ARE HEALTH APPLICATIONS USEFUL FOR SOCIETY TO EXERCISE?

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ABSTRACT

In the current era of globalization, the health industry is one of the industries that has made information technology the main facilitator of its business activities. One company, PT. XYZ is also developing a health application, based on the results of interviews with managers from PT. XYZ, two main problems regarding this Health application were obtained, namely data synchronization which takes a long time and the application is difficult to detect trackers. Even though as many as 57% of users in Indonesia utilize health applications, or about 95 million Indonesians are Health application users, based on the number of Health application users at PT.XYZ, only 0.1% of the number of Health application users in Indonesia. this is the background of PT. XYZ's health application research to evaluate whether the Health application in providing services has been able to influence the user's health and also whether the Health application can be said to be a useful system by using the success model reference from DeLone & McLean and the Unified model. Theory of Acceptance and Usage of Technology (UTAUT). After analyzing, the results obtained from this study are that 3 hypotheses do not have a significant effect and the hypotheses that do not have this influence are *system quality* on *use*, *system quality* on *user satisfaction*, and *effort expectancy* on *user satisfaction*.

Keywords: *Helath Application, DeLone & McLean, Unified Theory of Acceptance and Usage of Technology (UTAUT), Mobile Application*

1. INTRODUCTION

In the current era of globalization, the role of information technology has shifted from being used only as a tool to support company operations, to becoming a catalyst for fundamental changes in company structure, operations, and management. The health industry is one industry that has made information technology the main facilitator of its business activities. Information technology support has changed the health business model towards digital services that are much more efficient and have services that are much faster, easily accessible, which can be done anytime and anywhere.

PT.XYZ has developed a game to improve the condition of people with dementia; PT.XYZ also participates in R&D to develop products that help diabetes patients manage brand conditions and introduces software and hardware products that encourage hundreds of thousands of users to lead active lifestyles and PT.XYZ also continues to innovate and takes great interest in projects and any technology that affects life.

One of the products developed by PT.XYZ is a health application, this Health application is mobile-based, this Health application has been running since 2015 and this application provides services that can help users to synchronize users' daily statistics, monitor and analyze users' sleep patterns and monitor the user's heart rate.

The Health Application at PT.XYZ is used by business partners to monitor employee health or other digital services, there are approximately 100,000 users in Indonesia and also around 50,000 users in DKI Jakarta. Based on the results of interviews with managers from PT. XYZ, two main problems were found regarding this Health application.

First, data synchronization in the application took a long time of about 3-5 minutes, and also when synchronizing data the user could not use the application so the user had to wait until the synchronization is complete first.

Second, the application is difficult to detect the device, especially the spur+ model, making it difficult for users when pairing with the Health application.

This is also supported based on the ratings and reviews obtained by the Health application, this Health application has a rating of 2.6 on the play store as can be seen in the image below.

Table 1: user feedback on play store

Rating	Source	Feedback
1 Star	455	• Difficult to synchronize with trackers, especially tracker spur +. models • It takes a long time to save changes after the user has done sports
2 Star	91	• Tracker is not user friendly because it is difficult to see heart rate data when doing activities • It takes a long time to sync, then sometimes it works and sometimes it doesn't work for the synchronization process
3 Star	78	• Firmware update always fails even though the internet connection and Bluetooth are good. • Sometimes the synchronization process hangs (not responding) • After the firmware update the previous data disappeared
4 Star	65	• Pairing with the tracker works fine but occasionally needs to restart the app and Bluetooth • Difficult to integrate when changing tracker models • Compatible with healthy 365 apps
5 Star	188	• The visuals that are displayed are very good and easy to see without needing more experience • Calculation of steps, heartrate, calories and distance is accurate

Based on the results of a survey conducted by PricewaterhouseCoopers (PwC) shows that the use of applications in the health sector is quite popular at this time. As can be seen in Figure 1, 49% of consumers use the exercise instruction & monitoring application. This relates to the Health application, where the application also focuses on the type of exercise monitoring application. Based on the data above, the Health application should be able to attract interest from users, but judging from the data on active users of the Health application in DKI Jakarta, there is still no significant increase.
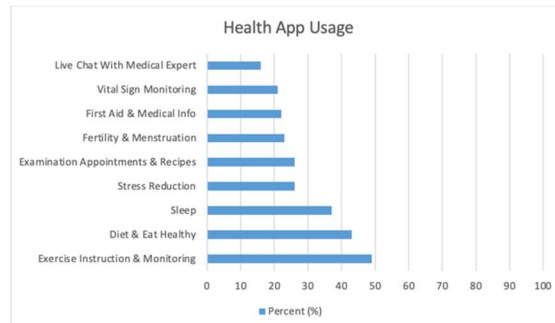

