

FACTORS INFLUENCING THE INTENTION TO USE MYSEJAHTERA APPLICATION AMONG MALAYSIAN CITIZENS DURING COVID-19

Tak-Jie Chan^{*1}, Saodah Wok², Nabila Novita Sari³
Muhammad Afiq Harraz Abd Muben³

¹Faculty of Business, Accountancy, Communication & Hospitality Management, SEGi University

²Kulliyah of Islamic Revealed Knowledge and Human Sciences, International Islamic University Malaysia

³Faculty of Education, Languages & Psychology, SEGi University

chantakjie@segi.edu.my

ABSTRACT

Many countries in the globe have experienced COVID-19 pandemic in the year 2020, and this has caused government to come out with various tracking applications to trace the individuals who get infected with the virus. However, with the implementation of the tracking application by the government, there always be issues related to the personal information and data privacy store in the system, which will make the citizens intent to use the technology or vice-versa. Hence, this study aims to examine the factors influencing the intention to use MySejahtera application among Malaysian citizens. The study utilized Unified Theory of Acceptance and Use of Technology (UTAUT2) Theory to guide the study, where the determinants were performance expectancy, effort expectancy, social influence, facilitating conditions, habit, and perceived privacy credibility. Purposive sampling was employed in this study, where a quantitative (survey) method was used, in which online questionnaires were distributed to the Malaysian citizens who know or have heard about the MySejahtera tracking application which ultimately with generated 401 valid responses. The data were then analysed using Partial Least Squares Structural Equation Modelling through Smart-PLS 3.0. The results revealed that four (4) determinants (social influence, facilitating conditions, habit, and perceived privacy credibility) have a positive and significant relationship with intention to use MySejahtera application. However, performance expectancy and effort expectancy were found not to be significantly related to intention to use the particular tracking application. The study contributes to the media information technology scholarship by incorporated perceived privacy credibility as an important construct to further expand the UTAUT2 Theory in relation to the Internet of Things (IoT), which provide relevant strategies for government agencies, medical and healthcare practitioners to track on the suspected patients. Conclusion, implications, and suggestions for future study were also discussed.

Keywords: *COVID-19 pandemic, Intention to Use, MySejahtera, tracking application, UTAUT2*

INTRODUCTION

In 2020, many countries in the globe have experienced the negative effects of COVID-19 pandemic and it is still unsolved until today. The new strain of coronavirus, SARS-CoV-2, has

ravaged human lives and the global economy alike. In an effort to contain and control the spread of the COVID-19 virus, governments around the world have introduced numerous applications to track and trace infected individuals. Malaysia is one of the countries that are being affected by the COVID-19 pandemic. On 10 April 2020, the government of Malaysia launched a mobile application, called MySejahtera that was designed to track and trace the infection in order for the Ministry of Health to contain and isolate the infected persons (Othman & Babulal, 2020). Hence, this preventive action requires everyone's to scan a barcode for data collection every time someone is entering public places such as public transportation, malls, and even shops (Code Blue, 2020). The utilization of the MySejahtera application is crucial in preventing the spread of COVID-19 virus and the government of Malaysia has also encouraged the adoption of this application (Bernama, 2020).

As any product or system that comes from the highest authority in a particular country, there will always be doubt and fear over the use of the application. This has aligned with the notion posted by Mohd Yusof, Muuti, Ariffin, and Tan (2020) that indicated information sharing on the new media technology tend to be problematic, especially on the issues of sharing personal information/data as well as fake news or false information during the COVID-19 pandemic in Malaysia. However, the Director-General of Health, Tan Sri Dr. Noor Hisham Abdullah had come out with a statement assuring the citizens that their information will be safe and secured when they use the MySejahtera contact tracing application (Radhi & Teoh, 2020). Over the following months, the application has helped to detect over 9,000 cases of COVID-19 infections (Wong, 2020) and has managed to cover over 24.5 million users across the nation (Mok, 2020).

Previous researches have studied the factors that influenced the intention to use technology acceptance model such as e-participation, travel apps, mobile learning system, and blended learning in education setting (Almaiah, Alamri, & Al-Rahmi, 2019; Dakduk, Santalla-Banderall, & der Woude, 2018; Ho & Amin, 2019; Naranjo-Zolotov & Oliveira, 2019; Skoumpopoulou, Wong, Ng, & Lo, 2018), online hotel booking (Chang, Liu, Huang, & Hsieh, 2019), and tourism industry (Herrero, San Martín, & Garcia-De los Salmenes, 2017). There are several studies that looked into the use of media technology during the COVID-19 pandemic done in Belgium (Walrave, Waterloss, & Ponnet, 2020), Europe (Jacob & Lawarée, 2021), Jordan (Abuhammad, Khabour, & Alzoubi, 2020) and Thailand (Chayomchai, 2020). However, there is dearth need to look into Malaysian setting, as different countries have different types of tracking applications.

In addition, numerous past studies also yielded different results. For instance, Naranjo-Zolotov and Oliveira (2019) conducted a study about the factors of Unified Theory of Acceptance and Use of Technology (UTAUT) theory that influenced citizen's behavioural intention to use e-participation in Portugal. The result indicated that performance expectancy and facilitating conditions contributed as the strongest influencing factors on citizen's intention to use, while the result of effort expectancy and social influence were not significant. Subsequently, the researchers suggested that the future research to conduct in a different context to obtain more distinct results.

