INCLUSION OF SECURITY IN TECHNOLOGY ACCEPTANCE MODEL IN DISCOVERING THE CORRELATION TOWARDS E-WALLET USAGE DURING THE COVID-19 PANDEMIC OUTBREAK

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ABSTRACT

The Industrial Revolution (IR 4.0) drives financial services and other industries to cope with financial innovation especially in technology used. Financial technology is a new phenomenon in the global financial services industry that has changed the landscape of social and economic development. There are few reasons of technology adoption includes risk. Thus, this study conducted to determine how related TAM Model includes security in e-wallet usage among community during Pandemic Covid-19 Outbreak. The survey was conducted in Kajang, Selangor by distribution set of questionnaires. The correlation analysis was used to test the hypothesis. Based on analysis, it can be concluded that perceived ease of use, perceived usefulness and security have significant relationship with e-wallet usage during Covid-19 pandemic. In conclusion, this pandemic gives huge advantage to industry to innovate their business model to cope with people needs and the changes.

Keywords: *financial technology, e-wallet, security, TAM Model*

PENYERTAAN FAKTOR KESELAMATAN DALAM *TECHNOLOGY ACCEPTANCE MODEL* BAGI MENGANALISIS KORELASI TERHADAP PENGGUNAAN E-WALLET SEMASA WABAK PANDEMIK COVID-19

ABSTRAK

Revolusi Perindustrian (IR 4.0) memacu perkhidmatan kewangan dan industri lain untuk menghadapi inovasi kewangan terutamanya dalam teknologi yang digunakan. Teknologi kewangan merupakan fenomena baharu dalam industri perkhidmatan kewangan global yang telah mengubah landskap pembangunan sosial dan ekonomi. Terdapat beberapa sebab penggunaan teknologi termasuk faktor risiko. Justeru, kajian ini dijalankan untuk mengetahui sejauh mana kaitan Model TAM termasuk faktor keselamatan dalam penggunaan e-dompet dalam kalangan komuniti semasa pendemik Covid-19. Tinjauan telah dijalankan di Kajang, Selangor dengan mengedarkan set soal selidik. Analisis korelasi digunakan untuk menguji hipotesis. Berdasarkan analisis, dapat disimpulkan bahawa persepsi kemudahan penggunaan, persepsi kegunaan dan keselamatan mempunyai hubungan yang signifikan dengan penggunaan e-dompet semasa pandemik Covid-19. Kesimpulannya, wabak ini memberi kelebihan yang besar kepada industri untuk menginovasi model perniagaan mereka untuk menghadapi keperluan orang ramai dan perubahan.

Kata kunci: *teknologi kewangan, e-dompet, keselamatan, Model TAM*

INTRODUCTION

Over the last decades, there are rapid evolution in financial innovation related to technology in conducting business. The startup firm for example offering high competitive digital based to customers un utilizing digital platforms in low cost base. It gives challenges to financial institutions to stand out among many. However, in the financial services industry now, digital transformation was once only a notion that has now become an integral aspect of a successful corporate strategy. The easiest way to see how far contemporary or online banking has progressed is to look at how far it has progressed. Everyone has benefited from digital methods because of the wonderful and convenient experiences they have provided.

The Covid -19 Pandemic proves that the digital method become crucial in financial transaction. It can be seen that year 2020 is a very challenging year for all over the world includes Malaysia after being hit by the Covid-19 pandemic that forced Malaysia to implement MCO (Movement Control Order) 1.0 to control the transmission of the virus. However, the pandemic still continues until 2021 and total of 716,847 cases recorded (June 2021) with 4721 deaths. The implementation of strict Standard of Procedures (SOP) have been implemented involving social distancing and the wearing of face masks to ensure the spread of the virus can be reduced.

This outbreak affected all sectors includes manufacturing, tourism, banking, retailing and others. However, this situation brings Malaysia to the rapid digital transformation especially in education sector and e-commerce. In addition, the government of Malaysia implemented so many initiatives in order to help people who are in need of fund includes the ePenjana E-wallet. Thus, the society mostly the youngsters really enjoy the usage of e-wallet due to the ease of use align with suggestion from authority bodies that the e-wallet can discipline and maintain social distancing and the government should support its citizens to make payments using the e-wallet. This initiative also plays an important role in contributing towards the aspirations of the National digital economy and developing its ecosystem. Thus, support from the government was found to significantly influence the intention of customers to use online payments, (Hendy Mustiko Aji, 2020).

Finder.com (2021) found that 150 million Americans have used a e-wallet where about 66% stated that they used because the e-wallet much more convenient than carry cash and credit card.