Figure 1: health app type

Based on the Ministry of Communication and Information Technology, 167 million people, or about 89% of the total population of Indonesia are smartphone users and according to survey results obtained through statistics on October 9, 2020, that Indonesia is ranked 3rd Global in terms of utilizing health applications. As many as 57% of users in Indonesia utilize health applications whereas the most commonly used applications are heart rate monitoring and sleep pattern tracking.
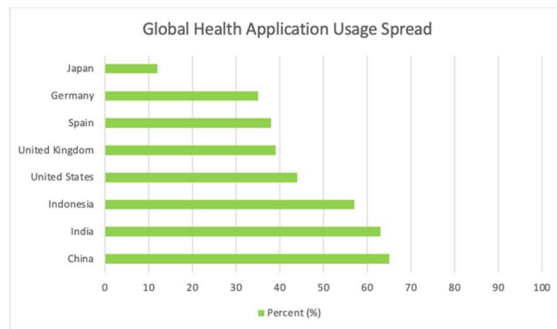
Figure 2: Global Health Application Usage Spread

If 57% or about 95 million Indonesians are Health application users, based on the number of Health application users at PT. XYZ, only 0.1% of the number of Health application users in Indonesia. It can be said that the number of users in Indonesia is still very low, which is around 100,000 users, even though this Health application provides features to monitor the user's heart rate and sleep patterns in real-time. This should be a boon for the Health app but judging by the active users it's still very low. This causes a factor that must be re-examined, why is the Health application which already has the features needed by users but still cannot increase the number of users.

This is the background of research at PT. XYZ because the Health application has been utilized as a support for ongoing business processes. The Health application is very influential in operational activities, thus it is necessary to evaluate the success of the information system to help companies find out whether the Health application in providing services has been able to have an influence on the health of users and also whether the Health application can be said to be a useful system.

This is also very helpful in the development of the health application because the company will know which parts must be improved in the application.

Furthermore, no review of the success of utilizing the Health application has been conducted so far, thus it is unknown whether this system is truly successful and efficient in responding to user demands. This study was undertaken to determine the success rate of utilizing the Health application based on these requirements. The effect, advantages, and user satisfaction after using the Health application will be used to determine the success rate. To measure the level of success, the DeLone & McLean information system success measurement model is used with the variables information quality, system quality, service quality, use, user satisfaction, net benefits, and Unified Theory of Acceptance and

Usage of Technology (UTAUT) with variables Social Influence, Effort Expectancy in this study. This model was chosen because it is considered capable of explaining the evaluation of the system from the user's point of view and user satisfaction. The results of the evaluation are expected to be used as a guide to improve or optimize the function of the Health application located at PT.XYZ.

The limitations of this research are :

a. The system analyzed is only the PT.XYZ Health application.

b. The study only examined the factors of information system, system quality, social influence, effort expectancy, use, user satisfaction and net benefits from the PT.XYZ Health application.

c. his study does not cover the design of the application and only focuses on the results of the success factors studied by the authors.

2. LITERATUR REVIEW

2.1 Delone and McLean Information Systems Success Model

When DeLone and McLean released their Model of Performance in 1992, it was an attempt to collect the findings of past research into the factors that influence information system success.[1] System quality, information quality, utilization, user happiness, individual impact, and organizational effect were the six separate variables they were able to discern.[2]
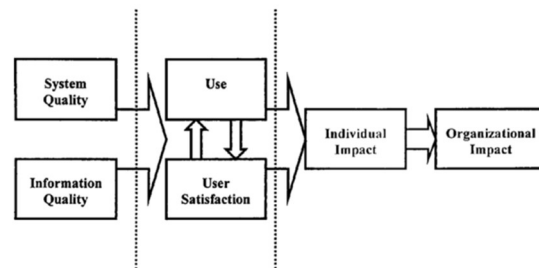

Figure 3: DeLone and McLean's (1992) Success Model

DeLone and McLean wrote an essay in 2003 commenting on the research that has been done since the publication of their successful information systems model in 1992.[1] Based on an examination of the studies conducted over the years to test, apply, and improve DeLone and McLean's original model. found considerable support for the original model's causal structure.[3]
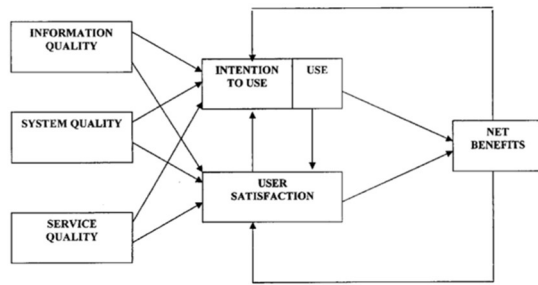
Figure 4: DeLone and McLean's (2003) Success Model

They did, however, give an updated version of the model with certain modifications (see Figure 4). As a third quality component of information system success, service quality is added to information quality and system quality. Net benefits replace individual and organizational impacts in addition to improving the service quality.[4][5]

