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THE ACCEPTANCE OF DIGITAL FINANCE (DiFi) AMONG MUSLIM CONSUMERS IN MALAYSIA

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ABSTRACT

Digital Finance (DiFi) is a promising way of promoting inclusive finance. The internet plays a significant role in promoting advancement in the financial industry, especially digital finance. There are many benefits digital finance could offer, such as greater financial inclusion, expansion of financial services, affordability, security, and convenience. Although there is an increasing number of digital finance adopters in recent years, the acceptance has not been impressive in rural areas. Many consumers in rural areas still seriously suffer from digital finance exclusion. The purpose of this study is to explore and understand the Muslim consumers' intention to use digital finance by extending the Technology Acceptance Model (TAM) with Perceived Credibility and Subjective Norm. A secondary methodology is used for this study through library research by reviewing the concepts of digital finance adoption. This conceptual paper provides an understanding of the acceptance of DiFi among Muslim consumers in Malaysia. The conceptual model of this study could contribute to researchers keen on investigating the adoption of DiFi relating to Muslim consumers. The factors presented in this study are limited. Future research should consider more measures of digital finance adoption. This paper is one of the very few attempts that examined the acceptance of digital finance among Muslim consumers in Malaysia.

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***Keywords**: Digital finance, Muslim consumers, perceived credibility, social influence, TAM.*

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1. INTRODUCTION

The world had experienced radical changes in consumer behaviour due to the Covid-19 pandemic. The health crisis caused by the covid-19 had forced the banks to shift their business models and operations through digital and technology application applications (Bellens, 2020). In addition, Ernst & Young Consumer Index report stated that the lockdown and pandemic dissipate consumers' behaviour toward banking. Perhaps, the

transformation of consumers behaviour is not limited to banking activities, but to the entire financial activities as well.

Nowadays, the financial sector can no longer avoid the disruption of technology. It seems the banks and non-bank institutions widen their business operation digitally to improve access to financial products and services simultaneously to cater to customers' needs. This transformation has introduced a new concept of Digital Finance (DiFi). To date, there is no standard definition of DiFi. However, Ozili (2018) discussed the concept of DiFi in his seminal paper on the impact of digital finance on financial inclusion and stability. Ozili stated that the definition of digital finance from the practitioners' perspective refers to financial services delivered via mobile phones, personal computers, the internet, or cards linked to the digital payment system (Ozili, 2018). DiFi offers several benefits in empowering the consumers, especially the poor, with the advancement of technologies (The World Bank, 2014).

DiFi can provide greater financial inclusion, business expansion, the gross domestic product (GDP) booster, and provide a long-term positive impact on banking performance (Ozili, 2018). At the same time, DiFi is likely to offer affordable, convenient, and secure banking as well. To the government, DiFi could help in raising the aggregate expenditure and increase increasing tax revenue. While the customers will have greater control over their personal finance, speedy transaction, and quick financial decision, to name a few. Besides promoting financial inclusion, financial innovation ensures that the products and services are delivered responsibly and sustainably (Wibella et al., 2018b).

Access to DiFi requires prerequisites investments in digital financial services such as internet connection, devices like mobile phone phones or computers or appropriate internet applications. In 2020, the penetration of fixed-broadband and mobile broadband in Malaysia increased significantly (Malaysian Communications and Multimedia Commission, 2020). Furthermore, the percentage of individuals using the internet, computers and mobile phones increases in 2020 (Department of Statistics Malaysia, 2016). In the DOSM report, 85.5 per cent of individuals use the internet to find information on products and services, while 78.4 per cent download software or application. The statistics provided by DOSM do not capture the internet use banning of financial activities. It is assumed that access to digital financial services is well captured in the above statistics.

