THE EMERGENCE OF E-WALLET IN SARAWAK: FACTORS INFLUENCING THE ADOPTION OF SARAWAK PAY

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ABSTRACT

This paper discusses the adoption factors of electronic wallet, more specifically Sarawak Pay in Kuching, Sarawak. The Sarawak Government has a very aggressive mandate in terms of digital transformation to boost the e-commerce industry in Sarawak. Propel with the effort of federal and state governments in encouraging a cashless and digital society, Kuching will foresee a rapid rise in the adoption of Sarawak Pay. This paper adopts and expands the Technology Acceptance Model (TAM) in addressing the adoption factors of Sarawak Pay. With a population of three quarter a million, it is vital to understand whether perceived usefulness, perceived ease of use, perceived risk and reward play any significant roles in the adoption of Sarawak Pay. Data were collected from 204 respondents and the results were examined using partial least squares-structured equation modelling (PLS-SEM). Findings indicated that perceived usefulness, perceived ease of use and perceived risk have significant impacts on Sarawak Pay adoption. As a result of the study, the understanding of existing theoretical literature on e-wallets in Malaysia will be enhanced.

Keywords: Technology Acceptance Model (TAM), perceived usefulness, perceived ease of use, perceived risk and reward.

1. INTRODUCTION

In recent years, internet coverage improved tremendously and the majority of consumers in Sarawak have access to the internet (Ten, 2018). Wide coverage of the internet especially in the urban areas enables the utilization of Sarawak Pay. The rising in the number of smartphone users

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and wider coverage of the internet contributed to the rapid growth of e-wallets in Malaysia (J.P. Morgan, 2019). The Sarawak Government has a very aggressive mandate in terms of digital transformation to boost the e-commerce industry in Sarawak. E-wallet is now closer to becoming the primary payment method in many parts of the globe due to higher consumer awareness and better internet connection (Pachpande & Kamble, 2018).

The recent development of Sarawak Pay foresees a change in name and logo in line with the growth and development of the Fintech platform. According to Ten (2021), Sarawak Pay has been renamed to S pay Global. Other financial services such as loan repayment, insurance donation and so on are also made available at Sarawak Pay with its latest development. Moreover, the collaboration between Sarawak Pay and Union Pay has enabled overseas payments through the Sarawak Pay application. Sarawak Pay which is owned by the Sarawak state government now supports overseas payments through Union Pay QR Code (Ling, 2021).

This study used the Technology Acceptance Model (TAM) to explain the adoption of Sarawak Pay in urban areas of Sarawak namely Kuching. User acceptance of technology has been an important field of study to help with technology growth. Individual acceptance of an information system is widely explained using the Technology Acceptance Model (Surendran, 2012). In addition, perceived risk and reward have been added to expand the application of TAM in the Fintech industry. Despite technological advancements to protect consumers, Sarawak Pay is not immune to hackers, identity thieves and other risks. Simultaneously, major e-wallet providers in Malaysia are providing rewards to attract users to utilise cashless payments. Merchants and users that join and utilize Sarawak Pay will get incentives. 10 percent cash rewards will be awarded to registered merchants as one of the initiatives to increase the number of participating merchants (*SMA offers 10*, 2018). Perceived risk and reward are indispensable considerations as they are commonly associated with e-wallets in Malaysia.

Technological innovations especially in financial technology can be radical or new to both consumers and businesses. According to Arumugam (2020), e-wallet adoption is still low in Malaysia. This can cause apprehension to those who are new to e-wallets. Understanding factors and obstacles to adoption will help all the providers of the e-wallet ecosystem to improve service and design sustainable strategies for the years ahead. Moreover, limited research have been done to understand the adoption factors in the field of financial technology with the application of TAM in Malaysia. Thus, to address these research gaps, this study aims to contribute to the area of Fintech, specifically Sarawak Pay by adopting and expanding the Technology Acceptance Model (TAM) which was developed by Davis (1989). Moreover, this study is expected to benefit practitioners and academics, particularly in providing them with a better understanding of the adoption factors that could drive e-wallet adoption in Sarawak.

2.   LITERATURE REVIEW

2.1.   *E-Wallets (Sarawak Pay)*

An e-wallet can be defined as a system that securely stores payment information for digital transaction (Kagan, 2021). The innovation of financial technology leads to the creation of digital payment in which consumers can complete their purchases easily and quickly. According to Singh

and Sinha (2020), mobile payment provides merchants and consumers a system that is simple, easy to handle and use. Sarawak Pay was introduced by the state government of Sarawak to transform the Sarawak economy into a digital economy. The digital economy is beneficial to the state as it promotes an efficient flow of money, which will further boost the state's economy.

E-wallet allows users of smartphone to carry out digital transaction with the support of mobile technology (Gurme, 2019). Smartphone is considered one of the necessities in this technological era (Siddiqui, Jabeen, & Mumtaz, 2014). Smartphone is the enabling technology that allows the consumer to enjoy the benefits of Sarawak Pay that is efficient and convenient. According to Jose and Almeida (2018), an e-wallet is an intermediary payment gateway that enables consumers to hold cash virtually and make payments without the presence of physical money.