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

UTAUT (Unified Theory of Acceptance and Use of Technology) is a commonly used theory for conducting information technology user acceptance research. Venkatesh, et al., (2003) created UTAUT by merging eight significant technological acceptance theories into a single theory.[6] The theory of reasoned action (TRA), the Technology Acceptance Model (TAM), motivational models (MM), theory of planned behavior (TPB), combined TAM and TPB (C-TAMTPB), model of PC usage (MPCU), innovation diffusion theory (IDT), and social cognitive theory are among the eight theories (SCT).[7][8][9]
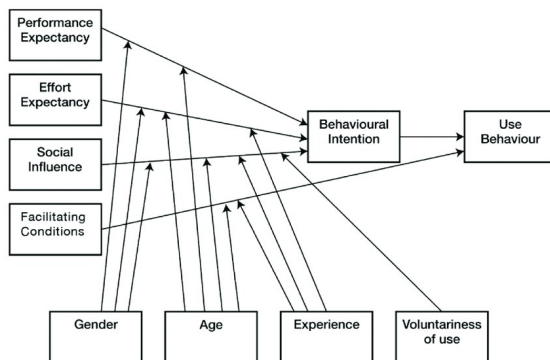

Figure 5: Unified Theory of Acceptance and Use of Technology Model

According to Venkatesh et al., the model comprises of four factors of performance expectancy, effort expectancy, social influence, and enabling circumstances and meanings (2003).[10][11][12]

Koivumki, Ristola, and Kesti (2008) used UTAUT to investigate people's views of mobile service consumption. The researchers conducted their investigation on 243 people in northern Finland to see how they used cellular services and technology. The findings suggest that enhancing user abilities leads to a better comprehension of mobile services and an increased desire to continue using them.[13]

2.3 Related Work

This research was made referring to previous research.

Research (Novita, et al 2019) uses the DeLone and McLean model to evaluate the success of the online portal in XYZ company. This research has a theoretical framework as shown in the picture 4.
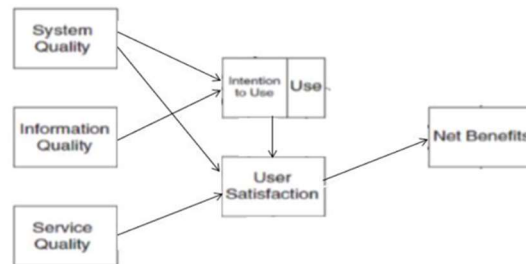

Figure 6: Research Model Theoretical (Novita 2019)

This study was completed in 2019 and concluded that 5 of the 12 hypotheses suggested had an impact. The quality of information (information quality) on use (use), the quality of service (service quality) on use (use), the quality of the system (system quality) on user satisfaction (user satisfaction), the quality of the system (system quality) on use (use), and the quality of the system (system quality) on use (use) are the hypotheses that have an impact (user satisfaction). As a result, XYZ company's information and online portal services are not properly qualified and unable to impact online portal users' interests.[14]

A study conducted by (Sapty Rahayu, et al 2018) used the DeLone and McLean model to analyze the success of the student information system (SIKMA) at Atma Jaya University Yogyakarta. This research has a theoretical framework as shown in Figure 7.
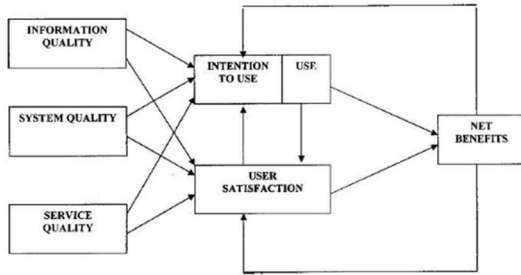
Figure 7: Research Model Theoretical (Sapty Rahayu, et al 2018)

This research was conducted in 2018 where it was found that 5 hypotheses were accepted and 5 hypotheses were rejected. The accepted hypothesis is the quality of the system on user satisfaction, information quality on user satisfaction, service quality on user satisfaction, user satisfaction on use, and use of benefits. Based on this, it can be concluded that the implementation of SIKMA cannot be said to be completely successful because students do not get satisfaction in using the system.[15]

Research (Angelina, et al 2019) uses the DeLone and McLean model to measure the level of success of several E-Commerce in Indonesia. This research has a theoretical framework as shown in Figure 8.
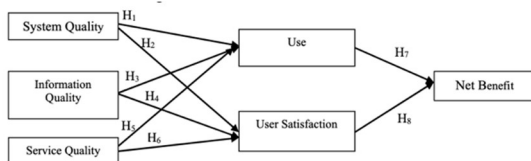

Figure 8:Research Model Theoretical (Angelina, et al 2019)

This research was conducted in 2019 where it was found that 5 of the 8 hypotheses proposed on e-commerce have an influence. The hypotheses on Lazada e-commerce that have an influence are system quality on user satisfaction, information quality on user satisfaction, service quality on usage, service quality on user satisfaction, and user satisfaction on benefits. The hypotheses on e-commerce Bukalapak that have an influence are system quality on user satisfaction, service quality on usage, service quality on user satisfaction, usage on benefits, and user satisfaction on benefits. The hypotheses on Shopee e-commerce that have an influence are system quality on user satisfaction, information quality on user satisfaction, service quality on usage, service quality on user satisfaction, and user satisfaction on benefits. Based on this,

information and services in each e-commerce are of sufficient quality and can influence user interest.[16]

Research conducted by (Novianti, et al 2019) uses the DeLone and McLean model and the Unified Theory of Acceptance and Use of Technology (UTAUT) to evaluate the success of E-Learning. This research has a theoretical framework as shown in Figure 7.

