ISSN 2409-2665
Journal of Logistics, Informatics and Service Science
Vol. 11 (2024) No. 10, pp. 135-152
DOI:10.33168/JLISS.2024.1008

Examining the Drivers of Sustained Telemedicine Utilization in Indonesia: An Extended UTAUT Perspective

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Abstract. The increasing growth of telemedicine usage during the COVID-19 pandemic in Indonesia, yet research on drivers of sustained adoption remains limited. This study conducts a survey involving 400 telemedicine users to identify the factors influencing the interest in telemedicine usage in Indonesia. The research employs the extended Unified Theory of Acceptance and Use of Technology (UTAUT) model, incorporating additional variables such as Doctor's Opinion, Computer Anxiety, Price Value, and Information Quality. Data collection involved a questionnaire, measured on a Likert scale, and processed using Structural Equation Modeling with Partial Least Squares (SMART PLS). The findings reveal that factors such as effort expectancy, social influence, facilitating conditions, doctor's opinion, and information quality significantly impact behavioral intention towards telemedicine usage. However, performance expectancy, price value and computer anxiety showed no significant impact. This research contributes valuable insights to telemedicine companies by highlighting the importance of developing platform features that align with the identified factors. The findings imply that ease of use and system support are pivotal for telemedicine acceptance among Indonesian patients along with peer and physician endorsements. As user comfort with virtual care increases, focused quality improvement particularly across platform information and functionality can reinforce user engagement.

Keywords: UTAUT Model, Behavior Intention, Telemedicine, Technology Evaluation, Doctor Opinion.

1. Introduction

The Covid-19 pandemic that hit Indonesia in 2020 caused accelerated digitalization in almost all industrial sectors so that they could survive in a critical situation. In order to prevent the spread of Covid-19, one of which is face-to-face health services, restrictions need to be implemented. This means that health services must be provided online or online using the telemedicine health platform.

Apart from that, several problems that often occur in the health service system are lack of access to adequate health services and limited access to referral health services. For this reason, the Ministry of Health is trying to bring health services closer to the community using digital distance medicine technology, or what is usually called telemedicine(Kemkes, 2022).

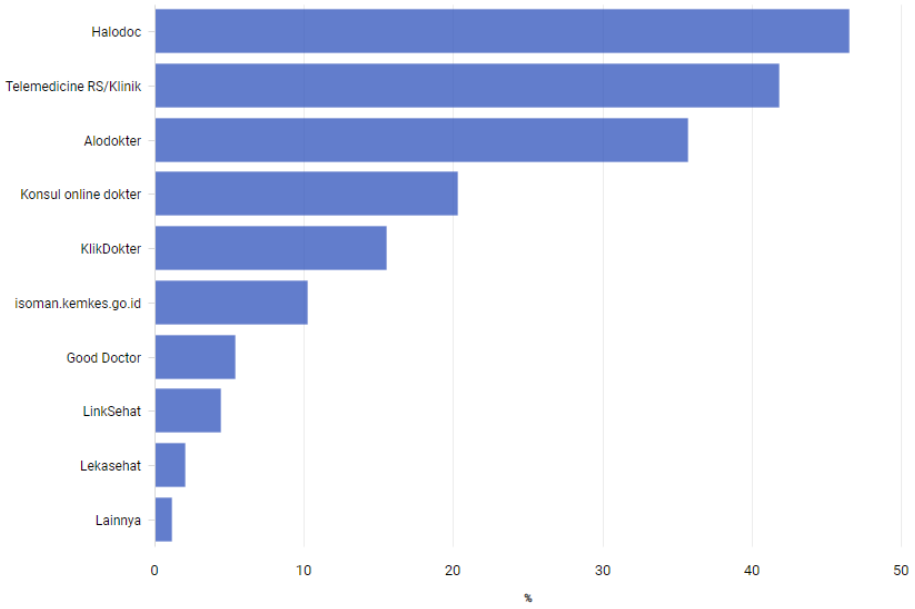

Fig. 1 use of telemedicine in Indonesia (source: Katadata, 2022)

According to the Katadata Insight Center (KIC) survey results, Halodoc is the telemedicine service most widely used by Indonesian people. The percentage is 46.5%. Telemedicine services provided by hospitals or clinics are the second most used by Indonesian people, namely 41.8%. Then, as many as 35.7% of respondents used Alodokter's telemedicine service. Then, as many as 20.3% of respondents carried out direct online consultations with doctors. There were also 15.5% of respondents who used the KlikDokter Telemedicine service and 10.2% of respondents accessed the Ministry of Health's website, namely isoman.kemkes.go.id. Meanwhile, 5.4% of respondents said they used Good Doctor telemedicine services, followed by LinkSehat (4.4%), and Lekasehat (2%). Only 1.1% of respondents said they used Telemedicine services or other health facilities. (Katadata, 2022).

In addition, More than 90% of specialty professionals agree that telemedicine can save time, money and that information and communications technology (ICT) has a potential role in health care (Albarrak et al., 2021).However, to help companies operating in the telemedicine sector to understand the interest factors that are relevant and influence customers/patients in using telemedicine applications so that they can be used as a reference in developing applications that are being used by their users later.

As increasingly the use of telemedicine, however, according to (Firda Amalia et al., 2022) there are a few problems in adopting telemedicine as health service in Indonesia.

