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FACTORS AFFECTING BEHAVIOR OF THE USE OF HEALTHCARE MOBILE APPLICATION TECHNOLOGY IN INDONESIAN SOCIETY

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ABSTRACT

During the Covid-19 pandemic, many people were worried about coming directly to the hospital to fear being exposed to Covid-19. Therefore, some people prefer to use digital platforms such as mobile healthcare applications to conduct consultations regarding illnesses and purchase drugs or redeeming drugs from prescriptions given by doctors online. The purpose of this study is to determine the factors that influence the use behavior mobile healthcare applications in Indonesia using the UTAUT2 method using the variable performance expectancy, effort expectancy, social influence, facilitating conditions, habit, behavioral intention, use behavior using moderating variables, namely age, gender, and location. The results of the test show that performance expectancy, social influence, facilitating conditions, and habit have a positive effect on behavioral intention. Likewise, the behavioral intention has a positive effect on use behavior.
Keywords: *Mobile Healthcare Application, UTAUT2, Behavioral Intention, Use Behavior, Covid-19*

1. INTRODUCTION

The digital ecosystem in the health sector continues to grow at an accelerated rate of the Covid-19 pandemic. Frost & Sullivan Digital Market Overview Indonesia projects that by 2022, revenue from digital health could reach US $ 726 million with a growth rate of 60 percent per year. One of the developing digital technology-based health service practices in Indonesia is telemedicine. Recent implementations have even entered the telehealth level, such as tele pharmacy, tele laboratory, virtual medical education, and virtual assistants (katadata.com).

IDI noted that the doctors involved in the five largest telemedicine applications in Indonesia were apparently not only general practitioners but also specialist doctors. The details are Alodokter (21,500 general practitioners, 4,500 specialist doctors), Halodoc (12,000 general practitioners, 8,000 specialists), KlikDokter (9,000 general practitioners, 2,000 specialists), Aido Health (100 general practitioners, 1,000 specialists), while Good Doctor (150 general practitioners, 250 specialists).

During the Covid-19 pandemic, many people were worried about coming directly to the hospital, for fear of being exposed to Covid-19. An alternative that can be chosen still to meet the needs for medical or other health needs is to use a mobile healthcare application. In Indonesia, there are many choices of mobile healthcare applications available on the Apps Store. The use of this mobile application is that users can consult doctors online with affordable consultation fees, purchase drugs that can be sent directly to the address via courier, and payments can also be made online.

Research conducted during the Covid-19 pandemic, quoted from timesindonesia.com, and a survey conducted by Mark plus, inc. Found that health consultation through platforms was quite attractive to the public, especially since the emergence of the Covid-19 virus. Before the pandemic, 31.8 percent of respondents visited the hospital at least once a year. Meanwhile, since the Covid-19 pandemic occurred in Indonesia, there has been a tendency for people to be afraid to visit health institutions. So that there is an increase, indicated by 71.8 percent of respondents claiming to have never visited a hospital or clinic since the existence of Covid-19, while 64.5 percent of respondents prefer to recover their health independently by resting and consuming healthy food.

Another study, conducted by DSResearch in Jakarta in 2019, shows that the understanding of

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respondents is relatively high among urbanites. Currently, the health sector is entering an era of disruption. Patients can consult a doctor through the application. Home care services, laboratory examinations, and drug orders can be made through an application that is integrated with online transportation services.

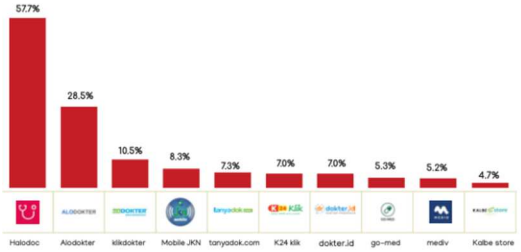

Figure 1: Top-of-mind Application Mobile Healthcare [1]

In addition, in general, 58% of respondents answered Halodoc as the top-of-mind health application or site remembered by the public, followed by Alodokter, Klikdokter, Mobile JKN (BPJS Kesehatan), and Tanyadok.com in the top five. From the number of samples taken were 438 respondents. Ease of use is what we like most of the frequently used health apps or sites. Apart from that, informative information about the prices of services or products is also a favorite thing for respondents.

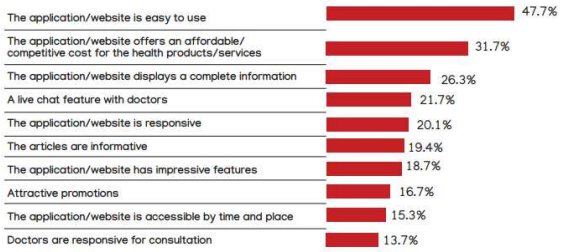

Figure 2: Top-of-mind Application Mobile Healthcare [1]

The trend of increasing the number of visitors to health applications has continued to grow. The peak of the visit occurred in March because the first positive case of Covid-19 was encountered in Indonesia. As a result, the number of health app traffic reached nearly 141 million traffic, increasing 19% from the previous month. However, in April, instead of an increase that occurred, the health application experienced decreased traffic, which reached 14 million traffic or 10% of the traffic in March. This shrinkage is predicted because the public's interest in looking for data about Covid-19 on the internet has decreased in April. Not only that, visits made by the public to the Halodoc application are only to find news about Covid-19. [2]

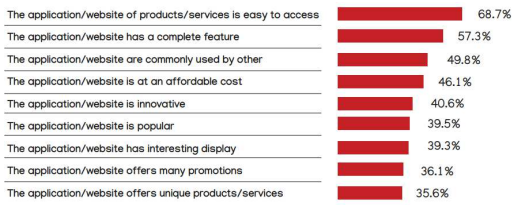

Figure 3: Considerations for using health products or services [1]

There are several user considerations before using a health application or site. The main factor is the ease of access to the application/service/product site. For example, suppose the application or site is difficult to access. In that case, it will result in users reluctant to use the application or health site. In addition, features are also a consideration for users where exclusive features will significantly help users meet their health needs. In addition, applications or sites that other people widely use affect the consideration of users to use health applications or sites.