Moreover, similar research was done by Almaiah et al., (2019) in the context of the acceptance of higher education learning system by students using UTAUT theory. However, the study was limited to Jordanian university students only. In addition, the context is more likely to be in the education system. In Malaysia, there are various studies using UTAUT theory, for example, Fadzil (2017) was examining the factors determining intention to use mobile applications in Malaysia by using UTAUT theory. However, it yielded the same results as Naranjo-Zolotov and Oliveria (2019), where effort expectancy did not influence consumers' behavioural intention to use mobile applications, as some people are lacking in term of skills to use the application and it is considered as a not user-friendly application (Fadzli, 2017).

This study chose UTAUT2 which was developed by Venkatesh, Morris, Davis, and Davis (2003) and it looked into users' adoption or intention to use a new technology. A study by Rabaa'i (2017)

on the adoption of e-government services in Saudi Arabia found that all the basic components of UTAUT have significant effects on the adoption of the technology. A further study was done in Bangladesh on the use of a mobile health service which discovered that three of the major constructs of UTAUT, namely, performance expectancy, effort expectancy, and social influence, did exert significant influence on the use of the services, but the facilitating conditions were found to be not (Hoque & Sorwar, 2017).

One study was done on the contact tracing app in Belgium by Walrave et al., (2020). They found that only three of the major elements in UTAUT could be used to predict the intention to adopt e-tracing apps in Belgium during COVID-19 pandemic with the exception of effort expectancy which was found to be unrelated in predicting the intention. Based on the aforementioned discussions, there are lots of inconsistencies in the past findings, which make researchers to re-investigate the study again.

In addition, hedonic motivation and price value were excluded from the study as the MySejahtera application was enforced by the government of Malaysia to its citizens. Hence, it is not enjoyable, but it makes the citizens to have lot of procedures in term of scanning and registration before they can proceed to enter the premises. In addition, since the tracking application was enforced by the government, hence, it is free to download the application in the smartphones, where monetary costs of the technology was not an issue, which aligned with the previous studies (Chayomchai, 2020; Chayomchai, Phonsiri, Junjit, Boongapim, & Suwanna-pusit, 2020; Walrave et al., 2020) that the two variables were excluded. However, there is always an issue with regards to the privacy concerns and the credibility of the application itself; and many past studies suggested that perceived privacy credibility is a variable that is prominent to be studied in the online services and social network as the determinant to the behavioral intention (Abuhammad et al., 2020; Baruh, Secinti, & Cemalcilar, 2017; Koohang, 2017; Koohang, Paliszkievics, & Nord, 2018). Hence, this study includes the perceived privacy credibility as an additional variable to the UTAUT2 model to further extend the attribute that can influence the intention to use MySejahtera application.

Malaysia as a country which is also inevitable to the COVID-19, in fact it is very interesting for this study to be carried out as based on the notion of Diffusion and Innovation Theory by Rogers (2003), indicating that some individuals are considered laggards, and do not wish to change, even new technology has been introduced which reflects the intention to use the tracking application or vice versa. Even though the Malaysian citizens might be an early adopters or early majority in using the MySejahtera application, but the notion of security, privacy as well as credibility of the application itself in the online medium will still prohibit some individuals to use it, hence, it is important that the attribute to be studied in this context.

Lack of research on the intention to use contact tracking applications is understandable, given the fact that the pandemic only started in the year 2020. With that being said, this provides researchers with a phenomenon that could be investigated further. Thus, this study was proposed to fill the backdrop and inconsistencies in the findings and utilized the UTAUT2 theory which has more attributes to be tested on the intention to use the MySejahtera contact tracking application. The next section of the article will be reviewed on the numerous past studies related to the variables used and developed the conceptual framework to be tested.

LITERATURE REVIEW

Theoretical Foundation

In this particular study, UTAUT2 theory was used to predict the intention to use MySejahtera application among the citizens of Malaysia. UTAUT2 is a theoretical model that is commonly used in technology or system acceptance (Naranjo-Zolotov & Oliveira, 2019). According to

Venkatesh, et al., (2003), UTAUT model consists of eight (8) established theories, that is, Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behavior (TPB), Combined TAM and TPB (C-TAM-TPB), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT) and Social Cognitive Theory (SCT). UTAUT2 theory comprises of seven (7) factors, namely, Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Price Value, and Habit. This theory is mostly used to determine users' behavioral intention to use a particular technology or system (Lin, 2019; Suki & Suki, 2017; Venkatesh et al., 2003).

Performance Expectancy

According to Venkatesh, Thong, and Xu (2012), performance expectancy is defined as the level to know how beneficial a technology is to the users when performing their activities. Moreover, an earlier study by Venkatesh, et al., (2003) stated that it can also be defined as how an individual as a user or consumer believes that the technology can enhance his/her productivity and ease his/her work by gaining better performance. Naranjo-Zolotov and Oliveira (2019) in the context of intention to use e-participation by citizens in Portugal showed that performance expectancy has a positive influence towards citizens' intention to use e-participation. Moreover, performance expectancy is considered as the prominent factor that contributes to the influence of intention to use the technology (Ayaz & Yanartas, 2020; Chayomchai et al., 2020; Naranjo-Zolotov & Oliveria, 2019; Skoumpopoulou et al., 2018; Tang, Aik, & Choong, 2021).

Hoque and Sorwar (2017) found that performance expectancy has a positive impact on the elderly's acceptance of the e-Health service. In another study conducted on the intention to use COVID-19 contact tracing application in Belgium, Walrave, et al., (2020) found that performance expectancy as the most important factor in predicting the intention of people in using contact tracing apps with a positive relationship being established. The results in determining the relationship between performance expectancy and intention to use show that there is still room to further test the performance expectancy as a construct within UTAUT2 theory. Thus, the study hypothesized that:

H: There is a positive relationship between performance expectancy and intention to use MySejahtera application.