Figure 9: Research Model Theoretical (Novianti, et al 2019)

This research was conducted in 2018 where it was found that the integration of this model aims to measure the quality of e-learning through its users directly, when the user shows acceptance of the e-learning used and decides to reuse it, the implementation of e-learning carried out by the company/ organization can be said to be successful.[17]

A study conducted by (Kelana, et al 2016) used the DeLone and McLean model and the Unified Theory of Acceptance and Use of Technology (UTAUT) to analyze the success of the academic information system at STIMIK ESQ. This research has a theoretical framework as shown in Figure 8.

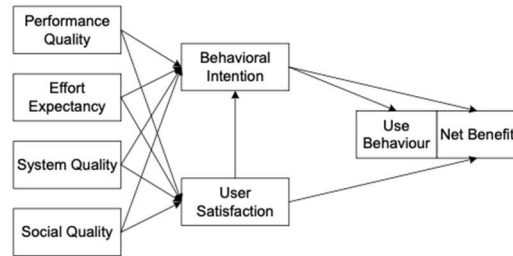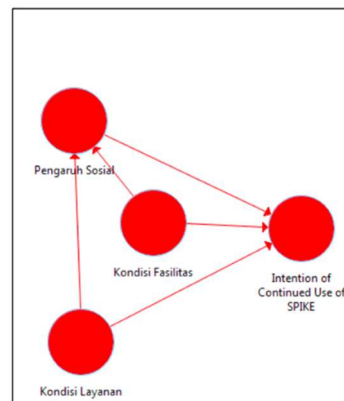*Figure 10: Research Model Theoretical (Kelana, et al 2016)*

This research was conducted in 2016 where it was found that 2 of the 5 proposed hypotheses were accepted. The accepted hypothesis is service quality

on social influence and facility conditions on social influence.[18]

3. RESEARCH METHODOLOGY

In this theoretical framework, references are drawn from the Delone and McLean approach as well as the Unified Theory of Acceptance and Use of Technology (UTAUT), and several factors are examined in this study, including information quality, system quality, social influence, effort expectancy, use, user satisfaction, and net benefits.[19][20] We can also call the net benefits factor-a success factor, which we will examine in this thesis. In this net benefit factor, we will find out whether the PT. XYZ Health application has been useful in supporting user health. The following is a picture of the theoretical framework that is used as a reference in writing this thesis as follows:
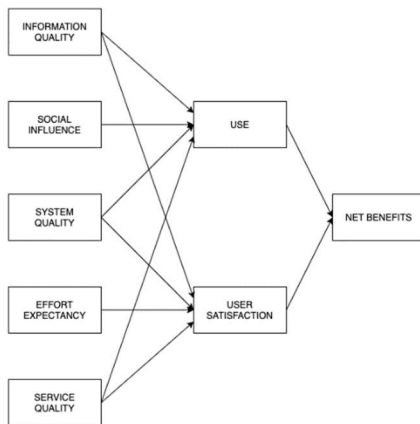

Figure 11: Research Model Theoretical

The arrows connecting the variables have been arranged in such a way as to serve as the basis for collecting data in the form of a questionnaire.

From the theoretical framework above, the writer makes the following hypothesis:

H1: Information quality has a positive effect on use.
H2: System quality has a positive effect on use.
H3: Service quality has a positive effect on use.
H4: Social influence has a positive effect on use.
H5: Information quality has a positive effect on user satisfaction.
H6: System quality has a positive effect on user satisfaction.

H7: Service quality has a positive effect on user satisfaction.
H8: Effort expectancy has a positive effect on user satisfaction.
H9: Use has a positive effect on net benefits.
H10: User satisfaction has a positive effect on net benefits.

For data collection, samples taken were PT. XYZ Health application users in Indonesia. The sampling method is carried out with a non-probability approach or non-random selection using purposive sampling. Based on what was found in the introduction, there are approximately 100,000 users in Indonesia.

