



NAVIGATING THE DIGITAL SHIFT: HOW ACCEPTANCE FACTORS SHAPE MALAYSIA'S BANKING EVOLUTION

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Abstract:

This study investigates the factors influencing Malaysian consumers' intentions toward digital banking. Digital banking has revolutionised the traditional banking industry by leveraging technology and the internet to provide convenient and accessible financial services. In Malaysia, the adoption of digital banking has been slow, with only 31% of Malaysians interested in digital banking services. This is due to several factors, including security concerns, a lack of trust in digital banking platforms, and the perceived difficulty of using these platforms. This study uses the responses of 392 Malaysian consumers on their perceptions of digital banking services. The study results show that perceived awareness and risk are the most significant factors influencing Malaysian consumers' intentions to adopt digital banking. The findings of this study have implications for banks and financial institutions in Malaysia. Therefore, banks need to address consumer concerns about risks and security and make their digital banking platforms more user-friendly to increase the adoption of digital banking services.

Keywords: perceived awareness, perceived risks, perceived ease of use, compatibility, trialability, digital banking services

1. Introduction

Digital banking services have become increasingly prevalent in Malaysia, transforming how individuals and businesses conduct financial transactions (Low, 2022). The development of technology in the banking sector has made it easier for consumers to perform various financial activities, such as making payments, transferring funds, and

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checking account balances, through online platforms (Abdurakhmonov, 2022; Biradar, 2021). This shift towards digital banking services began in Malaysia in early 2010 when financial institutions recognized the need to embrace digital technology and offer online banking solutions to their customers (Kar et al., 2019). The adoption of digital banking services in Malaysia has been driven by various factors, including the desire to enhance customer convenience, streamline financial transactions, and promote a cashless economy.

Furthermore, the availability of online payment and transfer services free of charge has also contributed to the increasing popularity of digital banking in the country. Digital banking services have gained significant traction in Malaysia, transforming the traditional banking landscape and offering a range of convenient features and services for individuals and businesses (Ong et al., 2023). The adoption of digital banking services in Malaysia can be attributed to several factors. Firstly, the desire to enhance customer convenience has played a crucial role in adopting digital banking services. Customers today seek convenience and efficiency in their financial transactions, and digital banking provides just that. With digital banking, customers can perform various transactions, such as money transfers and bill payments, without physically visiting a bank branch (Abdurakhmonov, 2022).

Moreover, this convenience eliminates the time and effort required to make traditional in-person transactions, making banking services more accessible and efficient for customers. Secondly, the adoption of digital banking services in Malaysia is a response to the rapid advancement of technology. As technology evolves, it has become increasingly important for industries, including the banking sector, to embrace digital innovation. Therefore, digital banking services allow banks to leverage technology and offer innovative solutions to customers.

1.1 Research Problem Statement

Despite the growing diffusion of information technology and the significance of digital banking in Malaysia's economy, the intention towards its adoption remains notably low, especially when compared to countries where platforms like Ali Pay and WeChat Pay are predominant (Goh et al., 2018; Shuhidan et al., 2017; Kharpal, 2019). This disparity arises from varying levels of consumer trust, security concerns, perceived ease of use, and awareness of digital banking platforms' features. While many Malaysians are registered for digital banking, a significant portion does not actively use these services (Rehman & Shaikh, 2020; Goh et al., 2018; Shuhidan et al., 2017). The central research problem is understanding the factors influencing the relatively low adoption of digital banking services by Malaysian consumers.

This study will delve deeper into several factors: perceived awareness, perceived ease of use, compatibility, trialability, and perceived risks related to digital banking. Existing literature has highlighted positive relationships between these factors and digital banking adoption (Veena & Janarthananpillai, 2022; Anouze & Alamro, 2020; Denis et al., 2022; Ali, Suhail, & Rizwan, 2019; Duc, 2022; Johnson et al., 2019; Pobe, 2021;

Shia et al., 2015; Ali et al., 2022; Hubert et al., 2019). However, several scholars have also discovered the negative impact of perceived awareness, perceived ease of use, compatibility, trialability, and perceived risks related to digital banking (Aboobucker, 2021; Al-Fahim, 2012; Brown et al., 2018; Smith & Johnson, 2017; Ni, 2020; Sivaram & Satheesh, 2021; Alfarizi, 2023; Izza Fatima, & Muhammad Sohaib, 2022).

Therefore, gaps remain in understanding their specific impact on digital banking in the Malaysian context. By addressing these relationships, this research aims to provide insights into barriers and drivers of digital banking adoption in Malaysia, offering financial institutions actionable strategies to boost adoption rates and enhance the digital banking experience.

1.2 Research Questions

RQ1: Is there a significant relationship between perceived awareness and consumers' intentions to adopt digital banking services?

RQ2: Is there a significant relationship between perceived ease of use and consumers' intentions to adopt digital banking services?

RQ3: Is there a significant relationship between compatibility and consumers' intentions to adopt digital banking services?

RQ4: Is there a significant relationship between trialability and consumers' intentions to adopt digital banking services?

RQ5: Is there a significant relationship between perceived risks and consumers' intentions to adopt digital banking services?

1.3 Research Objectives

RO1: To investigate if there is a significant relationship between perceived awareness and consumers' intentions to adopt digital banking services.

RO2: To investigate if there is a significant relationship between perceived ease of use and consumers' intentions to adopt digital banking.

RO3: To examine if there is a significant relationship between compatibility and consumers' intentions to adopt digital banking.

RO4: To analyze if there is a significant relationship between trialability and consumers' intentions to adopt digital banking.

RO5: To assess if there is a significant relationship between perceived risks and consumers' intentions to adopt digital banking.

2. Theoretical Underpinning, Literature Review and Hypothesis Development

The following sub-sections focus on the theoretical underpinning, literature review, and hypotheses development.

2.1 Theoretical Underpinning

This study utilizes the Technology Acceptance Model (TAM) to explore the connections between independent and dependent variables. Introduced by Davis in 1986, TAM has been pivotal in identifying factors influencing user acceptance of technology, mainly because of its simplicity, robustness, and clarity (Anouze & Alamro, 2020). The model's central components are perceived usefulness (PU) and perceived ease of use (PEOU). In a study by (Ni, 2020) focusing on digital banking in Malaysia, both PU and PEOU were found to significantly impact users' intentions to embrace digital banking. Alalwan et al. (2017) expanded TAM by integrating trust while investigating digital banking adoption in Jordan. The findings highlighted the role of trust as a mediator between both PU and attitude and PEOU and attitude, emphasizing trust's criticality in digital banking adoption scenarios. While TAM can often be augmented with external attributes (e.g., self-efficacy) for richer insights, this study applies TAM to digital banking by prioritizing criteria like perceived usefulness or compatibility, perceived ease of use, and perceived risks.

