

Acceptance Model of Hospital Information Management System: Case of Study in Indonesia

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Abstract — In this digital era, Hospitals must follow the competition that demands professionally managed services which cannot be separated from the role of computer technology. Therefore, a hospital needs a management information system that can integrate all its activities in order to improve performance and services, which is better known as Hospital Information System Management (HIS). The purpose of this study is to analyze the actual application of hospital management information systems using the Technology Acceptance Model (TAM) method with behavior intention as the intervening variable.

This research method is done using the quantitative approach, type of causality in the form of survey, one short study time horizon in the form of a questionnaire using Path Analysis. The analysis units are 100 respondents of employees at Metropolitan Medical Centre Hospital in Jakarta, who used HIS 2020. Purposive Sampling was used as the sampling technique. The results showed that attitude towards using HIS had a positive effect on behavioral intention to use. Perceived Usefulness has a positive effect on behavioral intention to use. Perceived Ease of use has a positive effect on behavioral intention to use. Behavioral intention to use has a positive effect on actual technology to use. Attitude toward using has a positive effect on actual technology to use. The research findings indicate that the behavioral intention to use variable is a variable that increases the use of HIS because it can benefit from the use by the user. The implication in realizing the increase in HIS requires policies and commitment of hospital management in mandatory, advocacy, socialization, training, monitoring and evaluation related to HIS in each unit.

Index Terms — Attitude toward using, Perceived usefulness, Perceived ease of use, Behavioral intention to use, Actual technology to use.

I. INTRODUCTION

In this current digital era, Hospitals do not only carry out the social mission, but also must keep up with the competition in the world of healthcare and the free market. Intense competition in hospital business demands the manager to professionally manage the service to be able to compete in health services. Hospital management in the modern era cannot be separated from the role and use of computer technology, especially in the field and scope of daily work. Increasingly, advances in computer technology are also developing in a direction that is very easy in terms

of application and cheap in cost. Solutions in the field of work can also be done through computer media, provided that users must also continue to learn as the technology advances. So, in the end, whatever technology solution we use, it is very much determined by the human resources who use it.

Technology Acceptance Model (TAM) concept is based on Reasonable Act Theory (*Theory of Reasoned Action – TRA*). The Planned Behaviour theory was proposed by Icek Ajzen [1] through his article “From intention to action: a theory of planned behavior”. This theory was developed from reasoned act theory, which was put forward by Martin Fishbein with Icek Ajzen in 1980. According to reasoned act theory, if a person analyzes suggested behavior as positive (attitude) and thought that it was important, they will want to do behavior (subjective norm); this will produce a higher intention (motivation) and they would be more likely to do it.

System acceptance is affected by numerous things such as: behavioral intention to use is determined by 2 beliefs: first, is perceived usefulness which can be defined as how far a person is sure whether using system will improve his performance. Second, is perceived ease of use which defined by how far a person is sure whether the use of the system will be easy to be implemented. TAM is considered the best concept to explain user’s attitude toward new information system technology [2]. User attitude toward using of an information system technology, has an important part toward the success of its implementation. That is a factor that supports the development of TAM which invented by Davis [3].

Based on 2004 National Health System (SKN), data availability, advances support of health science and technology, health law support and health administration are to determine the success of health management. The Indonesian Health Minister’s Decree of 228/2002, on Standard of Minimum Service Preparation of Hospital, states that hospitals need reliable HIS support to provide standard health services to the community. The Hospital Information System (HIS) is a collection of integrated data processing mechanisms that are ready to be used for hospital management in achieving its objectives. Computers, which are information technology that are used in information systems, have 5 main roles. Organizational improvement in efficiency, effectiveness, communication, collaboration and competition [4].