According to Sujarweni (2015:81), a sample is several characteristics possessed by the population used for research. If the population is large, researchers can't take all of them for research, for example, due to limited funds, energy, and time, then researchers can use samples taken from that population. To calculate the number of samples from the total population above, the Slovin formula (Sevilla et al., 2007) with a significance level of 90% - 95% or an error tolerance level of 10% is used as follows:

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{100.000}{1 + 100.000(0,1)^2}$$

$$n = \frac{100.000}{1001}$$

n = 99,90 (rounded up to 100 people)

n = Number of samples

N = Total population

e = Fault tolerance limit 10% (0,1)

From the results of the calculation of the determination of the sample above, the number of samples of 100 users from a total population of 100,000 users and the data collection method that will be used is a questionnaire, this questionnaire

will later be distributed via google form to users of the PT.XYZ Health application.

4. RESULT AND DISCUSSION

4.1 Result

Hypothesis testing was carried out in this study utilizing the smartPLS 3.3.3 application and the Partial Least Square analysis approach. The schematic model of the PLS software that is being tested is shown below.
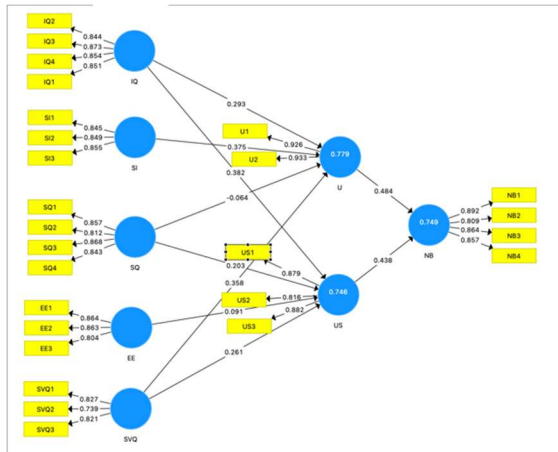

Figure 12: Results of Analysis of Research Models Using SmartPLS

We can assess the measurement model and the structural model based on the findings of the schematic presentation of the PLS program model. Validity and reliability tests will be used to evaluate the measurement model; the validity test will determine whether the indicators in the questionnaire are valid. In the validity test, what we see is convergent validity and discriminant validity.

The magnitude of the outer loading or loading factor is used to determine convergent validity while testing. The value of each indicator's loading factor on the research variables is shown in the table below.

Table 2: Loading Factors

Variable	indicator	Outer Loading	description
Information Quality (IQ)	IQ1	0,851	Valid
	IQ2	0,844	Valid
	IQ3	0,873	Valid
	IQ4	0,854	Valid
System Quality (SQ)	SQ1	0,857	Valid
	SQ2	0,812	Valid
	SQ3	0,868	Valid
	SQ4	0,843	Valid
Service Quality (SVQ)	SVQ1	0,827	Valid
	SVQ2	0,739	Valid
	SVQ3	0,821	Valid
Social Influence (SI)	SI1	0,845	Valid
	SI2	0,849	Valid
	SI3	0,855	Valid
Effort Expectancy (EE)	EE1	0,864	Valid
	EE2	0,863	Valid
	EE3	0,804	Valid
Use (U)	U1	0,926	Valid
	U2	0,933	Valid
User Satisfaction (US)	US1	0,879	Valid
	US2	0,816	Valid
	US3	0,882	Valid
Net Benefits (NB)	NB1	0,892	Valid
	NB2	0,809	Valid
	NB3	0,864	Valid
	NB4	0,857	Valid

A good outer loading is recommended 0.7, but some cases are tolerating a loading factor value > 0.5 (Hair et al., 2009). Based on table 2 above, it is known that each dominant indicator has an outer loading value of 0.7.

The Average Variance Extracted (AVE) value may also be used to evaluate the validity test in convergent validity. The value of the test findings can be accepted if the determinant of convergent validity on the value of the tested variable has a value of > 0.5.

Table 3: Validity Test Results

Variable	Average Variance Extracted (AVE)
Information Quality (IQ)	0,732
System Quality (SQ)	0,715
Service Quality (SVQ)	0,634
Social Influence (SI)	0,722
Effort Expectancy (EE)	0,713
Use (U)	0,864
User Satisfaction (US)	0,738
Net Benefits (NB)	0,733

Table 3 shows that the AVE value in the tested variables is already more than 0.5. As a result, the convergent validity test can be said to be valid.

Then the discriminant validity results can be seen from the value of the Fornell-Larcker Criterion and the value of Cross Loadings. The Fornell Larcker Criterion is measured like the first method. Fornell, the root of the AVE in the construct must be greater than the correlation of the concept with other latent variables for a research model to have acceptable discriminant validity. The Fornell Larcker Criterion is a set of criteria developed by Fornell Larcker. The Fornell values acquired in this study had a higher value than the other variables in the same column, particularly a value greater than 0.7.

Cross loading is the second approach for the next test, and the results must indicate that the indicators in each construct must have a greater value than the indicators in other constructions.

The cross-loading value of each indicator on its construct is bigger than the value of loading with other constructs, according to the findings of this study's Cross Loading test. Based on these findings, discriminant validity appears to be unaffected.

