

Factors Affecting E-Wallet Usage in Sarawak

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Abstract— E-wallet is a part of the fintech solution that provides customer convenience through fast speed of transaction using RFID technology, QR code and stable internet connection. The usage of e-wallet in Malaysia and Sarawak has risen in the past few years and accelerated during the Covid-19 pandemic crisis due to the needs of contactless payment to reduce the spread of the virus. However, the usage of e-wallet and factors that affect the usage of e-wallet in Sarawak has not been identified through research. Therefore, this research aims to identify the factors influencing e-wallet usage and evaluate the factors using Technology Acceptance Model (TAM) affecting Sarawakians perception towards e-wallet in general and towards Sarawak's own e-wallet app, SarawakPay. Data collection of online questionnaires have been distributed and 111 responses was analyzed using descriptive analysis and correlation analysis as well as multiple linear regression to obtain mean and standard deviation values. Five formulated hypotheses were tested using multiple linear regression showing a significant and positive relationship among the TAM variables. Descriptive analysis results have also shown that top factors affecting usage of SarawakPay is performance expectancy and perceived value. The result from this research indicates that the usage of e-wallet in Sarawak is still at medium level. The evaluation using TAM shows that there is significant relationship between the Technological and Social factors to the usage of e-wallet in Sarawak.

Keywords— *Sarawak Digital Economy, fintech, e-wallet, TAM, covid19*

I. INTRODUCTION

The evolution of making transactions has change over the past few years. From using barter system of exchanging goods to making cashless payments from our smart devices. Digitalization has revamped the payment process from, us humans, carrying tangible bank notes in our wallets to using our smartphones to store money as our go to wallets instead. This creates a high dependency towards our smartphone devices.

One of the digital economy initiatives that is apparent in Sarawak is the introduction to Sarawak's first e-wallet application, Sarawak Pay. Sarawak Pay is a convenient e-wallet application that is fast and secure for conducting digital transactions [1]. However, there are several established and reputable e-wallet applications that are popular among Malaysians. According to Oh [2], Malaysia has experienced an increasing number of e-wallet applications such as Boost, GrabPay, Wechat Pay and Fave just to name a few. The article also stated that a total of 48 e-money licenses have been granted by Bank Negara including for five banks. According to Lee and Khaw [3] in the Bank Negara Malaysia Quarterly Bulletin, the number of approved non-bank e-money issuers had increased from 25 in 2016 to 44 by the end of June in 2018, with most of the new entrants offering payment solutions via mobile applications.

The saturation of e-wallet in Malaysia has created a tough competition for Sarawak Pay on competing which e-wallet has the most users. Factors that can make Sarawak Pay gain competitive advantage over its e-wallet competitors should

include user friendly interface with modern attractive design as well as top notch security and payment features like 'Scan and Pay' or 'Wallet Transfer'. According to Ismaili et al. [4], one of the end user requirements for an electronic payment system should include usability, flexibility, affordability, reliability, speed of transactions and availability.

According to Tee and Ong [5], the research analysed cashless payment innovations using Diffusion of Innovation Theory (DOI) by Roger in 1995 [6], [7]. According to the DOI concept, the adoption of a new innovations was caused by interaction between individuals through interpersonal networks. This means that process of diffusion in spreading cashless payment is done when consumers seek improved and convenient transaction and at the same time businesses can seek new profit opportunities. This diffusion concept of cashless payment will result in the adoption of cashless transactions within a society. In a survey by Visa, around 64 percent of consumers in Southeast Asia are confident of going cashless. Moreover, the value of non-cash transactions in Asia is projected to grow in a huge increase of over 266 percent from US\$96.2 billion in 2017 to US\$352.8 billion by 2022 [8].

However, there are other issues that can hinder the adoption of cashless payments. According to a report by World Economic Forum [9], it has revealed that one of the most worrisome consequences from the pandemic is the increase in cyberattacks and data fraud. Among the common coronavirus scams include impersonating authorities and demanding payment or requesting personal information from victims. The public is urged to be cautious of robocalls, texts and emails promising stimulus payments from governments or vaccine cures. Hence this research aims to identify the factors that can influence the usage of e-wallet in Sarawak as there seem to be absence of research on Sarawak Pay application and consumers study on e-wallets in Sarawak.

In addition to this section, the rest of the paper is organized as follows. Section 2 contains a discussion on the related work on e-wallet. In Section 3, the methodology of the proposed framework is discussed in detail. Section 4 presents the results and analysis of our research. Finally, Section 5 presents the conclusions of our work.

II. LITERATURE REVIEW

Ever since e-wallet or more likely known as mobile wallet was introduced in Malaysia, the nation was flooded with options of e-wallet ranging from Boost, GrabPay and Touch N Go just to name a few. Each e-wallet has its very own specific function that manage to stand apart from its competitors, making it a very competitive environment on who can top the e-wallet market. In Sarawak particularly, the state government has created its very own SarawakPay [1] as part of the Sarawak Digital Economy initiative. With the emergence of multiple e-wallet apps around, users can have a variety of choices depending on their preferences in an e-wallet app such as money transfer to other users, making payments at retail or online stores or simply by paying bills.