FACTORS INFLUENCING USERS' INTENTIONS TO USE MOBILE APPLICATIONS IN A HOSPITAL

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Abstract

e-Health app is an application system that potentially could increase the efficiency and effectiveness of a hospital's performance. The developers need to know e-health app impacts, such as usefulness, easy use, and the overall impact to the users. This research identifies and evaluates factors influencing users' intentions and prospective users using an easy-to-Health (e-Health) app named RSA UGM Online application. Prospective users are included in this research as samples to help the application developer understand their potential market regarding product effectiveness. This research aims to identify and analyze factors influencing the use of the electronic-Health Technology Acceptance Model (e-HTAM) to increase a hospital's performance efficiency and effectiveness. A hypothetical model testing was conducted through empirical data collection, 403 experienced and inexperienced respondents on using RSA UGM Online application, using online and offline surveys. The structural Equation Model was used to assess the significance of the path coefficient. The research results show that the Perceived Usefulness, Subjective Norm, and Technology Design of the RSA UGM Online application can predict the users' intentions and prospective users. It recommends the application developer developing an e-health app based on the three factors that are successfully tested affecting their users' intentions.

Keywords: e-HTAM, e-Health app, RSA UGM Online Application.

I. INTRODUCTION

Information and communication technology (ICT) has started a significant development in the health sector. ICT has become a necessity to medical sector entities to increase the efficiency and effectiveness of their operation. One of those medical sectors is the hospital that has implemented ICT on its administration activities and medical services. Many worldwide hospitals have used ICT in business processes to prove that ICT brings benefits to the hospital [1].

Indonesia has potency for the development of technology such as mobile applications. According to the Indonesian Ministry of Communication and Informatics [2], this country is Asia's "technology giant" with the estimation of mobile phone users of more than 100 million people. Indonesia is also ranked as the world's number 6 most internet users (e-Market survey in 2019 [3]). According to CNN [4], most mobile phone users in Indonesia access social media, digital payments, such as m-banking, subscription entertainment applications and health applications for health monitors of their physical activities, access to health information, and registration of medical services in hospitals.

Smartphone user often uses mobile apps such as e-Health app which can provide medical service. According to Islam [5], "Mobile applications consist of a series of software that can be operated on mobile devices and do things for users." E-Health app users can access a specific medical facility, monitor health conditions such as heartbeat, or simply have instant access to the doctors. Smartphone apps such as e-health applications can help users manage chronic diseases, help the elder and pregnant women monitor their condition, remind a patient to take their medicine, and increase the efficiency of medical services. In addition, Entner's research [6] also states that mobile devices can increase the productivity of entities by increasing unproductive travel time, improving logistics, speeding up decision-making processes, and empowering SMEs. Similarly, Laudon and Laudon [7] stated that digital technology and mobile platforms are tendencies of a company or organization in determining strategies to achieve their goals efficiently and effectively.

Rumah Sakit Akademik Universitas Gadjah Mada (RSA UGM) Online application is an e-health app developed by Universitas Gadjah Mada Academic Hospital (UGM AH) in collaboration with the vendor to increase the efficiency and effectiveness of its medical services. RSA UGM online application provides several health services for outpatient. This mobile application has four main features: Outpatient online registration, Laboratory test result, Healthy lifestyle article, and Medical appointment scheduling. Among those four features, the registration menu is the main feature of the RSA UGM Online application. This feature allows users to register independently simply by filling in some vital information such as user profile data, insurance data, and the selection of specialist doctors. This feature will drive operational efficiencies such as scanning documents and patient queues.

All those features of systems can be accessed anytime if the user has an account. In order to create the

application account, prospective users must have a medical record number at the hospital first. The medical number is used as one of the requirements to make an account, ensuring that the application user is an actual hospital patient. However, this medical record number requirement limits the opportunity of prospective users to see the feature of the application, which can cause low numbers of users.