2.2.   Technology Acceptance Model (TAM)

According to Davis (1989), perceived usefulness is the degree user believes that the new technology would enhance his or her task performance. Previous studies provide evidence that perceived usefulness is an important causality of the adoption of mobile wallets (Seetharaman, Kumar, Palaniappan, & Weber, 2017; Aydin & Burnaz, 2016; & Kafsh, 2015). Evidently, Seetharaman et al. (2017) and Aydin and Burnaz (2016) found that perceived usefulness has a very strong influence over behavioural intention to use the mobile wallet. Yadav (2017) in his study found that perceived usefulness is a significant factor that influences users to adopt mobile wallets in India. Perceived usefulness can be considered an important factor in determining usage intentions.

According to Davis (1989), perceived ease of use is the usage of a particular information system that requires minimal effort. Previous research had shown that perceived ease of use is positively related to the adoption of mobile wallets (Lai, 2012; & Campbell & Singh, 2017). In a study done by Lai (2012), the researcher found that perceive ease of use is positively related to e-wallet adoption in Taipei, Taiwan. Likewise, users are likely to use mobile wallet because its user interface is easy to use and require minimal effort to make payments. Campbell and Singh (2017) also supported that perceived ease of use is significantly related to behavioral intention to use mobile wallets.

On the basis of these findings, it is expected that the variables from TAM (perceived usefulness and perceived ease of use) apply to Sarawak Pay. It is proven that perceived usefulness and perceived ease of use are significant factors influencing mobile wallet adoption throughout the world. Furthermore, Davis, Bagozzi, and Washaw (1989) proposed that perceived ease of use is an antecedent of perceived usefulness. Previous research revealed that there is a significant relationship between perceived ease of use with perceived usefulness (Amin, 2009; Kleijnen, Wetzels, & Ruyter, 2004; & Davis et al., 1989).

2.2.1. Perceived Ease of Use and Perceived Usefulness of Sarawak Pay

Businesses that experience high volumes of transactions per day can benefit from the usage of mobile wallets. Mobile wallets' ease of use helps to reduce the payment time and this will create a win-win situation for customers and businesses. Lwoga and Lwoga (2017) found that perceived ease of use determined the perceived usefulness of mobile payment in Morogoro and Dar es

Salaam, Tanzania. Consumers can link their cards and bank account to their mobile wallets and enable them to make their transactions instantly without the need to go to the bank to withdraw their money. Kustono, Nanggala, and Mas'ud (2020) found that perceived ease of use has a positive effect on the perceived usefulness of e-wallet transactions among college students. The ease of use of mobile wallets speeds up the transaction process and can result in shorter lines at the checkout. Isaac, Abdullah, Ramayah, Mutahar, and Alrajawy (2016) stated that perceived ease of use has a great influence on the perceived usefulness of internet usage among employees in Yemen. Thus, the below hypothesis is suggested:

> *H1: Perceived ease of use has a significant impact on the perceived usefulness of Sarawak Pay adoption.*

2.2.2. Perceived Usefulness and the Adoption of Sarawak Pay

According to Taufan and Yuwono (2019), perceived usefulness positively affects the intention to use Go-Pay which is an Indonesian digital wallet. One of the fundamental concerns of utilizing a newly introduced service is perceived usefulness. The implementation of Sarawak Pay is still in the early stage as more and more merchants accept digital wallets as one form of payment. Consumers who are less tech-savvy will find it less useful as they are not exposed to the convenience the service has to offer. Next, Adnan, Zaidi, Azlina, and Wan Salihin (2016), in their research on intention to use e-government found that perceived usefulness is positively related to continuance intention to use e-government. Sarawak Pay is one of the state government's efforts to transform the state economy into a digital economy. Perceived usefulness is an important factor to be considered as proven by various researches that utilize TAM. Therefore, the below hypothesis is proposed:

> *H2: Perceived usefulness has a significant impact on Sarawak Pay adoption.*

2.2.3. Perceived Ease of Use and the Adoption of Sarawak Pay

According to Davis (1989), perceived ease of use is the degree to which consumers believe that using a new form of technology would be free of effort. Perceived ease of use is an important consideration for consumers to have a good experience using the offered service. Cho and Sagynov (2015) highlighted that perceived ease of use has a statistically significant effect on behavioral intention to utilize online shopping. Paying with a mobile wallet requires a matter of one click and save the user the hassle of withdrawing and carrying bulk money in wallet or purse. Nag and Gilitwala (2019) found that perceived ease of use has a significant relationship with the intention to adopt e-wallets in Bangkok, Thailand. A mobile wallet is intended to be used with mobile devices that provide ease of use and convenience. Perceived ease of use has a significant impact on consumer attitude and intention to use mobile wallets in India (Chawla & Joshi, 2019). It is clear that the mobile wallet is the future of all businesses as such innovative technology reduces the efforts of consumers while shopping. Therefore, the author hypothesizes that:

> *H3: Perceived ease of use has a significant impact on Sarawak Pay adoption.*

2.3. Extension of TAM

2.3.1. Perceived Risk

Risk refers to the probability of an undesirable outcome (Anthony, 2019). The introduction of new technology such as mobile wallets inevitably carries risk as part of revolutionary change. The importance of examining the risk to the adoption of new technologies has been noted in many studies (Baerenklau, 2005; Koundouri, Nauges, & Tzouvelekas, 2006; Madan & Yadav, 2016; & Torkamani & Shajari, 2008). These studies confirm the importance of risk in the adoption of new technologies. Baerenklau (2005) founds that risk preference is the key determinant in understanding technology adoption in agricultural pollution management.

Moreover, production risk significantly affects the adoption of technology as consumers adopt new technology to avoid production risk (Koundouri et al., 2006). In a more recent study, Madan and Yadav (2016) found perceived risk to be a significant factor in examining the adoption of mobile wallet. Torkamani and Shajari (2008) found that risk-averse consumers are more likely to adopt new technologies. Indeed, the involvement of the state government in the introduction of Sarawak pay could assure lower risk. Since Sarawak Pay is relatively new, risk could be the factor in user adoption among Sarawakians.

A mobile wallet replaces the need for a physical wallet (Mumtaza, Nabillah, Amaliya, Rosabella, & Hammad, 2020). However, this advancement in financial technology cannot escape the risk of fraud and theft. According to Alaeddin, Altounjy, Zalina, and Fakarudin (2018), the efficiency and rate of switching to a mobile wallet will be improved if the risk related to it is minimized. Theoretically, perceived risk is related to perceived usefulness due to discrepancies exist between the user's expectations and the actual performance of the mobile wallet. Perceived risk is considered as an antecedent of perceived usefulness in most studies that utilise TAM (Im, Kim, & Han, 2007). Risks such as financial, psychological, physical or social exist when there is a discrepancy. Thus, perceived risk will affect the user's perceived usefulness of new technology such as mobile wallet. Besides, Rose and Fogarty (2006) highlighted that perceived risk is one of the determinants of perceived usefulness in their study on the adoption of self-service banking technologies. Phuah, Ting, and Wong (2018) found that perceived risk and perceived usefulness significantly influence customers' intention to adopt mobile payment in Nanjing, China. On top of that, Phonthanukitithaworn, Sellitto, and Fong (2016) found that perceived risk and ease of use influenced potential consumers' intention to adopt mobile payment.

A chunk of society stayed away from the usage of digital wallets due to the various risk involved (D'souza & Bhadury, 2017). Mobile wallet is susceptible to identity theft and loss of sensitive information. Zhang, Yang, and Wang (2018) in their cross-culture study on mobile payment found that risk is significant in affecting mobile payment adoption among consumers in the United States. Malaysians especially Sarawakians are not culturally attuned and well educated on digital transactions. Moreover, well-educated people could face the risk of accidentally giving away their personal information and phishing traps by irresponsible people. Wong and Mo (2019) found that perceived risk has a strong impact on consumer intention to use mobile payment in Hong Kong. Perhaps one of the biggest risks is a personal liability in the event of fraud. There is no fraud insurance to cover digital wallet frauds usually written in the terms and conditions. Abrahao, Moriguchi, and Andrade (2016) found that perceived risk is a significant factor in mobile payment

adoption in Brazil. In this study context, perceived risk can significantly affect the adoption of Sarawak Pay. Therefore, the author hypothesizes that:

H4: Perceived Risk has a significant impact on the perceived usefulness of Sarawak Pay adoption.

H5: Perceived risk significantly impacts the Sarawak Pay adoption.

2.3.2. Reward

Consumers can be motivated by rewards that are in the form of tangible benefits such as Coupons, monetary incentives and etc. (Aydin & Burnaz 2016). There is empirical support for the causal link between reward and adoption of new technology (Mittal & Kumar, 2018; Lim & Shim, 2016; & Song, Wang, & Hu, 2019). The rewards can attract individuals to adapt to the usage of new technology namely mobile wallets. According to Kim and Han (2014), consumers will be attracted and willing to make an effort to obtain rewards offered by service providers.