The data model tested in this study has met the requirements or criteria that show evidence that the construct in the model has discriminant validity as well as an initial stage before testing the hypothesis after passing through various series of tests, as determined by the results of cross loading and the Fornell Larcker Criterion.

The reliability test, which may be observed in the findings of composite reliability and Cronbach's Alpha, is used to examine the dependability of indicators on a variable. To measure the value of the dependability of indicators on a variable, use composite reliability. If the composite reliability and Cronbach's Alpha are both greater than 0.7, a variable can be deemed reliable.

Table 4: Reliability Test Results

Variable	Composite Reliability	Cronbach's Alpha	description
Information Quality (IQ)	0,916	0,878	Reliable
System Quality (SQ)	0,909	0,867	Reliable
Service Quality (SVQ)	0,839	0,714	Reliable
Social Influence (SI)	0,886	0,808	Reliable
Effort Expectancy (EE)	0,881	0,798	Reliable
Use (U)	0,927	0,843	Reliable
User Satisfaction (US)	0,894	0,823	Reliable
Net Benefits (NB)	0,916	0,878	Reliable

Table 6 shows that composite reliability and Cronbach's Alpha are both more than 0.7, implying that all variables in this study are trustworthy.

In addition, the findings of path coefficients and hypothesis testing are used to describe the structural model evaluation step.

The SmartPLS 3 program is used to calculate bootstrapping before doing path coefficient testing. With a significance threshold (α) of 0.05, bootstrapping is done with 110 samples. As a result, if the output of the computation displays a p-value of 0.05, the association between variables may be stated to be significant, and the hypothesis can be accepted. Furthermore, it may be seen using t-statistics; if the t-statistic value is greater than 1.96, the association between variables is considered significant. The path coefficient calculation results are shown in Table 7 below.

Table 5: Path Coefficient

Variable	Use	User Satisfaction	Net Benefits
Information Quality (IQ)	0,293	0,382	
Social Influence (SI)	0,375		
System Quality (SQ)	-0,064	0,203	
Effort Expectancy (EE)		0,091	

Service Quality (SVQ)	0,358	0,261	
Use (U)			0,484
User Satisfaction (US)			0,438

Based on the data shown in table 7 the path coefficient has a range from -0.064 to 0.484, there is a negative value which means that if the system quality variable increases, the user variable will decrease and there is one relationship that has a value less than 0.1, namely Effort Expectancy -> user satisfaction with a value of 0.091 which was declared insignificant.

Table 6: Bootstrapping Calculation Results

Variable	T Statistics (|O/STDEV|)	P Values	Description
EE -> US	1.069	0.286	not significant
IQ -> U	2.462	0.014	significant
IQ -> US	3.976	0.000	significant
SI -> U	4.148	0.000	significant
SQ -> U	0.491	0.624	not significant
SQ -> US	1.774	0.077	not significant
SVQ -> U	4.010	0.000	significant
SVQ -> US	2.866	0.004	significant
U -> NB	5.727	0.000	significant
US -> NB	4.953	0.000	significant

Based on the data shown in table 8 above, T-Statistics has a range from 0.491 to 5.727, where there is no negative relationship, but has 3 insignificant results.

4.2 Discussion

The following hypothesis testing findings are based on the outcomes of the measurement and structural model evaluations.

Hypothesis 1: Information quality has a positive effect on use.

In the results of the first hypothesis test, namely the influence of the Information Quality variable on Use, the P Value is smaller than 0.05, which is 0.014

and the T-Statistic value is greater than 1.96, which is 2.462. Shows that Information Quality has a significant and positive influence with Use. In this hypothesis, it can be concluded that the higher the information quality in health applications, such as information on each feature or explanation of each content in the application, the higher the use of the information system used. So Ho is rejected and H1 is accepted, namely hypothesis 1 is accepted. This strengthens the previous research examined by (Novita, 2019) that the quality of information does have an influence on the use but is different from the research conducted by (Septy Rahayu, 2018) where the results of the study said that the quality of information had no effect on use. In this study, it can be concluded that users feel that the quality of information provided by health applications is good enough so that users are comfortable using these health applications.

Hypothesis 2: System quality has a positive effect on use.

The results of the second hypothesis test, namely the influence of the System Quality variable on Use, show that the P Value is greater than 0.05, which is 0.624 and the T-Statistic value is smaller than 1.96, which is 0.491. Shows that System Quality has a small positive effect on Use. In this hypothesis it can be concluded that System Quality has no significant effect on Use. So that Ho is accepted and H2 is rejected, namely hypothesis 2 is rejected. This strengthens the previous research examined by (Septy Rahayu, 2018) that the quality of the system does have an influence on the use but is different from the research conducted by (Novita, 2019; Angelina, 2019) where the results of the study said that the quality of the system has no effect on usage. In this study it can be concluded that users still do not feel that the quality of the system provided by the health application is good enough so that users are still not comfortable with the quality of the system from the health application.