RSA UGM Online application is also developed to fulfill new rules regarding accreditation that obligates Indonesia's hospital to use ICT in its operation. It serves as a platform for the hospital to provide online registration for outpatient services by providing doctor schedules and the registration requirements. However, the target user of the online application registration is 30% of the total number of patients. The data shows that the number of patients who used online registration was 111 registrants, or only 2% of the total patient visits in March 2019, totaling 5,665.

On the other hand, most users do not use the app more than ten times, indicating low user retention. RSA UGM Online users are only 3 to 5 per day, so the developer team lacks feedback that can be used to improve application features and effectiveness. It becomes a severe problem in assessing the benefits and effectiveness of the application of RSA UGM Online even though it has not been implemented for a year.

Users are hardly convincing for an app that has been operating for a year; therefore, research that analyzes factors that have influenced the intention of users and prospective users to use the application should be conducted. This research could help the app developer decide the following steps to improve the application that suits the user and prospective users' interests. It can also help the developer find the reason behind the low number of app users.

This study used e-HTAM [8], a Technology Acceptance Model (TAM) model specifically to analyze users' acceptance of an e-Health app. With a slight modification on the socio-cultural factors, this research only used one variable to represent the factors, namely subjective norm. This research also includes prospective users as its sample to help the app developer detect their wants. The number of prospective users is a potential target for using this mobile application in the future.

II. LITERATURE REVIEW & HYPOTHESES

The e-Health app, also often called mobile-Health (m-Health), gives its users the ability to conduct surveillance activities, consultations, registration at the nearest medical agency, and other things independently. According to Yu et al. [9], m-health is a health need facilitated by the convergence of mobile and computer device information systems consisting of individuals and the process of meeting health needs.

Broens et al. [10] also stated that an e-Health app is an application that provides health services to its users such as health consultation, health monitoring, or a simple registration on a specific medical facility. This app has been significantly developed during the past few years for several reasons, including reducing the hospital's operation cost relating to registration and administration, integrating the hospital's internal process, and increasing the medical service efficiency.

Wilson & Lankton [11] conducted research to test the effectiveness of three models that can be used to measure individual acceptance of information technology systems. The three models are Technology Acceptance Model, Motivational Model, and Integrated Model. Wilson uses e-Health services as a subject used to measure the effectiveness of the three models. Some variables used are knowledge about health services, satisfaction with services, needs for health services, intention to search for information, and user dependence on the internet. This study argues that TAM is an effective model for testing the acceptance of the e-health system in patients with reasonable models accurately and reliably. It is sufficient to prove that TAM is an effective model for testing the acceptance of e-health technology in patients.

Technology Acceptance Model [12] is a model that can analyze users' acceptance of technology. TAM used variables such as Perceived Usefulness (PU) and Perceived Ease of Use (PEU) that are proven to have a positive influence on user's Intention to Use (ITU). According to Hartono [13], TAM has several advantages, namely TAM incorporating behavioral factors in its model, a model that has been tested with many studies, and the results are primarily supportive and conclude that TAM is a good model. TAM is a valid but straightforward model (parsimonious). Yoon [14] also used TAM to examine the behavior of library app users who stated that TAM is the suitable model for researching the acceptance of library mobile application technology and successfully generated implications regarding what is needed to increase the use of library mobile application systems.

The Electronic Health Technology Acceptance Model (e-HTAM) is a model developed from the Mobile Health Technology Acceptance Model (MoHTAM) developed by Mohamed [15]. MoHTAM is a TAM devoted to knowing the user's acceptance of the health mobile application by incorporating technology design factors. e-HTAM [8] is a revised model of criticism on MoHTAM considered less than perfect. e-HTAM is more concerned about how the application is designed, how well the application performs, and the cultural conditions in the application's users. Based on the prior research results and the many positive assessments of TAM reliability, although its simple model makes the main reason the authors use the TAM approach in hospitals research, known as e-HTAM.