Jakarta Metropolitan Medical Centre Hospital (MMC) is located in business and government area which is capable of giving fast, accurate and precise health services. Therefore, MMC hospital is required to develop itself to become an institution that is capable to compete in hospital services and

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to have comparative excellences. At present, MMC Hospital has already used computerized hospital information system management in data processing and independent information. Computer based Hospital Information System (HIS) at Jakarta MMC hospital has already been used since 2005 by the name of "HIS". In 2015, the system was changed to "SMART HIS". In February 2020, to the name "HISys" (Hospital Information System) due to various problems, such as long waiting time in process of administering home for patients from inpatient and outpatient care, room readiness processes and manual medical record data. The purpose of this research is to analyze the actual application of hospital management information system using TAM method with behavioral intention to use as variable intervening. It is expected that the result of this research can contribute to academia and hospitals to increase the awareness of the benefits of using HIS, thus, it can motivate the hospital information system technology users to gain the maximum results in hospital services.

II. HYPOTHESIS DEVELOPMENT

TAM theory's [3] purpose is to provide explanation and to estimate user acceptance, technology acceptance factors in an organization and are expected to help predict a person's attitude and technology acceptance, behavioral intention to use technology, perceived usefulness in using technology will improve performance and perceived ease of use in using technology will make work completion easier. Based on the studied problem, hypothesis can be put forward:

H1: There is an influence between HIS user's attitude toward using and toward behavioral intention to use at Jakarta MMC Hospital.

H2: There is an influence perceived usefulness toward behavioral intention to use of HIS at Jakarta MMC Hospital.

H3: There is an influence between perceived ease of use and toward behavioral intention to use of HIS at Jakarta MMC Hospital.

H4: There is an influence between user's behavior intention to use and toward the actual technology to use of HIS at Jakarta MMC Hospital.

H5: There is an influence between user attitude toward using and toward actual technology to use of HIS at Jakarta MMC Hospital.

H6: There is an influence between perceived ease of use toward actual use of HIS technology at Jakarta MMC Hospital.

III. RESEARCH METHOD

This method was arranged using the quantitative research approach, survey methods and causality techniques. The data collection approach method is done by using a questionnaire instrument. The study was conducted at Jakarta MMC Hospital. The sampling technique is purposive sampling. The sample used was 100 respondents who used HIS. Data analysis was used for path analysis with AMOS software. Independent variables are included in this

research, namely: User Attitude Toward Using Variable (X1), Perceived Usefulness Variable (X2), Perceived Ease of Use Variable (X3) and dependent variables, which are : Actual Technology Use Variable (Y), Behavioral Intention to Use Variable (Z).

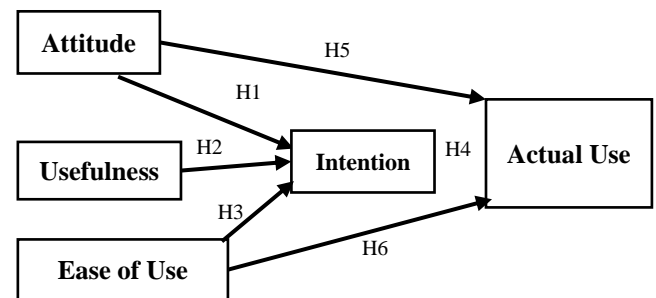


Fig. 1. Theoretical Concept Framework.

IV. RESEARCH RESULTS AND DISCUSSION

TABLE 1: RESPONDENT PROFILE

No	Description	Frequency	Percentage (%)
1.	Respondent's Gender		
	Female	64	10,2
	Male	36	5,7
2.	Respondent's Age		
	Age 21-35	57	9,05
	Age 36-50	33	5,23
	Age > 50	10	1,58

A. Validity and Reliability Test

A validity test determines whether an item is suitable to be used or not by performing a correlation coefficient significance test at the significance level of 0.5, which means that the item is considered valid if it correlates significantly to the item's total score. Validity test using KMO with decision making base which is used is by seeing r table with n numbers of 100 samples. If r count > r table, then the items tested are declared **valid**. If r count < r table, then the items tested are declared **invalid**. A reliability test is done to test whether respondent's answers are consistent or not. **Reliable** if fulfill the criteria of Cronbach Alpha > 0,6. **Unreliable** if Cronbach Alpha < 0,6.