- Telemedicine is theoretically very useful for equal distribution of health services throughout Indonesia, but it must be supported by adequate infrastructure to spread the telemedicine concept evenly.
- The implementation of telemedicine in Indonesia has been implemented appropriately. However, efforts are needed to implement telemedicine by requiring reliable medical personnel or doctors as well as telecommunications service providers.
- The amount of price incurred by patients has an impact on the number of telemedicine users.

This research refers to previous research references which used the UTAUT (Unified Theory of Acceptance and Use of Technology) method combined with several additional variables Doctor's Opinion, Computer Anxiety and Price Value, as in research journals conducted by Darmawan

Napitupulu, Rudi Yacub, and Aditya Halim with the title "Factors influencing telehealth acceptance during COVID-19 outbreak: extending UTAUT model" regarding factors influencing acceptance of telehealth applications during the pandemic which also used UTAUT in combination with Doctor's Opinion and Computer Anxiety and got the results that, The research results show that Performance Expectancy, Effort Expectancy, and Facilitating conditions have a significant effect on behavioral intentions to use Telehealth. Social Influence is not significantly related to behavioral intentions because early adopters are considered reluctant to other views. Apart from that, Performance Expectancy is significantly influenced by Doctor Opinion and Effort Expectancy is strongly influenced by Computer Anxiety (Napitupulu et al., 2021).

However, one of the issues is determining which factors influence intention to use the telemedicine so the telemedicine providers understand the interest factors that are relevant and influence users/patients in using telemedicine applications that they can be used as a reference in improving applications that are being used by their users.

2. Literature Review

This research aims to determine the factors that influence behavioral intention to use telemedicine. It can be concluded that this research will explain the reasons that influence users when using telemedicine. Of course, each platform has its own advantages and disadvantages, but it can be used as evaluation material for readers and for telemedicine companies.

The novelty of this study is the usage of price value, doctor’s opinion, computer anxiety dan information quality as variables to behavioral intention. Meanwhile performance expectancy is also act as intervening variable for doctor’s opinion and behavioral intention. The important theories from previous research has been applied to this study and will be summarized in this chapter.

2.1 Telemedicine

Telehealth, or another term Telemedicine is the use of Information Communication Technology to provide long-distance health services. These two terms are often interchanged. However, Telehealth refers to health services that include all health professions and education for the public. In contrast, Telemedicine refers to doctors' health services, especially clinical monitoring and diagnosis activities using technology (Doraiswamy et al., 2020).

According to (Nittari et al., 2020) Telemedicine integrates medical practice with information and communication technology, proving highly efficient for delivering health services over long distances, particularly in regions where access to healthcare facilities is challenging. Meanwhile according to (Wungrath & Siripipatthanakul, 2021) The terms telemedicine and telehealth are often used interchangeably, referring to the use of electronic communications to transmit medical information from one location to another, with the aim of enhancing patient health.

2.2 Unified Theory of Acceptance and Use of Technology (UTAUT)

In this research, the Unified Theory of Acceptance and Use of Technology (UTAUT) model will be used as the basic theory for designing research methods. UTAUT itself is a research model developed by (Venkatesh et al., 2003). The initial form of UTAUT that was developed contained 4 construct variables, namely, performance expectancy, effort expectancy, social influence and facilitating conditions. Where these four variables greatly influence behavioral intention and intention to use. And there are 4 moderator variables, namely age, gender, experience and voluntariness of use.

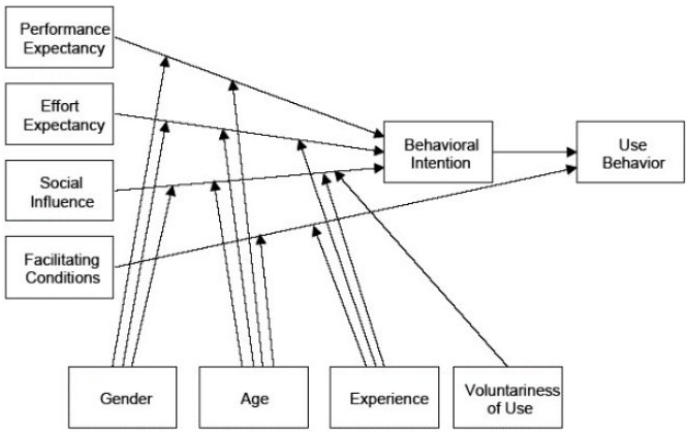

Fig. 2 construct model of UTAUT (Venkatesh et al., 2003)

UTAUT Model initially designed for studying technology adoption in the workplace, the model was subsequently broadened to explore the factors that impact individual adoption of innovations across different contexts. (Ben Arfi et al., 2021).

2.3 Performance Expectancy (PE)

Performance Expectancy refers to the degree to which an individual perceives that utilizing a system will contribute to improvements in job performance (Venkatesh et al., 2003).

Previous study conducted by (Napitupulu et al., 2021), (Islami et al., 2022), and (Venugopal et al., 2018) founds that performance expectancy has significant effect on behavioral intention.

2.4 Effort Expectancy (EE)

Users tend to consider the effort required before using an information system. EE is defined as “the level of ease associated with using the system” (Venkatesh et al., 2003).