A. Perceived Ease of Use and User's Intention

Several previous studies have demonstrated perceived ease of use to influence the intention to use an information system. Ease of use is defined as the less

effort put into operating a system, the more it increases performance at work [16]. Henderson and Divett [17] also stated that the perceived ease of use and perceived usefulness that is considered positive would directly affect the user's intention. RSA UGM Online application as an online registration application is expected to have been run efficiently by users. Based on previous studies lead to the following hypothesis.

H1: Perceived Ease of Use positively influences users' Intention to Use RSA UGM Online application.

B. Perceived Usefulness and User's Intention

Perceived usefulness is a subjective assumption that technology can increase user productivity. Based on TAM, the perceived usefulness is the level of user confidence that a system will increase the effectiveness and performance of the work done [16]. Research by Luna et al. [18] also states that perceived usefulness is a subjective assumption that technology can increase user productivity. RSA UGM Online application as an online registration application is expected to achieve this goal. In this research, perceived usefulness can increase the intention to use RSA UGM Online application; thus, the following hypothesis is formulated:

H2: Perceived Usefulness positively influences users' Intention to Use the RSA UGM Online application.

C. Perceived Ease of Use and Perceived Usefulness

According to Morris and Dillon [19], when users are offered to use a new system, the factors that influence their decisions include ease of use and usefulness. Perceived Ease of Use also positively influences Perceived Usefulness because the user will perceive technology as more valuable if it is easy to use. It can be stated that perceived usefulness will be influenced by perceived ease of use because the easier a system is to use, the more valuable the system is [20]. The discussion leads to the following hypothesis.

H3: Perceived Ease of Use has a positive influence on Perceived Usefulness.

D. Subjective Norm and User's Intention

TAM was later developed into TAM 2 [21] that introduced us to social variables such as Subjective Norm. Subjective norm is a person's perception where most people who are important to them think he/she should or not should not perform the behavior in question (Fishbein and Ajzen 1975 in Venkatesh and Davis [21]). Subjective norms can be in the form of recommendations for using or prohibiting not to use technology from close relatives or people respected by technology users [22]. Similar research conducted by Smith et al. [23]; El-Masri and Tarhini [24]; Hsu et al. [25]) on the adoption and acceptance of ICT shows that Subjective Norm has a significant influence on user's intentions. Based on that reason, we can infer the hypothesis as follow.

H4: Subjective Norm has a positive influence on user's Intention to Use RSA UGM Online application.

E. Subjective Norm and Perceived Usefulness

Venkatesh and Davis's [21] research shows that social factors such as Subjective Norms can influence the perceived usefulness of information systems. More and more people suggest using an application for users since its usefulness. Based on these reasons, the following hypotheses can be developed.

H5: Subjective Norm has a positive influence on Perceived Usefulness.

F. Subjective Norm and Perceived Ease of Use

This study only used Subjective Norm to represent other social variables because we believe that Subjective Norm represents the socio-cultural factors that the developer needs to know. Research by Mohamed et al. [8] stated that subjective norm also affects Technology Design and Perceived Ease of Use. The opinion of the user's significant relatives affects how the user perceives the level of difficulty using technology. It means the opinion of their close relatives can shape the user's opinion regarding the difficulty of using technology. Based on that reason, we can infer these hypotheses as follow:

H6: Subjective Norm has a positive influence on Perceived Ease of Use.

G. Subjective Norm and Technology Design

The opinion of the user's close relatives could also shape the user's assessment of the Technology Design [8]. If the closer relative says the design is good, the user could be convinced to agree with it. Moreover, if the closer relative says otherwise, the user could also think the design is terrible. Based on those statements mentioned above, we can infer these hypotheses:

H7: Subjective Norm has a positive influence on Technology Design.

H. Technology Design and User's Intention

e-HTAM [8] is a TAM model specifically designed to analyze users' acceptance of e-health app. The model adopted three main variables from TAM, added more variables for socio-cultural variables, and introduced a new variable: Technology Design. e-HTAM states that users prefer to use uncomplicated technology. That finding shows that simpler technology leads to a more significant intention to use. Based on that model, we can infer these hypotheses as follow:

H8: Technology Design has a positive influence on user's Intention to Use RSA UGM Online.