% of respondents that have used a digital wallet in the past year

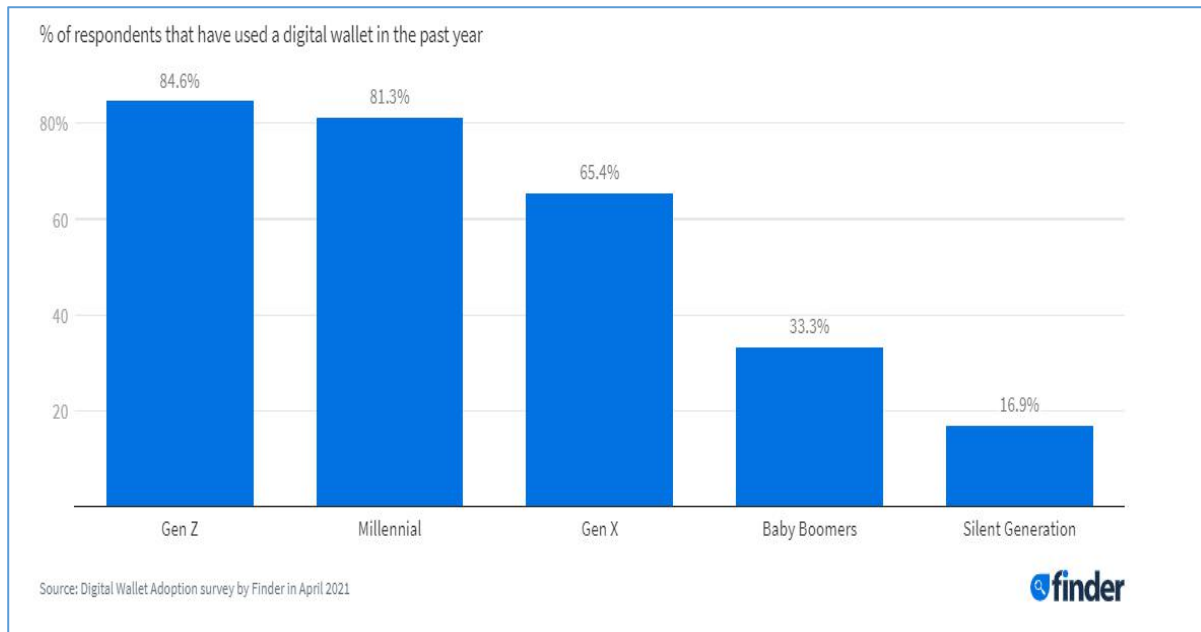Source: Digital Wallet Adoption survey by Finder in April 2021

Figure 1: Digital Wallet Statistic for 2021

The use of e-wallets (e-wallets) in Malaysia is still less popular among the people today. According to Ong Boon Teck (2020), it can be seen that only 24.3 percent of the 32.7 million people in Malaysia use e-wallets. However, Generation Z is the most enthusiastic e-wallet user, with 71% of respondents using such services in 2020. The millennials have 60%, Gen X has 59%, while the Baby Boomers have 43% (Oppotos, 2020).

This may be due to several factors that cause the percentage of e-wallet usage in Malaysia is still not well received and compete with other developed countries (Hendy Mustiko Aji, 2020). The use of e-wallets in the younger generation cannot be denied its use, however, what about the older generation. Most senior citizens have no knowledge or information about payments using e-wallets. Therefore, although e-wallets have high efficiency, not everyone can use them (Raenu Kolandaisamy, 2020).

Furthermore, some of the merchants do not use the e-wallet service system in their business operations. Some retailers only accept cash and some choose other digital transaction. This became a problem for e-wallet users during this pandemic where they wanted to use digital payment systems but had to use traditional means.

The trust issue is also one of the problems for e-wallet users. Some consumers face information theft from irresponsible parties (Nor Azlizah Saad, 2019). This is a risk that will be taken by e-wallet users in using the service. While theft can be stopped through the freezing of e-wallet accounts, the refund must be complicated.

Therefore, this study will examine the relationship between perceived ease of use (convenience), perceived of usefulness (benefits) and perceived security (security) on the use of e-wallets.

LITERATURE REVIEW

E-wallet is a one of application that allows users to conduct online transactions using electronic devices such as tablet or mobile phones. An e-wallet is the equivalent of money from a real wallet, with the exception that digital money works through an app on a smartphone (Aziz, Esa, Miskan, & Husin, 2021). Payment using the e-wallet method is very popular nowadays because with the use of these electronic transactions, digital wallets have advantages, convenience, flexibility and also protection. The Grab pay, Boost, Touch n Go e-wallet, Alipay, Favepay and many others become trending among current generation due to ease of use. According to Md. Wasiul Karim (2020) e-wallets can also be used to facilitate payments without using cash. E-wallet gives benefit for both

buyer and sellers because all payments become faster, cash management becomes more efficient and labor payment costs much cheaper.

