to Use variable has a significant positive effect on Actual technology use. This result is supported by the statement of Behavioral Intention to Use that employees of Teaching hospital in DKI Jakarta Province always try to use SIMRS and will continue to use SIMRS in the future, they are planning to use SIMRS, and intends to use SIMRS in the future. So this result will affect Actual technology use, namely that the use of SIMRS can make changes for the better that is in accordance with daily use of practice, feels easy to use and learn, and given the opportunity to innovate before using SIMRS, and feels SIMRS can provide very clear benefits.

These results support the research by Saputra and Misfariyan (2014) regarding the Acceptance Analysis of the Management System of the Bangkinang District General Hospital Using the TAM Method that the ease of use variable influences the Perceived Usefulness, the Perceived Usefulness affects the intention, the intention variable influences the actual technology use.

The influence of computer self-efficacy on Behavioral intention to use employees at the hospital.

Hypothesis 8 is rejected, from the results of the study that the Computer Self Efficacy variable does not significantly influence the actual technology use with a negative direction. This result is supported by statement that employees of Teaching hospital in DKI Jakarta Province are able to use SIMRS without help from anyone, believe that they can use SIMRS well and understand well about everything about SIMRS. Then on the side of Actual technology use there is a statement

© **RIGEO** • Review of International Geographical Education

that the use of SIMRS can make changes for the better, whereas in the medium scale statement that is in accordance with daily use of the practice, feel easy to use and learn, and given the opportunity to innovate before using SIMRS, and feels that SIMRS can provide very clear benefits. The results of this study differ from the results of research by Widiasari and Bety (2018) regarding Computer anxiety, Computer self-efficacy, and Perceived Usefulness by MSME actors, where Computer self-efficacy has a positive effect on the interest of MSMEs in applying accounting information technology.

Research Findings

Employee Behavior at Teaching Hospital in DKI Jakarta Province has an attitude in Perceived Usefulness, Perceived ease of use, Computer Self Efficacy, Behavioral Intention to use, actual technology to use in natural and actual behavior. In the Perceived Usefulness attitude, all employees show are employees of Teaching hospital in DKI Jakarta Province who can complete tasks faster, improve performance, increase productivity, increase effectiveness, and complete tasks more easily when using SIMRS and find SIMRS useful.

Based on the results of this study it was found that the intention variable (behavior intention to use) is not an intervening variable, because the variable is not able to mediate the effect of Perceived Usefulness, perceived ease of use, and computer self-efficacy towards the use of Actual technology use.

Based on the behavior analysis above, it shows that the usability variable is a variable that dominates the attitude of employees to actualize using SIMRS information technology. The attitude shown by employees Teaching hospital in DKI Jakarta Province is that they can complete tasks faster, improve performance, increase productivity, increase effectiveness, and complete tasks more easily when using SIMRS and find SIMRS useful. These findings indicate that SIMRS is useful in assisting work and operational activities in teaching hospital. In addition, the TAM theory applies directly, does not carry out the intention because there are mandatory regulations in the application of the system.

Conclusion

- 1. Perceived Usefulness, perceived ease of use, computer self-efficacy, and Behavioral intention to use have a positive effect on actual technology use, because employees feel they can complete tasks faster, more effectively, more productively and it's easier to use SIMRS.
- 2. Perceived Usefulness has a positive effect on Behavioral Intention to Use, because employees feel the use of SIMRS is supported by the intention or intention to always try to use SIMRS in the future.
- 3. Perceived Usefulness has a positive effect on Actual technology use because employees feel its usefulness so that they implement or use SIMRS which is believed to make changes towards better, besides they also feel that SIMRS is easy to use.
- 4. Perceived Ease of Use has a positive effect on Behavioral Intention to Use, where employees find it easy to learn to operate SIMRS and overall feel SIMRS is easy to use and it is hoped that they will always try to use SIMRS and will continue to use SIMRS in the future.
- 5. Perceived Ease of Use has a positive effect on actual technology use where employees find it easy to learn to operate SIMRS then they apply it.
- 6. Computer Self Efficacy does not significantly influence Behavioral Intention to Use, because the ability of employees to use SIMRS has no effect on their intentions or intentions to use SIMRS.
- 7. Behavioral Intention to Use has a positive effect on Actual technology use, because the employee's intention to always try to use SIMRS and will continue to use SIMRS has an effect on the use of the trusted SIMRS to change Teaching hospital in DKI Jakarta Province for the better.
- 8. Computer Self Efficacy has no significant effect on actual technology use, because their ability to use SIMRS is not related to the application of SIMRS usage that occurs in the field.