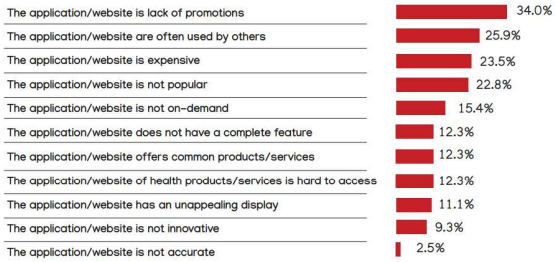

Figure 4: Reasons for not using health products or services [1]

The considerations for using a health application or site based on Figure 3, There are several reasons why users have not used a health application or site. First, the lack of promotion from the application or health site is the main factor where users are not familiar with the application or site. Secondly, other people rarely use the application. Users still do not want to use the application or health site. The price offered by a health app or site also serves as a reason for users to start using a health app or site.

From the above problems where users have considerations and reasons for using or not using health applications/sites during this pandemic, where the trend shows that at the beginning of Covid-19, the trend had increased, but in April, instead of an increase, the application health experienced a decrease in traffic compared to March. Therefore, we need a model to measure the level of usage behavior towards technology. Many theories discuss the technology acceptance model. In this study, the technology acceptance model that will be used is the

UTAUT (Unified Theory of Acceptance and Use of Technology) model, a model that has been developed by [3], which has been modified by [3] developed the UTAUT model based on eight models of acceptance of technology use that previous researchers had made. Develop and validate UTAUT models to measure the desire to use information technology. According to the use of technology (use behavior) is influenced by the desire to use (behavioral intention) and the available infrastructure (facilitating conditions). UTAUT2 added three new constructs added to the old UTAUT, namely: hedonic motivation, price value, and habit.

Previous research has used the UTAUT model as a study examining the acceptance of mobile apps using UTAUT in the field of mobile travel apps was researched by in Malaysia [4]. Another study was conducted where location has a very positive effect on the adoption of e-government technology [5] The level of behavioral intention and usage behavior is higher with the people in the country. Another research was conducted by. Individual differences in gender, age, education level, and user experience respond differently because they moderate the relationship between UTAUT2 constructs and use behavior variables [6]. Therefore, this research was conducted by applying the UTAUT2 model in the field of mobile healthcare apps and interpreting the results to measure the behavior level of the use of mobile healthcare application technology in Indonesian society.

This research was conducted by applying the UTAUT2 model in the field of healthcare mobile apps and interpreting the results to measure the behavior level of the use of mobile healthcare application technology in Indonesian society. using the UTAUT2 method using the variable performance expectancy, effort expectancy, social influence, facilitating condition, habit, behavioral intention, use behavior using moderating variables, namely age, gender, and location.

2. LITERATURE REVIEW

2.1 Healthcare

Healthcare is defined as a state of physical, mental, and social well-being, not just the absence of illness or weakness. In its holistic philosophy, it is very different from an acute care setting. Physical health implies the mechanistic function of the body. Mental health means the ability to think clearly and coherently, and it has to do with a person's thoughts and feelings and how that person handles the problems at hand. A mentally healthy person can live with other people, understand their needs, and achieve mutually satisfying relationships [7].

Health is a lifestyle that aims to achieve physical, emotional, intellectual, spiritual, and environmental well-being. The use of health measures can increase stamina, energy, and self-esteem, thereby improving the quality of life. The concept of health also allows for individual variability. Health can be considered a balance of physical, emotional, psychological, social, and spiritual aspects of a person's life. Everyone will define health in terms of personal expectations. Health behaviors are those that promote healthy function and help prevent disease. These include, for example, stress management, nutritional awareness, and physical fitness [7].

2.2 Mobile Healthcare Application

The introduction of mobile healthcare applications in Indonesia is the right step to anticipate the trend of out-of-hospital care, which has started to penetrate the area of nursing children with chronic diseases and disabilities.

Mobile healthcare services are divided into two categories as a function, namely.

1. Diagnostic services (Services that contribute to the diagnosis, investigation, treatment, monitoring, and management of disease).
2. Preventive services (Campaign on healthy living habits and adherence to health protocols). Procedural Services (Shorten the health care process).

The emergence of mobile healthcare applications can overcome significant problems/challenges such as increasing health care costs, increasing older adults, using smartphones in our daily lives, and improving overall health services. Mobile healthcare applications now allow a technology to be applied in a different and versatile way previously unseen. Such technology reduces applications that rely on platforms, specifically patient monitoring, early diagnosis, detection, and other critical medical aspects.

Mobile healthcare applications offer users medical information (for example, diagnosis and treatment) and guidance for managing their health. This application can also work with the help of various sensors, for example, on a smartwatch or smartphone, helping users check and control their health and condition. For example, a food intake monitoring application (DIMA) allows dialysis patients to self-monitor their food intake by providing real-time feedback. [8]

2.3 Unified Theory of Acceptance and Use of Technology

Unified theory of acceptance and use of technology (UTAUT2) developed by. UTAUT development is carried out by integrating eight models, namely, Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behaviour (TPB), a combination of Theory of Planned Behaviour and Technology Acceptance Model (C-TPB-TAM), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT). The UTAUT model overcomes the weaknesses of the eight models [3].