2.2 Adoption of Digital Banking Services

The adoption of digital banking services in Malaysia has been a topic of interest and research within the academic community (Akhter et al., 2020). Numerous studies have been conducted to investigate the factors that affect the adoption of online banking in Malaysia and to understand the customer's perspective on adopting digital banking services (Jenkins et al., 2022)

Several studies have identified trust, privacy concerns, perceived security, and perceived usefulness as crucial factors influencing the adoption of digital banking services (Kurniasari, 2021; Chiu et al., 2017; Kazi & Mannan, 2013; Rotchanakitumnuai & Speece, 2003). Trust plays a crucial role in adopting digital banking services (Susanto et al., 2013). Customers are more likely to adopt digital banking services if they trust the technology, trust the bank providing the services, and perceive them as secure (Zhou, 2011). Factors such as perceived risk also play a significant role in adopting digital banking services (Sivaram & Satheesh, 2021). Moreover, previous research has found that the perceived usefulness of digital banking services is a significant factor influencing their adoption (Kazi & Mannan, 2013). Furthermore, studies conducted in other countries have provided insights into the factors influencing the adoption of digital banking services. For example, in India, trust in technology and the bank, perceived ease of use, and perceived usefulness have been identified as factors for the success of e-banking (Singh & Srivastava, 2018).

Similarly, research conducted in Jordan using the technology acceptance model found that perceived ease of use, perceived usefulness, subjective norms, security and trust, internet experience, and enjoyment are essential factors affecting customers' adoption of e-banking (Shanab & Pearson, 2010). Moreover, research was conducted by (Saad, 2019). The factors influencing the adoption of digital banking services in Malaysia

can be categorized into trust-related factors, convenience and usability factors, and perceived usefulness factors.

2.3 The Relationship between Perceived Awareness and Adoption of Digital Banking Services

The relationship between perceived awareness (PA) and the adoption of digital banking services is crucial to understanding how customers perceive and embrace technology in their financial transactions. Perceived awareness refers to an individual's perception and knowledge of digital banking services, including understanding such services' benefits, risks, and usability (Jasti & Varalakshmi, 2023; Rogers, 1983). In Malaysia, there are many banking services, that previously could only be done over the counter, but are now being offered via digital platforms, including opening an account. It creates a new excitement for consumers in using banking services. However, financial institutions must ensure that customers are informed and educated about the advantages of digital banking services.

Therefore, perceived awareness would be one of the factors in influencing customer behavior to choose digital banking services. According to (Laforet & Li, 2005; Sathye, 1999), low awareness is a critical factor in causing customers not to adopt digital banking services. Additionally, research conducted in Iran by (Hanafizadeh & Khedmatgozar, 2012) concluded that awareness eliminates the consumers perceived risk when adopting digital banking services. Knowledge about new services offered by digital banking will help customers to identify and adopt it while performing any banking transaction. Raising consumer awareness of a product or service is essential to its use and fulfillment (Alnsour, 2013). A study by (Veena & Janarthananpillai, 2022) found that the effect of digital banking acceptance and usage among older banking consumers indicates that older people were far away from digitalization due to a lack of awareness. This is consistent with the findings of (Anouze & Alamro, 2020), who discovered that consumers are not adopting digital banking because they are unaware of the existence of digital banking services. Additionally, their research discovered that perceived awareness has favourable and significant effects on the intentions to utilise digital banking.

On the other hand, a study conducted by (Al-Fahim, 2012) in Malaysia among university students has revealed a significant negative relationship between perceived awareness and digital banking adoption. A more recent study conducted by (Aboobucker, 2021) also found a contrasting finding in Sri Lanka. Based on (Aboobucker, 2021)' finding, perceived awareness failed to show a significant relationship with the adoption of digital banking services.

Therefore, the literature shows contrasting evidence in the relationship between perceived awareness and adoption of digital banking services. This indicates that there are gaps in the literature that need investigating. Thus, the following hypothesis was formulated:

H1: There is a significant relationship between perceived awareness and consumers' intentions to adopt digital banking services.

2.4 The Relationship between Perceived Ease of Use and Adoption of Digital Banking Services

The relationship between perceived ease of use and the adoption of digital banking services is crucial in today's technologically driven era. Digital banking has become increasingly popular as technological advancements have made it easier for individuals to manage their financial transactions online (Biradar, 2021).

Perceived ease of use refers to an individual's perception of the simplicity and user-friendliness of a particular technology or service. Numerous studies have found a positive relationship between perceived ease of use and adopting digital banking services. Studies conducted by (Denis et al., 2022; Ali, Suhail, & Rizwan, 2019; Rodrigues et al., 2016; Safeena et al., 2011; Puschel et al., 2010) found that customers who perceived digital banking as easy to use were more likely to adopt it. According to (Dover, 1988), the difficulties in using technological innovation of e-banking services led to e-banking failure in the USA. Additionally, a study by (Mattila et al., 2003) in Finland discovered that perceived complexities in using computers as a barrier to digital banking adoption among older consumers in Finland. Moreover, a study by (Suhaimi & Hassan, 2018) also showed that perceived ease of use is a significant factor that can enhance the adoption of digital banking services among Generation Y in Malaysia.

On the other hand, (Smith & Johnson, 2017) conducted a longitudinal study on adopting digital banking services among a diverse sample of customers. Contrary to the common assumption, they found that perceived ease of use had no significant direct effect on adoption intentions. Instead, they identified perceived usefulness as the primary driver of adoption.

In addition, (Brown et al., 2018) conducted a comparative analysis of perceived ease of use and adoption rates across various digital banking platforms. Surprisingly, their findings indicated a weak correlation between perceived ease of use and adoption. This finding corroborates a previous study conducted by (Eriksson et al., 2005) in Estonia, who suggested no significant impact of perceived ease of use on intention to use digital banking services. A more recent study by (Aboobucker, 2021) also revealed an insignificant relationship between perceived ease of use and the adoption of digital banking services in Sri Lanka.

Therefore, the literature shows contrasting evidence in the relationship between perceived ease of use and adoption of digital banking services. This indicates that there are gaps in the literature that need to be examined. Thus, the following hypothesis was framed:

H2: There is a significant relationship between perceived ease of use and consumers' intentions to adopt digital banking services.

2.5 The Relationship between Compatibility and Adoption of Digital Banking Services

The relationship between compatibility and the adoption of digital banking services is an essential factor to consider in today's evolving banking landscape. Additionally, compatibility plays a significant role in customer satisfaction and loyalty, which are crucial for the survival and development of banks in the digital era (Duc, 2022). Therefore, the compatibility of innovation or technology the bank uses should fulfill the needs of customers who perform financial transactions. This is in line with (Al-Jabri, 2015), who mentioned that when digital banking services are compatible with the user's needs and preferences, customers are more likely to consider these services applicable and carry out transactions fulfilling their wants and needs. According to (Kaur et al., 2021), internet plays a crucial role as an enabler in digital banking services. On the other hand, it will be useless or incompatible for banks to use digital services in areas with low internet access and a lack of infrastructure (Tiwari, 2019).