Perceived ease of use (convenience) is a person's belief in using an object without using much energy (Marzella Giovani, 2020). In addition, convenience can be defined as a person's belief in using technology that makes it easier for a person to use an e-wallet. However, if it is difficult to use, a person will not use the e-wallet, (Wiwik Widiyanti, 2020). According to Dr. Edi Purwanto (2019), user convenience means skills and abilities are not required by a person in using a technology. In the use of e-wallets, perceived ease of use (convenience) provides a significant positive relationship to the attitude of users to use the e-wallet.

Perceived of usefulness (benefit) is where job performance will increase when a person believes to use an application (Siti Rodiah, 2020). While according to Alwan Sri Kustono (2020) stated that a person believes in making decisions will benefit. In the TAM framework, perceived of usefulness are defined as the degree to which a person believes using a particular system can improve their job performance. The benefit is the strongest factor of TAM that has a significant influence on behavioral intentions (Md Wasiul Karim, 2020). It can be defined that the benefits in using a technology will be obtained when a person's confidence using an e-wallet will complete their payment or transaction easily. In addition it quick and easy way to make a payment (Aziz et al., 2021).

According to Chern Yong Xian (2018), most of the consumers will first examine the security factors before doing any online transaction. According to a study Mercy Makhitha (2014), perceived security (security) has a strong positive influence on desire in using online shopping services. Miskan, Hussin, Muhamad, Mohd Esa, & Mohd Aziz (2021) stated that the technological revolution, like all chances for advancement, presents new difficulties and may expose customers to unknown threats. In short, cyber-threats have the potential to cause massive losses (Miskan et al., 2021). Hampshire (2017) and Lu et al. (2005) stated that perceived risk and trust may be the most important elements influencing mobile payment acceptance.

Based on the literature review, a model on the e-wallet usage was developed. The proposed constructs and hypothesis as below have relationship on e-wallet usage during Pandemic Covid-19 Outbreak.
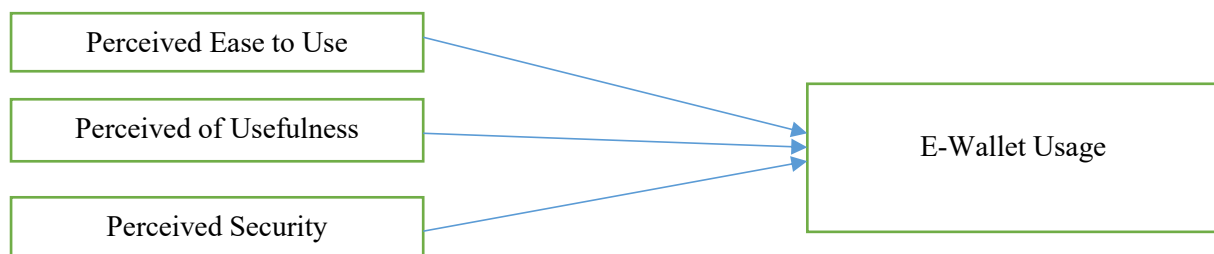

Figure 2: Research Framework

H1: There is a significant relationship between perceived ease to use (convenience) with the use of e-wallet.

H2: There is a significant relationship between perceived usefulness (benefits) with the use of e-wallets.

H3: There is a significant relationship between perceived security (security) with the use of e-wallets.

METHODOLOGIES

This study decided to use the quantitative method (surveys) instead of using the qualitative method (interviews). The data collected through online survey due to Pandemic Covid-19 and it's much easier since most of youngsters using smartphone. This study focused on people who stayed in Kajang, Selangor. This survey, which yielded 74 responses, was conducted for one week using random sampling technique.

ANALYSIS AND FINDINGS

Table 1 shows the demographic profile of the survey respondents, which includes gender, age, payment method preferred, the frequency of e-wallet usage and type of e-wallet used. Based on descriptive analysis, it can be described that 62.2% of respondents are male. The remaining 37.8% are female. The age of respondents is divided into several fractions starting from the age of 18 years to 30 years old where covered 37.8% from total respondents and 40.5%. aged 31 to 40 years old. 16.2% aged between 41 to 50 years old and 5.4% age of 51 years and above. Analysis revealed that 41.9% of respondents use the e-wallet from 3 to 10 times per week followed by 33.8% of respondents use the e-wallet less than 2 times per week. Then 43.2% of respondents like to use TouchnGo e wallet and 45.9% like to use any other e-wallets. Above all, there are 67.6% of respondents prefer to use traditional wallet (cash in hand) compared to e-wallet.