Despite all the benefits offered by the DiFi, the primary principle is to serve the poor and to ensure that the financial products are accessible to everyone including the people who are living in the rural area. He and Li (2020) stated that rural and poor communities are exposed to digital finance exclusion, this is due to a lack of education and incapability to understand digital technology. Providing formal and informal financial services to the rural community is a great challenge. The formal financial institutions are reluctant to serve the rural areas due to many reasons like uncertainty, higher risk, higher cost, and financial literacy issues. A report by The World Bank in 2020 revealed that the unbanked population is dominated by developing countries especially the Muslim populated countries (The World Bank, 2020). Furthermore, the projection estimates that there are 1.7 billion unbanked retail customers with 200 million potential micro, small and medium enterprises. It is worth mentioning that the FinTech could accelerate financial inclusion which could boost economic growth, support industry, innovation and alleviate poverty (The World Bank, 2020). This is in line with the estimation made by the McKinsey Global institute that digital finance could increase 3.7 trillion the GDP of the emerging economies by 2025 (McKinsey Global Institute, 2016).

Jünger and Mietzner (2020) echoed that the rise of FinTech becomes more complex and the willingness of consumers to adapt to this new technology is beyond the simple dimension of being cheaper and more appealing. Currently, there are no data on consumers' bank switching behaviour from traditional banking to digital banking that incorporates the fintech element from the rural customers' point of view. This paper attempts to explore the acceptance of Digital Finance (DiFi) among Muslim consumers in Malaysia. This concept extended the Technology Acceptance Model (TAM) with perceived credibility and social influence to better explain the adoption of DiFi.

The remaining part of the paper proceeds as follows. The first section of this paper elaborates on the development of digital finance. Section 3 enlightens the discussion on financial inclusion. Section 4 discusses the Theory of Acceptance Model. Section 4 deliberates the factors affecting the acceptance of digital finance among Muslim consumers. Section 5 describes the conceptual model. Section 6 presents the conclusion, implications, limitations and future research.

2. DEVELOPMENT OF DIGITAL FINANCE (DiFi)

According to Agrawal and Jain (2019), Digital Finance (DiFi) refers to financial services that are accessible and delivered digitally, such as payments, credit, savings, remittances and insurance. Financial services for mobile devices are also offered. This is noticeable when DiFi is propagated through digital channels such as the internet, mobile phones (smartphones and cell phones), ATMs, POS terminals, kiosks, biometric devices, tablets, and other digital systems or instruments. Similarly, Stella (2019) identified digital finance as "financial services delivered via mobile phones, internet or cards". Gomber, Koch, and Siering (2017) stated that DiFi comprises a wide range of new financial products, financial enterprises, financial-related software, and new modes of communication and consumer contact, all of which are offered by innovative FinTech firms and financial service providers. Even though there is no universally accepted definition of digital finance, it is widely agreed that it includes all products, services, technologies, and infrastructure that enable individuals and businesses to access payment, savings, and credit facilities via the internet (online) without having to visit a bank branch or deal directly with the financial service provider.

Naumenkova, Mishchenko and Dorofeiev (2019) explained that DiFi can generate greater inflows of money by targeting unprotected and untreated individuals through technology. In addition, Mhlanga, (2020) stated that by using a diverse network of digital channels and models, DiFi can provide individualised services and offerings to the market, lowering or eliminating barriers to accessing, using, and receiving high-quality financial services offered through established formal systems. The internet has become a well-known distribution channel for the banking business in Europe, and all traditional institutions, as well as newcomers, have discovered its usefulness when compared to other channels (Barbesino et al., 2005).

Any digital financial service should ideally include three components: digital transaction platforms, retail agents, and client and device agents (typically mobile phones) who transact through the format (CGAP, 2015). Users must have an existing bank account (or a third-party account with approved permission to use it) and funds (or overdrafts) available in their account to make payments (cash outflow) or receive income (cash inflow) through digital platforms such as mobile devices, personal computers, or the internet to use DiFi (Barbesino et al., 2005). As nearly half of people in the developing world currently hold a mobile phone, digital finance has various advantages, including

increased financial participation, the spread of financial services into the non-financial sector and the spread of basic services to individuals (The World Bank, 2014).