Consumers participate in a variety of loyalty programs offered by various businesses like supermarkets, drug stores and so on depending on their lifestyles and preferences (Tavilla, 2017). Sarawak Pay provides convenience and speed to potential consumers. However, this is not sufficient to attract potential consumers who are used to physical money transactions. Rewards such as cashback, retailer rewards and so on will help the transition process from physical money to digital money. Theoretically, reward is related to perceived ease of use because reward is the driving factor that motivates the potential users to explore new technology. Thus, this will affect the user's perceived ease of use of the mobile wallet. Nguyen and Malik (2021) revealed that reward that is categorized under extrinsic motivation plays a significant impact on the perceived ease of use in the adoption of online platform. Besides, Roumani, Nwankpa, and Roumani (2015) identified that when incentives are involved, perceived ease of use and usefulness are the driving factors toward the adoption of new technology. Reward makes it beneficial to both businesses and potential customers because it makes mobile wallets more enticing. Saprikis, Avlogiaris, Katarachia, and Altini (2020) revealed that reward is a substantial factor in new technology adoption in Greece. The reward is crucial to the application of mobile wallets as people tend to use them when they are challenged and this can help businesses acquire and retain customers.

Innovation and technology are constantly gearing to make our lives far more convenient. The presence of mobile wallet reduces the need to carry around overstuffed purse and wallet. Reward-based digital payments can help to attract potential consumers who are heavy smartphone users. Zhao, Anong, and Zhang (2019) revealed that financial incentives are positively related to consumers' intention to use NFC mobile payment. On top of that, Prabhakaran and Vasantha (2020) found that promotional benefit has a positive effect on the intention to use the mobile wallets in India. Customers will likely use digital wallets if businesses and mobile wallet service providers can include personalized and relevant digital reward experiences. Therefore, the author hypothesizes that:

H6: Reward significantly impact Perceived Ease of Use of Sarawak Pay adoption.

H7: Reward significantly impact the Sarawak Pay adoption.

Figure 1: Research Model
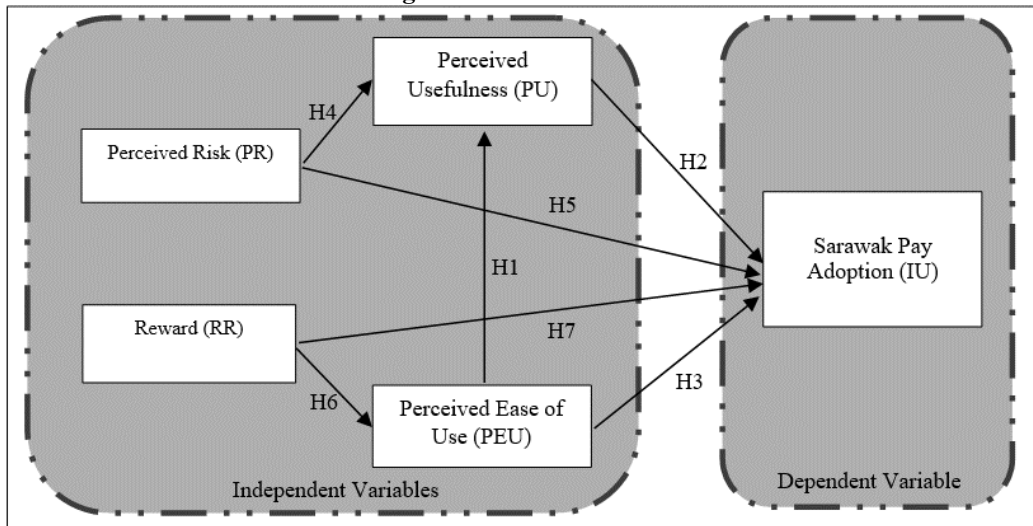
Source: Davis, 1989; Saprikis et al., 2020; & Zhang et al., 2018.

3.   METHODOLOGY

The present study was carried out at Kuching, Sarawak. Kuching had been selected as the research area due to the implementation of Sarawak Pay is widely available in Kuching. According to Pim (2017), the pioneer merchants that accept Sarawak Pay as one of their payment methods are mostly located in Kuching namely SEDC Hotel, Grand Margherita Hotel, Riverside Majestic Hotel and assessment bills of all 26 local councils. Moreover, Kuching is the capital city of Sarawak with a population of 705,546 residents according to the year 2010 population census (Department of Statistics Malaysia, 2010). Propel with the effort of federal and state governments in encouraging a cashless and digital society, Kuching foresees a rapid rise in the usage of Sarawak Pay.

The sample size of this study was 204 which was deemed sufficient based on Israel's (1992) published table for determining sample size. The study employed the purposive sampling method which falls under the non-probability sampling technique to select appropriate samples. Appropriate samples were determined based on several criteria such as the respondent must be currently staying in Kuching, not a frequent Sarawak Pay user and have access to Sarawak Pay. Respondents who are not current users of Sarawak Pay will be given a QR Code to download and explore the application. Sufficient time will be given before respondents can start to answer the questionnaire. Besides, the study utilised primary data based on a quantitative method collected via questionnaire. Researchers undertake a prudent review of the literature to develop multi-item of constructs for the questionnaire. A 5-point Likert-scale was employed in the constructs section of the questionnaire to measure respondents' agreement with the set items. The dimensions were perceived risks, rewards, perceived usefulness, perceived ease of use and intention to use Sarawak Pay. The breakdown is perceived risk (Nguyen & Huynh, 2018), reward (Aydin & Burnaz, 2016), perceived usefulness (Davis, 1989; Lee, Hsieh, & Hsu, 2011, Moon & Kim, 2001; Venkatesh & Davis, 2000), perceived ease of use (Davis, 1989; Lee et al., 2011; Suh & Han, 2002; Venkatesh

& Davis, 2000) and intention to use Sarawak Pay (Davis, 1989; Lee et al., 2011; Moon & Kim, 2001; & Venkatesh & Davis, 2000).