Theoretically, the results of this study support the TAM theory that information technology is useful in hospital operations. This theory is open to behavior that supports TAM so new variables need to be developed in the future, namely system innovation, decision diffusion, and knowledge management.

Practically, the results of this study can have positive implications: For the management of Teaching Hospital that in designing the system it should consider the aspects of usability, ease of operation of the system and innovation in actual use before the system is run; Re-socialization to related units (Medical, nursing, supporting, management, and administration) regarding the information requirements (user requirements) of each unit in SIMRS where verifiers are involved in the application of information; Integrating between systems in each unit in order to produce information to support decision making by the hospital director; Customize the system according to the needs in the SIMRS that exist in each unit so that the intentions of the users can grow properly; Making the system at the Hospital Paperless so that it can reduce Hospital expenses and carelessness because the system is integrated.

Suggestion

1. For Hospital

a. Hospital Management request validation for doing the relevant section so that the bias can provide products in the form of outputs and outcomes.

b. Hospital Management should be evaluated the SIMRS in accordance with the daily practices of each unit or section in the Hospital so that employees feel more facilitated in using SIMRS.

c. Socialization and evaluation to each employee regarding the use of SIMRS in order to achieve the maximum use of information technology and foster an intention to all employees to use SIMRS continuously in the future.

d. Increased collaboration with SIMRS users by involving users in the design, testing, implementation and development stages of the system so that users feel they have a role in the success and failure of the system. This is expected to reduce negative perceptions about SIMRS. e. Improved socialization and training programs according to employee needs to increase awareness of the benefits of SIMRS and user skills in using SIMRS.

2. For other researchers

a. The next research is expected to be able to increase the number of samples, so that the character of the respondents is broader and can represent a large portion of the population which makes the data more accurate.

b. This study provides an opportunity to conduct further research by examining other variables that have not been observed by researchers in this study, especially with the TAM theory of positive and negative attitudes.

c. Research on the effectiveness, productivity, and efficiency of SIMRS on work processes that become faster and easier.

d. Research on groups that disagree with the use of SIMRS.

e. Reviewing the intention variable (Behavior Intention to Use) because it is not proven to be an intervening variable.

Acknowledgement

I would say thank you to Dr. MF. Arrozi Adhikara, SE, M.Sc., Akt., CA and Dr. Rokiah Kusumapradja, SKM, MHA. For their permission to the two supervisors so that this research can be completed very well.

References

Adams, D. A., Nelson, R. R., dan Todd, P. A., 1992, Perceived Usefulness, Ease of Use and Usage of Information Technology: A Replication. *MIS Quarterly*, vol. 16, no.2 pp.: 227-247.

AJi, Mochamat B., Madiun, Akbid M., 2017, Evaluasi Penerapan Sistem Informasi Menejemen Rumah Sakit RSIA Bhakti Persada Magetan Menggunakan TAM. Duta.com ISSN: 2086-9436 Volume 12 Nomor 2.

Ajzen, I & Fishben, M. Understanding Attitudes and Predicting Social Behaviour. New Jersey:

© **RIGEO** • Review of International Geographical Education

Englewood Cliffs, Prenctise Hall, 1980.

Ajzen, I. 2005, Attitudes, Personality, and behavior. New York: Open University Press.

Amoroso. D.L. dan Gardner, C. 2004, Development of an Instrument to Measure the Acceptance of Internet Technology by Consumers, *Proceedings* of the 37th Hawaii International Conference on Sistem Sciences, USA

Aribowo, Taufiq., Pribadi, Firman., Dewanto, Iman. 2017, Evaluasi Implementasi Sistem Informasi Rumah Sakit Gigi dan Mulut Universitas Muhammadiyah Yogyakarta ditinjau dari Technology Acceptance model. Unpublished Dissertation, UMY.