I. Technology Design and Perceived Ease of Use

Besides, e-HTAM [8] states that the simplicity of the technology also affects the user has perceived ease to use because simpler technology also leads to easier technology use. It will make the user infer the technology to be easier to use if it is more straightforward. Based on these reasons, the following hypotheses can be developed:

H9: Technology Design has a positive influence on Perceived Ease of Use.

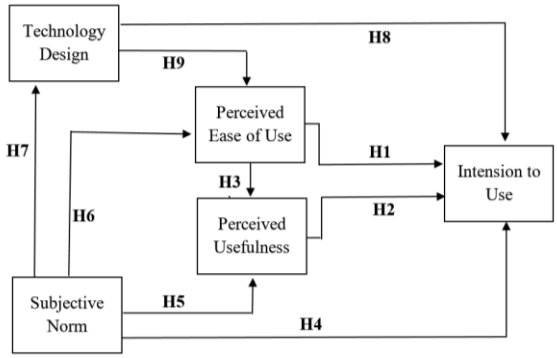

Figure 1. Research framework

III. METHODS

This research used primary data collected through online and offline questionnaires spread in the Yogyakarta region. The respondents consist of users and prospective users of the RSA UGM Online application to collect as much data as possible. The questionnaires were spread from May – June 2019. The samples are users and prospective users of the mobile app from a population of people who lives in Yogyakarta. The Rule of Thumb [26] states that the minimum sample size is 220 respondents, but the study collected 403 respondents. The questionnaire consists of 22 statements with a Likert Scale from 1–5 to measure the users' and prospective opinions.

This study used five variables from an e-HTAM model: (1) Intention to Use (ITU) to measure respondents' intentions on using the mobile app, (2) Perceived Usefulness (PU) to measure respondents' view about the usefulness of the mobile app, (3) Perceived Ease of Use (PEU) to measure respondents' view about the easiness of using the mobile app, (4) Subjective Norm (SN) to measure respondents' circle of friends' recommendations for the respondent to use the mobile app, and (5) Technology Design (TD) to measure the respondents' opinions about the mobile app design. Figure 1 is the research framework used by referring to the e-HTAM model to test intentions using the RSA UGM Online application.

The respondents are grouped into three different age groups, which are age 16-30 years old with 395 respondents (98%), 31-45 years old with five respondents (1.3%), and 46-60 years old with three respondents (0.7%). The respondents are also grouped into two genders, with 255 female respondents (63.3%) and 148 male respondents (36.7%). The respondents are divided into two professional groups, with 302 college students respondents (74.9%) and 101 non-college students. The last group of respondents is divided based on their mobile app experience, with 385 (95.5%) prospective and 18 (4.5%) users.

This study used the Structural Equation Method (SEM), a Second-Generation Technique from statistical methods, to determine the model's accuracy. The SEM method allows researchers to enter variables that cannot be observed to be measured indirectly using indicator variables [26]. Two SEM models are PLS (Partial Least Square) and Covariance-Based SEM (CB-SEM). CB-SEM is used to confirm the function of accepting or rejecting a theory or systematic empirical relationship between several variables. Meanwhile, PLS has an explorative function by explaining variants on the dependent variable when testing the model [26]. This study used PLS to explain the reasons why dependent variables can occur.

There are two PLS models; the inner and outer models [27]. The inner model describes the relationship between structures, while the outer model describes the relationships between structures and indicator variables. Furthermore, PLS simultaneously evaluates the measurement model (outer) and the structural model (inner model). A measurement model is a model to assess the validity and reliability by obtaining parameters in the form of convergent validity, discriminant validity, composite reliability, Cronbach's alpha, and R-square through an algorithm iteration process. The structural model is used to see the causality between latent variables and the T-statistics test parameters through bootstrapping.