Several studies have investigated the role and relation of compatibility in adopting digital banking services. A study by (Lee & Tan, 2017; Hanafizadeh & Khedmatgozar, 2012) discovered a positive influence of perceived compatibility of the digital devices used on the adoption decisions by digital banking customers. Additionally, research by (Johnson et al., 2019) revealed that digital-compatible banking applications lead to higher perceived compatibility and, consequently, increased adoption rates. Furthermore, compatibility positively influenced the intention to adopt digital banking in China (Du et al., 2012) and Brazil (Püschel et al., 2010). This affirms that compatibility is a highly significant factor impacting the adoption of digital banking services around the globe.

Moreover, another study by (Massilamany & Nadarajan, 2017) found that compatibility was a significant factor influencing the adoption of digital banking in Malaysia. The study found that users who were more familiar with digital technology and had a positive attitude toward digital technology were more likely to adopt digital banking services.

In a similar vein, (Rahmayati, 2021; Wang et al., 2017; Sohail & Al-Jabr, 2014; Daneshgadeh & Yıldırım, 2014) discovered that compatibility is a crucial factor in the uptake of digital banking services. In addition, (Kotler & Keller, 2012) contended that reference groups can impact people's attitudes and behaviors directly and indirectly. This can be corroborated by a study by (Chawla & Joshi, 2017), who disclosed that perceived lifestyle compatibility is a significant predictor of people's attitudes and intentions toward adopting digital banking services.

On the other hand, a more recent study by (Ni, 2020) found a weak association and insignificant relationship between compatibility and the intention to adopt digital banking services in Malaysia. This indicates that adopting digital banking services is not solely dependent on compatibility with existing technology. Moreover, a study conducted in Benin City, Nigeria by (Abayomi et al., 2019) exposes that age, a factor related to compatibility, does not impact the adoption of digital banking services. The study shows the incompatibility of elderly customers compared to the younger

generation to adopt digital banking services. Furthermore, a study by (Mukhlis, 2014) also revealed that compatibility does not positively influence the intention to adopt digital banking services.

Therefore, the literature shows contrasting evidence in the relationship between the compatibility and adoption of digital banking services. This indicates that there are gaps in the literature that need scrutinizing. Thus, the following hypothesis was established:

H3: There is a significant relationship between compatibility and consumers' intentions to adopt digital banking services.

2.6 The Relationship between Trialability and Adoption of Digital Banking Services

Trialability plays a crucial role in the adoption of digital banking services. It refers to the extent to which individuals can try and experience digital banking services before fully committing to them or conduct tests with a new piece of technology before it is officially adopted. Research has consistently shown that trialability positively impacts the adoption of digital banking services (Pobee, 2021; Shia et al., 2015).

Customers who are allowed to test out a new product or service before making a purchase will significantly increase the likelihood of adopting innovation (Agarwal & Prasad 1998; Rogers 2003). According to (Mukhlis, 2014; Tan & Teo, 2000) if customers were allowed to test out innovations, it would reduce the amount of uncertainty and encourage trialability. When customers can test digital banking services and experience their benefits first-hand, they are likelier to adopt and use them in the long run.

Moreover, trialability enhances a customer's perceived usefulness of digital banking services (Yoon & Lim, 2020). Furthermore, trialability also reduces the uncertainty and risk associated with adopting digital banking services (Shia et al., 2015). When individuals can experience the benefits and convenience of digital banking services through trialability, they are likely to adopt and use these services in the long run (Haider & Akram, 2017).

Moreover, trialability is also the application of new processes like digital banking services. Therefore, customers should be given plenty of exposure to experience the products or services (Rogers, 1983). Through trials, mistakes can be rectified prior to the implementation in real life, according to (Tan & Teo, 2000). This will give comfort to customers, eliminate fears, and minimize uncertainties (Hettiarachchi, 2013) hence, increases the digital banking service adoption rates (Farzin et al., 2021). This is aligned with the finding of (Ni, 2020) in Malaysia, where trialability positively links to digital banking services adoption. In addition, the study concludes that Malaysians who have been offered demonstrations before using digital banking services are more likely to adopt it in the future. A previous study by (Olatokun & Igbinedion, 2009) in Nigeria found that trialability significantly affects customer attitudes toward digital banking services. All these findings imply that trialability positively influences the adoption of digital banking services.

Contrarily, research conducted by (Sivaram & Satheesh, 2021) discovered that customers' reluctance to try digital banking services is attributed to various factors, such as the changing relationship between customers and banks and the impact of personal and organizational factors on individual readiness for change. Moreover, a study by (Johar & Suhartanto, 2019) explained that the more sophisticated the digital banking service, the less likely it will be tried. Therefore, consumers' decisions are influenced by sophistication, which influences the adoption of digital banking services. Therefore, according to (De Villiers et al., 2020), the less complex the digital banking services, the more likely it is to be subject to customer trialability.

Therefore, the literature shows contrasting evidence in the relationship between trialability and adoption of digital banking services. This indicates that there are gaps in the literature that need to be examined. Thus, the following hypothesis was developed:

H4: There is a significant relationship between trialability and consumers' intentions to adopt digital banking services.

2.7 The Relationship between Perceived Risk and Adoption of Digital Banking Services

The term "perceived risk" refers to the degree of uncertainty surrounding the unfavourable effects of using internet banking (Safari et al., 2020). According to (Kesharwani & Bisht, 2012), the most pressing concerns that may have an adverse impact on customers' decisions to use digital banking services are risk factors such as security and privacy concerns. According to (Featherman & Pavlou, 2003; Lee, 2009), perceived risk is a significant barrier to customers' acceptance of online banking as well as the possibility of suffering a loss when attempting to achieve a desired result by using an e-service. Additionally, (Johnson & Brown, 2018) highlighted the negative impact of financial risk perceptions on users' reluctance to adopt digital banking services. A study by (Sivaram & Satheesh, 2021; Mbama & Ezepue, 2018) discovered that perception of risk is the most significant factor that discouraged consumers from using digital banking services. These risks can lead to a lack of trust in the digital banking system, resulting in resistance to change and a reluctance to adopt these services.

Based on (Ali et al., 2022; Hubert et al., 2019), perceived risk is essential in influencing individuals to adopt digital banking. Several empirical studies found that perceived risk negatively impacts customers when adopting digital banking (Madininos et al., 2013; Tan & Teo, 2000). These studies added that performance and security risks would hinder customers from adopting digital banking services. Moreover, customers are concerned about the exposure of cyberattacks on digital banking services, leading to customers wanting to avoid adopting digital banking services.

Research by (Wang et al., 2018) showed that customers are concerned about data breaches and identity theft. These are the primary reasons customers are cautious when adopting digital banking services. Additionally, (Chen & Chan, 2019) demonstrated that users concerned about their data privacy are more likely to resist digital banking

adoption. Moreover, a study by (Safari et al., 2020) established that attitudes toward internet banking are negatively impacted by perceived risk.