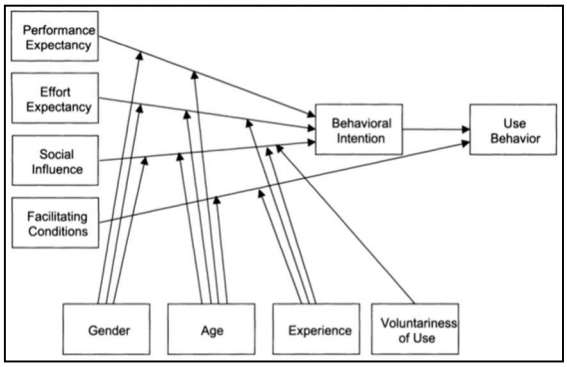

Figure 3: UTAUT Models [3]

After evaluating the eight models [3] They found seven constructs that appear to be significant direct determinants of behavioral intention or use behavior in one or more of each model. These constructs are performance expectancy, effort expectancy, social influence, facilitating conditions, attitude toward using technology, and self-efficacy. After further testing, they found four primary constructs that play an essential role as direct determinants of behavioral intention and use behavior, namely, performance expectancy, effort expectancy, social influence, and facilitating conditions. At the same time, others are not significant as a direct determinant of behavioral intention. Besides that, there are also four moderators: gender, age, voluntariness, and experience, which are positioned to moderate the impact of the four primary constructs on behavioral intention and use behavior.

UTAUT2 is a unique model to determine how much influence consumer needs in terms of technology are willing to use. In this case, this research is the use of mobile healthcare application technology. That is why UTAUT was developed into UTAUT2 to match the context of what customers are interested in, three new variables added are hedonic motivation, price value, and habit. UTAUT2 is used to increase the ability to explain the intention to use, such as those that directly impact behavior to use technology (behavioral intention to use technology). UTAUT2 is also an accurate predictive model by adding Price Value, hedonic motivation, and habit variables to the model to explain consumer behavior to use technology compared to the original UTAUT.

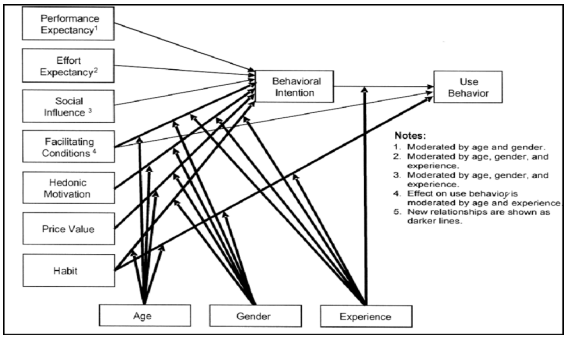

Figure 4: UTAUT2 Models [9]

The constructs in UTAUT2 (Unified Theory of Acceptance and Use of Technology 2) are as follows [3]:

1. Performance Expectancy is defined as the extent to which a user believes that using existing technology will help users achieve benefits in their work.
2. Effort Expectancy is defined as the ease of use of technology that will reduce individuals' effort (energy and time) in doing their jobs.
3. Social Influence is defined as the extent to which someone who uses technology believes and believes that other people should also use the technology used.
4. Facilitating Conditions are defined as conditions that ensure a technology user believes that there is the availability of technical infrastructure and companies/organizations that support the use of technology.
5. Hedonic Motivation is defined as a fun thing when users use technology.
6. Price Value is defined as the extent to which the costs paid impact the use of technology.
7. Habit is defined as the extent to which users automatically want to learn/learn technology.
8. Behavioural Intention is defined as a person's desire to use technology continuously to assume that they have access to the technology.
9. Use Behaviour is defined as how often users use technology. The use of technology will be encouraged if users are interested in using the technology because a person's belief in using

technology can encourage and improve job performance.

The research conducted [6] aims to measure the level of acceptance in the m-Bank application (Mobile Banking), using the UTAUT method. The purpose of this research is to examine the factors that influence customers to adopt and subsequently use m-banking services in Ghana using the unified theory of acceptance and use of technology 2 (UTAUT2) model with age, level of education, user experience, and gender as a moderator. This study took a sample of 300 users of m-banking services in Ghana as respondents. This study indicates that habit, price value, and trust are the main factors affecting the adoption and use of m-banking in Ghana. Individual differences in gender, age, education level, and user experience have different respond because they moderate the relationship between the UTAUT2 construct and the user behaviour variable.

Furthermore, the research was conducted [5]. The purpose of this research is to determine the moderating factors that influence citizens' decisions to adopt and utilize e-government services in the SADC region using the UTAUT2 research method. Empirical data to validate the proposed model were collected from 247 participants using a self-administered questionnaire. His research found that only four moderating factors (age, education level, location of residence, and local language), where location has a very positive effect on the adoption of e-government technology, behavioural intention, and use behaviour are higher with the people in the country.

Furthermore, research conducted by [10] examines the acceptance of mobile payments by retailers in Malaysia, the factors contributing to the acceptance of mobile payments, and the relationship between these factors. Several factors contributing to cellular payments such as performance expectancy, effort expectancy, social influence, facilitating conditions, habit, privacy, perceived security, and intentions, are based on the UTAUT model. The results are based on the analysis that has been done, and all the hypotheses of this study have a significant relationship, except the relationship between privacy and intention, which has a negative linear relationship.

Then, in the research conducted [11], this study applies the Unified Theory of Acceptance and Use of Technology (UTAUT2), a theoretical model to analyse the factors influencing users to use the mobile e-book application. Performance expectancy, effort expectancy, social influence, perceived cost, and facilitating conditions are the five main factors. The results of his research, performance expectancy and effort expectancy have a significant positive effect on behavioural intention, effort expectancy, and social influence have an indirect positive effect on behavioural intention, perceived cost, and facilitating conditions that do not affect the mobile e-book application. High-quality content, a user-friendly operating interface, and media promotion are essential steps to promote the development of the mobile e-book application market.

3. RESEARCH METHODOLOGY

3.1 Research Object

This research was conducted to determine the factors that influence the acceptance of mobile healthcare applications in Indonesian society. The application in the health sector is beneficial for us in meeting our health needs, such as users can consult a doctor through the application and purchase drugs and ordering drugs through an integrated application with online transportation services for delivery. Mobile healthcare application requires collaboration with hospitals & doctors as providers of doctor booking services and consultation with doctors, besides pharmacies and clinics to fulfill drug purchases by users who need drugs or consultation with doctors and providers. E-wallet to fulfill payment methods for services or drug purchases.