Effort Expectancy

Effort expectancy can be defined as the level of easiness of a particular system or technology to be used by everyone (Venkatesh et al., 2012). Based on a study in Malaysia about the impact of factors under UTAUT theory towards intention to use smart travel application, effort expectancy influences consumers' intention to use smart travel to plan their trip (Ho & Amin, 2019). Likewise, a study by Almaiah et al., (2019) also stated that effort expectancy affects the consumers' intention to use and adopt a new technology.

In a research that investigated the acceptance of mobile commerce or e-commerce in Malaysia, Alrawi et al., (2020) discovered a significant relationship between effort expectancy and intention to use mobile commerce which shows that the new technology does not have to provide enormous amount of benefit to the users. In a study that examined the adoption of internet banking services, it was found that effort expectancy is indeed a determinant that influences the adoption of e-banking in Zambia (Daka & Phiri, 2019) and the usage of m-payment in Malaysia (Tang et al., 2021). Khechine and Augier (2019) also found that effort expectancy has a positive and significant impact on the intention to use e-learning, in Lille, France. Further study has been done which showed that in Jordan, effort expectancy also exhibited a positive influence to the intention to adopt the e-government services (Rabaa'i, 2017). All these results from the prior research put an emphasis on the importance of effort expectancy in predicting the intention to use a technology or service, which supported the results by Chayomchai et al., (2020) which showed that effort

expectancy does influence intention to use online technology among Thai people during COVID-19 quarantine time. Thus, the current study hypothesized that:

H2: There is a positive relationship between effort expectancy and intention to use MySejahtera application.

Social Influence

Social influence means the family members, friends/peers and individuals surroundings which are trusted by a person and they encourage the particular person to use or try a technology or system (Venkatesh et al., 2003). In other word, it means that the contribution of an individual in using of a technology can be encouraged or influenced by the opinions of the family members and friends (Naranjo-Zolotov & Oliveira, 2019). A study by Zendehdel and Paim (2015) showed a positive result of social influence towards the intention to use mobile internet in Malaysia. It further stated that consumers could be affected by the courage of peers and individuals surrounding them, especially the close ones like family members and friends to use a particular technology or system. This was in line with a study by Lin (2019) which yielded the same result of the positive impact of social influence towards consumers' intention to use e-books in Fujian, China. In addition, the result also showed that social influence did have a positive effect on the behavioral intention to adopt the new technology being implemented in public hospitals in Yemen (Mukred, Singh, & Safie, 2020). Based on the discussions above, the current study hypothesized that:

H3: There is a positive relationship between social influence and intention to use MySejahtera application.

Facilitating Conditions

Facilitating conditions is about the organizational and technical support that a user receives to make the adoption of the new technology becomes easier and user-friendly (Venkatesh et al., 2003). For instance, Khechine and Augier (2019) explored the adoption of e-learning in the France business school found that facilitating conditions affect intention to use the e-learning positively. On top of that, facilitating conditions was found to significantly affect the intention of Ugandans to adopt the use of mobile money in the African country (Mugambe, 2017), while Haron, Hussin, Yusof, Samad, and Yusof (2020) also discovered that facilitating conditions did have a significant effect on university students' intention to use the online learning platform (MOOC) in Malaysia.

These findings further strengthen the case for the inclusion of facilitating conditions as one of the variables that should be tested as a part of the UTAUT2 framework. With that being said, this study included facilitating condition as a part of the constructs that would be used to test the intention to use the MySejahtera contact tracing application among Malaysian citizens and hypothesized that:

H4: There is a positive relationship between facilitating condition and intention to use MySejahtera application.

Habit

According to Limayem, Hirt, and Cheung (2007), habit can be defined as the degree to which individuals tend to perform automatic behaviors based on learning. In other words, habit can be explained as a learned behavior in response to an unconscious stimulus, which explained when the users frequently use the particular technology, a habit will be formed. Gu, Bao, Hao, and Kim

(2019) aimed to test the intention to use smart home services in China context. The study proved that habit is the key factor in affecting users' intention to continue with the services. This is also congruent with the study by Chang et al., (2019) who indicated that intention to do online hotel booking was positively influenced by the habit, which yielded the same results that habit positively influenced the intention to share information in social network sites (SNS) among tourists (Herrero et al., 2017). Besides, Azizi, Roozbahani, and Khatony (2020) also found that habit as one of the attributes in UTAUT 2 have significant effect on the student's behavioral intention to use blended learning in medical education context. This further aligned with the study of Merhi, Hone, and Tarhini (2019), which also discovered that habit influences the behavioral intention towards adoption of the mobile banking services for Lebanese and British consumers. Based on the above discussions, therefore, it is hypothesized that:

H5: There is a positive relationship between habit and intention to use MySejahtera application.

Perceived Privacy Credibility

According to Delone and McLean (2003), perceived credibility can be defined as the degree to which the user perceives that using a specific technology and system would be free of privacy and security related threats. Dhagarra, Goswami, and Kumar (2020) investigated trust and privacy concerns on technology acceptance in Indian healthcare services. The results revealed that privacy concern directly influenced the behavior of patients to use technology in healthcare services. In addition, Johnson, Woolridge, Wang, and Bell (2020) studied on the adoption of mobile self-checkout systems (MSCOS) on U.S. respondents showed that perceived privacy influence perceived security and usage intention are positively related. In addition, the findings of Ramos, Ferreira, de Freitas, and Rodrigues (2018) also found that perceived security and perceived privacy significantly influence the trust and intention to use m-banking in Brazilian context. This further supported the results of Merhi et al., (2019), who also found that perceived privacy and perceived security significantly influence the intention to adopt mobile banking services for both England and Lebanon customers. Furthermore, Khan, Saleh, and Quazi's (2021) study showed that perceived credibility significantly influence perceived usefulness of social media and thus leading to the positive social media usage behavior among the health professionals. Based on the above discussions, this study hypothesized that:

H6: There is a positive relationship between perceived privacy credibility and intention to use MySejahtera application.