Previous study conducted by (Pramudita, 2023), and (Napitupulu et al., 2021) found that effort expectancy has significant effect on behavioral intention.

2.5 Facilitating Condition (FC)

Facilitating Conditions are defined as "the extent to which individuals believe that the organizational and technical infrastructure exists to support the use of the system" (Venkatesh et al., 2003).

Previous study conducted by (Napitupulu et al., 2021) found that facilitating condition has significant effect on behavioral intention.

2.6 Social Influence (SI)

Refers to how individuals perceive that “important people” view them in influencing whether they should use technology (Shi et al., 2021).

Previous study conducted by (Venugopal et al., 2018) found that social influence has significant effect on behavioral intention. But, on other study conducted by (Napitupulu et al., 2021) found that social influence has no significant effect on behavioral intention.

2.7 Price Value

Price Value Refers to the cognitive trade-off between the perceived benefits of a particular system and the monetary costs of using it (Shi et al., 2021).

Previous study conducted by (Shi et al., 2021) found that price value has significant effect on behavioral intention. But, on different study conducted by (Alviani et al., 2023) found that price value has no significant effect on behavioral intention.

2.8 Doctor’s Opinion

According to (Napitupulu et al., 2021) Doctor's Opinion (DO) is described as users' belief in the endorsement of a doctor as an authoritative expert in their healthcare services. The journal notes that Doctor's Opinion reflects users' views on whether they trust physicians for health advice in order to enhance health quality through Telehealth.

(Mazur et al., 2005) Stated that a majority of patients heavily depend on their doctor's preferences. The recommendations provided by their general practitioner are also significant factors influencing participation in preventive healthcare services and the utilization of the Internet as a medical information source. Meanwhile, according to (Baum et al., 2022), a doctor's opinion is a strong influence of an expert doctor or specialist.

Previous study conducted by (Napitupulu et al., 2021) found that Doctor's Opinion has significant effect on behavioral intention and performance expectancy, as well as doctor's opinion has significant effect on behavioral intention if performance expectancy intervening the model.

2.9 Computer Anxiety

Computer Anxiety (CA) is described as "arousing an anxious or emotional reaction when performing a behavior (using a computer)" (Venkatesh et al., 2003). Previous study conducted by (Napitupulu et al., 2021) found that Computer anxiety has no significant effect on behavioral intention, but in this study, this hypothesis will be tested.

Computer anxiety affects how users perceive their ability and desire to use telemedicine. There is a negative effect on IT use that is emotionally linked to the deployment of technologies. Therefore, it is imperative to address computer anxiety while examining how customers accept contemporary technological services or goods.

2.9 Information Quality

Information Quality (IQ) is the quality of information that can be stored, sent and produced by the system (Sipahutar et al., 2019).

Previous study conducted by (Sipahutar et al., 2019) found that information quality has significant effect on intention to use. Therefore, users rely on the information in the application to fulfill their needs and get information that will help them with their work.

3. Research Methodology

In this research, the method used is a quantitative method, using an online questionnaire tool to collect research data and respondents' answers are measured using a Likert scale. Questionnaires will be distributed to respondents who have used telemedicine and the Slovin technique will be used to determine the total sample. The number of telemedicine users is more than 10 million and the sampling used will be sampling of 400 users who live in JABODETABEK.

3.1 Data Source

This study gathered data through the distribution of online questionnaires conducted from May 2023 to August 2023. The research specifically targeted Indonesian individuals residing in the Jakarta area who using the telemedicine without imposing any age restrictions on respondents. Additional data for the study was sourced from prior journals, books, and online articles.

3.2 Hypothesis

Research hypotheses can be formulated using the following model:

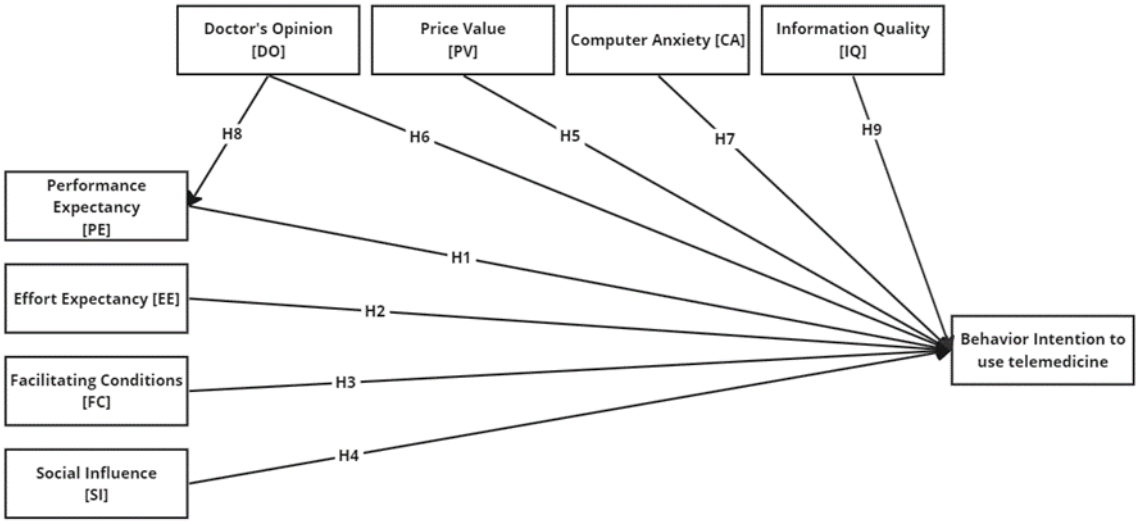

Fig. 3 Research Hyphotesis

In figure 3, there are independent variables used in this research, namel4y Performance Expectancy (PE), Effort Expectancy (EE), Facilitating Condition (FC), Social Influence (SI), Doctor's Opinion (DO), Price Value (PV), Computer Anxiety (CA), Information Quality (IQ), with 1 dependent variable, namely Behavior Intention (BI).