Another study by (Tan & Lim, 2018) found that customers with higher education levels and better digital literacy are generally more informed about digital banking risks, affecting their adoption decisions. Due to these perceived risks (Chen & Wang, 2019) added that financial institutions should implement robust security measures, display trust seals, and provide transparent privacy policies to rid customers of perceived risks. On the other hand, numerous studies have been conducted to analyse the relationship between perceived risk concerns and the adoption of digital banking services (Izza Fatima, & Muhammad Sohaib, 2022; Sulaiman & Jauhari, 2021). These studies have found that while customers initially may express concerns about perceived risk, they tend to diminish over time as they become more familiar with the digital banking system and its security features (Alfarizi, 2023). Additionally, the convenience and accessibility of digital banking services often outweigh any potential privacy and security concerns. According to (Ali et al., 2022), the security features offered by the banking platforms have created confidence in customers to adopt digital banking services outweighing the risks involved. Furthermore, it has been observed that perceived risk concerns are less important to users when compared to other factors, such as convenience, ease of use, and availability of services (Kesharwani & Bisht, 2012).

Therefore, the literature shows contrasting evidence in the relationship between perceived risk and the adoption of digital banking services. This indicates that there are gaps in the literature that need to be examined. Thus, the following hypothesis was developed:

H5: There is a significant relationship between perceived risk and consumers' intentions to adopt digital banking services.

2.8 Proposed Conceptual Framework

To investigate and determine the factors of perceived awareness, perceived ease of use, compatibility, trialability, and perceived risks, in adopting digital banking services, we proposed a conceptual framework as illustrated in Figure 1.

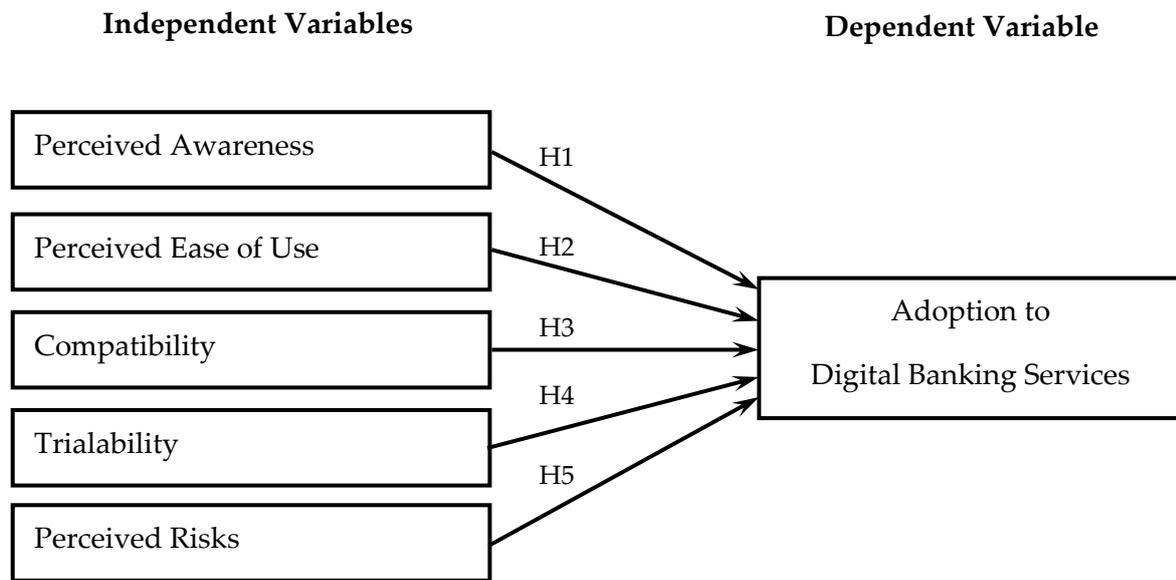


Figure 1: Proposed Conceptual Framework

3. Methodology

This section provides the population, sampling, measurements, reliability analysis, and descriptive statistics.

3.1 Population, Sampling & Measurements

According to Statista, Malaysia's internet users are expected to reach 28.7 million by 2025 (DOSM, 2022). Of these, 22.8 million are expected to use digital banking. This means the number of potential digital banking users in Malaysia is expected to grow significantly in the coming years. This study's target population is bank customers in Malaysia. According to the Department of Statistics Malaysia (DOSM), there were 27.7 million bank accounts in Malaysia as of December 2022. Of these, 19.4 million were active accounts. This means that there are a large number of potential digital banking users in Malaysia.

The study's target population also includes new and existing digital banking users. New users are included in the target population because they may become potential online banking or digital banking service users. Existing users are those who have been using digital banking services regularly to manage their finances and conduct transactions. The reason for choosing existing users is that it can discover ways to retain users to use digital banking continually and to identify the loyalty barriers to digital banking (Siyal et al., 2019). By studying this population, banks can gain valuable insights into attracting and retaining online and digital banking customers.

The sampling technique chosen for this research is convenience sampling, which falls under non-probability sampling. In addition, the primary aim of convenience sampling is to obtain data information from those people who are readily available to the researcher (Etikan, 2016). Lastly, one of the reasons for us to use convenience sampling

techniques is because this sampling is inexpensive and convenient, and the subjects are easy to access (Etikan, 2016).

The sample size for this study was determined using the (Krejcie & Morgan, 1970) tabulation. The tabulation shows the minimum sample size required for a given population and confidence level. Krejcie & Morgan's (1970) table shows that the minimum sample size required for a population of 22.8 million and a 95% confidence level is 384.

Data was collected using a closed-ended questionnaire for this study. To achieve the research objective and answer the research questions, 800 questionnaires were distributed using Google Docs. A total of 408 responses were received. Out of these, 16 responses were incomplete. According to (Hair et al., 2018), at least 50 samples and generally 100 samples for most research situations are adequate for regression analysis. Therefore, 392 responses are considered very good. The data was analysed using SPSS Version 29.

3.2 Reliability Analysis

Table 1: Reliability Analysis (N = 392)

Variable	Cronbach Alpha	No of Item
Adoption to Digital Banking Services	0.935	5
Perceived Awareness	0.865	5
Perceived Ease of Use	0.918	6
Compatibility	0.714	5
Trialability	0.806	5
Perceived Risk	0.929	5

Based on Table 1, Reliability Analysis, all the Cronbach's alpha coefficients for the independent and dependent variables were above 0.7. According to (George & Mallery, 2003), Cronbach's Alpha value above 0.70 is acceptable. Therefore, the reliability coefficients of this study indicate that the constructs are consistent and reliable, allowing for a more trustworthy analysis.

3.3 Mean and Standard Deviation Analysis

Table 2, Descriptive Statistics displays the mean and standard deviation.

Table 2: Descriptive Statistics (N = 384)

Factors	Mean	SD	Skew	Kurtosis	Min	Max
Adoption to Digital Banking Services	4.701	0.407	-0.934	-0.884	1	5
Perceived Awareness	4.739	0.329	-1.150	0.357	1	5
Perceived Ease of Use	4.881	0.266	-1.476	1.244	1	5
Compatibility	4.780	0.242	-0.997	0.720	1	5
Trialability	4.676	0.263	-1.470	1.656	1	5
Perceived Risk	4.200	0.390	1.503	0.581	1	5

From Table 2, the factor perceived ease of use shows the highest mean value of 4.881 ± 0.266 . The lowest mean value is perceived risk, 4.200 ± 0.390 . Additionally, the normality test in Table 2 indicates that the skewness and kurtosis values have a threshold of ± 2 ; therefore, the data are distributed normally, as cited by (Chinna & Yuen, 2015; Gravetter & Wallnau, 2014).