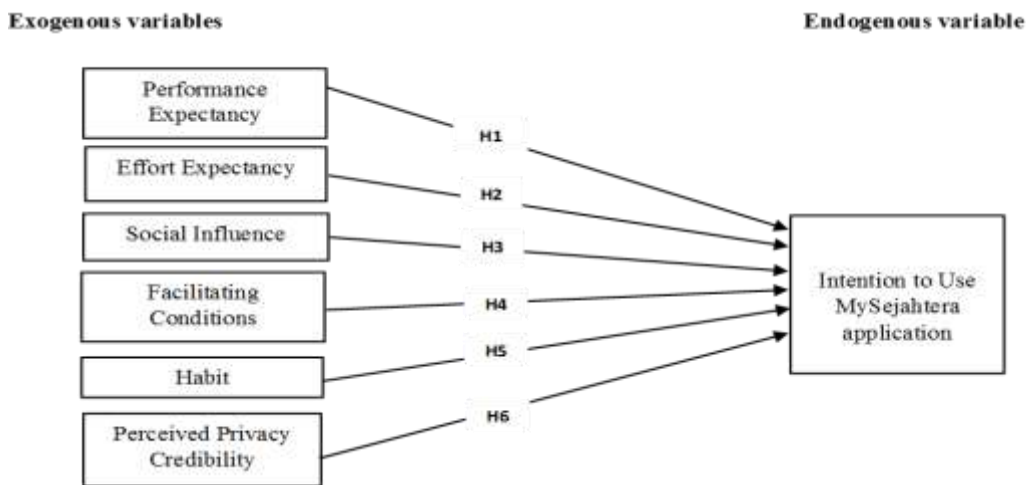


Figure 1: Conceptual Framework

METHODOLOGY

Research Design

Malaysia was chosen as the context of study, as the country experiences numerous round of lockdown from the year 2020 until present, which indicated that the COVID-19 cases are still not under control, one of the reasons may due to the attitudes of Malaysian citizens who are lethargic of fighting the pandemic and some may be scared that their personal particulars are being used by other third party, as well as credibility issue with the application which caused them not to use the tracking application properly. Thus, this study used a quantitative research design in order to collect reliable and accurate data. Quantitative research design is used as it involves the reduction of phenomena to numerical values (Apuke, 2017). The survey method using an online questionnaire was utilized, as it allows for the standardizing of collecting quantitative data, so that the data are internally consistent and comprehensible to be analysed (Roopa & Rani, 2012).

Sampling Procedure

A non-probability sampling, namely purposive sampling was used in this study as researchers were unable to get the population list. Purposive sampling which is the deliberate selection of respondents due to the qualities the respondents possess. It aims to focus people on specific characteristics to better assist relevant research by identifying and selecting information-rich cases (Etikan, Musa, & Alkassim, 2016). Hence, for this study the respondents must know or have heard about the MySejahtera application. It can be assumed that Malaysian citizens in the urban area are mostly know or have heard about the tracking application as it was championing by the Malaysian government before this research was carried out. In addition, in order to know the sample size for the current study, researchers used a-priori sample size technique (Sooper, 2020 in Memon et al., 2020) via the power analysis as it is a prominent analysis in most social sciences research as suggested by Hair, Hult, Ringle, and Sarstedt (2017), and the sample size via the G*Power 3.1.9.2 software indicated that the minimum sample size for the current study is 98 (effect size: 0.15; power: 80; number of predictors: 6). Researchers managed to get 401 valid responses. This has further supported the notion of Sekaran and Bougie (2016) who recommended that sample size between 30 and 500 are sufficient for the social science studies. Researchers utilized online survey via Google Forms to solicit the data. The Google forms were distributed through social media platforms such as WhatsApp and Facebook, where researchers assured the anonymity and confidentiality of the respondents. The data collection was carried out from 12th July 2020 until 03rd September 2020 to gather the 401 responses.

Measurement

The questionnaire contains 3 sections. Section A is a demographic section, which was designed to collect demographic information of the respondents, namely, gender, nationality, age, race, education level, and likelihood to use the MySejahtera application.

Section B pertains to the attributes from UTAUT2 theory, namely, performance expectancy, effort expectancy, social influence, facilitating conditions, and habit were modified and adapted from various past studied (Limayen & Hirt, 2003; Palau-Saumell, Forgas-Coll, Sánchez-García, & Robres, 2019; Venkatesh et al., 2003; Venkatesh et al., 2012). Perceived privacy credibility items were adapted from (Palau-Saumell et al., 2019; Yu, 2012). Section C consists of intention to use wherein the items used were adapted from (Venkatesh, 2003; Venkatesh et al., 2012). The survey items for Section B and Section C were designed as statements, measured on a five-point Likert-

type scale, i.e., 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat agree, 4 = Agree, and 5 = Strongly agree. The details of the operationalization of the variables are presented below (*see Table 1*).