The hypotheses for the independent and dependent variables that will be formed are as follows:
H1: Performance Expectancy has a significant effect on Behavior Intention.
H2: Effort Expectancy has a significant effect on Behavior Intention.
H3: Facilitation Conditions have a significant effect on Behavior Intention.
H4: Social Influence has a significant effect on Behavior Intention.
H5: Price Value has a significant effect on Behavioral Intention..
H6: Doctor's Opinion has a significant effect on Behavioral Intention.
H7: Computer Anxiety has a significant effect on Intention to Use
H8: Doctor’s Opinion has significant effect performance expectancy..
H9: Information Quality has a significant effect on Intention to Use
H10: Doctor’s Opinion has significant effect on Behavioral Intention if the variable performance expectancy invervening the model

3.3 Variables and Indicators

Table 1. Research Indicator and Definition

Variable	Indicators	Code	References	Definition
Performance Expectancy (PE)	Highly useful	PE1	(Napitupulu et al., 2021; Alam et al., 2020)	Telemedicine is highly useful.
	ease	PE2		Telemedicine platforms increase the ease of accessing health services.
	Increase capability	PE3		Using the Telemedicine platform increases effectiveness in managing my health.
Effort Expectancy (EE)	Easy to use	EE1	(Napitupulu et al., 2021) (Alam et al., 2020)	The Telemedicine platform is very easy to use.
	Easy to	EE2		Interaction with the

	understand			Telemedicine is easy to understand.
	Easy to learn	EE3		It is easy to learn to use the Telemedicine.
Facilitating Condition (FC)	Have resources	FC1	(Napitupulu et al., 2021) (Alam et al., 2020)	I have the necessary resources to use the telemedicine platform (for example: tablet, smartphone, and internet).
	Have the ability	FC2		I have the ability to use the telemedicine.
	Help is available	FC3		I believe others will help if there are any difficulties in using the Telemedicine.
Social Influence (SI)	Influence by important people	SI1	(Napitupulu et al., 2021) (Alam et al., 2020)	People who are important to me think that I should use Telehealth Services.
	Influence by other person behavior	SI2		People who influence my behavior think that I should use Telehealth.
	Influence by the opinion of other who are considered valuable	SI3		People whose opinions that I value prefer that I use Telehealth.
Price Value (PV)	Reasonable price	PV1	(Alviani et al., 2023)	Telemedicine have reasonable price.
	Good value for money	PV2		Telemedicine is good value for money.
	Current price is valuable	PV3		At current price, telemedicine services is valuable.
Doctor's Opinion (DO)	Doctor's have experience	DO1	(Baum et al., 2022) (Napitupulu et al., 2021) (Alam et al., 2020)	Doctors on telemedicine has great experience.
	Doctor can be trusted	DO2		Doctors on telemedicine can be trusted.
	Trust with doctor's preference	DO3		I trust with my doctor's preference.
Behavioral Intention (BI)	Continously using	BI1	(Napitupulu et al., 2021) (Alam et al., 2020)	I intend to continuously using telemedicine in the future.
	Use in everyday	BI2		I will try to use telemedicine everyday.

	Often to use	BI3		I plan to more often to use telemedicine.
Computer Anxiety	Anyone can learn to use the system	CA1	(Napitupulu et al., 2021)	Anyone can use the telemedicine.
	Willing to learn	CA2		I am willing to learn how to use telemedicine,
	No doubt	CA3		I have no doubt to use telemedicine,
Information Quality	Information is complete	IQ1	(Sipahutar et al., 2019)	The information on the telemedicine is complete,
	Information is easy to understand	IQ2		The information on telemedicine is easy to understand.
	Information is accurate	IQ3		The information on telemedicine is accurate.

3.4 population and sample

The population in this study is all the user of telemedicine platform in Indonesia, the downloader of telemedicine platform are the respondents to this research questionnaire. With a total sample of 21.520.000+ downloader (google play store, 2023).

The slovin formula will be used, assuming a %5 (or 0.05) marginof error, here is the formula:

$n = N / (1 + (N * e^2))$

Information:

n = Sample size

N = Population size

E = margin of error

The populations used in this study are:

N = 21.520.000

So,

n = 21.520.000/ 1 + (21.520.000(0.05)2)

n = 399.98

n ≈ 400 respondents

3.5 Methods of Data Analysis and Hypothesis Testing

This study will utilize the Structural Equation Modeling-Partial Least Squares (SEM-PLS) method as the chosen technique for data analysis. The processing and analysis of data will be conducted using SmartPLS version 3.0. Microsoft Excel will serve as the tool for compiling and tabulating respondent data obtained from the questionnaire, thereby facilitating seamless data processing within SmartPLS. The authors employed the SEM-PLS technique, grounded in the amalgamation of dependence and interdependence principles, to examine the relationships among different variables and to evaluate the precision of the proposed research model.