4.1 Findings & Interpretation

The following section provides the findings of this study, including the respondents' demographic profiles, descriptive, correlation, and regression analysis.

4.2 Respondents' Profile

The profile of the respondents studied is displayed in Table 3.

Table 3: Profile of Respondents (N = 392)

Demographic Factor	Frequency	Percent
Gender		
Male	143	37%
Female	249	64%
Age		
18-24 Years	26	7%
25-34 Years	160	41%
35-44 Years	120	31%
45-54 Years	70	18%
55-64 Years	16	4%
Educational Level		
Secondary School	54	14%
Diploma/Certification	95	24%
Bachelor's Degree	193	49%
Master's Degree	33	8%
Doctorate/PhD	17	4%
Income Level Per Annum		
Below RM30K	41	11%
RM30K - RM50K	47	12%
RM50K - RM100K	258	66%
RM100K - RM150K	46	12%
Banking Service Usage		
Digital Banking	25	6%
Both Online and Digital Banking	367	94%

According to the demographic analysis in Table 3 above, the number of responses collected is N=392. The demographics survey of respondents shows that the majority are females (64.0%). In terms of the age range, the majority are between 25 - 34 years old, which is 160 respondents or (41.0%). Regarding educational achievement, the majority of respondents have attained a bachelor's degree, which is 193 or (49.0%). In terms of the income range, the majority of the respondents earn between RM50000 – RM100000 per

annum, which is (66.0%). Finally, regarding banking service usage, a majority of 367 or (94%) of the respondents use both online and digital banking services.

4.3 Correlation Analysis

The Pearson's Correlation among variables in Table 4 shows the association between the variables tested in this study.

Table 4: Pearson' Correlation Matrix (N = 392)

	PAW	PEOU	COM	TR	PRS	ADB
Perceived Aware (AW)	1					
Perceived Ease of Use (PEOU)	0.564**	1				
Compatibility (COM)	0.344**	0.462**	1			
Trialability (TR)	0.507**	0.561**	0.328**	1		
Perceived Risk (PRS)	0.026	0.167**	0.065	0.340**	1	
Adopt Digital Banking (ADB)	0.305**	0.161**	0.077	0.144**	0.096	1

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

Based on Pearson's correlation matrix shown in Table 4, it was observed that the data significantly supported the measurement model. Pearson's Correlation Matrix reveals key relationships between perceived awareness, perceived ease of use, compatibility, trialability, perceived risk, and adoption of digital banking among respondents. Significantly, a strong positive correlation exists between one's perceived awareness of digital banking and their perceptions of its ease of use ($r = 0.564$; $p < 0.01$). Similarly, individuals more familiar with digital banking tend to find it more compatible with their day-to-day routines, as evidenced by a ($r = 0.344$; $p < 0.01$) correlation. This heightened perceived awareness also positively influences their trialability of digital banking services, with a correlation coefficient of ($r = 0.507$; $p < 0.01$).

However, when we look at perceived risk, there is little relationship between one's perceived awareness of digital banking services and how one perceives its risks, with a negligible correlation of ($r = 0.026$; $p > 0.01$). The positive correlation between perceived awareness and adoption rates of digital banking ($r = 0.305$; $p < 0.01$) suggests that increased knowledge does play a role in influencing adoption. Delving into the relationship between perceived ease of use and other factors, there is a notable positive correlation between compatibility ($r = 0.462$; $p < 0.01$) and trialability ($r = 0.561$; $p < 0.01$). However, the relationship between perceived ease of use and adoption, while positive, is not particularly strong at ($r = 0.161$; $p < 0.01$).

Interestingly, compatibility with users' needs and the willingness to try digital banking share a moderate positive correlation of ($r = 0.328$; $p < 0.01$). The link between compatibility and risk perception is relatively weak, evidenced by an ($r = 0.065$; $p > 0.01$) correlation. When examining the trialability of digital banking services and risk perception, a moderate positive correlation emerges at ($r = 0.340$; $p < 0.01$), suggesting that those more inclined to adopt digital banking might still have reservations about its associated risks. Lastly, while the connection between trialability and adoption is

positive, it is not overly compelling at ($r = 0.144$; $p < 0.01$). Furthermore, perceived risk only weakly correlates with adoption rates, signifying that perceived risk might not be a dominant factor hindering digital banking adoption in Malaysia.

This finding offers valuable insights for stakeholders aiming to bolster digital banking adoption in Malaysia. Raising awareness, enhancing the ease of use, and ensuring the platform's compatibility with users' needs are crucial strategies. While risk perception does play a role, there might be other deterrents in the adoption process.

4.4 Regression Analysis

Regression analysis is the statistical method used in this research to estimate the relationships between the five independent variables and a dependent variable.

Table 5: Model Summary^b

Model 1	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0.323 ^a	0.104	0.093	0.388
a. Predictors: (Constant), Perceived Awareness, Perceived Ease of Use, Compatibility, Trialability, Perceived Risk				
b. Dependent Variable: Adoption of Digital Banking Services				

The regression model was employed to understand the influence of various acceptance factors on the adoption of digital banking services in Malaysia.

Based on Table 5 Model Summary, the Multiple Correlation Coefficient ($R = 0.323$) suggests a moderate relationship between the combined predictors (Perceived Awareness, Perceived Ease of Use, Compatibility, Trialability, Perceived Risk) and the dependent variable (Adoption of Digital Banking Services). Therefore, the model summary indicates that the combined acceptance factors moderately correlate with the adoption of digital banking services.

Next, The Coefficient of Determination ($R^2 = 0.104$) denotes that the independent variables in the model can explain approximately 10.4% of the variation in the adoption of digital banking services. This value indicates a relatively low proportion, suggesting that other unmeasured factors might significantly influence digital banking services adoption in Malaysia.

Subsequently, the Adjusted $R^2 = 0.093$ is a refined version of the coefficient of determination value (R^2). This value takes into account the number of predictors in the model and provides a more accurate representation of the goodness of fit for the model, especially when there are multiple predictors. In this case, about 9.3% of the variance in the adoption of digital banking services is accounted for by the predictors after adjusting for the number of predictors.

Finally, the Standard Error of the Estimate value (0.388) represents the standard deviation of the residuals or prediction errors. The smaller this value, the better the model's fit to the observed data. In this case, on average, the predictions made by the

model are 0.388 units away from the actual observed values of digital banking adoption. It provides a measure of the overall accuracy of the model.

Thus, while the acceptance factors studied (Perceived Awareness, Perceived Ease of Use, Compatibility, Trialability, Perceived Risk) have a relationship with the adoption of digital banking services in Malaysia, they explain only a modest portion (around 9.3% after adjustment) of the variability in the adoption rates. This suggests that other significant factors not included in this model influence the adoption of digital banking services. The research could benefit from exploring additional factors or delving deeper into the interactions between the existing ones to gain a more comprehensive understanding of digital banking adoption in Malaysia.