TABLE 2: VALIDITY & RELIABILITY TEST [5]

Variable	KMO	Cronbach's Alpha	Info
<i>Attitude Toward Using</i>	0,873	0,943	Accepted
<i>Perceived Usefulness</i>	0,893	0,961	Accepted
<i>Perceived ease of use</i>	0,926	0,951	Accepted
<i>Behavioral Intention to use</i>	0,843	0,880	Accepted
<i>actual technology to use</i>	0,815	0,885	Accepted

TABLE 3: ATTITUDE MATRIX SUMMARY [5]
THREE BOX METHOD

NO	Variable	Score			Behaviour
		High	Middle	Low	
1	Attitude Toward Using		✓		Accepting Enough
2	Perceived Usefulness		✓		Useful Enough
3	Perceived Ease of Use		✓		Easy Enough
4	Behavioral Intention to use	✓			High Intention
5	Actual Technology to Use		✓		Can be Implemented Enough

Based on Attitude Matrix Summary *Three Box Method*, can be acquired that the user's attitude toward using HIS is satisfied, have more control work thus become faster and not easily bored. Perceived usefulness in HIS are performance improvement, productivity, effectivity and become much easier. Perceived ease of use in studying HIS, skillful, easy accessibility and fully understanding of HIS. Behavioral intention to use is very motivated, planning to keep using and suggesting of HIS using to colleagues. Actual technology to use of HIS is felt easy and satisfied, comfortable in work and creating better changes.

B. Model Testing

Fit Model is done by Chi-Square testing. Small Chi-Square results or probability level value greater than 0.05 indicates that this model is fit or eligible to use. Minimum was achieved, Chi-square = .977, Degrees of freedom = 1, Probability level = .323. These results indicate that if the probability level is above 0.05 then this model is FIT or Eligible. This means that there are no differences in theory, models and empirical results.

C. Partial Testing

Partial test results, $t_{\text{arithmetic}} > t_{\text{table}}$ and the probability value $\text{sig} < 0.05$ means there is a significant influence of the independent variable toward the dependent variable.

TABLE 4: PARTIAL TESTING RESULTS [5]

	Estimate	S.E	C.R.	P	Info
NP←KP	.198	.091	2.180	.029	H3 = accepted
NP←MP	.166	.083	2.016	.044	H2 = accepted
NP←SP	.204	.086	2.385	.017	H1 = accepted
PS←NP	.264	.093	2.845	.004	H4 = accepted
PS←KP	.171	.084	2.033	.042	H6 = accepted
PS←SP	.287	.083	3.480	.000	H5 = accepted

D. Intervening Testing

Intervening testing is carried out related to behavioral intention to use variables to use the system in order to mediate exogenous variables to endogenous. Intervening test results are in the following table:

TABLE 5: INTERVENING DIRECT EFFECTS TEST RESULTS [6]

	Attitude Toward Using	Perceived Usefulness	Perceived Ease of Use	Behavioral Intention to Use
Behavioral Intention to Use	.230	.194	.221	.000
Actual Technology to use	.318	.000	.187	.259

TABLE 6: INTERVENING INDIRECT EFFECTS TEST RESULTS [6]

	Attitude Toward Using	Perceived Usefulness	Perceived Ease of Use	Behavioral Intention to Use
Behavioral Intention to Use	.000	.000	.000	.000
Actual Technology to use	.060	.050	.057	.000

Based on the calculation, direct Attitude Toward Using is bigger than the indirect one. Direct Perceived Ease of Use is bigger than indirect. This results states that behavioral intention to use the system will improve the influence of perceived usefulness toward the actual technology to use.