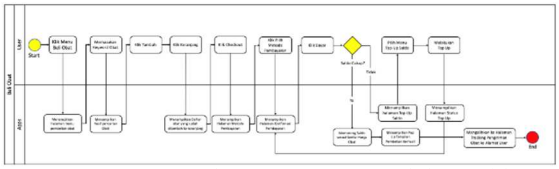

Figure 5: Drug Purchase Process on Mobile Healthcare Application

The drug purchase process begins with the user clicking the "Buy Drugs" menu, and the Apps will display a drug purchase menu page that contains lists of drugs that can be purchased, then the user enters the keyword of the drug you want to search. Furthermore, Apps will display medicinal drugs according to the entered keywords. After that, the user can add the desired drug to the purchase basket. If the user has finished selecting and adding the drug user wants to buy into the basket, then the user clicks Checkout to enter the payment method page to select the available payment method. If the user's balance is insufficient, the Top Up page will appear, then if the user already has a sufficient balance and has confirmed the payment, the Apps will pop up a

successful purchase pop-up and redirect the user to the Drug delivery Tracking page.

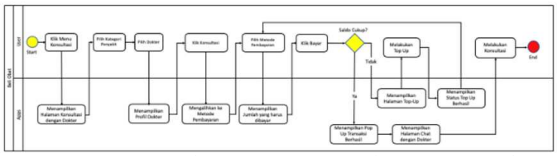

Figure 6: Consultation Process with Doctors on the Mobile Healthcare Application

In the consultation process with a doctor on a mobile healthcare application, the Apps will display a doctor consultation page, starting with the user clicking the "consultation" menu. First, the user must select a disease category then select a doctor according to the desired profile, starting from the price of consulting services and the doctor's experience in that field. After that, if the user has chosen the doctor, the Apps will redirect to the payment page. If the balance is insufficient, the user must do a Top-Up first. If the balance is sufficient and the user has paid according to the doctor's consultation service bill, the app will redirect to the chat page with the doctor then the user can consult via chat or video call.

3.1 Research Stages

In this study, the researcher will start the research by formulating the problem in this study, then determining the research objectives to be carried out. After the problem formulation and objectives have been determined, the researcher will then identify each of the variables used in this study, both the independent, dependent, and moderator variables. After selecting the variables that will be used later, these variables must be calculated. Therefore, the researcher will identify the operational variables or indicators of each concept variable. After identifying the variables used and looking for the indicators, the next step will be to find the minimum number of samples needed from the population to be studied. To determine the number of samples, the researcher uses non-probability purposive sampling, where the researcher determines specific criteria for determining the sample to be used. Take. After that, the researcher will arrange the variables based on the identified indicators and pass them on to the selected respondents. The data collected will then be processed using the SEM PLS analysis method assisted by using the SmartPLS 3.0 software. Then the results of the data processing will be interpreted, and conclusions are drawn, and suggestions are made based on the analysis results.

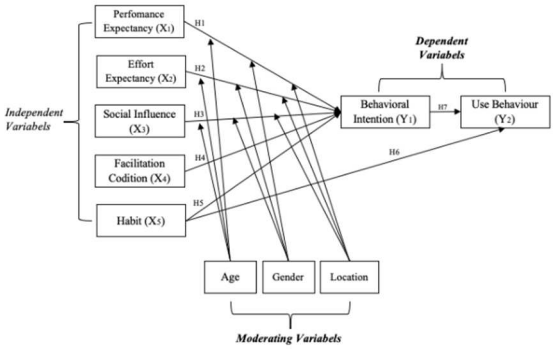

Figure 7: Research Framework

The research population is Halodoc users who have downloaded the Halodoc application on the Google Playstore and Apple Store and have provided reviews. On the Google Playstore, the number that has downloaded and provided reviews are 301,617, and the Apple Store is 136,000 with a total of 437,617.

4. RESULT AND DISCUSSION

The focus of this research is using mobile healthcare applications, namely Halodoc. Halodoc is a service created by PT Media Dokter Investama. This application is an innovation from Jonathan Sudharta's thought to solve patient difficulties in consulting with doctors. This company has first focused on the health and pharmaceutical fields through LabConx services before finally launching Halodoc. In March 2019, Halodoc secured $ 65 million in Series B funding. This amount of funding proves that Halodoc is the start-up company that receives the most significant injection of funds in the medical field in Indonesia. When calculated, the amount of this funding is up to Rp 912 billion. Through Halodoc, people can talk to specialist doctors, buy medicines, and carry out laboratory examinations via smartphones anytime, anywhere for 24 hours. Halodoc's goal is simplifying healthcare, which is to facilitate access to health for all Indonesians. Halodoc users can search for doctors online to talk about their health conditions. After the Doctor diagnoses the user's symptoms, then the appropriate medication will be given. After finishing talking with the Doctor, users can immediately buy the medicine according to the prescription received. There are two types of consultations conducted by patients through Halodoc. First, which is an emergency, 68 percent of these cases can be resolved by anamnesis or digital medical procedures. For example, in this case, red skin and swollen eyes, just by looking at the patient's condition, the Doctor can

already know the symptoms being experienced. The second is a patient who has met a doctor, so he only needs to follow up on his handled cases [12]

Features contained in Halodoc.