3. FINANCIAL INCLUSION

Ramya (2018) defined financial participation as the continual provision of inexpensive financial services to the poor in order to draw them into the formal economy. Financial inclusion can also be described as the poor's usage of formal financial services (Salisu and Ayinde, 2018). Financial inclusion is expanding the number of (usually poor) people who have access to formal financial services, primarily through formal bank accounts, so contributing to poverty reduction and economic growth. Individuals who were previously financially excluded will be able to invest in education, save, and start enterprises, contributing to poverty reduction and economic progress (Salisu & Ayinde, 2018). Financial inclusion system is desired because it allows all individuals, especially the poor, to access and move funds, increase money and reduce risk.

Barbesino et al. (2005) affirmed that financial inclusion has various advantages for low-income households. It enables low-income persons to save for the future, which improves personal financial security, as well as a high level of usage of bank savings, which contributes to guaranteeing a more secure bank deposit base in bad times. Increased financial inflows can also create chances for poor households to save, invest, and obtain loans (Penicaud & Katakam, 2013). Financial inclusion also enables individuals to manage with shocks caused by unanticipated events such as illness or job loss (Radcliffe & Voorhies, 2012). Furthermore, financial inclusion improves financial stability by lowering precipice risk; a large increase in the amount of small savings as a result of increased financial participation will increase the size and stability of a bank's savings base, reducing the bank's reliance on "non-core" financing, which tends to be more unstable during crises thus increasing stability banking system (Roa García, 2016). In addition, low-income groups are relatively immune to fluctuations in the economic cycle and including them in the financial sector will improve the stability of the deposit and loan base in the financial system. Recent evidence by Manta and Academy (2020) shows that financial institutions meeting lower levels of end-to-end individuals tend to survive through macro crises well and help sustain local economic activity.

Gomber, Koch and Siering (2017) stated that a lack of adequate credit for small and medium-sized firms and small-scale entrepreneurs has a negative impact on total job development because these firms tend to become more labour demanding in their operations. Furthermore, greater levels of financial participation could facilitate increased participation by various sectors of the economy in the formal financial system because, as part of the formal financial sector increases, this strengthens the case for the use of interest rates as an appropriate policy tool for macroeconomic stability, which has implications. positive for economic growth (Nizam, Karim, Rahman, & Sarmidi, 2020). According to Arora (2019) financial participation can be viewed as a commercial opportunity as well as a social obligation, and both self-help organisations and microfinance institutions participate in participation initiatives, as both of these agents are vital for promoting financial inclusion.

4. TECHNOLOGY ACCEPTANCE MODEL (TAM)

The Technology Acceptance Model (TAM) was introduced by Davis et al. (1989) to explain the computer usage behaviour. This theory is claimed to be robust, parsimonious and influential in explaining the IT/IS adoption behaviour. There are two antecedence

variables derived from TAM, Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). TAM has received great attention in the literature (Abdul Rahim et al., 2021; Amin et al., 2014; Eriksson et al., 2005; Fathi et al., 2011; Mahande et al., 2019; Parveen & Sulaiman, 2008; Wibella et al., 2018) Prior studies, somehow, presents the evidence on behavioural intention towards information technology adoption in various fields.

5. FACTORS AFFECTING THE ACCEPTANCE OF DIGITAL FINANCE AMONG MUSLIM CONSUMERS

5.1 Perceived of usefulness (PU)

Perceived usefulness (PU) is defined as the degree to which a person believes that using a particular system would enhance his or her job performance (Davis, 1989). TAM proposed that these two antecedence variables are the fundamental determinants of IT adoption (Shabrina & Zaki, 2019). To date, many studies confirmed the role of PU in shaping consumer behaviour. For instance, online shopping behaviour (Lim et al., 2016), e-wallet (Matemba & Li, 2018; Wijayanthi, 2019) FinTech (Keng-Soon et al., 2019; Bureshaid et al., 2020), wireless internet mobile technology (Lu et al., 2005), eHealth technology (Sampa et al., 2020) and digital banking (Wen Ni, 2020).