E. Discussion

Hypothesis 1: The effect of Attitude Toward Using toward Behavioral Intention to use at Jakarta MMC Hospital

Hypothesis 1 is accepted because the results of the variable research, attitude toward using affect positively and significantly toward behavioral intention to use with significance level shows probability value of 0,017 below 0,05, which means that the higher the attitude in using a system, the higher behavioral intention to use a system.

This supports the results that are shown from the Three Box Method, which is, that Attitude Toward Using, is on the High Index (73.8) and that MMC Hospital employees favor the use of HIS. Whereas moderate index with average results (72.24), represent that MMC Hospital employees are satisfied in using HIS, that HIS promotes easier work control, work faster using HIS, and do not feel bored when using HIS. In the results of the Three Box Method indicator, Behavioral Intention to use shows that the average response with a statement on the High index (74.8), which represents MMC Hospital employees who intend, are motivated, plan to keep using HIS in the future, and will advise friends to use HIS. Whereas wanting to use HIS independently or without the help of others is in the Medium index (70.2).

The above results are supported by TAM theory and that the attitude of the attitude toward using, influences one's intention to use the system or technology. Attitude Toward

Using the systems, in the form of acceptance or rejection, has an impact on whether someone uses technology in their work or not [7]. This affects the behavioral intention to use and behavioral tendency to keep using a technology [8]. According to Fishbein and Ajzen in Ramdhani research [9], defines attitude as the amount of someone's affection (feeling) has an evaluation or assessment of the attitude whether it is beneficial or not to accept or reject an object or attitude and is measured by a procedure that puts individuals in a two-pole evaluative scale, for example good or bad; agree or reject, and others. Hoppe et al [10] defines that attitude explains a person's acceptance of information technology. A person's attitude consists of cognitive elements / perspectives (cognitive), affective (affective), and components related to behavior (behavioral components). Behavior is one form of evaluation of the consequences of carrying out a behavior [11].

According to Ajzen [12], behavior that is defined as observable action, is related to persuasive feelings or individual behavior. TRA plays a key role in TAM development. According to TRA, beliefs influence behavior, and behavior determine the nature of intentions that guide the use of behavior [13]. In other words, intention is a cognitive process of an individual's readiness to perform certain behavior and is a direct antecedent of usage behavior. In turn, the use of behavior is an observable action carried out by an individual based on their experience or mediated by several representative observations of a certain target / level.

This relationship is supported by the findings of Aditya Arie Hanggono, Siti Ragil Handayani, Heru Susilo in Analysis of TAM Practices in Supporting Online Businesses by Utilizing Instagram Social Networking on Attitude Toward Using variables having a significant influence on behavioral intention to use so that there is a significant positive and acceptable effect [14].

Hypothesis 2: The effect of Perceived Usefulness toward Behavioral Intention to Use at Jakarta MMC Hospital

Hypothesis 2 is accepted because study results that perceived usefulness affect positively and significantly toward behavioral intention to use shows probability value 0,044 below 0,05, which means the higher the usefulness of using the system, the higher behavioral intention to use the system.

The results were shown by Three Box Method indicator that the perceived usefulness variable is a high index (74.4), which means that MMC Hospital employees work faster by using HIS. While the average results of respondents' responses were on the Medium index (72.96), which means that MMC Hospital employees who use HIS have increased performance, are effective, are useful in work, and that work is easier. On the indicator results of the Three Box Method, behavioral intention to use variable showed that the average response of respondents with a statement on the High index (74.8), which means that MMC Hospital employees who intend, are motivated, plan to keep using HIS at the future, and will advise friends to use HIS. Whereas wanting to use HIS independently or without the help of others in the Medium index (70.2).