IV. RESULTS AND DISCUSSION

A. Construct Model

The constructed model consists of 5 latent variables according to the previous explanation. Each latent variable consists of several items with a total of 22 statements. After testing the reliability and validity of several 22 items, the result of 8 items was omitted, and 14 items were then used to test this research model (Table I), namely Perceived Usefulness (PU) as many as 3, Perceived Ease of Use (PEU) = 2, Subjective Norm (SN) = 3, Technology Design (TD) = 3, and Intention to Use (ITU) = three variables.

B. Convergent Validity Test

The convergent validity test is conducted to measure the influence of a variable on a latent variable in a model. Rule of Thumb states that the minimum score for outer loading is 0.7 since the sample is more than 200 [28]. Based on Table I listed below, all factors can be considered valid.

TABLE I. VALIDITY TEST

Code	Outer Loading	Description
PU1	0,771	Valid
PU2	0,808	Valid
PU3	0,764	Valid
PEU1	0,830	Valid
PEU2	0,869	Valid
SN1	0,744	Valid
SN2	0,697	Valid
SN3	0,817	Valid
TD1	0,797	Valid
TD2	0,802	Valid
TD3	0,707	Valid
ITU1	0,831	Valid
ITU2	0,805	Valid
ITU3	0,798	Valid

Source: Primary Data

C. Reliability Test

The reliability test is conducted to measure the accuracy, consistency, and preciseness of a construct. In PLS-SEM analysis, construct reliability is measured using two gauges, namely composite reliability and Cronbach's alpha from each aspect [27]. Both of these gauges must be met so that the construct can be stated as a reliable construct. The Rule of Thumb states that the minimum score for Cronbach's Alpha is 0.6, and the minimum score for composite reliability is 0.7 [28]. Table II shows the reliability of every variable, which indicates that all variables are reliable.

D. First Order Confirmatory

First Order Confirmatory analysis is a theoretical relationship between latent variable or high order construct and deconstruct a dimension under it [27]. Bootstrapping procedure is needed to test the significant level of the relationship between variables. The relationship is significant if the T-statistics > 1.96 and the p-value score <0.05. Figure 2 shows the result of the bootstrapping procedure. Based on Table III, the entire construct item has a significant path coefficient with T-statistics > 1.96 and p-value <0.05. The results show that each item can explain its variable.

TABLE II. CONSTRUCT VALIDITY AND RELIABILITY TEST

Cons-truct	Cronbach's Alpha	rho_A	Composite Reliability	AVE	Note
TD	0,813	0,816	0,813	0,593	Reliable
ITU	0,852	0,853	0,852	0,658	Reliable
PU	0,824	0,825	0,824	0,610	Reliable
PEU	0,838	0,839	0,838	0,722	Reliable
SN	0,797	0,802	0,798	0,569	Reliable

Source: Primary Data

E. Structural Model Analysis (Inner Model)

This analysis measured how well an independent variable construct can explain the dependent variable construct by checking the endogen R square. Subjective Norm can explain Perceived Ease of Use with a score of 0.540. You can see how much Subjective Norm explains the rest of the dependent variables in Table IV.

TABLE III. ADJUSTED R SQUARE ENDOGEN OF THE CONSTRUCT

Construct	R Square Adjusted
Technology Design	0,269
Intention to Use	0,672
Perceived Usefulness	0,437
Perceived Ease of Use	0,540