3.6 Validity and Reliability

According to (Sugiyono, 2008) Validity serves as an indicator affirming that the measuring instrument accurately assesses what it aims to measure. In addition to validity, a reliable measuring instrument is also essential. Reliability is translated from the word reliable which means something that can be trusted.

The Average Variance Extracted (AVE) is employed to gauge the variance of a construct in relation to the level of measurement error. Values exceeding 0.7 are deemed highly satisfactory, while those at 0.5 are considered acceptable (Alarcón & Sánchez, 2015). Loading Factors is a way to understand the role of each element in determining factors, a value of 0.7 can be considered acceptable (Mufidah et al., 2018).

According to (Notoatmodjo, 2005) Reliability is a measure indicating the extent to which a measuring instrument can be trusted or relied upon. It reflects how consistent the measurement results remain when the same symptom is assessed two or more times using the same measuring instrument. A test is said to be trustworthy if it gives consistent results when tested many times and test is said to be reliable if the test results show certainty (Malik & Chusni, 2018).

The composite reliability value is considered acceptable if the value is more than 0.7(Mufidah et al., 2018). The criteria for data to be said to be reliable using this technique is the Cronbach's alpha value (α) > 0,6 (Arikunto, 2002).

3.7 Effect Size

According to (Sullivan & Feinn, 2012) effect size can refer to the raw difference between group means, or absolute effect size, as well as standardized measures of effect, which are calculated to transform the effect to an easily understood scale. A P value can tell the reader whether an effect is present, but it cannot tell them how big of an effect it is. Both the statistical significance (P value) and the substantive significance (effect size) of study findings must be stated in order to be properly interpreted and reported.

The f^2 (effect size) of 0.02 is considered as minor, 0.15 as mediocre & 0.35 as high (Cohen, 2013)

3.8 Hypothesis Analysis

According to (Hair et al., 2014). In the Path Coefficient analysis process, it represents the direction of the relationship between the hypothesized variables. The path coefficient value is standardized within a range of -1 to +1, where a coefficient approaching +1 signifies a robust positive relationship, and a coefficient nearing -1 indicates a strong negative relationship.

The next stage is to analyze the P-Value, which is the significance of the relationship between the independent and dependent variables. If the P value is > 0.05 then the relationship between these variables can be declared insignificant, if the P value < 0.05 then the relationship between these variables can be declared significant (Sarstedt et al., 2021).

4. Result and Discussion

This section will explain the results of the research.

4.1 Assesment of structural model

The measurement model test determines whether each construct indicator can measure what needs to be tested in order to produce reliable and valid research. The validity test and the reliability test are the two stages that are used to evaluate the outer model.

The Validity Testing procedure involves evaluating the validity of indicators by examining data from 400 respondents. This process entails comparing loading factors or outer loading and coefficients. The data is collected through the use of SMART PLS software. Questions are deemed invalid if the outer loading factor value is below a 0.7 coefficient, whereas values above 0.7 are considered valid. The Table 2 displays all Factor Loading values, indicating that the result is valid.

Table 2. Outer loading result

Construct Variable		Outer Loading	Limit Value	Result
Performance Expectancy (PE)	PE1	0.884	0.700	Valid
	PE2	0.888	0.700	Valid
	PE3	0.879	0.700	Valid
Effort Expectancy (EE)	EE1	0.878	0.700	Valid
	EE2	0.885	0.700	Valid
	EE3	0.873	0.700	Valid
Facilitating Condition (FC)	FC1	0.874	0.700	Valid
	FC2	0.879	0.700	Valid
	FC3	0.875	0.700	Valid
Social Influence (SI)	SI1	0.884	0.700	Valid
	SI2	0.873	0.700	Valid
	SI3	0.893	0.700	Valid

Price Value (PV)	PV1	0.878	0.700	Valid
	PV2	0.870	0.700	Valid
	PV3	0.878	0.700	Valid
Doctor's Opinion (DO)	DO1	0.852	0.700	Valid
	DO2	0.881	0.700	Valid
	DO3	0.901	0.700	Valid
Behavior Intention (BI)	BI1	0.869	0.700	Valid
	BI2	0.850	0.700	Valid
	BI3	0.864	0.700	Valid
Computer Anxiety (CA)	CA1	0.882	0.700	Valid
	CA2	0.889	0.700	Valid
	CA3	0.866	0.700	Valid
Information Quality (IQ)	IQ1	0.888	0.700	Valid
	IQ2	0.897	0.700	Valid
	IQ3	0.853	0.700	Valid

Next is measurement of Average Varian Extracted (AVE) is used to measure the variance of a construct compared to the level of measurement error. Values above 0.7 are considered very good while 0.5 is considered acceptable. It can be seen on Table 3 that all result are above 0.7 an can be conclude that the construct are valid.