These results support the Davis' Theory [3] that

Perceived usefulness is defined as the level of how someone believes that using a particular system can improve performance. Based on research done by Davis, he found that the perceived usefulness has a relationship with behavioral intention to use. According to Davis [3] defines perceived usefulness as a level where someone believes that the use of a particular subject will be able to improve the work performance of that person. Based on these definitions it can be interpreted that the perceived usefulness of using computers can improve performance, work performance of people who use them. The measurement of usefulness is based on the frequency of use and diversity of applications that are run. Thompson [15] also states that individuals will use Information Technology (IT) if they know the positive benefits of their use [16]. Based on these definitions it can be interpreted that the benefits of using computers can improve performance of people who use them at work. A high quality system is one where the user believes in the existence of a positive relationship and performance. There are 6 things in building Perceived Usefulness, that a system makes: works faster, improves performance, increase productivity, effectiveness, facilitates work, and usefulness.

According to Davis [3], Adam et.al [17] defines usefulness as a level where someone believes that the use of a particular subject will be able to improve the work performance of that person. Based on these definitions it can be interpreted that the benefits of using computers can improve work performance of people who use them. Behavioral intention to use, is the behavioral tendency to keep using a technology [8]. The level of use of a computer technology by someone can be predicted from the attitude of the user's attention to the technology, for example the desire to add supporting tools, motivation to keep using it, and the desire to motivate other users. It is a basic trait of a human being to have a curiosity. If a customer is faced with a new product, then there are some of them who want to try the new product. Especially if the customer does not know the function of the product. This level of willingness to try provides a positive relationship with behavioral intention to use.

Then these results support the findings of (Wibowo, nd) / Arif Wibowo [18] in the Study of the Behavior of Information Systems Users with the TAM Approach show the processing results on the variable (PU) influences Behavior Intention (BI), (Wibowo, nd) / Arif Wibowo, [18] that perceived usefulness / benefit, perceived ease of use, and perceived enjoyment affect behavior and intention / intention to use the system. According to the theory and the results of the study above, that perceived usefulness has a positive effect on behavioral intention to use.

Hypothesis 3: The effect of Perceived Ease of Use toward Behavioural Intention to use at Jakarta MMC Hospital

Hypothesis 3 is accepted, because the results of this study indicate the Perceived Ease of Use variable has a significant positive effect on Behavioral Intention to Use, because the significance level of the probability value is 0.029 below 0.05, meaning that the higher the perceived ease of use the system, the higher the behavioral intention to use the system.

The results of the Three Box Method indicator support

the Perceived ease of use variable there is an average result of respondents indicating a statement on the Medium index (71.22), that MMC Hospital employees easily learn and access the HIS, are skilled, easy to remember, easy to operate, easy to understand and use HIS. The indicator results of the Three Box Method Behavioral Intention to use shows the average response of respondents with a statement on the High index (74.8), that MMC Hospital employees who intend, motivated, plan to keep using HIS in the future, will advise friends to use HIS. Whereas wanting to use HIS independently or without the help of others in the Medium index (70.2).

These results support Davis' theory [3] defining Perceived ease of use as the user's perception of the ease of adopting the system. Perceived ease of use is the degree to which a person believes that using a particular system is free from effort [3] this has a positive and significant effect on behavioral intention to use which is the tendency of behavioral intention to keep using said technology. According to Davis [3], the notion of perceived ease of use is the degree to which a person believes that using a particular system is free from effort. The most important thing for the user is the amount of effort he spends in using a system. 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 a clear argument that an individual's efforts to become scarce resources, such that an individual person should be willing to allocate more opportunities than systems that require greater effort. Perceived ease of use in technology is interpreted as a measure of one's trust in computers that are easily understood and used [7]. This explanation is supported by Wibowo [19] who explains that a perception of ease of use of technology is defined as a measure where someone believes that the technology is easy to understand and easy to use. Rigopoulos and Askounis [20], Gefen et al. [21], and Yahyapour [11] state that perceived of use can also be measured through indicators that are clear and easily understood.

This result also supports research by Rina Anggraeni, whose findings about Influence of the Perception of Ease of Use and Perception of Use of Intention to Use and Actual Use of Location-Based Social Networking Services (Studies in Students of the Faculty of Economics and Business, Brawijaya University, Malang, shows that the perception of ease of use has a positive influence and significant on intention to use. The hypothesis which states the perception of ease of use has a positive and significant influence on intention to use is supported. Location-based social networking services are still in the growth stage (growth), so perceived ease of use is an important point for users to increase their behavioral intention to use. Perceived ease of use of location-based social networking services can be a cause of success or failure of use [22].