a. **Chat with the Doctor**
Halodoc has partners of more than 20,000 doctors from various parts of Indonesia. The doctors who joined came from a wide variety of medical expertise. Of course, they already have a registration certificate and a license to practice.
b. **Drug Store**
Apart from consulting a doctor, users can also buy drugs according to a doctor's prescription at an online pharmacy. So, patients do not have to bother buying drugs at the pharmacy. Users can also upload a doctor's prescription, then order the medicine using the Buy Medicine service on the Halodoc application. Halodoc has also been integrated with the Apotik Antar platform, which is a service that connects more than 1000 official pharmacies with the closest users. Apotik Antar collaborates with the Gojek application, namely through a service called Go-Med.
c. **Make a hospital appointment.**
Sometimes, doctors will need to come face to face with the patient being treated. For this reason, Halodoc provides access to check-up services at clinics, hospitals, or Doctor's offices. With the Halodoc application, patients can make appointments with doctors to determine the appointment time, so they do not have to queue through the hospital administration system.
d. **Laboratory test services**
Halodoc provides Laboratory testing services. With this feature, it is easier for users to order laboratory test services, of course, from official laboratories that have collaborated with Halodoc. The process of taking blood and urine samples is carried out at the user's home. Furthermore, the laboratory examination results will be recorded and can be accessed on the user account.

The number of samples taken for this study was calculated using the Slovin formula.

$$n = \frac{N}{1 + Ne^2}$$

Information:
n = minimum sample size
N = population size
e = margin of error

Is known:

$$n = \frac{437.617}{1 + 437.617(0.05)^2}$$
$$n = 400$$

The sample used in this study were 400 respondents who met the requirements for data analysis. From the questionnaire that has been distributed through Social Media, 400 respondents were collected. Thus, as many as 400 questionnaires can be used to prove the research hypothesis.

4.1 Descriptive Analysis

The gender of the respondents is female as many as 221 respondents (55.25%) while the male respondents were 179 respondents (44.75%).

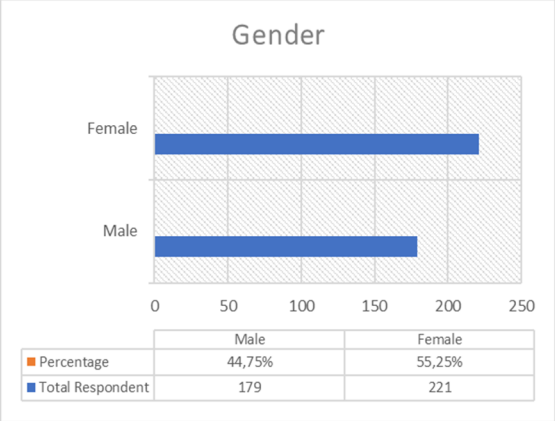

Figure 8: Respondent Gender Graphic

The respondents' ages were divided into six groups in the questionnaire distributed, namely under 18 years, 18-24 years, 35-44 years, 45-54 years and over 55 years. The distribution is based on the assumed productivity age. The test results show that the age under 18 years 1 respondents (0.26%), 18-24 years 171 respondents (44.53%), 148 respondents 25-34 years (38.54%), 52 respondents 35 - 44 years (13.54%), 10 respondents 45- 54 years (2.60%) and 2 respondents over 55 years 0.52%).

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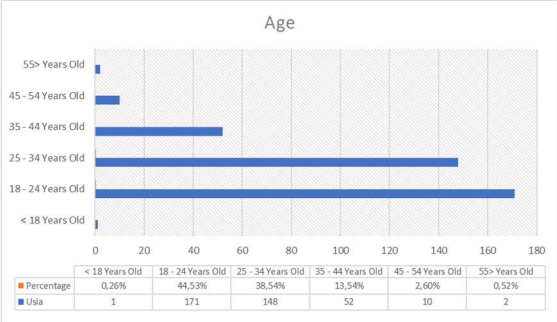

Figure 9: Respondent Age Graphic

The domicile of the respondents is Java Island as much as 372 respondents (93%) while outside Java Island there are 28 respondents (7%).

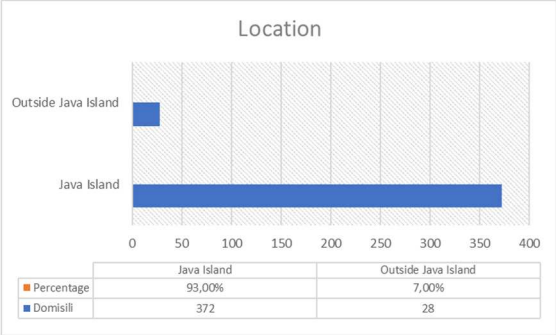

Figure 10: Respondent Location Graphic

4.2 Outer Model Analysis

In this study, testing for data analysis was carried out by testing the outer model consisting of validity and reliability tests as well as internal model testing consisting of testing the coefficient of determination (R^2), path coefficients, effect size (F^2), mediation testing and testing of hypotheses has been arranged in this study.

Table 1: Convergent Validity Test Results

Variabel	Average Variance Extracted (AVE)
Performance Expectancy (X1)	0,623
Effort Expectancy (X2)	0.616
Social Influence (X3)	0.658
Facilitation Condition (X4)	0.627
Habit (X5)	0.667
Behavioral Intention (Y1)	0.634
Use Behavior (Y2)	0.643
Age	1.000
Gender	1.000
Location	1.000

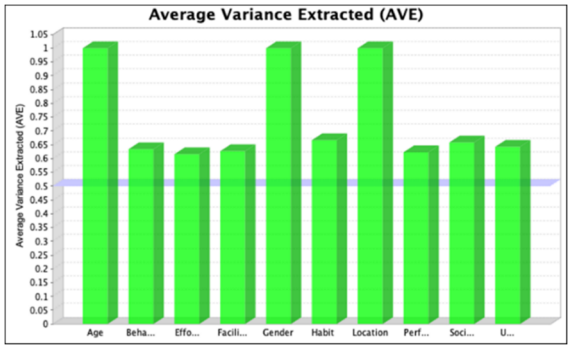

Figure 11: Average Variance Extracted (AVE)

Based on the table above, all indicators have AVE values > 0.5. This shows that the indicators in each variable have met the criteria for convergent validity.