Hypothesis 3: Service quality has a positive effect on use.

The results of the third hypothesis test, namely the influence of the Service Quality variable on Use, show that the P Value is smaller than 0.05, which is 0.000 and the T-Statistic value is greater than 1.96, which is 4.010. Shows that Service Quality has a significant and positive effect on Use. In this hypothesis it can be concluded that the higher the service quality, the higher the use of the information system used. So Ho is rejected and H3 is accepted,

namely hypothesis 3 is accepted. This confirms previous research researched by (Angelina, 2019) that the quality of service does have an influence on usage but is different from research conducted by (Novita, 2019; Septy Rahayu, 2018, Kelana, 2016) where the results of this study said that service quality had no effect on usage. In this study, it can be concluded that users feel that the quality of services provided by health applications is good enough so that users are comfortable using these health applications.

Hypothesis 4: Social influence has a positive effect on use.

In the results of the fourth hypothesis test, namely the influence of the Social Influence variable on Use, the P Value is smaller than 0.05, which is 0.000 and the T-Statistic value is greater than 1.96, which is 4.148. Shows that Service Quality has a significant and positive effect on Use. In this hypothesis it can be concluded that the higher the social influence, the higher the use of the information system used. So Ho is rejected and H4 is accepted, namely hypothesis 4 is accepted. This is different from the research conducted by (Kelana, 2016) where the results of the study said that social influence had no effect on usage. In this study it can be concluded that users already feel the social influence of users who use health applications is good so that users are interested in using these health applications.

Hypothesis 5: Information quality has a positive effect on user satisfaction.

In the results of the fifth hypothesis test, namely the influence of the Information Quality variable on User Satisfaction, the P Value is smaller than 0.05, which is 0.000 and the T-Statistic value is greater than 1.96, which is 3.976. Shows that Information Quality has a significant and positive effect on User Satisfaction. In this hypothesis, it can be concluded that the higher the information quality, the higher the user satisfaction of the information system used. So that Ho is rejected and H5 is accepted, namely hypothesis 5 is accepted. This confirms previous research researched by (Novita, 2019; Angelina, 2019) that the quality of information does have an influence on user satisfaction. In this study it can be concluded that users are satisfied with the quality of information provided by health applications so that users are comfortable using these health applications.

Hypothesis 6: System quality has a positive effect on user satisfaction.

The results of the sixth hypothesis test, namely the influence of the System Quality variable on User Satisfaction, show that the P Value is greater than 0.05, which is 0.077 and the T-Statistic value is less than 1.96, which is 1.774. Shows that System Quality has a small positive effect on User Satisfaction. In this hypothesis it can be concluded that System Quality has no significant effect on User Satisfaction. So that Ho is accepted and H6 is rejected, namely hypothesis 6 is rejected. This is different from the research conducted by (Novita, 2019; Septy Rahayu, 2019; Angelina, 2019) where the results of the study said that the quality of the system had an influence on usage. In this study it can be concluded that users are still not satisfied with the quality of the system provided by the health application.

Hypothesis 7: Service quality has a positive effect on user satisfaction.

The results of the seventh hypothesis test, namely the influence of the Service Quality variable on User Satisfaction, show that the P Value is smaller than 0.05, which is 0.004 and the T-Statistic value is greater than 1.96, which is 2.866. Shows that Service Quality has a significant and positive effect on User Satisfaction. In this hypothesis it can be concluded that the higher the service quality, the higher the user satisfaction of the information system used. So Ho is rejected and H7 is accepted, namely hypothesis 7 is accepted. This confirms previous research researched by (Angelina, 2019; Septy Rahayu, 2018) that service quality does have an influence on user satisfaction but is different from research conducted by (Novita, 2019; Kelana, 2016) where the results of this study It says that service quality has no effect on user satisfaction. In this study it can be concluded that users are satisfied with the quality of services provided by health applications.

Hypothesis 8: Effort expectancy has a positive effect on user satisfaction.

The results of the eighth hypothesis test, namely the effect of the effort expectancy variable on User Satisfaction, show that the P Value is greater than 0.05, which is 0.286 and the T-Statistic value is less than 1.96, which is 1.069. Shows that effort expectancy has a small positive effect on User Satisfaction. In this hypothesis it can be concluded that effort expectancy has no significant effect on User Satisfaction. So Ho is accepted and H8 is rejected, namely hypothesis 8 is rejected. This is different from the research conducted by (Novianti, 2019) where the results of this study say that

business expectations have an influence on user satisfaction. In this study it can be concluded that users are still not satisfied with because there is still too much effort for users to use health applications or it can be said to be less user friendly.

Hypothesis 9: Use has a positive effect on net benefits.