Source: Primary Data

TABLE IV. SIGNIFICANT LEVEL OF ITEM RELATIONSHIP WITH ITS VARIABLES

Construct	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Description
TD1 <- TD	0,405	0,404	0,017	23,987	0,000	Significant
TD2 <- TD	0,408	0,407	0,015	27,595	0,000	Significant
TD3 <- TD	0,359	0,361	0,014	25,826	0,000	Significant
ITU1 <- ITU	0,389	0,389	0,014	28,614	0,000	Significant
ITU 2 <- ITU	0,376	0,375	0,012	31,367	0,000	Significant
ITU 3 <- ITU	0,373	0,373	0,014	26,602	0,000	Significant
PU1 <- PU	0,382	0,385	0,016	23,448	0,000	Significant
PU 2 <- PU	0,401	0,403	0,017	24,209	0,000	Significant
PU 3 <- PU	0,379	0,379	0,016	24,247	0,000	Significant
PEU1 <- PEU	0,527	0,526	0,013	40,545	0,000	Significant
PEU 2 <- PEU	0,551	0,552	0,015	35,867	0,000	Significant
SN1 <- SN	0,391	0,389	0,023	17,014	0,000	Significant
SN2 <- SN	0,366	0,365	0,019	19,463	0,000	Significant
SN3 <- SN	0,429	0,431	0,021	20,273	0,000	Significant

Source: Primary Data

F. Hypothesis Testing

The hypotheses are tested by looking at the significance level of the t-statistics and p-values tests. The bootstrapping procedure analysis will support the hypothesis if the construct meets the T-statistics criteria > 1.96 and p-values < 0.05.

Based on Table V, Perceived Ease of Use does not significantly influence users' Intention to Use RSA UGM Online application with a score of 0.075, t-statistics score of 0.906, and p-value score of 0.365. These scores show an insignificant effect and do not support H1. On the other side, Perceived Usefulness has a significant positive influence on users' Intention to Use the RSA UGM Online application with a score of 0.412, t-statistics score of 5.252, and p-value score of 0.000. These scores show a significant effect and support H2. Perceived Ease of Use has a significant positive influence on Perceived Usefulness with a score of 0.423, t-statistics score of 6.510, and p-value score of 0.000. These scores show a significant effect and support H3.

Subjective Norm has a significant positive influence on users' Intention to Use RSA UGM Online with a 0.203, t-statistics score of 2.779, and p-value score of 0.006. These scores show a significant effect and support H4. Subjective Norm has a significant positive influence on Perceived usefulness with a score of 0.333, t-statistics score of 4.664, and p-value score of 0.000. These scores show a significant effect and support H5. Subjective Norm has a significant positive influence on Perceived Ease of Use with a score of 0.215, t-statistics score of 2.882, and p-value score of 0.004. These scores show a significant effect and support H6.

Subjective Norm has a significant positive influence on Technology Design with a score of 0.520, t-statistics score of 9.173, and p-value score of 0.000. These scores show a significant effect and support H7. Technology Design has a significant positive influence on users' Intention to Use with a score of 0.277, t-statistics score of 3.444, and p-value score of 0.001. These scores show a significant effect and support H8. Technology Design has a significant positive influence on Perceived Ease of Use with a score of 0.601, t-statistics score of 9.097, and p-value score of 0.000. These scores show a significant effect and support H9.

A. Discussion

Perceived Ease of Use does not have a positive influence on Intention to Use RSA UGM Online application. It means that users and prospective users of the RSA UGM Online application are not too concerned with the ease of application but, as patients and prospective patients, are more concerned with the quality of the medical services obtained. This result is different from the result of the previous studies conducted by Davis [16]. However, this result is consistent with the previous study by Mohamed et al. [8] and Wahyuni [29] that shows users and prospective users do not concern about the difficulty of using e-Health service as long as it helps them get health services rapidly.