Table 1. Operationalization of the variables

Variable(s)	Items	Source(s)	Previous Cronbach's alpha
Performance Expectancy	PE1: I find MySejahtera application useful in my daily life. PE2: I believe that using MySejahtera application enables me to prevent COVID-19 more quickly. PE3: I believe using MySejahtera application can save time to detect COVID-19.	(Venkatesh et al., 2003)	0.88-0.92
Effort Expectancy	EE1: I believe that learning to operate MySejahtera application is easy for me. EE2: I find MySejahtera application easy to use. EE3: I believe it is easy for me to become skillful at using MySejahtera application.	(Venkatesh et al., 2003)	0.91
Facilitating Conditions	FC1: I have the necessary resources to use MySejahtera application. FC2: I believe that I have necessary knowledge to use MySejahtera application FC3: I feel comfortable to use MySejahtera application. FC4: I believe MySejahtera application are compatible with technologies I used.	(Venkatesh et al., 2012; Palau-Saumell et al., 2018)	0.75-0.85
Social Influence	SI1: Family members who are important to me think that I should use MySejahtera application. SI2: Friends/peers who influence my behavior think I should use MySejahtera application SI3: People whose opinions that I value prefer that I use MySejahtera application.	(Venkatesh et al., 2012)	0.82
Habit	HA1: The use of Mysejahatera application has become a habit for me. HA2: I am in favour of using MySejahtera application. HA3: I feel the need to use MySejahtera application as a new norm. HA4: Using MySejahtera application has become natural to me.	(Limayem & Hirt, 2003; Venkatesh et al., 2012)	0.82

Perceived Privacy Credibility	PC1: When using MySejahtera application, I believe that my information is kept confidential. PC2: I believe that my privacy on MySejahtera application will not be breached. PC3: I believe that the MySejahtera application environment is safe.	(Yu, 2012; Palau-Saumell et al., 2018)	0.88 - 0.92
Intention to Use	ITU1: I will try to use MySejahtera application more frequently. ITU2: I plan to use MySejahtera application in the next 6 months. ITU3: I intend to use MySejahtera application in the next 6 months.	(Venkatesh et al., 2003; Venkatesh et al., 2012)	0.92-0.93

Statistical analysis and significance

All the hypotheses developed were tested using Structural Equation Modelling (SEM). Two-stage analytical procedures were performed using Smart-PLS 3.0. SEM is deemed as a suitable statistical tool for this study as PLS-SEM can handle complex models where there are many numbers of latent variables and constructs (Henseler, Ringle, & Sinkovics, 2009). In addition, PLS-SEM can also handle the data from non-probability sampling, with a small sample size and from non-normal distribution data (Awang, Afthanorhan, & Asri, 2015; Hair, Risher, Sarstedt, & Ringle, 2019). Most significantly, the current study implied to test the theoretical framework based on the perspective of prediction which justify the used of PLS-SEM (Cepeda-Carrion, Cegarra-Navarro, & Cillo, 2019; Hair et al., 2019). This has further supported the notion of Rigdon (2016), that the prediction analysis is timely in research as it provides new observations within and outside of the sample.

RESULTS

Based on Table 2, more than half of the respondents are female (67.6%), with only 32.4% of the respondents being male and the majority of them are Malaysians (85.8%). In terms of age, 44.4% of the respondents aged from 21-30 years old. Additionally, nearly half of the respondents are Malays (41.6%), followed by Chinese (35.4%), Indians (10.7%) and the others made up the rest of the respondents (12.2%). More than half of the respondents have Bachelor's Degree (53.9%), Master's Degree (15.7%), Ph.D. (9.2%) and another 13.7% of them having higher school certificate/Diploma which reveals that the respondents are educated. Furthermore, almost all of the respondents (99.3%) have smartphone and have installed MySejahtera application (79.1%), which show that the respondents are techno-savvy and have knowledge on the use of information technology (ICT). For the likelihood to use MySejahtera application, almost three-quarters of the respondents (72.6%) are in favour to use MySejahtera, and 27.4% of the respondents are not in favour of using it.

Table 2. Demographic profiles of respondents (n = 401)

Variables	Category	Frequency	%
Gender	Male	130	32.4
	Female	271	67.6
Nationality	Malaysian	344	85.8
	International	57	14.2
Age	<20	45	11.2
	21-30	178	44.4
	31-40	48	12.0
	41-50	76	19.0
	>50	54	13.5
Race	Malay	167	41.6
	Chinese	142	35.4
	Indian	43	10.7
	Others	49	12.2
Education	High school/SPM	30	7.5
	STPM/HSC/ Diploma	55	13.7
	Bachelor's Degree	216	53.9
	Master's Degree	63	15.7
	Ph.D.	37	9.2
Do you have smartphone?	Yes	398	99.3
	No	3	0.7
Do you install MySejahtera application/any QR code scanner which allows you to scan MySejahtera code?	Yes	317	79.1
	No	84	20.9
On daily basis, how likely do you use/Scan QR using MySejahtera application?	Not at all likely	28	7.0
	Not so likely somewhat likely	82	20.4
	very likely	121	30.2
	extremely likely	116	28.9
		54	13.5

Before testing the model, this study examined the common method variance (CMV) which is the method bias or same source bias that may arise using self-report measures or cross-sectional design from the similar sample in the survey method (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In this study, correlation matrix procedure was used as one of the methods to detect CMV (Bagozzi, Yi, & Phillips, 1991; Tehseen, Ramayah, & Sajilan, 2017). CMV occurs when there is a substantially high correlation is found among latent variables ($r > 0.9$) (Tehseen et al., 2017). The outcome of the correlation test indicated that none of the latent variables correlated more than 0.90. Hence, the results assured that CMV was not an issue in this study.