The results of the seventh hypothesis test, namely the effect of the Use variable on Net Benefits, show that the P Value is smaller than 0.05, which is 0.000 and the T-Statistic value is greater than 1.96, which is 5.727. Shows that Use has a significant and positive effect on Net Benefits. In this hypothesis it can be concluded that the higher the use, the higher the net benefits from the information system used. So Ho is rejected and H9 is accepted, namely hypothesis 9 is accepted. This strengthens the previous research examined by (Septy Rahayu, 2018) that the use does have an effect with net benefits but is different from research conducted by (Angelina, 2019) where the results of this study say that the use has no effect on the benefits clean. In this study, it can be concluded that users already feel that they have benefited from using health applications.

Hypothesis 10: User satisfaction has a positive effect on net benefits.

The results of the seventh hypothesis test, namely the influence of the User Satisfaction variable on Net Benefits, show that the P Value is smaller than 0.05, which is 0.000 and the T-Statistic value is greater than 1.96, which is 4.953. Shows that User Satisfaction has a significant and positive effect on Net Benefits. In this hypothesis it can be concluded that the higher the user satisfaction, the higher the net benefits from the information system used. So Ho is rejected and H10 is accepted, namely hypothesis 10 is accepted. This confirms previous research researched by (Angelina, 2019) that user satisfaction does have an effect with net benefits but is different from research conducted by (Novita, 2019; Septy Rahayu, 2019) where the results of this study say that satisfaction users have no influence on net benefits. In this study it can be concluded that users are satisfied with using the health application so that they get the benefits of using it.

Based on the results of the above analysis using SmartPLS, it can be concluded that 7 hypotheses are accepted and have a significant effect. While the other 3 hypotheses are rejected and do not have a significant effect on the success of the utilization of PT.XYZ's health application. The following is a summary of the results of the hypothesis test above:

Table 7: Hypothesis Test Results

Hipotesis	Pernyataan	Hasil
H1	information quality has a positive effect on the use.	Accepted
H2	System quality has a positive effect on use.	Rejected
H3	Service quality has a positive effect on use.	Accepted
H4	Social influence has a positive effect on use.	Accepted
H5	information quality has a positive effect on user satisfaction.	Accepted
H6	System quality has a positive effect on user satisfaction.	Rejected
H7	Service quality has a positive effect on user satisfaction.	Accepted
H8	Effort expectancy has a positive effect on user satisfaction.	Rejected
H9	Use has a positive	Accepted

	effect on net benefits.	
H10	User satisfaction has a positive effect on net benefits.	Accepted

5. CONCLUSIONS AND SUGGESTIONS

5.1 Conclusion

This study intends to see if PT. XYZ's health app has delivered the promised results by identifying the characteristics that drive users to utilize the app, especially for health-related activities like exercising or measuring sleep efficiency. As a result, the Modified Information Systems Success Model by DeLone and McLean Theory, as well as UTAUT, were used in this study. The inner and outer models were examined using SmartPLS software and structural equation modeling - partial least squares (PLS-SEM). This study used a survey approach and received 110 responses, suggesting that many connected factors impact the success of use. The conclusions that can be drawn from this research are:

1) information quality has a significant influence on the use in the utilization of health applications PT.XYZ.
2) system quality does not have a significant effect on the use of PT.XYZ's health application.
3) Service quality has a significant influence on use in the utilization of PT.XYZ's health application.
4) Social influence has a significant influence on use in the utilization of PT.XYZ's health application.
5) information quality has a significant influence on user satisfaction in the utilization of health applications PT.XYZ.
6) System quality does not have a significant effect on user satisfaction in the utilization of PT.XYZ's health application.
7) Service quality has a significant effect on user satisfaction in the utilization of PT.XYZ's health application.
8) Effort expectancy does not have a significant effect on user satisfaction in the utilization of PT.XYZ's health application.
9) Use has a significant effect on the net benefits in the utilization of PT.XYZ's health application.
10) User satisfaction has a significant effect on the net benefits in the utilization of PT.XYZ's health application.

5.2 Suggestion

Based on the findings of a study that looked into the elements that determine the success of PT.XYZ's health apps in Indonesia. The following suggestions are given in this study are as follows:

1) After knowing that the variables of information quality (information quality), social influence (social influence) and service quality (service quality) significantly affect the variable use (use), it is suggested that in the future PT.XYZ can increase the three independent variables to be able to adding interest in the use of the health application, starting from improving the quality of information available in the health application, the branding carried out by the company on the health application, as well as the quality of service provided by the application to users.
2) Given that the variables of information quality (information quality) and service quality (service quality) significantly influence the user satisfaction variable, it is suggested that PT.XYZ increase the two independent variables in the future to improve user satisfaction in using this health application, beginning with improving the quality of information available in the health application and the quality of services provided by the health application.

For further research, it is proposed to add a variable regarding the success factors for the use of PT.XYZ's health application so that it can be known in more detail what factors for the success of utilization are taken into consideration by users in using health applications in Indonesia.

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