Table 6: Analysis of Variance

Model 1	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.752	5	1.350	8.980	0.001 ^b
Residual	58.047	386	0.150		
Total	64.800	391			
a. Predictors: (Constant), Perceived Awareness, Perceived Ease of Use, Compatibility, Trialability, Perceived Risk					
b. Dependent Variable: Adoption of Digital Banking Services					

Table 6 Analysis of Variance (ANOVA) was conducted to assess the significance of the regression model in predicting the adoption of digital banking services based on acceptance factors (Perceived Awareness, Perceived Ease of Use, Compatibility, Trialability, Perceived Risk).

From the ANOVA table, we can glean several vital insights. The "Regression" row provides details related to the variance explained by the model, while the "Residual" row highlights the unexplained variance. The combined variance from the regression and residuals amounts to a total sum of squares of (64.800), as detailed in the "Total" row.

The model's sum of squares is (6.752) with (5) degrees of freedom, which represents the number of predictors (Perceived Awareness, Perceived Ease of Use, Compatibility, Trialability, Perceived Risk). This provides an average mean square for the model of (1.350). The residual sum of squares is (58.047), distributed across 386 degrees of freedom, which gives an average residual mean square of (0.150).

The F-statistic, essential in determining the model's overall significance, is calculated as (8.980). This value gauges the joint effect of all the predictors in explaining the variance in the dependent variable (Adoption of Digital Banking Services). The corresponding significance value ($p = 0.001$) indicates that the regression model is statistically significant. This means that at least one of the predictors in the model has a significant relationship with the adoption of digital banking services.

Hence, the ANOVA table results substantiate the regression model's significance. The combined effects of the acceptance factors significantly influence the adoption of digital banking services in Malaysia.

Table 7: Coefficients

Model 1 Coefficients	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.874	0.481		5.971	0.000
Perceived Awareness	0.425	0.077	0.344	5.541	0.000
Perceived Ease of Use	-0.013	0.102	-0.009	-0.131	0.896
Compatibility	-0.045	0.092	-0.027	-0.494	0.622
Trialability	-0.082	0.1	-0.053	-0.818	0.414
Perceived Risk	0.114	0.055	0.108	2.068	0.039
Dependent Variable: Adoption of Digital Banking Services					

Table 7, Coefficients, provides a detailed breakdown of the contribution and significance of each predictor in the regression model concerning the adoption of digital banking services.

The unstandardized coefficient value of the constant is ($B = 2.874$), with a standard error of (0.481), this gives a t-value of (5.971; $p < 0.05$), indicating that the constant is statistically significant.

The first predictor variable, Perceived Awareness ($B = 0.425$), with a standard error of (0.077). The standardized coefficient (Beta) for Perceived Awareness (Beta = 0.344). This suggests that for every unit increase in Perceived Awareness, there is an expected increase of (0.425) units in the Adoption of Digital Banking Services, keeping other factors constant. The ($t = 5.541$; $p < 0.05$) indicates that Perceived Awareness is a statistically significant predictor in the model.

In contrast, the second predictor variable, Perceived Ease of Use ($B = -0.013$), implies a slight decrease in the Adoption of Digital Banking Services for every unit increase in this predictor. However, ($t = -0.131$; $p > 0.05$) denotes that Perceived Ease of Use is not a significant predictor in the model.

Similarly, for the predictor variable Compatibility ($B = -0.045$), suggesting a minor decrease in the dependent variable for each unit increase in Compatibility. However, the ($t = -0.494$; $p > 0.05$) indicates that Compatibility is statistically insignificant in predicting digital banking adoption.

Next, the predictor variable Trialability too displays a negative relationship with the dependent variable ($B = -0.082$). However, ($t = -0.818$; $p > 0.05$) shows that Trialability does not significantly impact the Adoption of Digital Banking Services.

Lastly, the predictor variable Perceived Risk ($B = 0.114$) indicates that as the perception of risk increases, there is a slight increase in the Adoption of Digital Banking Services. The ($t = 2.068$; $p < 0.05$) confirms that Perceived Risk is a significant predictor.

Thus, among the acceptance factors in the regression model, only Perceived Awareness and Perceived Risk emerge as significant predictors for the Adoption of Digital Banking Services in Malaysia. The other predictor variables (Perceived Ease of

Use, Compatibility, and Trialability) do not have a statistically significant relationship with the responding variable (Adoption of Digital Banking Services) in Malaysia. This suggests that awareness of the digital banking service and its perceived risks play more significant roles in influencing adoption behaviour than the other factors in this study.

4.5 Summary of Hypothesis Test

Table 8: Summary of Hypothesis Results (N = 392)

Hypothesis	p-Value	Result
H1: There is a significant relationship between perceived awareness and consumers' intentions to adopt digital banking services	0.000	<0.05
H2: There is a significant relationship between perceived ease of use and consumers' intentions to adopt digital banking services	0.896	> 0.05
H3: There is a significant relationship between compatibility and consumers' intentions to adopt digital banking services?	0.622	> 0.05
H4: There is a significant relationship between trialability and consumers' intentions to adopt digital banking services?	0.414	> 0.05
H5: There is a significant relationship between perceived risks and consumers' intentions to adopt digital banking services?	0.039	< 0.05

This study posited several hypotheses to determine the relationships between various acceptance factors and consumers' intentions to adopt digital banking services in Malaysia. Table 8, Summary of the Hypothesis, provides the following results:

Firstly, Hypothesis (H1) explored the relationship between perceived awareness and consumers' intentions toward digital banking adoption ($p = 0.000$). Given that this value is less than the standard significance threshold of 0.05, H1 is supported. This suggests that there is indeed a significant relationship between perceived awareness and consumers' inclinations to adopt digital banking services in Malaysia.

Hypothesis (H2) examined the influence of perceived ease of use on consumers' intentions. The ($p = 0.896$, which exceeds the 0.05 threshold, H2 is not supported. This indicates that the factor perceived ease of use does not hold a statistically significant relationship with the intention to adopt digital banking services in this study.

The relationship between compatibility and consumers' adoption intentions was tested in Hypothesis (H3). The ($p = 0.622$), greater than 0.05, suggests that data do not support H3. This infers that compatibility does not significantly shape consumers' intentions to adopt digital banking services in Malaysia.

Hypothesis (H4) concerned the association between trialability and consumers' adoption intentions. The ($p = 0.414$), which is above the 0.05 benchmark, indicates that H4 is not supported, implying that trialability is not a significant determinant of adoption intentions in this study.

Lastly, Hypothesis (H5) explored the relationship between perceived risks and consumers' intentions to adopt digital banking services in Malaysia. The p-value for H5 is (0.039), which is below the 0.05 threshold. This supports H5, highlighting that

perceived risk is a significant determinant of digital banking services adoption in this study.

Therefore, out of the 5 hypotheses presented, only 2, namely H1 and H5, are supported by the data. This signifies that perceived awareness and perceived risks play a significant role in shaping consumers' intentions to adopt digital banking services in Malaysia. On the contrary, factors such as perceived ease of use, compatibility, and trialability do not significantly influence consumers' adoption intentions based on this study's findings.