Hypothesis 4: The effect of Behavioral Intention to Use toward Actual Technology to Use at Jakarta MMC Hospital

Hypothesis 4 is accepted because the results of this study indicate that the behavioral intention to use variable has a significant positive effect on actual technology to use, because the significance level is 0.004 below 0.05. meaning that the higher the behavioral intention to use the system, the

higher the actual technology to use the system.

The results of the indicator support of the Three Box Method behavioral intention to use variable shows the average response of respondents with a statement on the High index (74.8), that MMC Hospital employees who intend, motivated, plan to keep using HIS at the future, will advise friends to use HIS. Whereas wanting to use HIS independently or without the help of others in the Medium index (70.2). While the Three Box Method on the actual technology to use variable shows a statement on the High index (73.8), that MMC Hospital employees feel that HIS can provide excellent benefits. While the average results of respondents' responses to the actual technology to use variable is in the Medium index (72.28), that MMC Hospital employees are satisfied because HIS is easy to be used and learned, the use of HIS can make changes for the better, and feel comfortable in using HIS in accordance with everyday practice and given the opportunity to innovate before using HIS.

These results support Davis' theory [3] that behavioral intention to use which is the tendency of behavior intention to keep using a technology [8], this affects the actual use (actual system using) stated that "actual use" interpreted as "a person's performance of specific behavior", meaning someone's performance of certain behaviors [8]. Behavioral Intention to Use is the tendency of behavior to keep using a technology. Behavioral Intention to Use has an influence on Actual technology use, as well as influenced by attitude and Perceived Usefulness. Forms of external psychomotor responses that are measured by someone in real use, such as: usage intensity of information systems, frequency of usage of information systems, as well as the actual use of information systems on an ongoing basis. Based on several studies as quoted by Gahtani [3], [23], [24] system usage is the main indicator in technology acceptance. Actual System Usage is the real condition of system usage. Based on the explanation above, system usage is the main indicator in technology acceptance [3], [23], [24]. Conceptualized in the form of measurements of the frequency and duration of time of technology use. Someone will be satisfied using the system if they believe that the system is easy to use and will increase their productivity which is reflected in the real conditions of use [20], [25].

These results support research by Rina Anggraeni in her findings on the Effect of Perceived Ease of Use and Perception of Use of Intention to Use and Actual Use of Location-Based Social Networking Services (Studies in Students of the Faculty of Economics and Business, Brawijaya University, Malang, shows that behavioral intentions have a positive and significant influence on the actual use of the Hypothesis system which states the intention to use has a positive and significant influence on the actual use that are supported. Results obtained by researcher in this study, explained that the emergence of individual behavior to use location-based social networking services is influenced by the emergence of initial intentions for the location-based social networking service system. Intention to use is a voluntary representation and cognitive readiness of users to actually use location-based social networking services [22].

Hypothesis 5: The effect of Attitude Toward Using

toward Actual Technology to Use at Jakarta MMC Hospital

Hypothesis 5 is accepted because the results of this study indicate that the attitude toward using variable towards actual technology to use shows a probability value of 0.000 below 0.05. Meaning that the higher the attitude toward using in using the system, the higher the actual technology to use the system.

The results of this test are supported by the results of the Three Box Method of the attitude toward using variables. This indicates a statement on the High index (73.8), that MMC Hospital employees favor the use of HIS. Whereas statements with moderate index with average results (72.24), indicate that MMC Hospital employees are satisfied in using HIS, say it's easier to control workflow, faster to work with, and do not feel bored using HIS. While the Three Box Method on the actual technology to use variable shows a statement on the High index (73.8), that MMC Hospital employees feel HIS can provide benefits very clearly. While the average results of respondents' responses to the actual technology to use variable are in the Medium index (72.28), that MMC Hospital employees are satisfied because HIS is easy to use and learn, the use of HIS can make changes for the better, and feel comfortable in using HIS in accordance with everyday use of practice and given the opportunity to innovate before using HIS.