Table 3. Correlations matrix among the variables (n = 401)

	PE	EE	FC	SI	HA	PC	ITU
PE	1						
EE	.695**	1					
FC	.698**	.816**	1				
SI	.661**	.562**	.601**	1			
HA	.771**	.719**	.744**	.768**	1		
PC	.625**	.577**	.611**	.605**	.665**	1	
ITU	.692**	.652**	.729**	.678**	.808**	.641**	1

**Correlation is significant at the 0.01 level (2-tailed)

Measurement Model

For the measurement model, convergent validity and discriminant validity were assessed. The convergent validity of the measurement model was ascertained through factor loadings, average variance extracted (AVE) and composite reliability (CR) (Hair et al., 2017).

As presented in Table 4, the factor loadings were all greater than 0.7 which complied with Hair, Ringle, and Sarstedt (2011). In addition, the CR and AVE obtained were also higher than 0.7 and 0.5, respectively (Hair et al., 2017). Hence, all the convergent validity criteria were met.

Discriminant validity is established if all the HTMT values obtained are less than the required threshold of HTMT_{.90} as per suggested by Gold, Malhorta, and Segars (2001). As shown in Table 5, one comparison point has slightly more than 0.90, however, this study utilized the HTMT_{inference} as suggested by Henseler, Ringle, and Sarstedt, (2015), where the upper bound of the HTMT confident interval values should not more than 1 on any of the constructs, indicating that there is no discriminant validity issue. This has further supported by Ramayah, Cheah, Chuah, Ting, and Memon (2018) that the HTMT upper bound confident interval value should be significantly lower than one (liberal criterion). Therefore, discriminant validity was ascertained. Collinearity issue was assessed using variance inflation factor (VIF) with a cut-off value of 5 as suggested by Hair et al., (2017). The VIF values as presented in Table 6 were all less than 5 indicating no collinearity issues.

Table 4. Convergent Validity

Variables	Items	Loadings	Cronbach's Alpha	rho_A	CR	AVE
Effort expectancy (EE)	EE1	0.926	0.910	0.911	0.943	0.848
	EE2	0.925				
	EE3	0.911				
Facilitating condition (FC)	FC1	0.793	0.879	0.899	0.916	0.733
	FC2	0.858				
	FC3	0.872				
	FC4	0.897				
Habit (HA)	HA1	0.898	0.925	0.926	0.947	0.816
	HA2	0.897				
	HA3	0.903				
	HA4	0.916				
Intention to use (ITU)	ITU1	0.916	0.939	0.939	0.961	0.891
	ITU2	0.958				
	ITU3	0.958				
Perceived Privacy Credibility (PC)	PC1	0.941	0.934	0.937	0.958	0.884
	PC2	0.955				
	PC3	0.924				
Performance Expectancy (PE)	PE1	0.880	0.853	0.867	0.910	0.772
	PE2	0.861				
	PE3	0.894				
Social Influence (SI)	SI1	0.880	0.795	0.82	0.879	0.709
	SI2	0.871				
	SI3	0.771				

*CR= Composite Reliability; AVE = Average Variance Extracted

Structural Model

The structural model was tested using bootstrapping procedures with a resample of 5,000 (Hair et al., 2017) to assess all the relationships between the constructs, its corresponding beta and t-values. The results are shown in Table 6.

Social influence ($\beta = 0.095$, $t = 1.879$, $p = .030$), facilitating conditions ($\beta = 0.271$, $t = 3.678$, $p = .000$), habit ($\beta = 0.458$, $t = 6.557$, $p = .000$) and perceived privacy credibility ($\beta = 0.114$, $t = 2.585$, $p = .005$) were found to have a positive and significant relationship with intention to use MySejahtera application. However, performance expectancy and effort expectancy showed no significant relationship with the intention to use MySejahtera application. This gives support for H₃, H₄, H₅, and H₆ whereas H₁ and H₂ were rejected. R^2 of 0.712 suggests that there is 71.2% of the variation in intention to use MySejahtera application was explained by the attributes of UTAUT2. In this study, the Q^2 values are more than zero for intention to use ($Q^2 = 0.622$), suggesting that the model has sufficient predictive relevance.

Table 5. Discriminant Validity Using HTMT Ratio

	EE	FC	HA	ITU	PC	PE	SI
EE							
FC	0.910 (0.871- 0.946)						
HA	0.786 (0.735- 0.834)	0.820 (0.766- 0.868)					
ITU	0.705 (0.646- 0.761)	0.797 (0.752- 0.838)	0.870 (0.831- 0.904)				
PC	0.626 (0.556- 0.692)	0.669 (0.602- 0.728)	0.715 (0.655- 0.769)	0.686 (0.622- 0.744)			
PE	0.789 (0.726- 0.846)	0.798 (0.740- 0.853)	0.868 (0.832- 0.902)	0.773 (0.716- 0.827)	0.699 (0.635- 0.757)		
SI	0.664 (0.592- 0.732)	0.716 (0.648- 0.781)	0.897 (0.849- 0.943)	0.789 (0.727- 0.850)	0.706 (0.631- 0.772)	0.806 (0.745- 0.861)	