5. Discussion

In this section, this study has attempted to answer the 5 research questions put forward.

5.1 There is a Significant Relationship between Perceived Awareness and Consumers' Intentions to Adopt Digital Banking Services in Malaysia

Within the context of this research, the aim of the first research question was to ascertain the relationship between perceived awareness and the intentions of consumers to adopt digital banking services. Grounded within the conceptual framework of the Technology Acceptance Model (TAM), this research revealed compelling findings that enrich the ongoing discourse surrounding digital banking adoption.

To start, the results affirmatively support Hypothesis (H1), revealing a statistically significant relationship between perceived awareness and the consumers' inclinations to adopt digital banking services in Malaysia. This underscores the overarching sentiment in existing literature that illuminates perceived awareness as a catalyst for technological adoption, especially in the domain of banking.

The importance of perceived awareness is reflected extensively in previous research. For example, the works of (Laforet & Li, 2005; Sathye, 1999) pinpoint the detriment of a low degree of awareness in deterring customers from adopting digital banking services. Further supporting this narrative, (Hanafizadeh & Khedmatgozar, 2012) emphasized how awareness can mitigate consumers' perceived risks, suggesting that an informed consumer is more likely to embrace and trust digital banking services. Similarly, studies focusing on specific demographics, such as (Veena & Janarthananpillai, 2022), have revealed that the elderly tend to distance themselves from digital banking due to a sheer lack of awareness. Such findings mirror (Anouze & Alamro, 2020) assertion that unawareness of digital banking's existence is a prime factor obstructing its widespread adoption.

However, what makes this research's findings particularly intriguing is their juxtaposition against contrasting studies within the domain. While the results champion the positive association between perceived awareness and digital banking adoption, works such as (Al-Fahim, 2012) study among Malaysian university students highlight a significant negative relationship between the two. Additionally, (Aboobucker, 2021) research in Sri Lanka, too, did not find a significant relationship between perceived

awareness and the adoption of digital banking services. These contrasting findings are negated by this research.

Therefore, this research magnifies the role of perceived awareness as a pivotal determinant for the adoption of digital banking services in Malaysia. While the prevailing literature predominantly endorses this correlation, conflicting studies highlight the complexity and fluidity of the relationship.

Additionally, the banking sector, particularly in Malaysia, should invest in increasing consumer awareness about the myriad of digital banking services on offer. Based on the findings of this research, it is evident that well-informed consumers are more likely to harness the advantages of digital banking, thus potentially paving the way for enhanced financial inclusivity and digital transformation. Hence the findings of this study have answered the first research question.

5.2 There is a Significant Relationship between Perceived Ease of Use and Consumers' Intentions to Adopt Digital Banking Services

The second research question endeavoured to delve deep into the intricate connection between perceived ease of use (PEOU) and consumers' intentions to adopt digital banking services. Employing the well-established Technology Acceptance Model (TAM) as its theoretical foundation, the study navigated through this relationship with the objective of understanding its implications in the real-world setting, particularly in the realm of digital banking.

Surprisingly, the findings stand in contrast to the majority of extant literature. Moreover, this study demonstrates that there is an insignificant relationship between perceived ease of use and intentions to adopt digital banking services. With a p-value of 0.896, which far exceeds the conventional significance threshold of 0.05, Hypothesis H2 does not gain support from the data analysed.

Historically, PEOU, a cornerstone of TAM, has been recognized as an influencer of technological adoption. In the context of digital banking, a swath of studies such as those by (Denis et al., 2022; Ali et al., 2019; Rodrigues et al., 2016) consistently reinforce the assertion that a platform perceived as user-friendly attracts more users. Moreover, research by (Mattila et al., 2003; Suhaimi & Hassan, 2018) underscored the deterring nature of perceived complexities in technological interfaces, especially for specific demographics like the elderly and Generation Y, respectively. These previous findings are annulled by this research result.

However, there's an emergent subcurrent within the literature that resonates with this research results. The works of (Smith & Johnson, 2017) starkly deviate from the prevailing narrative, underscoring perceived usefulness of PEOU as the primary driver for the adoption of digital banking services. Similarly, (Brown et al., 2018; Eriksson et al., 2005) have also hinted at a weak or even non-existent correlation between PEOU and digital banking adoption.

This divergence in findings invites a myriad of interpretations and contemplations. It's plausible that, as digital technologies become more ubiquitous and

the population becomes more tech-savvy, the initial "ease of use" loses its weight as a primary determinant. Instead, factors like the usefulness, security, or range of features offered by digital banking platforms could overshadow sheer usability in driving adoption intentions.

Additionally, geographical, cultural, and demographic differences could play a role in the variable importance of PEOU across studies. It is also conceivable that as the digital banking industry matures, features that were once considered innovative and beneficial due to their simplicity become baseline expectations, rendering PEOU less impactful.

Therefore, the findings of this research might seem antithetical to the dominant trend in the literature, they emphasize the continually evolving nature of consumer behaviour, especially in the dynamic domain of digital banking. As the digital landscape evolves, so do the factors that influence consumers' adoption patterns. Hence the findings of this study have answered the second research question.

5.3 There is a Significant Relationship between Compatibility and Consumer's Intentions to Adopt Digital Banking Services

The relationship between compatibility and consumers' intent to adopt digital banking services is the third research question this study aimed to answer. Based on this research, the hypothesis (H3) that aimed to determine a significant relationship between compatibility and consumer's intentions to adopt digital banking services was not supported by the data ($p = 0.622$). In the context of Malaysia, this implies that compatibility might not be a primary driver for consumers' adoption intentions.

Utilizing the Technology Acceptance Model (TAM) as a foundational framework, the study aimed to decipher the underpinnings of technology adoption, with an emphasis on perceived usefulness, ease of use, and other external attributes (Safari, et al., 2020). Prior studies, such as those by (Tiong, 2020; Alalwan et al., 2017), emphasized the significance of perceived usefulness, ease of use, and the incorporation of trust in technology acceptance. However, in this study, even with TAM as the guiding model, compatibility did not emerge as a significant factor in influencing consumers' intentions to adopt digital banking services.

The literature, at large, presents a mixed picture. On one hand, studies have attested to the vital role compatibility plays in digital banking adoption. Duc (2022) and Al-Jabri (2015) posited the importance of aligning digital banking services with users' needs and preferences. Similarly, a plethora of research (Lee & Tan, 2017; Hanafizadeh & Khedmatgozar, 2012; Johnson et al., 2019; Du et al., 2012; Püschel et al., 2010) supports the assertion that perceived compatibility significantly influences the uptake of digital banking services, both globally and specifically within Malaysia (Massilamany & Nadarajan, 2017).

Contrastingly, findings from studies such as those by (Ni, 2020) in Malaysia and (Abayomi et al., 2019) in Nigeria echo the results of this research results, indicating a weak or non-significant relationship between compatibility and the intention to adopt

digital banking services. Additionally, (Mukhlis, 2014) argued that compatibility does not positively influence the intent to adopt such services which is in line with this research.