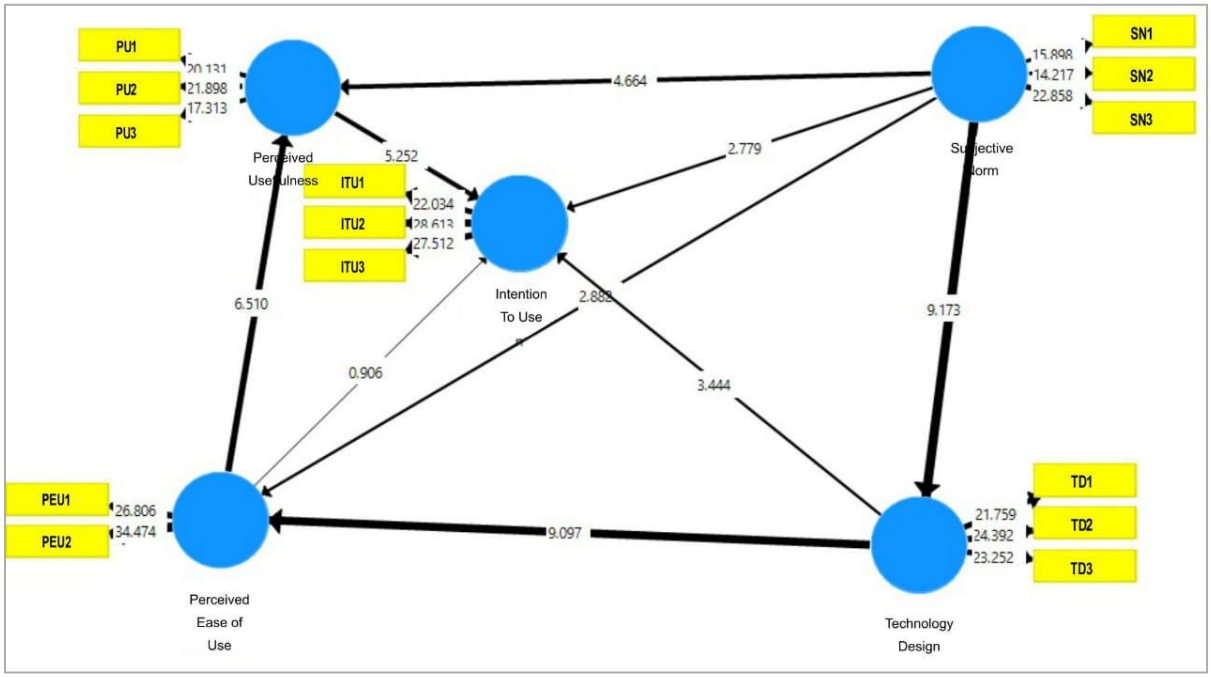

Figure 2. Bootstrapping Procedure Results

TABLE V. PATH COEFFICIENT

Hypothesis	Construct	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Description
H1	PEU → ITU	0,075	0,067	0,083	0,906	0,365	Not Significant
H2	PU → ITU	0,412	0,418	0,079	5,252	0,000	Significant
H3	PEU → PU	0,423	0,420	0,065	6,510	0,000	Significant
H4	SN → ITU	0,203	0,199	0,073	2,779	0,006	Significant
H5	SN → PU	0,333	0,344	0,071	4,664	0,000	Significant
H6	SN → PEU	0,215	0,214	0,075	2,882	0,004	Significant
H7	SN → TD	0,520	0,520	0,057	9,173	0,000	Significant
H8	TD → ITU	0,277	0,280	0,080	3,444	0,001	Significant
H9	TD → PEU	0,601	0,600	0,066	9,097	0,000	Significant

Source: Primary Data

Perceived ease of use has a positive influence on Perceived Usefulness. The easier the mobile app, the more valuable it is for the user. This result is consistent with Venkatesh and Davis [20] study, which concludes that users' perception about the easiness of using technology positively influences their perception of how useful it is. Perceived usefulness also has a positive influence on the Intention to Use RSA UGM Online application. Therefore, RSA UGM Online developers should pay attention to the features in this application that their users need. The form of information needed by the user will affect the benefits and intentions of the user towards RSA UGM Online. This result is also consistent with the previous study by Davis [16], which concludes that users will have a more significant intention to use a technology if they perceive it as a technology that does not need much effort to use.