The questionnaire was distributed to target respondents via Google Form and personally distributed by researchers at public places in Kuching. In order to avoid invalid responses, several filter questions were asked or clearly stated to confirm the right respondents. A total of 292 questionnaire sets were distributed to respondents and 255 sets were returned. Out of 255 questionnaire sets, 51 responses were discarded due to incomplete responses and excessive missing data. 204 completed questionnaires were analysed using the Statistical Package of Social Science (SPSS) version 21 and Smart Partial Least Squares 3.0 (Smart PLS).

4. RESULTS AND DISCUSSION

SPSS 21 and SmartPLS 3 were used to analyse the data of the study. SPSS was used to key in the data and to conduct a descriptive analysis of the respondents' backgrounds. SmartPLS 3 was used to analyse the research model of the study. The general information of the respondents of the study is as follow:

Table 1: Background of Respondents

Variables	Items	Frequency (Unit)	Percentage (%)
Gender	Male	79	38.7
	Female	125	61.3
Age Group	18-30	114	55.9
	32-40	54	26.5
	41-50	28	13.7
	51-60	8	3.9
	Above 60	0	
Marital Status	Single	119	58.3
	Married	85	41.7
	Divorced/Separated/Widowed	0	
Employment	Agriculture	3	1.5
	Self-Employed/ Business	21	10.3
	Practicing Professional	5	2.5
	Private Organization Service	46	22.5
	Government Service	35	17.2
	Others	94	46.1
Estimated Income	Below RM3000	93	45.6
	RM3001-RM6000	84	41.2
	RM6001-RM9000	26	12.7
	Over RM9000	1	0.5

Source: Author

4.1. Measurement Model Assessment

4.1.1. Confirmatory Factor Analysis

1 item (RR2) was removed from the analysis due to low factor loadings (<0.6000) as part of the measurement model evaluation. The removal of RR2 was in accordance with Gefen and Straub (2005) recommendation.

Cronbach's Alpha and Composite Reliability (CR) were used to test the reliability of the constructs. Based on the reliability testing, all the CRs and Cronbach's Alpha values were higher than the value of 0.700. According to Wasko and Faraj (2005), the recommended value for CR is above 0.700 to be considered reliable. Besides, the convergent validity of the study was accepted because the Average Variance Extracted (AVE) was over 0.500. The results of reliability, validity and factor loading testing of the study are presented in Table 2.

On top of that, the Discriminant Validity of the study was assessed by Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio. Based on the Fornell-Larcker Criterion, the result shows that the square root of AVE was greater than the inter-construct correlation (see Table 3). Based on the Heterotrait-Monotrait Ratio, the testing shows that all the values are below the threshold of 0.90 (Henseler, Ringle & Sarstedt, 2015). Thus, discriminant validity was established.

Table 2: Convergent Validity

Latent Variables	Items	Loadings	Cronbach's Alpha	Composite Reliability (CR)	AVE
1. Sarawak Pay Adoption (IU)	IU1	0.909	0.917	0.942	0.802
	IU2	0.913			
	IU3	0.872			
	IU4	0.886			
2. Perceived Ease of Use (PEU)	PEU1	0.851	0.899	0.930	0.768
	PEU2	0.880			
	PEU3	0.884			
	PEU4	0.891			
3. Perceived Risk (PR)	PR1	0.909	0.887	0.922	0.747
	PR2	0.854			
	PR3	0.908			
	PR4	0.779			
4. Perceived Usefulness (PU)	PU1	0.878	0.905	0.934	0.779
	PU2	0.935			
	PU3	0.879			
	PU4	0.835			
5. Reward (RR)	RR1	0.922	0.833	0.923	0.857
	RR2	*0.465*			
	RR3	0.915			