Table 3. Average Variance Extracted Result

Variable	**Average Variance Extracted (AVE)**	**Limit Value**	**Result**
Performance Expectancy	0.781	0.7	Valid
Effort Expectancy	0.755	0.7	Valid
Facilitating Conditon	0.768	0.7	Valid
Social Influence	0.780	0.7	Valid
Behavior Intention	0.741	0.7	Valid
Price Value	0.766	0.7	Valid
Doctor's Opinion	0.771	0.7	Valid
Computer Anxiety	0.773	0.7	Valid
Information Quality	0.774	0.7	Valid

After the validity test, the next step is to validate the Composite Reliability and Cronbach's Alpha. Reliability testing involves examining the value of Cronbach's Alpha, and a variable is considered reliable if its value exceeds 0.6. Similarly, a Composite Reliability value is deemed acceptable if it is greater than 0.7. The findings in this study indicate that both Composite Reliability and Cronbach's Alpha yielded results surpassing the 0.7 value limit.

Table 4 Reliability test result

Variable	Cronbach's Alpha	Composite Reliability	Result

Performance Expectancy	0,860	0,914	Reliable
Effort Expectancy	0,837	0,902	Reliable
Facilitating Conditon	0,849	0,908	Reliable
Social Influence	0,859	0,914	Reliable
Behavior Intention	0,826	0,896	Reliable
Price Value	0,848	0,908	Reliable
Doctor’s Opinion	0,851	0,910	Reliable
Computer Anxiety	0,853	0,911	Reliable
Information Quality	0,854	0,911	Reliable

The displayed outcome of the Path Analysis in Smart PLS aligns with the research hypothesis concerning the utilized variables.

4.2 Assesment of Size Effect

Effect size is a statistical concept that measures the strength of the relationship between two variables on a numeric scale. The f^2(effect size) of 0.02 is considered as l ow, 0.15 as medium & 0.35 as high,

Tabel 3. 1

Variable Exogenous	Variable Endogenous	Behavioral Intention	Result
Doctor	Performance Expectancy	3,130	High
Computer Anxiety	Behavior Intention	0,010	Low
Doctor's Opinion	Behavior Intention	0,012	Low
Effort Expectancy	Behavior Intention	0,019	Low
Facilitating Condition	Behavior Intention	0,034	Low
Information Quality	Behavior Intention	0,026	Low
Performance Expectancy	Behavior Intention	0,007	Low
Price Value	Behavior Intention	0,001	Low
Social Influence	Behavior Intention	0,014	Low

The result of the effect size shows that the relationship between exogenous variable and endogenous variable has 1 high effect and 8 low effects. This imply not all constructs in endogenous variables and exogenous variables have an importance effects in the results obtained.

4.3 Hyphotesis Testing

To analyze the test results, the author used the bootstrapping method in SMARTPLS with the one tailed method and p-value as a reference

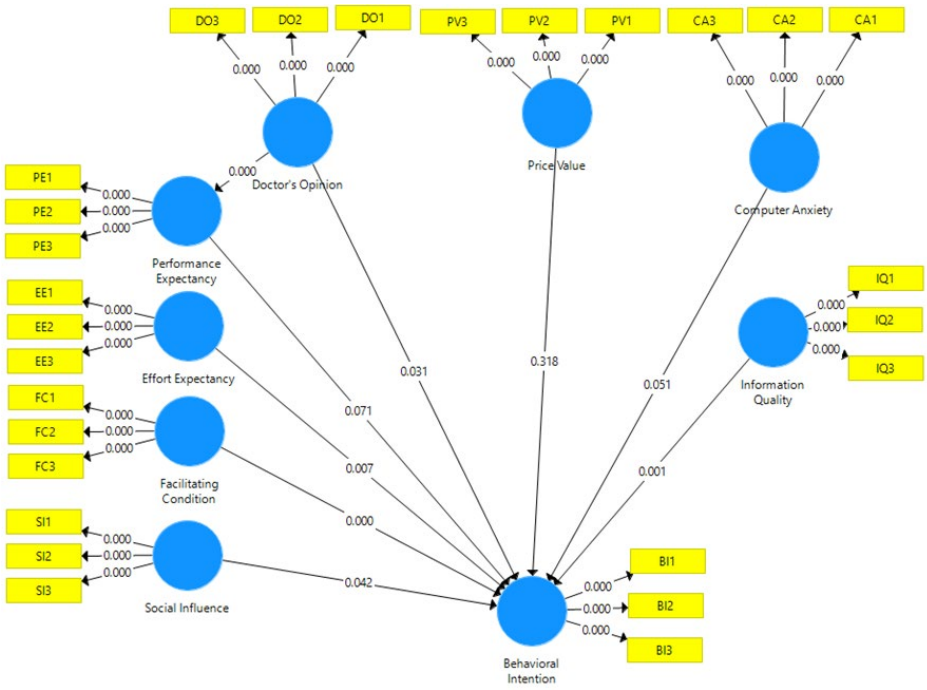

Figure 1 Hyphotesis testing result

With the reference used to see the significance of the relationship between independent and dependent variables. If the P value is > 0.05 then the relationship between these variables can be declared not significant, if the P value < 0.05 then the relationship between these variables can be declared significant.