Based on the table above, it can be stated that all indicators in each variable have a loading factor above 0.7 so that all of them are included in the analysis and are not excluded from the model.

Table 2: Composite Reliability Test Results

Variabel	Composite Reliability
Performance Expectancy (X1)	0.832
Effort Expectancy (X2)	0.865
Social Influence (X3)	0.853
Facilitation Condition (X4)	0.834
Habit (X5)	0.857
Behavioral Intention (Y1)	0.839
Use Behavior (Y2)	0.843
Age	1.000
Gender	1.000
Location	1.000

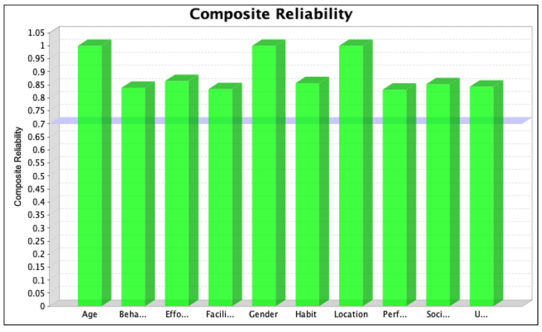

Figure 12: Composite Reliability

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Table 3: Cronbach's Alpha Test Results

Variabel	Cronbach's Alpha
Performance Expectancy (X1)	0.708
Effort Expectancy (X2)	0.793
Social Influence (X3)	0.738
Facilitation Condition (X4)	0.704
Habit (X5)	0.751
Behavioral Intention (Y1)	0.712
Use Behavior (Y2)	0.720
Age	1.000
Gender	1.000
Location	1.000

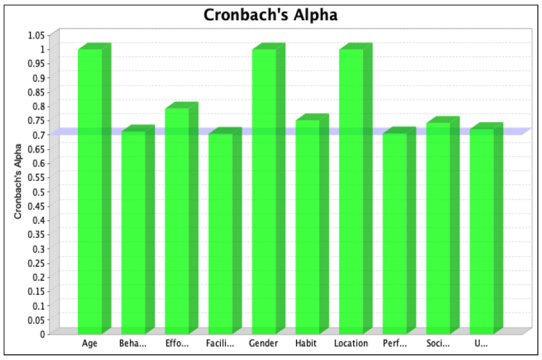

Figure 13: Cronbach's Alpha

Based on the table above, all indicators have a Cronbach's alpha value which is> 0.7. It can be concluded that all variables passed the reliability test.

4.3 Inner Model Analysis

The next stage is testing the inner model to determine the contribution of the independent variables in this study to the dependent variable (Y). The criteria that must be met in testing the structural model (inner model) include the coefficient of determination (R^2), as well as testing, which includes predictive relevance (Q^2).

Analysis of the coefficient of determination (R^2) is used to measure the ability of the model to explain the variation in the dependent variable.

Table 4: Result of Determination Coefficient Test

Dependent Variable	*R Square*	*R Square* Adjusted
***Behavioral Intention* (Y1)**	0.384	0.371
Use Behavior (Y2)	0.410	0.407

Based on the results of testing the coefficient of determination presented in the table above, the R-Square value for the Use Behavior (Y2) variable is 0.41 or 41.0%. the R-Square value for the Behavioral Intention (Y1) variable is 0.384 or 38. 4%.

The results of this test show that the overall model fits with the data or can reflect the realities and phenomena that exist in the field. So that the results of this study can be declared valid and reliable.

The analysis results show that all valid and reliable indicator variables reflect the latent variables by testing the model resulting in a fit model conclusion.

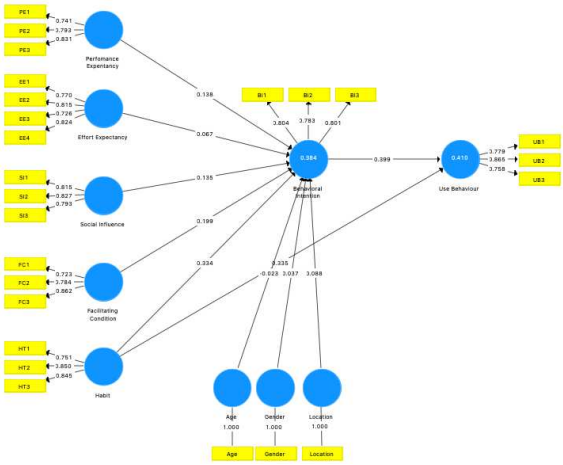

Figure 14: Final Model Output

The following is a table of the results of hypothesis testing using the data obtained.

Table 5: Hypothesis Testing Results

Hypothesis	Variable	T Statistics	P Values	Result
H1	Performance Expectancy (X1) -> *Behavioral Intention* (Y1)	2.793	0.002	Accept
H1a	Moderating Effect 1 -> *Behavioral Intention* (Y1)	1.582	0.057	Rejected
H1b	Moderating Effect 2 -> *Behavioral Intention* (Y1)	0.177	0.430	Rejected
H1c	Moderating Effect 3 -> *Behavioral Intention* (Y1)	0.602	0.274	Rejected
H2	*Effort Expectancy* (X2) -> *Behavioral Intention* (Y1)	1.078	0.141	Rejected
H2a	Moderating Effect 6 -> *Behavioral Intention* (Y1)	0.002	0.499	Rejected
H2b	Moderating Effect 7 -> *Behavioral Intention* (Y1)	2.014	0.022	Accept
H2c	Moderating Effect 8 -> *Behavioral Intention* (Y1)	0.035	0.486	Rejected
H3	Social Influence (X3) -> *Behavioral Intention* (Y1)	3.036	0.001	Accept
H3a	Moderating Effect 11 -> Behavioral Intention (Y1)	1.582	0.057	Rejected
H3b	Moderating Effect 12 -> Behavioral Intention (Y1)	0.501	0.067	Rejected
H3c	Moderating Effect 13 -> Behavioral Intention (Y1)	0.338	0.368	Rejected
H4	*Facilitation Condition* (X4) -> *Behavioral Intention* (Y1)	4.206	0.000	Accept
H5	*Habit* (X5) -> *Behavioral Intention* (Y1)	6.244	0.000	Accept
H6	*Habit* (X5) -> Use Behavior (Y2)	7.457	0.000	Accept
H7	*Behavioral Intention* (Y1) -> Use Behavior (Y2)	8.742	0.000	Accept

In the outer model test results, all the question indicators used in this study passed the validity and reality tests. So that the conclusion in the outer model, all indicators are said to be valid and reliable so that it can be continued to the inner model analysis.