Subjective Norm has a positive influence on users' Intention to Use the RSA UGM Online application. This research shows the importance of social influence over the users' intention of mobile applications. The test results align with the policy conducted by the directors of RSA UGM at the beginning of implementation so that all RSA staff use this application and test its quality. This policy is intended so that RSA staff who have used RSA UGM Online can invite the public to increase the use of the application. This result is consistent with Venkatesh's previous study about TAM 2 [21], concluding that the more people recommend the users or prospective users to use the mobile application, the more they want to use it. The more positive opinion about the RSA UGM Online application from the users or prospective users' friends, relatives, and acquaintances can make the users' intention to use the mobile application bigger.

Subjective Norm also has a positive influence on Perceived Usefulness. This result is also consistent with Venkatesh's TAM 2 [21]. The more positive recommendations to use RSA UGM Online coming from users or prospective users' close circle, the more the users will think that the mobile application is helpful to them. This result makes sense as users will think the mobile application is more useful if many recommend it.

Subjective Norm has a positive influence on Perceived Ease of Use. This result is consistent with Mohamed's [8] findings during the testing of e-HTAM, which concludes that the more recommendation the respondent gets from their close circle to use the mobile application, then the respondent will perceive that it is easy to use. The more respondents of RSA UGM Online have positive recommendations, the more users will think the mobile application is easy to use. The results of this test will be helpful for RSA UGM Online developers to identify and accommodate what features should be applied to fulfill the application user needs.

Subjective Norm also has a positive influence on Technology Design. This result is also consistent with Mohamed et al. [8] study that concludes the number of recommendations to use the mobile application from a close circle affects the users' perception about the design of the mobile application. The respondent will think that the mobile application is easy to use because many people recommend them to use the mobile application location. These findings provide a clue that criticism, advice, and the public's desire to be the primary input in the better design of RSA UGM Online.

Technology Design has a positive influence on user's Intention to Use RSA UGM Online application and Perceived Ease of Use. Both results are consistent with the study conducted by Mohamed et al. [8], which concludes that the language and design used by the mobile application affect both factors. The better the mobile application design, the more the user's Intention to Use because it provides clear and easy-to-understand information. These findings provide a good guide for RSA UGM Online developers to make the application design more attractive and user-friendly for users and prospective users. The user will also think that the mobile application is more accessible because the information provided and user interface are suitable.

V. CONCLUSION

This study concludes that three factors have a positive influence on user's Intention to Use. Those factors are Perceived Usefulness, Subjective Norm, and Technology Design. RSA UGM as the developer should focus on these three factors to effectively use RSA UGM Online. These three factors can be realized in mobile applications in the form of improved

information content, public socialization, and features attached to improving the design quality of the application.

This study result also shows that Perceived Ease of Use does not significantly positively influence users' Intention to Use. This result is different from the result of the previous study conducted by Davis [16]. However, the result is consistent with the previous study (e-HTAM [8]), which states that an e-health application user ignores how difficult to use e-health as long as it helps them get health services rapidly. As the main focus of hospital services, the directors of RSA UGM must maintain the quality and image of medical services provided to patients and the community of service users.

The study also shows that e-HTAM [8] can analyze users' acceptance of e-health on a specific level. In this case, the model can be used to analyze the RSA UGM Online application's acceptance. This study mixed the two users samples and prospective users, which led to only a single conclusion. This condition prevents the study from inferring factors that positively influence each sample's Intention to Use. A future study should be conducted to know the effect of the factors on each sample so the mobile application developer can get better information.

Based on the study results, we can recommend for hospitals in general and especially for Universitas Gadjah Mada Academic Hospital do these few things. First, develop the mobile application by providing valuable features for the patients and users while also paying attention to the mobile application's design and socio behavior. If three requirements are fulfilled, the user will eventually be more interested in using RSA UGM Online and sharing their good experience with other medical services.

Second, promote the use of RSA UGM Online to prospective users (patients and their families) by emphasizing the usefulness of mobile applications and better informing the positive impact on the quality of the current registration system. It then encourages the increase in the number of RSA UGM Online users and the effectiveness of mobile applications.

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