Note: Value in Italic shows low factor loading
Source: Author

Table 3: Fornell-Larcker Criterion

	IU	PEU	PR	PU	RR
IU	*0.895*				
PEU	0.763	*0.877*			
PR	-0.399	-0.265	*0.864*		

Table 3: continued

PU	0.801	0.730	-0.325	*0.882*	
RR	0.489	0.357	-0.332	0.495	*0.926*

Note: Italic values represent the Square-root of AVE.
Source: Author

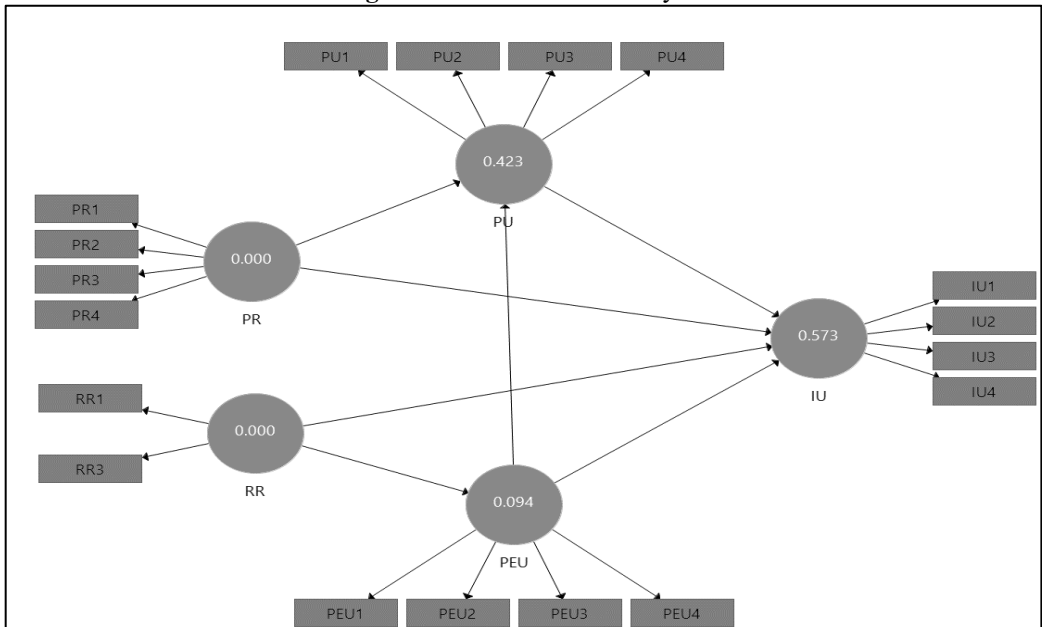**Table 4:** Heterotrait-Monotrait Ratio (HTMT)

	IU	**PEU**	**PR**	**PU**	**RR**
IU					
PEU	0.840				
PR	0.436	0.288			
PU	0.878	0.808	0.358		
RR	0.560	0.412	0.387	0.570	

Note: HTMT < 9.000 (Henseler, Ringle, & Sarstedt, 2015)
Source: Author

4.1.2. Structural Model Assessment

Figure 2: Result of Path Analysis

Source: Author

The structural model of this study reflects the paths hypothesized as per the research framework. To assess the structural model, the R^2, Q^2 and significance of paths were utilised. The goodness of the model was determined by R^2. R^2 shows the strength of each structural path for the dependent variable (Penalver, Santos, Conesa, & Santos, 2018). The R^2 values should be over 0.1 (Falk &

Miller, 1992). The predictive capability of this study was established because all the R^2 values were over 0.1 (see Table 5). Besides, Q^2 establishes the predictive relevance of the endogenous constructs. The structural model of this study had predictive relevance because all the Q^2 values were above 0 (see Table 5). On top of that, the model fit of the research framework was further assessed using SRMR. According to Hair et al. (2016), the required value of SRMR is 0.10 to be considered an acceptable model fit. The value of SRMR was 0.049 and indicating an acceptable model fit.

Further assessment of goodness of fit, all seven hypotheses were tested to ascertain the significance of the relationship. Firstly, H1 was supported ($\beta = 0.692$, $\tau = 15.729$, $p < 0.001$). PEU has a significant impact on PU. Secondly, H2 evaluates whether PU has a significant impact on IU. The results revealed that H2 was supported ($\beta = 0.438$, $\tau = 5.13$, $p < 0.001$). Thirdly, H3 evaluates whether PEU has a significant impact on IU. The results revealed that H3 was supported ($\beta = 0.376$, $\tau = 5.699$, $p < 0.001$). Next, H4 was supported ($\beta = -0.141$, $\tau = 2.536$, $p = 0.011$) which means PR has a significant impact on PU. Furthermore, H5 evaluates whether PR has a significant impact on IU. The result show that H5 was supported ($\beta = -0.125$, $\tau = 2.962$, $p = 0.003$). In addition, H6 was supported because the results revealed that RR has a significant impact on PEU ($\beta = 0.357$, $\tau = 5.069$, $p < 0.001$). H6 stated that RR has a significant impact on PEU. Lastly, H7 stated that RR has a significant impact on IU. The results revealed that RR has an insignificant impact on IU ($\beta = 0.097$, $\tau = 1.890$, $p = 0.059$). Hence, H7 was not supported. Hypotheses testing results are summarized in Table 6.

This study 5000 resamples also generate 95% confidence intervals as shown in Table 5. A confidence interval difference from zero indicates a significant relationship.