Based on the results of testing hypothesis 1, it is found that the Performance Expectancy in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model has a positive effect on the Behavioral Intention of Mobile Healthcare application users. In this case, the influence of the independent variable on the dependent is directly proportional, which shows that the better the Performance Expectancy in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model, the Behavioral Intention will also increase, and vice versa. The results show that Performance Expectancy in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model has a positive effect on Behavioral Intention of Mobile Healthcare application users but is not moderated by testing the moderation hypothesis Age, and Gender, and will be moderated by Location.

Based on the results of hypothesis testing 2, it is found that the Effort Expectancy in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model has no positive effect on the Behavioral Intention of Mobile Healthcare application users. To test the moderation hypothesis, the results show that the Effort Expectancy in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model has a positive effect on the Behavioral Intention of Mobile Healthcare application users but is not moderated by Age and Location and will be moderated by Gender.

Based on testing hypothesis 3, the results show that the Performance Social Influence in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model has a positive effect on the Behavioral Intention of Mobile Healthcare application users. In this case, the influence of the independent variable on the dependent is directly proportional, which shows that the better the Social Influence Performance in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model, the Behavioral Intention will also increase, and vice versa. To test the moderation hypothesis, the results show that the Effort Expectancy in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model has a positive effect on the Behavioral Intention of Mobile Healthcare application users but is not moderated by Gender, Age and Location.

Hypothesis 4 test shows that the Facilitation Condition in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model positively affects the Behavioral Intention of Mobile Healthcare application users. In this case, the influence of the independent variable on the dependent is directly proportional, which shows that the better the Facilitation Condition in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model, the Behavioral Intention will also increase, and vice versa.

Hypothesis 5 test shows that Habit in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model positively affects the Behavioral Intention of Mobile Healthcare application users. In this case, the influence of the independent variable on the dependent is directly proportional, which shows that the better the Habit in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model, the Behavioral Intention will also increase, and vice versa.

Hypothesis 6 test shows that Habit in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model positively affects the Use Behavior of Mobile Healthcare application users. In this case, the influence of the independent variable on the dependent is directly proportional, which shows that the better the Habit in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model, the Use Behavior will also increase, and vice versa.

Hypothesis 7 test shows that Behavioral Intention in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model positively affects the Use Behavior of Mobile Healthcare application users. In this case, the influence of the independent variable on the dependent is directly proportional, which shows that the better the Behavioral Intention in the Unified Theory of Acceptance and Use of Technology (UTAUT2) model, the Use Behavior will also increase, and vice versa.

5. CONCLUSION & SUGGESTION

5.1 Conclusion

Before using a health app or website, users should think about a few things. The ease of entry to the application/service/product site is the most crucial factor. Consider the case where the program or website is challenging to use. In that circumstance, users will be hesitant to utilize the app or the health website. Furthermore, users consider features, especially when exclusive features are available.

The UTAUT2 model was applied to mobile healthcare apps, and the results were interpreted to determine the level of behavior in the usage of mobile healthcare application technology in Indonesian society. First, using the five constructs is performance expectancy, effort expectancy, social

influence, enabling condition, habit, and behavioral intention, and then using moderating variables, namely age, gender, and location.

Based on the results of data processing and analysis, the aim is to determine the factors that influence the behavior of using mobile healthcare applications in Indonesian society. So, from the results of hypothesis testing that has been done.

The test results on hypothesis H1 and indicators (PE1, PE2, and PE3) have met the validity and reliability tests based on the AVE and Cronbach's Alpha values. Meanwhile, the statistical analysis test results show a significance value (p-value) of 0.02, which is less than α = 0.05, which means that the performance expectancy variable has a positive effect on behavioral intention so that the H1 hypothesis is proven. Whereas for the hypothesis H1a, H1b and H1c have a significance value (p-value) of 0.057, 0.430, and 0.274, respectively, which are greater than α = 0.05, meaning that users of mobile healthcare applications feel that the application has met their health needs. They depend on the age and gender, and the location of the users where they live.

The test results on the H2 hypothesis and indicators (EE1, EE2, and EE3) have met the validity and reliability tests based on the AVE and Cronbach's Alpha values. Meanwhile, the statistical analysis test results show a significance value (p-value) of 0.141, which is greater than α = 0.05, which means that the effort expectancy variable has a positive effect on behavioral intention but is not significant so that the H2 hypothesis is not proven. Meanwhile, H2a and H2c have a significance value (p-value) of 0.499 and 0.486, which are greater than α = 0.05, meaning that mobile healthcare application users feel that they have met their health needs regardless of age and location. The users where they live. As for H2b has a significance (p-value) of 0.022, which is less than α = 0.05. This means that application users feel that the application has met their needs depending on their gender.

The test results on the H3 hypothesis and indicators (SI1, SI2, and SI3) have met the validity and reliability tests based on the AVE and Cronbach's Alpha values. Meanwhile, the statistical analysis test results show a significance value (p-value) of 0.001, which is less than α = 0.05, which means that the social influence variable has a positive effect on behavioral intention, so hypothesis H3 is proven. Whereas for the hypothesis H3a, H3b and H3c have a significance value (p-value), respectively 0.057, 0.067 and 0.368, which are greater than α = 0.05, meaning that social influence affects users' intentions to use mobile healthcare applications but does not depend on their age, gender, and the place where they live.