Table 1: Demographic Profile of Respondents

Variables	Items	Percentage
Gender	Male	62.2%
	Female	37.8%
Age	18 to 30 years old	37.8%
	31 to 40 years old	40.5%
	41 to 50 years old	16.2%
	51 years old and above	5.4%
Frequency of E-wallet usage (per week)	Less than 2 times	33.8%
	3 - 10 times	41.9%
	11 – 23 times	13.5%
	24 times and above	10.8%
Types of e-wallet used	Aeon Wallet	0
	Boost	2.7%
	Touch n Go	43.2%
	Grab Pay	8.1%
	WeChat Pay	0
	Others	45.9
Preferred payment method	Traditional (cash)	67.6%
	E-wallet	32.4%

A pilot study was conducted to assess the items' reliability as well as any other issues with the questionnaire. Reliability test was done; using the Cronbach's alpha to indicate the significance and reliability of the items and variables under study. Based on this test, the result found that the Cronbach's alpha is 0.943 and it indicated that all variables were reliable because they exceeded the required minimum Cronbach's alpha of 0.70.

In order to achieve the research objective, the researchers used Correlation analysis to examine the relationship between the variables. Based on the Table 2, the results shown that the relationship between Perceived of usefulness and e-wallet usage recorded the highest r of 0.798. Next is the Perceived ease of use to record the second highest r with a value of 0.778 and followed by security with an r value of 0.710. These three factors have a relationship with the use of e-wallets among consumers in Kajang during the Covid-19 pandemic.

Table 2: Correlation Analysis Result

Variables	r	p
Perceived Ease of use	.778**	.000
Perceived Usefulness	.798**	.000
Perceived Security	.710**	.000

Hypothesis 1: Perceived Ease to Use
H1: There is a significant relationship between perceived ease to use (convenience) with the use of e-wallet.
The results of the correlation analysis showed that perceived ease to use (convenience) has a significant relationship with the use of e-wallet. This is because the significant value for this relationship is 0.000 and the Pearson Correlation value is 0.778. Therefore, the null hypothesis of the study was rejected and the alternate hypothesis was accepted.

Hypothesis 2: Perceived of Usefulness
H1: There is a significant relationship between perceived usefulness (benefits) with the use of e-wallets.
The results of the correlation analysis showed that the perceived usefulness (benefits) has a significant relationship with the use of e-wallet. This is because the significant value for this relationship is 0.000 and the Pearson Correlation value is 0.798. Therefore, the null hypothesis of the study was rejected and the alternate hypothesis was accepted.

Hypothesis 3: Perceived Security
H1: There is a significant relationship between perceived security (security) with the use of e-wallets.
The results of the correlation analysis showed that perceived security has a significant relationship with the use of e-wallets. This is described by the significant value for this relationship is 0.000 and the Pearson Correlation value is 0.710. Therefore, the null hypothesis of the study was rejected and the alternate hypothesis was accepted.
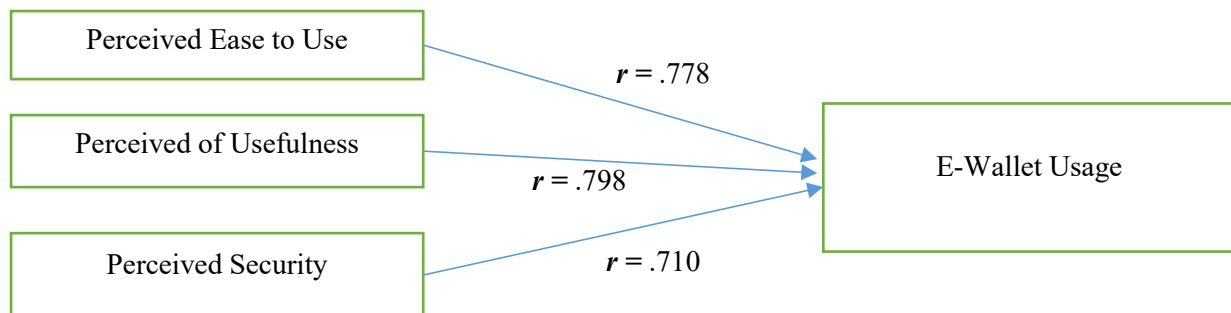
Figure 3: Correlation Between Variables

CONCLUSION

In conclusion, processes, interactions, transactions, technical evolutions, changes, internal and external forces, industries, stakeholders, and so on are all covered by digital transformation. Thus, it is impossible to deny that financial innovations, often known as financial technology are transforming the business especially in Covid-19 outbreak. It can be said that digital transformation and automation has given people chances for cost-effective operations, quick responses, fulfilling work deadlines, better customer and employee experiences, and standing out among competitors. It also significantly improved the goods and services of traditional financial services.

Even though many financial institutions have effortlessly adopted fintech services, the aforementioned business still has certain hidden concerns. The integration of fintech services with current banking solutions, for example, has prompted serious concerns about data security. As a result, security is a fundamental part of fintech, with each organisation having its own set of security requirements.

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