Table 5. Hypothesis Testing result

Hyphotesis	Lines	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics (|O/STDEV|)	P Values	Result
H1	PE -> BI	0.078	0.075	0.053	1.475	0.071	Not Accepted
H2	EE -> BI	0.139	0.138	0.056	2.493	0.007	Accepted
H3	FC -> BI	0.200	0.200	0.058	3.446	0.000	Accepted
H4	SI -> BI	0.133	0.131	0.077	1.732	0.042	Accepted
H5	PV -> BI	0.033	0.030	0.070	0.473	0.318	Not Accepted
H6	DO -> BI	0.124	0.133	0.066	1.873	0.031	Accepted
H7	CA -> BI	0.103	0.098	0.062	1.643	0.051	Not Accepted
H8	DO -> PE	0.871	0.872	0.013	65.579	0.000	Accepted
H9	IQ -> BI	0.165	0.169	0.054	3.032	0.001	Accepted
H10	DO -> PE -> BI	0.068	0.065	0.046	1.473	0.071	Not Accepted

The following is a discussion of the written results of the results of hypothesis testing in this research.

H1 Performance expectancy has no significant effect on behavioral intention

The result of H1 shows that relationship between performance expectancy and behavioral intention has no significant effect, as indicated by p-value 0.071 > 0.05 . This means that perceived usefulness of telemedicine platform is not enough to encourage the intention to use the application. The finding is align with (Alexandra et al., 2021) that performance expectancy did not influence the behavioral intention. An important factor is the ease of use of the application for the primary user.

This situation might arise due to users perceiving the telemedicine platform as less user-friendly; however, they can still access healthcare services by visiting a hospital. As a result, there are fewer benefits to telemedicine platform that encourage users to adopt it. However, the study result is inconsistent with previous study (Napitupulu et al., 2021) that performance expectancy is affecting the behavioral intention because during pandemic the ease of use information and services via Telemedicine is more crucial for users during the pandemic than having to wait in line at hospitals or other healthcare facilities like clinics, which increases the risk of acquiring COVID-19.

H2 Effort Expectancy has significant effect on behavioral intention

The result of H2 shows that the relationship between effort expectancy and behavioral intention has significant effect, as indicated by p-value 0.007 < 0.05. This means the level of ease for the user when they accessing the telemedicine platform will affecting their intention to use the app. The result is align with (Napitupulu et al., 2021) and (Utomo et al., 2021). According to (Napitupulu et al., 2021) Indonesian users are more inclined to adopt Telehealth if they believe the technology is simple and user-friendly. Users like the convenience of telehealth technology, which is still relatively new to them. Therefore, telemedicine platform can increase the intention to use platform through User Interface and User Experience according to characteristic of the user.

H3 Facilitation Condition has significant effect on behavioral intention

The result of H3 shows that the relationship between facilitating condition and behavioral intention has significant effect, as indicated by p-value 0.000 < 0.05. This means that user tends to need support or assistant within the app. This findings is aligned with (Napitupulu et al., 2021) and (Semiz & Semiz, 2021) where facilitationg condition has significant effect on behavioral intention. The facilitating condition was affirmed by users, such as technical support when user facing a problem or any other support within the telemedicine platform that help the user exploring the apps.

H4 Social influence has significant effect on behavioral intention

The result of H4 shows that relationship between social influence and behavioral intention has significant effect, as indicated by p-value 0.042 < 0.05. This finding aligned previous study conducted by (Alviani et al., 2023) and (Salsabila & Sari, 2022) where the social influence factor has significant effect on behavioral intention.

A study from (Alam et al., 2020) Stated that certain individuals or doctors are encouraged to utilize telemedicine by their relatives and family members. meanwhile (Alviani et al., 2023) found most Indonesians are impressionable and rely on the opinions of others when making decisions about how to use technology. This suggests that if users perceive positive opinions about telemedicine within their social circle, they are more likely to adopt it themselves.

H5 Price Value has no significant effect on behavioral intention

The result of H5 shows that relationship between social influence and behavioral intention has no significant effect, as indicated by p-value 0.318 > 0.05. Similar result were also found on research by (Alviani et al., 2023) and (Octavius & Antonio, 2021) where price value has no significant effect on behavioral intention.

This may suggest that the user of telemedicine in Indonesia is not considering the cost when using the virtual health services. Octavius also find that the cost of consultation is covered or can be claimed by national or private health insurance. Therefore, it seems that the majority of the Indonesian population believes that using telemedicine services can reduce expenses for transportation, parking and medication. This makes the cost of health services not an obstacle for them (Alviani et al., 2023).

H6 Doctor's Opinion has significant effect on behavioral intention

The result of H6 shows that relationship between doctor's opinion and behavioral intention has significant effect, as indicated by p-value 0.031 < 0.05. Doctor's preference is the important thing when we make appointment with the doctor. The finding is align with previous study conducted by (Napitupulu et al., 2021) and also supported by (Mazur et al., 2005) where The doctor's opinion significantly influences behavioral intention, highlighting that many patients heavily depend on their

doctor's preferences. Recommendations from a general practitioner also play a crucial role in participating in preventive healthcare services and using the Internet as a source of medical information.

H7 Computer anxiety has no significant effect on behavioral intention

The result of H7 shows that relationship between computer anxiety and behavioral intention has no significant effect, as indicated by p-value 0.051 > 0.05. In this study, computer anxiety has no significant effect on behavioral intention. The result is inconsistent with previous study conducted by (Napitupulu et al., 2021) found that computer anxiety has effect on behavior intention.

Given that telehealth is a new technology, it is crucial to consider the concept of CA when examining how people would accept and utilize this new form of technology. This means that the user has no emotional feeling or arousing anxious when using the platform and it is not affecting their intention to use the telemedicine platform.