At first Davis (1989) claimed that individuals will employ information technology if they understand the benefits of doing so. According to Tahar et al. (2020), the perceived usefulness of information technology is the benefit expected by users of information technology in carrying out their duties. The measurement of utility is based on the frequency of technology used and the diversity of applications operated. Alalwan et al. (2016) found that PU is the key predictor of behavioural intention. The respondents revealed that they would tend to adopt mobile banking if they perceive the use of technology will make them more productive and effective. Thus, the adoption of mobile banking will increase if the customers feel such a system is useful and effective. Furthermore, Liébana-Cabanillas et al. (2020) studied mobile payment adoption with the case of apple pay. In their study, TAM was utilized as the underpinning theory, they discovered PU is one of the important factors that influence the adoption of mobile payment. Besides, people are willing to adopt the payment system if it is less complex and they are familiar with it.

5.2 Perceived ease of use (PEOU)

Davis (1989) defined perceived ease of use (PEOU) as the degree to which a person believed that using a particular system would be free from effort. The relationship between PEOU on usage intention has been explored over the past decade (Em & Gs, 2016; Ernovianti et al., 2012; Mohd Thas Thaker et al., 2018; Tahar et al., 2020; Xie et al., 2017). POEU is validated to have a significant positive relationship with the intention to use e-filing (Tahar et al., 2020). Similarly, Xie et al., (2017) in the context of e-government adoption, explained that PEOU is an important antecedent affecting PU and attitude. Keng-Soon et al. (2019) used TAM and UTAUT to study fintech adoption in Malaysia. In his study, six variables are formed to explain fintech adoption among Malaysians. The findings revealed that all studied variables have a significant positive relationship toward fintech adoption including PEOU. In addition, fintech applications available in the market today are less complex and required minimum effort in learning the system. Due to that reason, people are inclined to use the system.

Wibella et al. (2018) indicated that PEOU significantly influences digital financial inclusion in Indonesia. On the other hand, Huei et al. (2018) used TAM in their preliminary study on consumers' attitudes towards FinTech products and services in Malaysia. The discussion on the expected results indicated that PU, PEOU, competitive advantage, perceived risk, and perceived cost are among the factors that motivate consumers to use FinTech products and services. Similarly, a study conducted by Chuang et al. (2016) on FinTech adoption among the engineers in Taiwan showed that if the FinTech services are friendly to the user, easy to use and available to be downloaded, it will positively influence the usage of FinTech services.

5.3 Perceived credibility (PC)

Wang et al. (2003) seminal paper on user acceptance of internet banking has conceptualised perceived credibility. Perceived credibility (PC) is defined as the security and privacy concerns in the acceptance of Internet banking (Wang et al., 2003). Wen Ni (2020) emphasised the role of security and privacy which have a significant impact on consumers' behavioural intention to adopt digital banking. Credibility is often impersonal and is based on reputation, information, and economic reasoning (Alampay et al., 2017). The importance of safety and privacy over the acceptance of banking technology has been observed in many banking studies (Amin, 2007; Dagada, 2013; Eze et al., 2011; Masrek, 2018; Mun et al., 2017; Wang et al., 2003, 2006). Consequently, in this study, perceived credibility refers to customers' security and privacy concerns in the digital finance application.

Lim et al. (2019) asserted that consumers perceived the mobile fintech service as stable to use when they recognised a higher level of security protection, security control and procedures. Lim classified perceived security into four categories: service security, network security, platform security and device security in fintech services. Lee et al. (2016) studied fintech from Korean consumers' perspective and revealed that personal information security and payment process are among the major concerns that the respondents highlighted in implementing fintech technology. Perhaps, from digital finance perspective security and privacy are among the major concerns before customers adopt digital finance. This is supported by Masrek (2018) who found that perceived credibility had a significant impact on the development of willingness to use digital finance. Acceptance of financial technology inclusion was strongly connected to perceived credibility. Clearly, people's perceived credibility toward fintech systems will reflect the security of financial transactions and the safeguard of the security of their personal information will impact their voluntary embrace of digital finance.