Asriyany. 2017. Analisis Penerapan Sistem Informasi Keuangan Pada Perguruan Tinggi Muhammadiyah di Palopo (Metode TAM). Jurnal Riset Edisi XXIII. Unibos Makassar. Vol 3, No.012.

Austin, C.S.J. 1997. Information Sistem for Hospital Administration. University of Michigan. USA.

Bailey, J.E. dan Pearson S.W. 1983. Development of a Tool for Measuring and Analyzing Computer User Satisfaction. *Management Science*, vol 29, no 5, pp: 530-545.

Bungin, B. Metodologi Penelitian Sosial, 2001. Format-format Kuantitatif dan Kualitatif. Surabaya: Airlangga University Press,

Changay R., Wijaya S. B.W., Ayu K. P. 2017. Faktor-faktor yang Mempengaruhi Penerimaan Ubaya Learning Space berdasarkan Technology Acceptance Model. Jurnal Ilmiah Mahasiswa Universitas Surabaya Vol.6 No.2.

Daerina S. R. F., Mursityo Y. T., Rokhmawati R. I. 2018. Evaluasi Peranan Persepsi Kegunaan dan Sikap Terhadap Penerimaan Sistem Informasi Manajemen Rumah Sakit (SIMRS) di Rumah Sakit Daerah Kalisat. Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer e-ISSN: 2548-964X Vol. 2, No. 11.

Darmaningtyas, I Gusti B., Suardana, Ketut A. 2017. Pengaruh Technology Acceptance Model (TAM) dalam Penggunaan Software Oleh Auditor yang Berimplikasi Pada Kinerja Auditor. E-Jurnal Akuntansi Universitas Udayana Vol.21.3.

Davis, F. D., & Venkatesh, V. A. 1996. Critical Assessment of Potential Measurement Biases In The Technology Acceptance Model: Three Experiments. International Journal Of Human-Komputer Studies, vol. 45, pp: 19-45.

____. 1986, Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology. Management Information Sistem Quarterly. vol. 13, no. 2 (1989): 319-339. Davis, F.D., Bagozzi,

Davis, F.D. 1985. A Technology Acceptance Model for Empirically Testing New-End UserInformation Systems: Theory and Results. Disertasi. Massachusetts Institute of Technology.

Devi, Ni Luh N. S., Suartana, I Wayan. 2014. Analisis Technology Acceptance Model (TAM) terhadap Penggunaan Sistem Informasi di Nusa Dua Beach Hotel dan Spa. E-Jurnal Akuntansi Universitas Udayana 6.1,

Diop, El Bachir., Zhao, Shengchuan., Duy, Tran V. 2017. An extension of the technology acceptance model for understanding travelers' adoption of variable message signs. Diunduh dari : PLOS ONE | <u>https://doi.org/10.1371/journal.pone.0216007</u> (diakses 08 November 2019)

Ernawati, Diah., Lutfi, Hilman. 2015. Faktor-Faktor yang Mempengaruhi Penerapan Sistem Informasi Layanan Akademik berbasis Web. Unpublished Dissertation, IKPIA Perbanas.

Handayani, Wahyu P. P., Harsono, M. 2016. Aplikasi *Technology Acceptance Model* (TAM) pada Komputerisai Kegiatan Pertanahan. Jurnal Economia, volume 12, nomor 1.

Helia, Vembri N., Asri, Vikha I., Miranda, Suci. 2018. Modified technology acceptance model for hospital information system evaluation – a case study. MATEC Web of Conferences 154, 01101.

Ho, Kuei-fang., Ho, Cheng Heun., Chung, Min H. 2017. Theoretical integration of user satisfaction and technology acceptance of the nursing process information system. Diunduh dari : PLOS ONE | <u>https://doi.org/10.1371/journal.pone.0217622</u> (diakses 08 November 2019)

Jogiyanto, H.M. 2000. Sistem Informasi Berbasis Komputer. Konsep Dasar dan Komponen. Edisi 2. Yogyakarta: BPFE Yogyakarta,

_____. 2005. Analisis dan Desain Sistem Informasi : Pendekatan Terstruktur dan Praktek Aplikasi Bisnis. Yogyakart<mark>a: Pen</mark>erbit Andi.