Table 5: Path Coefficients and Hypothesis Testing

	β	STDEV	T Statistics	P Values	2.50%	97.50%
PR -> PU	-0.141	0.056	2.536	0.011	-0.247	-0.031
PR -> IU	-0.125	0.042	2.962	0.003	-0.207	-0.042
RR -> PEU	0.357	0.070	5.069	0.000	0.212	0.488
RR -> IU	0.097	0.051	1.890	0.059	-0.006	0.195
PEU -> PU	0.692	0.044	15.729	0.000	0.602	0.774
PU -> IU	0.438	0.087	5.013	0.000	0.271	0.608
PEU -> IU	0.376	0.066	5.699	0.000	0.249	0.508
	R^2	Q^2				
IU	0.735	0.573				
PEU	0.127	0.094				
PU	0.551	0.423				

Source: Author

Table 6: Hypotheses Testing Result

H	Relationship	Supported
H1	Perceived ease of use has a significant impact on the perceived usefulness of Sarawak Pay adoption.	Supported
H2	Perceived usefulness has a significant impact on Sarawak Pay adoption.	Supported
H3	Perceived ease of use has a significant impact on Sarawak Pay adoption.	Supported
H4	Perceived Risk has a significant impact on the perceived usefulness of Sarawak Pay adoption.	Supported
H5	The perceived risk significantly impacts the Sarawak Pay adoption.	Supported
H6	Reward significantly impact perceived ease of use of Sarawak Pay adoption.	Supported
H7	Reward significantly impact the Sarawak Pay adoption.	Not Supported

Source: Author

4.2. Discussion

The findings from the analysis have raised several important points for discussion in this section. The purposes of the study were to investigate the influence of perceived risk, reward, perceived usefulness and perceived ease of use on the adoption of Sarawak Pay. Seven hypotheses were proposed and subsequently tested with 6 of them being supported and one rejected (see Table 6). The findings indicated that perceived ease of use yields the greatest significance for the factor of adoption of Sarawak Pay with a t-value of 5.699, followed by perceived usefulness with a t-value of 5.013 and perceived risk with a t-value of 2.962.

Besides the factor influencing the adoption of Sarawak Pay, other tests are being carried out in this study to further test the relationship between independent variables. Perceived ease of use significantly impacted perceived usefulness of Sarawak Pay with at t value of 15.729. Next, rewards significantly impact the perceived ease of use of Sarawak Pay with a t-value of 5.069. In addition, perceived risk was significantly impacting the perceived usefulness of Sarawak Pay with a t-value of 2.536.

The findings of the study discovered that perceived ease of use has a significant impact on the adoption of Sarawak Pay. This finding is consistent with the finding conducted by Chua, Lim and Aye (2019). The researchers found that perceived ease of use significantly influence the behavioural intention to use mobile wallet in Malaysia. In addition, Salzabella, Sumarwan, and Yuliati (2021) also support the finding of the research. Salzabella et al. (2021) in their research concluded that ease of use affects users' interest to use e-wallets. The perception of ease of use in the mobile wallet offering attracts consumers to utilise it in their daily transactions.

The findings of the research discovered that perceived usefulness has a significant impact on the adoption of Sarawak Pay among consumers in Kuching. Consumers will use Sarawak Pay if they perceived it is useful. This finding is consistent with the finding conducted by Yang, Mamun, Mohiuddin, Nami, and Zainol (2021). In their study, perceived usefulness displayed a positive relationship to the intentions to use an e-wallet in Indonesia. In addition, Yadav (2017) found that perceived usefulness is one of the factors which influence the intention to adopt mobile wallets in India. The usefulness of the e-wallet service is important to attract consumers to migrate from conventional paper money to a more advanced payment method which is a mobile wallet.

The findings of the research discovered that perceived risk has a significant impact towards perceived usefulness of Sarawak Pay. On top of that, it is found that perceived risk and perceived usefulness of Sarawak Pay have a negative relationship. This indicates that when potential users of Sarawak Pay perceived the risk is high, the perceived usefulness of the application will decrease. This finding is consistent with the finding conducted by Horst, Kuttschreuter, and Gutteling (2007). It was found that risk perception predicts the perceived usefulness of electronic services. Consumers will perceive the service to be not useful when the risk associated with it is substantial. Results showed that perceived risk has a significant impact on the intention to use Sarawak Pay. On top of that, there is a negative relationship between perceived risk and intention to adopt Sarawak Pay. As the perceived risk by the potential users of Sarawak Pay increases, the intention to adopt Sarawak Pay will decrease. This finding is in line with the finding conducted by Ozbek, Gunalan, Koc, Sahin, and Kas (2015) whereby perceived risk has a negative relationship with the intention to use online payment. According to Kerviler, Demoulin, and Zidda (2016), potential users will develop resistance to mobile wallet forms of payment especially due to the risk perception. Perceived risk tends to stay away potential user to adopt new financial technology service over the concern related to privacy, personal data and transaction. According to Teo (2018), people in Sarawak are not aware of the risk borne by cash transactions.