5.4 Social influence (SI)

Lu et al. (2005) defined social influence as perceived pressure from social networks to perform or not to perform behavioural in action. Social influence has been regarded as a vital element in technology adoption studies (Alqasa et al., 2014; Gopi & Ramayah, 2007; Hasbullah et al., 2016; Karahanna et al., 2006; Lu et al., 2005; Saare et al., 2019; Shabrina & Zaki, 2019; S. Wang et al., 2016). For instance, Bananuka et al. (2020) indicated that subjective norms have a favourable link with customer's desire to use digital banking services. Lu et al. (2005) stated that people are usually not comfortable with uncertainty and tend to interact with their referents. Similarly, Keng-Soon et al. (2019) found that social influence positively influences the adoption of FinTech service in Malaysia.

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Previous studies on social influence on retirement planning and savings are like (Croy et al., 2010, 2012, 2015; Davis & Hustvedt, 2012; DeVaney & Chiremba, 2005; Topa et al., 2012), internet banking (Flavián et al., 2006; Pikkarainen et al., 2004; Singh & Srivastava, 2018), online investment (Partridge & Ho, 2002; Yang & Devaney, 2012) and online shopping (Deka, 2017; Lin, 2007; Pavlou, 2001). He and Li (2020) offered insightful findings when they used China Rural Inclusive Financial Survey Data to study social interaction and digital finance adoption among the rural and poor communities in China. Although much empirical evidence has established the role of social influence in IS, still, in the context of digital finance very few studies were done.

6. CONCEPTUAL FRAMEWORK

The conceptual framework of this study is developed based on PU, PEOU, perceived credibility, and social influence on DiFi adoption. Figure 1 illustrates the conceptual framework of the study.

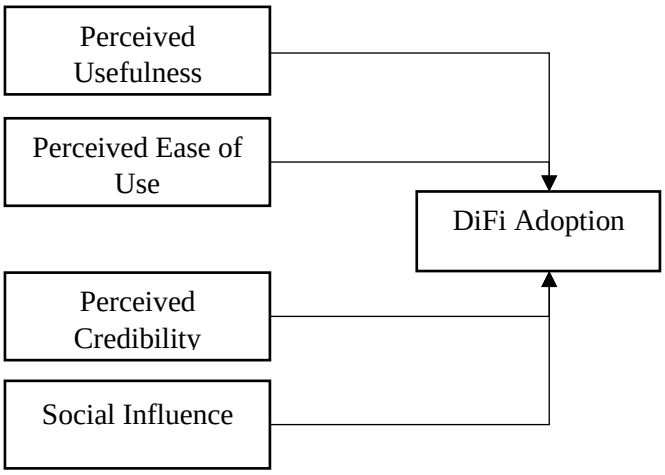

Figure 1: Concenptual framework.

7. CONCLUSION

This paper attempts to explore the acceptance of Digital Fnance (DiFi) among Muslim consumers in Malaysia. The present study has successfully extended the Technology Acceptance Model (TAM) with perceived credibility and social influence to better explain the adoption of DiFi. Prior literature underscored the pros and cons of digital finance. On the pros side, digital finance has the potential to allow the formal financial sector to expand their businesses to the non-formal financial sector, DiFi also provides convenient and secure transactions to the rural and poor communities. On the other hand, DiFi is capable to boost county GDP by digitalising its financial services. The customers' could control their personal finance, make a quick financial decision, and perform and received payments within a second.

Understanding the adoption of DiFi among the rural communities is important for the policymaker, the government, FinTech players and researchers. Offering DiFi is another bigger investment for the market players like financial institutions, non-financial institutions and FinTech players. The supply and demand should be at par for the business to be nurtured. Thus, understanding the consumer's perspective on DiFi adoption is imperative. It is hoped that this study becomes a central reference for the government in governing the regulation pertaining to digital finance in Malaysia. This work is designed to encourage researchers to extend the present study so that more contributions to the

knowledge in the context of digital finance from a rural perspective. Nevertheless, this study has two limitations. First, the present study is a conceptual paper. Thus, this study is not fit to confirm the relationship between the proposed variables in this study due to lacking empirical evidence. Next, this study proposed the extended version of TAM with PC and SI. The explanation of DiFi adoption is limited to the variables. It would be interesting to grasp the idea of DiFi adoption by utilising another theory that is capable to explain the adoption of DiFi and integrating more variables that could influence individual behavioural intention towards the technology adoption.

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