The test results on hypothesis H4 and indicators (FC1, FC2, and FC3) have met the validity and reliability tests based on the AVE and Cronbach's Alpha values. Meanwhile, the statistical analysis test results show a significance value (p-value) of 0.000 which is less than α = 0.05, which means that the Facilitation Condition variable has a positive effect on behavioral intention, so that the H4 hypothesis is proven, meaning that users intend to use mobile healthcare applications, depending on with their condition, do they already have the gadgets to get access to mobile healthcare applications.

The test results on the hypothesis H5 and indicators (HT1, HT2, and HT3) have met the validity and reliability tests based on the AVE and Cronbach's Alpha values. Meanwhile, the statistical analysis test results show a significance value (p-value) of 0.000 which is less than α = 0.05, which means that the Habit variable has a positive effect on behavioral intention, so that the hypothesis H5 is proven, meaning that users intend to use mobile healthcare applications, depending on their habits in using mobile healthcare applications.

The test results on hypothesis H7 and indicators (BI1, BI2, and BI3) have met the validity and reliability tests based on the AVE and Cronbach's Alpha values. While the statistical analysis test results show a significance value (p-value) of 0.000 which is less than α = 0.05, the behavioral intention variable has a positive effect on user behavior so that the hypothesis H6 is proven, meaning that users intend to use mobile healthcare applications. Prolonged and in meeting daily health needs.

5.2 Suggestion

Based on the results and discussion obtained in this study, suggestions are proposed to complement. The research results obtained as part of the efforts that health institutions can make regarding the behavior of mobile healthcare application users and company considerations in improving service and user comfort related to usage, Mobile healthcare applications.

1. First, health institutions can work together with mobile healthcare application providers so wherever people live in cities or the interior, they can meet health needs anywhere, so they do not need to come directly to health facilities such as pharmacies, clinics, or hospitals.

2. Second, mobile healthcare application providers can create a more straightforward and easier-to-use display design so that users over 45 years of age can use it easily. If this is fulfilled, users of that age can be reached to use mobile healthcare applications.
3. Third, application provider companies can improve relationships with their customers by providing promos to become more frequent use of mobile healthcare applications, which allow these users to continue to use the application to meet their health needs.

Suggestions for further research:

1. Comparing mobile healthcare application providers that are still not well known by Indonesians.
2. Adding new variables such as hedonic motivation, price value, and others are not explained in this research model.

REFERENCES

[1] DSRESEARCH, "The Penetration of Active and Healthy Urban Lifestyle The Understanding of Wellness Market in Jakarta," 2019. Accessed: May 22, 2021. [Online]. Available: https://dailysocial.id/research/wellness-awareness-in-jakarta-2019

[2] B. Ilham Ramadhan and T. Pradekso, "Hubungan Antara Terpaan Iklan Aplikasi Halodoc Dan Terpaan Persuasi Reference Group Dengan Minat Untuk Menggunakan Aplikasi Halodoc Sebagai Sarana Konsultasi Dengan Dokter," *Interaksi Online*, vol. 9, no. 1, pp. 130–140, Dec. 2020.

[3] V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User Acceptance of Information Technology: Toward a Unified View," *MIS Quarterly*, vol. 27, no. 3, pp. 425–478, 2003, doi: 10.2307/30036540.

[4] N. A. Bakar *et al.*, "Travel Mobile Applications: the Use of Unified Acceptance Technology Model," *International Journal of Innovative Technology and Exploring Engineering*, vol. 9, no. 3, pp. 3118–3121, 2020, doi: 10.35940/ijitee.b7661.019320.

[5] W. Munyoka and M. Maharaj, "The effect of UTAUT2 moderator factors on citizens' intention to adopt e-government: The case of two SADC countries," *Problems and Perspectives in Management*, vol. 15, no. 1, pp. 115–123, 2017, doi: 10.21511/ppm.15(1).2017.12.

[6] K. Owusu Kwateng, K. A. Osei Atiemo, and C. Appiah, "Acceptance and use of mobile banking: an application of UTAUT2," *Journal of Enterprise Information Management*, vol. 32, no. 1, pp. 118–151, 2019, doi: 10.1108/JEIM-03-2018-0055.

[7] D. Redjeki, "Memaknai Pentingnya Perawatan Kesehatan Masyarakat Dalam Meningkatkan Kualitas Hidup," *Dinamika Kesehatan: Jurnal Kebidanan Dan Keperawatan*, vol. 11, pp. 61–78, 2020, doi: 10.33859/dksm.v11i1.624.

[8] C. Lee, K. Lee, and D. Lee, "Mobile healthcare applications and gamification for sustained health maintenance," *Sustainability (Switzerland)*, vol. 9, no. 5, 2017, doi: 10.3390/su9050772.

[9] V. Venkatesh, J. Y. L. Thong, and X. Xu, "Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology," *MIS Quarterly*, vol. 36, no. 1, pp. 157–158, 2012, doi: 10.2307/41410412.

[10] N. H. M. Ariffin, F. Ahmad, and U. M. Haneef, "Acceptance of mobile payments by retailers using UTAUT model," *Indonesian Journal of Electrical Engineering and Computer Science*, vol. 19, no. 1, p. 149, 2020, doi: 10.11591/ijeecs.v19.i1.pp149-155.

[11] T. Gao and Y. Deng, "A study on users' acceptance behavior to mobile e-books application based on UTAUT model," *ICSESS 2012 - Proceedings of 2012 IEEE 3rd International Conference on Software Engineering and Service Science*, pp. 376–379, 2012, doi: 10.1109/ICSESS.2012.6269483.

[12] Halodoc, "Halodoc - Buy Medicines, Ask Doctors, Check Trusted Labs," 2020. https://www.halodoc.com/ (accessed May 22, 2021).