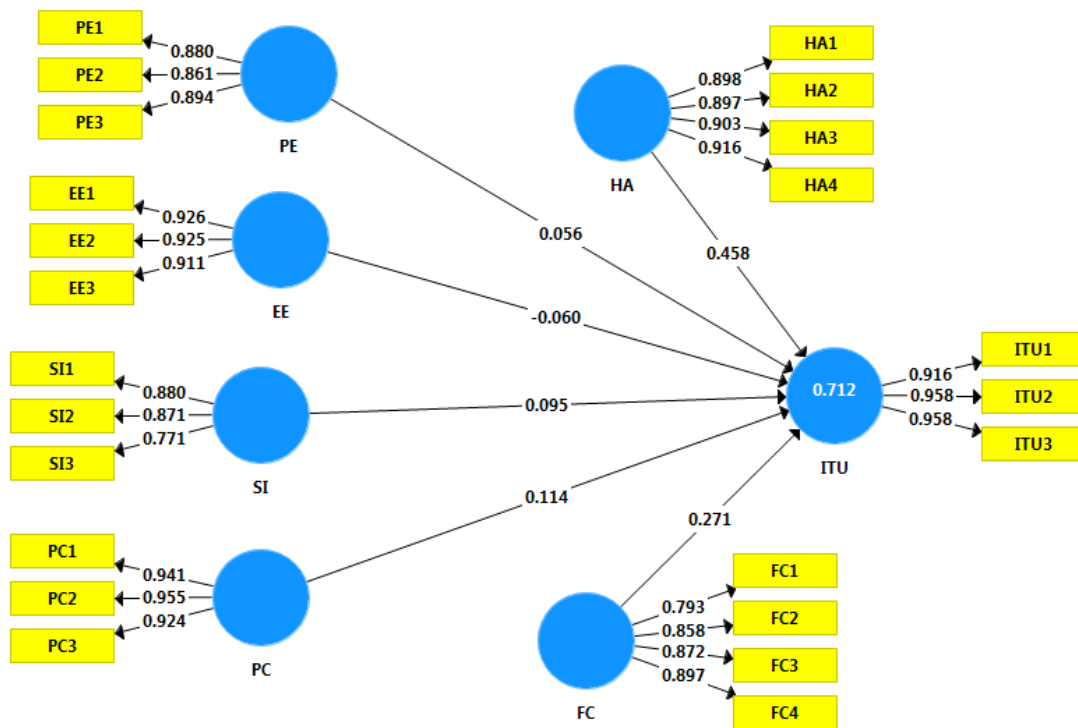


Figure 2: Structural model

Table 6. Direct Effects

		Std. Beta	Std. Error	T values	P values	Confident Interval (BC)		D	Q ²	R ²	f ²
						LL (5.0%)	UL (95.0%)				
H1	PE -> ITU	0.056	0.057	0.987	0.162	-0.041	0.147	NS	0.622	0.712	0.004
H2	EE -> ITU	-0.060	0.068	0.880	0.187	-0.168	0.055	NS			0.004
H3	SI -> ITU	0.095	0.051	1.879*	0.030	0.015	0.181	S			0.012
H4	FC -> ITU	0.271	0.074	3.678**	0.000	0.145	0.386	S			0.066
H5	HA -> ITU	0.458	0.070	6.557**	0.000	0.343	0.574	S			0.167
H6	PC -> ITU	0.114	0.044	2.585*	0.005	0.041	0.184	S			0.022

**p < 0.001, *p < 0.05; BC=Bias Corrected; LL=Lower Level; UL= Upper Level *S = Supported; NS = Not supported, 1-tailed test

PLSpredict was used to examine the predictive power of the model under study. Based on Table 7, the results of the PLS-SEM model are compared to the results of the naïve linear regression (LM) benchmark model. As all Q²_{predict} values are more than zero, hence, it can proceed with the comparison of both models. The comparison of predictive power (PLS-SEM – LM) is carried out using the root mean squared error (RMSE) values, which have high symmetrically distributed prediction errors (Shmueli et al., 2019). When the RMSE statistical values of the PLS-SEM model is compared to naïve LM benchmark model, the majority of the indicators show that RMSE values of PLS-SEM are lesser than the RMSE values of the naïve LM benchmark. Therefore, it suggests that the model has a high predictive power for intention to use.

Table 7. PLSpredict Assessment of Variables

	PLS SEM		LM	PLS SEM - LM	Interpretation
	RMSE	Q ² _{predict}	RMSE	RMSE	
ITU1	0.593	0.669	0.599	-0.006	High
ITU3	0.670	0.596	0.686	-0.016	
ITU2	0.691	0.585	0.722	-0.031	

DISCUSSION

The current findings were congruent with several past studies which showed that facilitating conditions have positive significant relationship with intention to use technology (Haron et al., 2020; Khechine & Augier, 2019). The positive findings can be best explained that the MySejahtera is available in application such as Play Store, where the citizens of Malaysia who owned smartphone will be able to download the MySejahtera application in their phone, hence, when they need to enter premises or places, it will ease the process as they just need to scan the QR code. However, the findings of Chayomchai (2020) were found to be different as facilitating conditions did not have significant relationship with the intention to use technology during COVID-19 in Thailand, which makes the study different from the current findings.

Furthermore, habit was found to have a significant relationship with the intention to use MySejahtera which supported previous studies (Chang, et al., 2019; Gu, et al., 2019). This can be further explained that in the context of Malaysia, MySejahtera as the tracking application has been implemented for some period of time, where the citizens of Malaysia were already used to the new norms. Based on the responses, some of the respondents have not installed the MySejahtera application. However, they are required to write down on the notebook prepared by the premises concerned, hence, it has become a habit for the citizens to scan the QR code or written down their particulars.

In addition, perceived privacy credibility was also found to positively influence the intention to use MySejahtera which is aligned with the study by Dhagarra et al., (2020) in the Indian healthcare industry. However, it contrasted with the findings of Walrave et al., (2020) which showed that privacy concern did not have significant results with intention to use tracking application during COVID-19 in Belgium. The positive finding of the study can be best explained that the government of Malaysia has given assurance to the Malaysian citizens regarding the confidentiality of the citizen's information or details that are stored in the MySejahtera system; hence, the credibility of the MySejahtera is assured.