These results support the theory of Davis F.D [3] that the Attitude toward using as an attitude towards the use of systems in the form of acceptance or rejection as an impact when someone uses technology in his work [7]. But these results differ from the research in the findings [26], Relationship between Perceived Usefulness, Perception of Ease of Use and Attitude Toward Using with Actual Technology to Use of Hospital Information Systems Management (HIS). This shows that there is no relationship between the user's attitude toward using and the actual technology to use of HIS in RSO Prof. dr. R. Soeharso, Surakarta. The results of this study are the same as that conducted by Natalie Tangke [27], Arie Muhammad S.B. [28] and Budi Santoso [29] which stated that user attitudes toward using had no significant effect on the acceptance of Information Technology. The TAM model is actually adopted from the Theory of Reasoned Action (TRA) model, a reasonable theory of action developed by Fishbein and Ajzen [30] with a premise that one's reaction and perception of something will determine the person's attitude and behavior. The theoretical basis for the Fishbein and Ajzen models is Theory of Reasoned Action (TRA). This theory models one's behavior as a function of behavioral goals. Behavioral goals are determined by attitudes toward these behaviors [31]. The absence of a relationship between behavior and actual use shows that feelings of liking or disliking for the new system have no impact on the actual use of HIS in RSO Prof. dr. R. Soeharso Surakarta [26].

These results support research by Richard Changay, Stefanus Budy Wijaya, Prita Ayu K [32] regarding Factors Affecting Ubaya Learning Space Acceptance based on the 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. [33].

Hypothesis 6: The effect of Perceived Ease of Use Influence toward Actual Technology to Use at Jakarta MMC Hospital

Hypothesis 6 is accepted because the results of this study indicate that perceived ease of use variable influences the actual technology to use indicating probability value of 0.042 below 0.05. This means that the higher the perceived ease of use in using the system, the higher the actual technology use.

The results of the Three Box Method indicator support the perceived ease of use variable, there is an average result of respondents' responses indicating a statement on the Medium index (71.22), that MMC Hospital employees easily learn and access are skilled, easy to remember, easy to operate, and easy to understand HIS. While the Three Box Method on the actual technology use variable shows a statement on the High index (73.8), that MMC Hospital employees feel that HIS can provide benefits very clearly. While the average results of respondents' responses to the actual technology to use variable are in the Medium index (72.28), that MMC Hospital employees are satisfied because HIS is easy to use and learn, the use of HIS can make changes for the better, and feel comfortable in using HIS in accordance with everyday use of practice and given the opportunity to innovate before using HIS.

These results support the theory of Davis [3], that the perceived ease of use is the degree to which a person believes that using a particular system is free from effort, and that it has a positive and significant effect on the actual use of HIS (actual system using). Also, it's stated that "actual use" is defined as "A person's performance of specific behavior", meaning someone's performance of a certain behavior [8]. 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 that are equal, and are an easy-to-use system, will increase the intention to use as a virtue of an easier-to-use system. Considering clear arguments that an individual's efforts to become scarce resources, such that an individual person should be willing to allocate more opportunities than systems that require greater effort [3]. According to Adam et.al [17] the intensity of use and interaction between users with the system can also show ease of use. A more frequently used system indicates that the system is better known, easier to operate and easier to use by its users.