Based on the research finding, it can be concluded that consumers in Kuching value perceived risk as one of the adoption factors of Sarawak Pay. Perceived risk influences the perceived usefulness and intention to use Sarawak Pay. This finding is consistent with the research conducted by Sarika and Vasantha (2018). In addition, this finding is also supported by Madan and Yadav (2016) whereby it is found that perceived risk is a significant factor in predicting the adoption of mobile wallet. An explanation for this significant impact could be that consumers in Kuching are aware of perceived risk from the offering of Sarawak Pay. According to Peeters (2020), there has been an increase in privacy risks due to the rise of mobile wallets in recent years. Risk is always there when it involves payment such as identity theft.

The study found that reward plays a significant impact on the perceived ease of use of consumers. The reward given by the application service provider influences potential users of Sarawak Pay on the perceived ease of use of the application. According to Lai (2009), the reward will increase user satisfaction and in turn, this will increase user adoption of new technology through perceived ease of use. This finding is supported by the study done by Fagan, Neill, and Wooldridge (2008). On top of that, it is found that there is a positive relationship between extrinsic motivation and perceived ease of use. Extrinsic motivation refers to motivation from outside that influence an individual such as external rewards, money and so on (Hedges, Pacheco, & Webber, 2013). Reward is significant in determining the perceived ease of use of Sarawak Pay among consumers in Kuching, Sarawak.

Unfortunately, results showed that reward is an insignificant factor in the adoption of Sarawak Pay. Surprisingly, reward do not have a significant impact on the intention to use Sarawak Pay. This finding is not consistent with previous research by Malik and Annuar (2021) who asserted reward has a significant direct impact on the intention to use e-wallet. Reward is not a significant factor influencing the adoption of Sarawak Pay in Kuching. Reward such as cashback is not the main motivator to attract consumers in Kuching to adopt Sarawak Pay.

5.   CONCLUSION

The findings of this research supported the results of previous literature indicating that perceived risk, perceived usefulness and perceived ease of use have a significant impact on the adoption of Sarawak Pay. As a whole, this research produced important information on the factors influencing the Sarawak Pay adoption. Thus, it is believed that this research has added value to the existing literature on electronic wallet adoption.

In terms of theoretical implications, this research filled the existing research gaps by adopting Technology Acceptance Model (TAM) to validate the intention to use mobile wallet namely Sarawak Pay. Other variables such as perceived risk and reward had been added to the theoretical framework to adopt and expand TAM. Hence, the research has contributed a new literature review for future researchers and academicians on the adoption and expansion of TAM in Fintech.

The research enhances the knowledge on the application of TAM to capture the intention to use mobile wallet, especially in Sarawak. Consumers in Sarawak are used to physical money to transact, it is interesting to discover the factors that influence the adoption of Sarawak Pay among Sarawakians with a proven model of TAM. In summary, it is crucial to understand local peoples' adoption factors to further expand the growth of e-wallets in Malaysia.

ACKNOWLEDGEMENT

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APPENDIX

Questionnaire Items

Part 1: Perceived Risks (Adopted from Nguyen & Huynh, 2018)

1. Compared with traditional payment methods, I believe that using Sarawak Pay is riskier.
2. I expect that there will be a high potential for loss associated with using Sarawak Pay.
3. I believe that there will be too much uncertainty associated with using Sarawak Pay.
4. There may be leaked information when using digital wallet.

Part 2: Rewards (Adopted from Aydin & Burnaz, 2016)

5. I have/would like to benefit from promotions offered by Sarawak Pay.
6 I would not (have) download(ed) Sarawak Pay if no promotions were offered.
7. I would like to use/continue to use Sarawak Pay as long as promotions are offered.

Part 3: Perceived Usefulness (Adopted from Davis, 1989; Lee et al., 2011; Moon & Kim, 2001; Venkatesh & Davis, 2000)

8. I believe that using Sarawak Pay will enable me to pay more quickly.
9. Using Sarawak Pay will enhance my payment effectiveness.
10. I believe that I will find Sarawak Pay useful.
11. Sarawak Pay gives me greater control over payment activities.

Part 4: Perceived Ease of Use (Adopted from Davis, 1989; Lee et al., 2011; Suh & Han, 2002; Venkatesh & Davis, 2000)

12. I believe that when I use Sarawak Pay, the process will be clear and understandable.
13. I believe that it will be easy for me to become skillful at using Sarawak Pay.
14. I expect that Sarawak Pay is easy to use.
15. My interaction with the Sarawak Pay is understandable.

Part 5: Intention to use Sarawak Pay (Adopted from Davis, 1989; Lee et al., 2011; Moon & Kim, 2001; Venkatesh & Davis, 2000)

16. I predict that I will use Sarawak Pay in the next 6 months.
17. I feel that switching from physical to Sarawak Pay is pleasant.
18. I think that I will use Sarawak Pay rather than any other available payment method to conduct a transaction in the future.
19. In my view, switching from physical to digital wallet is a wise idea.