_____. 2013. Sistem Inform<mark>asi Ke</mark>perilakuan. Edisi Revisi. Yogyakarta: Penerbit ANDI 2013.

Napitupulu, Darmawan., Kadar, Jimmy A., jati, Rahmi. K. 2017. Validity Testing of Technology Acceptance Model Based on Factor Analysis Approach. Indonesian Journal of Electrical Engineering and Computer Science Vol. 5, No. 3.

Kusumapradja, R.; Livinus, V.; Adhikara, M, F, A.; and Nugraha, U. (2021) Usefulness of Hospital Management...

Notoatmodjo, S. 2003. Pendidikan dan Perilaku Kesehatan. Jakarta: Rineka Cipta.

Prasetyo, Muhamad A. W., Kusuma, Tyas P., Darmawan, Seandi F. 2017. Tingkat Penerimaan Pengguna Sistem Informasi Manajemen Puskesmas Bobotsari. Citisee. ISBN: 978-602-60280-1-3.

R.P., and Warshaw, P.R. 1989. User acceptance of computer technology: A comparison of two theoretical models. *Management Science (online)*, Vol. 35 lss. 8. Pp : 982-1003.

- Saputra, Eki., Misfariyan. 2017. Analisis Penerimaan Sistem Informasi Manajemen Rumah Sakit Umum Daerah Bangkinang Menggunakan Metode TAM. Unpublished Dissertation, UIN Sultan Syarif Kasim Riau.
- Saudi, M.H.M., Sinaga, O. & Rospinoedji, D., The role of tax education in supply chain management: A case of Indonesian supply chain companies, Polish Journal of Management Studies 18(2):304-319, December 2018.
- Siregar, J. J., Puspokusumo, R. A. A. W., Rahayu, A. 2017. Analysis of Affecting Factors Technology Acceptance Model in The Application of Knowledge Management for Small Medium Enterprises in Industry Creative. Procedia Computer Science 116.
- Sudaryono. 2011. Aplikasi Analisis (Path Analysis) Berdasarkan Urutan Penempatan Variabel dalam Penelitian. Jurnal Pendidikan dan Kebudayaan. 17(4) pp: 391-403.
- Sugiyono. 2005. Statistika Untuk Penelitian. Bandung: Alfabeta, 2005.

_____. 2005. Metode Penelitian Kuantitatif, Kualitatif, dan RnD. Bandung: Alfabeta,

- Supriyanti., Cholil, Muhammad. 2017. Aplikasi Technology Acceptance Model (TAM) pada Sistem Informasi Manajemen Rumah Sakit. Jurnal Bisnis dan Manajemen Vol. 17, No. 1.
- Udayanti, Erika D., Nugroho, Fajar A. 2018. Analisa Minat Penggunaan Aplikasi TB eScoring dengan Pendekatan Technology Acceptance Model (TAM). Edu Komputika Journal ISSN 2252-6811.
- Venkatesh, V. 2000. Determinants of Perceived Ease of Use: Integrating Control, Intrinsic Motivation, and Emotion into the Technology Acceptance Model. Information Sistems Research, vol. 11, no. 4. pp: 342-365.
- Venkatesh, V., & Davis, F. D. 1996. A Model of the Antecedents of Perceived Ease of Use: Development and Test. Decision Sciences, vol. 27 no. 3. pp: 451-481.
- Venkatesh, V., & Morris, M. G. 2000. Why Don't Men Stop To Ask For Directions? Gender, Social Influence, and Their Role in Technology Acceptance and Usage Behavior. *MIS Quarterly*, vol. 24, no. 1 pp: 115-139
- Venkatesh, V., and Davis, F.D. 2000. "A Theoritical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies", Management Science, Vol. 46, No. 2. pp: 186-204.
- Widyasari, R., Achadiyah, Bety N. 2018. Computer Anxiety, Computer Self-Efficacy dan Perceived Usefulness oleh Pelaku UMKM. Jurnal Akuntansi Aktual,

Zainal Mustafa EQ. 2009. Mengurai Variabel Hingga Instrumentasi. Yogyakarta: Graha II