These results support previous research by the findings [26] in the Relationship of Perceived Usefulness, Perceived of Ease of Use and Attitude Toward Using with Actual Technology to Use of Hospital Information Systems Management (HIS), that the results of this study are consistent with research conducted by Milizar Muktar in 2007 which states that perceived ease of use affects the actual use of HIS in National Hospital Dr. Adnaan WD Payakumbuh. Perceived ease of use will reduce the effort (both time and energy) of a person in learning information technology. This convenience comparison gives an indication that people who use the new system work easier than people who work with the old system. Users believe that information technology is more flexible, easy to

understand and easy to operate (compartible) as a characteristic of ease of use. The results of this study indicate that the perceived ease of use factor can explain a person's reason for using the system and explains that the new system being developed at Orthopedic Hospital Prof. dr. R. Soeharso Surakarta can be accepted by users [26].

V. RESEARCH FINDINGS

Jakarta MMC Hospital employees who use HIS have high intention to use HIS because it is useful and make their work faster, improve productivity, performance, and effectiveness in implementing HIS. This indicates that in order to help increasing the intention to keep using it, requires the existence of mandatory, trial, training, socialization and participation between user and HIS IT operator to continue helping users to make it easier and quicken the work and the continuity to use it in real terms. In order to increase the positive response of the user's attitude and increase in HIS performance, systems need to be more user friendly.

VI. CONCLUSION

Attitude Toward Using affects positively and significantly toward Behavioral Intention to Use. This indicates that MMC Hospital employees show the need of system performance improvement in overall HIS using in order to get positive responses from user's attitude toward using to be increased.

Perceived Usefulness affects positively and significantly toward Behavioral Intention to Use, meaning that the higher the benefit in using the system the higher the behavioral intention to use the system. This indicates that MMC Hospital employees will keep using HIS, because besides being a mandatory from the hospital, HIS positively impacts work performance, therefore HIS improvement is needed to be more user friendly in order to make work process faster, easier, effectivity and productive for medical / non-medical workers.

Perceived Ease of Use positively and significantly affects Behavioral Intention to Use, meaning that the easier it's to use the system, the higher the behavioral intention is to use the system. This indicates that use of HIS is easy enough but is still in need of training and trial and socialization to have improvement in using HIS.

Behavioral Intention to Use positively and significantly affects The Actual Technology to Use, meaning that the higher behavioral intention to use the system, the higher the actual technology to use of the system. This indicates that in order to help improve behavioral intention to use the system, it is required to have trials, training, socialization, and participation between user and HIS IT operator, in order to keep helping HIS users to be able to use the system easily and make work faster. It also keeps users using HIS in the real terms.

Attitude Toward Using affects positively and significantly toward Actual Technology to Use, meaning the higher the attitude toward using the system, the higher the actual technology to use the system. This can be seen from MMC Hospital employees who use HIS and are satisfied,

delighted, feel it's easier to control workflow, allows for faster work, make beneficial changes, do not feel bored and feel comfortable in using it accordingly for daily practical use.

Perceived Ease of Use affects positively and significantly toward Actual technology to Use, meaning that the easier in using the system, the higher the actual technology to use the system. This can be seen from MMC Hospital employees with convenience access, skillful, easy to remember, easy operating and understanding also can provide clear benefits, satisfying, can make better changes and feel comfortable in using HIS according to daily practical use.

VII. IMPLICATION

In order to realize HIS improvements, hospital management needs to require policies and commit to obligate HIS being used in each unit. Hiring competent IT staff is a must. Forming a special unit which focus on implementation, understanding, more optimal HIS development, the importance of advocating, socializing, guidance, training, monitoring and evaluating HIS performance between IT associates, management and users. Appointed as PIC can be selected from employees that represents each unit who is better in operating HIS as a role model to teach colleagues and making letter of assignment. This is to improve performance, higher productivity, higher efficiency and achieving the hospital services satisfaction which will lead to increased revenue.

VIII. SUGGESTION

In order to increase the awareness of benefits, convenience and user attitude in actual use of HIS, will require socialization, training, guidance, monitoring and evaluation accordingly to employees' need and also improved cooperation between HIS user with IT associate in design stage, trial, implementation and system development so that users will have the feeling of involvement in the failure or success of a system. This is expected to reduce the negative perception about HIS.

IX. GRATITUTION

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