The current study also showed that social influence has a significant impact on intention to use MySejahtera application which is also aligned with numerous studies (Lin, 2019, Mukred et al., 2020), which indicated that peers and family members play a big role in promoting and influencing the use of the new technology. This showed that the respondents do value the opinions of their friends and family members, including renowned experts and that does affect their intention to use a particular media technology. Hence, social pressure as well as user's perception on important individuals can affect their intention to use a technology.

However, effort expectancy was found not significantly related to the intention to use MySejahtera application, which yielded the same results as Fadzli (2017) and Chayomchai et al., (2020). The result could be further explained that the media literacy and ICT skills of the Malaysian citizens are quite high, where they perceived using the tracking application during pandemic was easy and did not need much effort as the data collection was based in the urban entities. This is also reflected by the current demographic profile of the respondents where most of the respondents are within the age group of 21-30 years old, where this is a group that is techno- savvy, educated, and has high level of knowledge with the use of media technology.

Last but not least, performance expectancy is also found to have an insignificant relationship with the intention to use MySejahtera application which contrasted with the findings of Chayomchai et al., (2020) and Walvare et al., (2020), which found that performance expectancy had a positive significant relationship with the use of technologies during COVID-19 pandemic in Thailand and Belgium respectively. The contrast findings could be explained that the Malaysian government has made it mandatory for all citizens to use the MySejahtera application or must have written down their particulars as enacted by the rules and regulations, hence, it might somehow cause some inconvenient to the citizens which make them feel that the tracking application did not bring much benefits to them, and in return caused the citizens to get summon (fine) if they did not check in using the MySejahtera application. Hence, it is important for the government to deliver a proper communication strategies to explain to the publics regarding the government initiatives and intention on the implementation of the MySejahtera application rather than just imposed them to abide to rules and regulations, which caused the mismatch between the users' expectation and the technology used, as none of the individuals would like to get penalties because of using a new technology; thus, it explained the insignificant result of performance expectancy of using MySejahtera application.

CONCLUSION

This study attempted to examine the relationship between factors influencing the intention to use the MySejahtera application through the UTAUT2 theory. The findings revealed that social influence, facilitating conditions, habit, and perceived privacy credibility have positive and significant influence on intention to use MySejahtera application which explained 71.2% for the intention to use (endogenous variable), where habit being the most prominent factor that was perceived highly among the Malaysian citizens.

Implications

This study supports the UTAUT2 (Venkatesh et al., 2012) theory by investigating and contextualizing a framework by focusing on multiple factors. Specifically, this study contributes to the new attribute, perceived privacy credibility, that is scarce and less explored in UTAUT2 theory and it is applicable in the Malaysian context during the COVID-19 pandemic.

The findings of this study provide practical insights for the Malaysian government to further improve the tracking system which is more systematic. Hence, several suggestions which was outlined by the OECD (2020), such as government should collaborate with telecommunication service providers to have better access of geo-location data to track population movement; tracking application should be embodied in various degrees of privacy and data protection, and leveraging biometric data like facial recognition and using QR code to limit the physical contacts (such as writing the name) which can be imposed accordingly.

For the medical and healthcare industry, the study can be used as a guideline by advancing the use of IoT technologies in curbing the COVID-19 as well as other related pandemic in the future diagnosing, monitoring, practicing and rapidly speeding up the recovery process (Al-Ogaili, et al., 2021; Nasajpour et al., 2020), in which it will help to reduce the readmission rate in the hospital as well as to reduce healthcare cost, improve treatment for the infected patients, and bring benefits to the hospital management system as a whole (Singh, Javaid, Haleem, & Suman, 2020).

Last but not least, the findings provide important practical insight to the social aspect of community and citizens. With the digitalization process in the near future, hence, it is important for Malaysia government to leverage on the digital inclusion skills and knowledge, as well as media literacy to the citizens, for example, incorporated those knowledge in the syllabus of the primary and secondary school children. In addition, those policies should also be channel down to educate the indigenous or rural community as not all Malaysian citizens are techno-savvy and have sufficient ICT skills to use new media technology (Bala & Tan, 2021; Kamarudin, Omar, Bolong, Osman, & Mahamed, 2019).

Limitations and Suggestions for Future Study

This study has several limitations. First, the current study only focuses on one country that is Malaysia. Hence, future studies can include more countries to do comparisons between the tracking application across different nations during the pandemic to increase the varieties in the research perspectives and to increase its validity.

Second, this study only focuses on quantitative approach based on the viewpoint of positivism, hence, for future studies, researchers are recommended to pursue a mixed-method (pragmatics approach) by combining quantitative and qualitative techniques to gain a deeper understanding of the phenomenon regarding the pandemic and technology.

Third, the data collection of the current study mostly focused on the people living in urban entities, who have ICT knowledge and skills to operate the tracking application. Therefore, further study might include also include respondents who living in the rural area so that the phenomenon can be captured more holistically.

Last but not least, the limitation in the current study only focused on testing the direct relationship, thus, future studies may analyze the influence of other variables, such as trust, personal innovativeness, perceived risks and actual use to name a few (Alalwan, Dwivedi, & Williams, 2016; Chao, 2019; Ramos et al., 2018) and to test the moderating role of demographic variables on the current framework and to performed multi-group analysis (MGA) to make the model more robust in contributing to the information technology and media effect scholarship.

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