H8 Doctor's Opinion has significant effect on performance expectancy

The result of H8 shows that relationship between doctor's opion and performance expectancy has significant effect, as indicated by p-value 0.000 < 0.05. The result is align with previus study conducted by (Napitupulu et al., 2021) where doctor's opinion has significant effect on performance expectancy. This highlights the crucial position of the DO, as the degree to which telemedicine platform is viewed as helpful and advantageous will depend on a doctor's affirmation.

This finding is also supported by (Akerkar & Bichile, 2004) that mentioned In the past, there was an unbalanced relationship between the doctor and the patient, meaning that the doctor knew a lot more about medical conditions than the patient did. However, patients are increasingly bypassing the traditional single professional filter because they now have access to their medical data as well as alternative sources of health information..

H9 Information Quality has significant effect on behavioral intention

The result of H9 shows that relationship between information quality and behavioral intention has significant effect, as indicated by p-value 0.001 < 0.05. The result was align with previous study conducted by (Alexandra et al., 2021) where the information quality has significant effect on behavioral intention.

This finding is also supported by (Zhou et al., 2019) the journal mentioned that The competitiveness of a telehealth system is significantly influenced by the quality of information. When the telemedicine platform provides accurate and comprehensive information, users are more likely to express an intention to use telemedicine. Furthermore, the availability of medical data and healthcare experts has a substantial favorable impact on patient adoption of telemedicine (Rho et al., 2014).

H10 Doctor's Opinion has no significant effect on behavioral intention if performance expectancy intervening the model

The result of H10 shows that relationship between doctor's opinion and behavioral intention if performance if performance expectancy intervening the model, as indicated by p-value 0.071 > 0.05. this finding is not aligned with previous study conducted by (Napitupulu et al., 2021) where doctor's opinion significantly has significant effect on behavioral intention to use telemedicine through performance expectancy.

This imply that higher doctor's opinion increase performance expectancy of Telehealth will not lead to greater people's intention to use the platform.

4.4 Implication

In this research, it is proven that effort expectancy, facilitating condition, social influence, doctor's opinion, and information quality have a significant effect on behavioral intention. The following is an explanation of the implications.

4.4.1 Practical Implication

As society grows in Indonesia, health services are needed. The telemedicine platform is a useful tools to help the people accessing the health service easily. This means a good signal not only to the hospital but to all the telemedicine company to continue their innovation on digital health services development.

The result of this study are highly valuable as feedback for telemedicine providers to improve their platform. The ease of use when using telemedicine platform is a beneficial, telemedicine providers can utilize this findings to improve their user journey. As a result, users can simply and quickly understand the journey of telemedicine. Facilitating condition has significant effect on user intention to use telemedicine, that imply the additional supports in the telemedicine platform is play an important role.

Telemedicine providers can utilize their platform to improve their additional service that can helps the users throughout the telemedicine platform.

The increase number of good review on society about the telemedicine platform can lead the number of using the telemedicine. However, a terrible user experience will also have direct impact on the intention to use telemedicine. and one of the main service on the telemedicine is the doctor's presence, it is has affect on the intention to use telemedicine, on this findings, telemedicine providers can improve how doctors can utilize the telemedicine platform to deliver good service experience for user such as understanding the user profile, user preference and historical medication.

The quality of information on telemedicine is affecting the intention to use of the platform, telemedicine provider can utilize this finding to improve their platform with complete information about health or personalized user's health preference, as a result, users rely on the information provided in telemedicine to obtain their personalized information that will meet their needs.

5. Conclusion

This research demonstrates the factor that drives sustained adoption of telemedicine industry in Indonesia. We conclude that the effort expectancy, facilitating condition, social influence, doctor's opinion and information quality has significant effect on behavior intention to use telemedicine, however price value, computer anxiety and performance expectancy has no significant effect on behavior intention to use telemedicine.

This study result can provide basic knowledge for the telemedicine company in Indonesia to continue developing the journey of the telemedicine to be more easy to use, and developing an additional support system to guide the user throughout the online consulting journey and also focused quality improvement across the platform. Telemedicine with the support of doctor's opinion, for instance, through a chat service within an application, undoubtedly facilitates patients in seeking consultations anytime and anywhere regarding their concerns. This allows patients to swiftly make decisions based on these opinions and recommendations. Moreover, the advanced technology integrated into telemedicine applications enables patients or end-users to obtain second opinions openly, and flexibly from a variety of doctors.

Notably, the quality of information within a hospital's teleconsultation application emerges as a pivotal factor shaping users' interest. To enhance the quality of information, hospitals can enhance their applications by including detailed profiles of their medical professionals, information on locations and operating hours, pricing details for teleconsultation sessions, and integrating features for accessing health articles, consultation histories, user medical records, as well as facilitating the provision and viewing of reviews.

However, this study has several limitations. Firstly, the collected data was cross-sectional, derived from self-reported measures, and limited to a single country. Secondly, the author suggests conducting further research to find other variables and indicator that are not mentioned in this study to find out more about factors that influences the use on telemedicine. Therefore, future research can could benefit wider range of variable or indicators and can involves private telemedicine in Indonesia, because this study only covered public telemedicine platform. Additionally, long-term studies are essential to comprehend the factors that affects the use of telemedicine.

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