Furthermore, while compatibility in terms of technology might be essential for certain demographics, age, as a proxy for compatibility, was found not to influence digital banking adoption in the Nigerian context (Abayomi et al., 2019). This suggests that adoption could be contingent on a myriad of factors, not just technological compatibility. For instance, perceived lifestyle compatibility could have a bearing on adoption intentions, as presented by (Chawla & Joshi, 2017), or external influences such as reference groups, as mentioned by (Kotler & Keller, 2012).

Therefore, while compatibility is often touted as a crucial element in the adoption of technological innovations, these research findings, in tandem with several other studies, challenge this prevailing notion, at least in the context of digital banking services in Malaysia. The varied findings across the literature underline the multifaceted nature of technology adoption and the need for further nuanced investigations to disentangle the complex web of factors influencing users' adoption intentions. Hence the findings of this research have answered the third research question.

5.4 There is a Significant Relationship between Trialability and Consumer's Intentions to Adopt Digital Banking Services

The concept of trialability is rooted in the idea that consumers feel more comfortable adopting a product or service if they have had a chance to experiment with it beforehand. Within the scope of this study, the fourth research question sought to understand if there's a significant relationship between trialability and the intentions of consumers to adopt digital banking services. The results ($p = 0.414$) suggest that, contrary to certain literature expectations, trialability might not be a dominant factor influencing the adoption intentions of digital banking services in Malaysia.

Moreover, this research is set against the backdrop of the Technology Acceptance Model (TAM), a well-established theory that has illuminated many aspects of technology adoption over the years. With its primary pillars being perceived usefulness (PU) and perceived ease of use (PEOU), TAM provides a robust scaffold for understanding various factors impacting users' attitudes toward technological adoption.

The literature paints a somewhat positive relationship between trialability and the adoption of digital banking services. Pobee (2021) and Shia et al. (2015) posit that trialability can positively influence the uptake of digital banking services. Moreover, studies like (Rogers, 2003; Agarwal & Prasad, 1998) emphasize that the opportunity to test a product can bolster its adoption. Such findings are echoed by various researchers (Mukhlis, 2014; Tan & Teo, 2000; Yoon & Lim, 2020; Haider & Akram, 2017) who emphasize that hands-on experience can reduce uncertainties, amplify the perceived usefulness, and hence, foster the overall adoption rate of digital banking.

However, it is crucial to note that the positive influence of trialability is not universal. While (Ni, 2020) found a favourable relationship between trialability and digital banking adoption in Malaysia, contrasting findings are evident in the literature to

support this research. For instance, (Sivaram & Satheesh, 2021) outline how multiple factors, such as shifting dynamics between banks and consumers or personal factors affecting change readiness, can influence trialability. Another pivotal point raised by (Johar & Suhartanto, 2019) is the complexity of the digital banking service. As sophistication increases, consumers might feel more apprehensive, thus potentially reducing their willingness to try and eventually adopt the service. This nuance highlights that while trialability is a valuable tool, its efficacy can be curtailed if the service or product in question is deemed too intricate by potential users.

Besides, the broader literature often underscores the positive effects of trialability on the adoption of digital banking services, this research, conducted within the Malaysian context, finds no significant relationship. This divergence underlines that while trialability can indeed be influential, its impact might vary across different settings and populations, shaped by myriad factors such as cultural norms, technological savviness, and prior experiences with banking systems. Hence the findings of this research have answered the fourth research question.

5.5 There is a Significant Relationship between Perceived Risks and Consumer's Intentions to Adopt Digital Banking Services

The final research question was to unravel the nexus between perceived risks and consumers' intentions to embrace digital banking services, particularly within the Malaysian context. Grounded on the esteemed Technology Acceptance Model (TAM), the exploration endeavoured to unveil the intricacies of how perceptions of risk could potentially sway decisions surrounding the adoption of digital banking services in Malaysia.

The findings from this study align with the majority sentiment within the existing body of literature that perceived risks indeed play a significant role in shaping intentions to adopt digital banking services, as evidenced by the p-value of 0.039 which is below the 0.05 threshold. This implies that, for the Malaysian context under study, apprehensions related to risks significantly affect the probability of consumers embracing digital banking.

The broader literature underscores that perceived risks often manifest as concerns related to security and privacy, and these apprehensions can have a sizeable deterrent effect on digital banking adoption. Studies by (Lee, 2009); Featherman & Pavlou, 2003), have identified perceived risks as formidable barriers to the acceptance of digital banking. This sentiment is further echoed by works such as those by (Sivaram & Satheesh, 2021; Johnson & Brown, 2018; Mbama & Ezepeue, 2018), where risk perceptions, particularly those associated with financial insecurities, were paramount in dissuading consumers from digital banking.

The present-day digital landscape, marred by numerous instances of cyberattacks, data breaches, and concerns surrounding identity theft, as highlighted by (Chen & Chan 2019; Wang et al., 2018), only exacerbates these perceptions. The notion that well-informed or digitally literate individuals might be more averse to digital banking, as

suggested by (Tan & Lim, 2018), provides an interesting dimension to this study. It postulates that greater awareness might, in some cases, work counterproductively, leading to heightened apprehensions.

Yet, the literature is not univocally leaning towards perceived risks as a steadfast impediment. Some narratives, like those from (Alfarizi, 2023; Izza Fatima, & Muhammad Sohaib, 2022; Sulaiman & Jauhari, 2021), present a more dynamic portrayal, suggesting that while initial trepidations surrounding risks exist, they diminish with growing familiarity. The allure of convenience, accessibility, and enhanced features often trumps risk concerns, especially when security measures are robust and confidence-inspiring.

This juxtaposition within the literature of risk perceptions acting as barriers and yet, over time, being overshadowed by the benefits of digital banking is intriguing. It points towards a complex interplay of trust, technological advancements, user experience, and consumer education in shaping adoption patterns.

To navigate this complexity, banks and financial institutions, as advocated by (Chen & Wang, 2019), must prioritize robust security protocols, ensure transparency, and foster consumer trust. Only by striking a balance between innovation and security can they assuage concerns and promote broader adoption.

Therefore, this research verifies the weight of perceived risks in the decision-making processes surrounding digital banking adoption in Malaysia. Hence the findings of this research have answered the fifth research question.

6. Conclusion

In this section, the conclusion of this study is presented to bridge the gap in the literature.

6.1 To Investigate If There Is a Significant Relationship between Perceived Awareness and Consumers' Intentions to Adopt Digital Banking Services

The first objective of this research was to investigate the influence of perceived awareness on consumers' intentions to adopt digital banking services in Malaysia. Grounded in the Technology Acceptance Model (TAM), the research conclusively unveiled that perceived awareness plays a crucial role in influencing the consumer's inclination toward digital banking.

The study definitively supports the hypothesis (H1) that there exists a significant positive relationship between perceived awareness and the adoption of digital banking services among Malaysian consumers. This finding is in synchrony with the majority of previous literature that emphasizes the importance of awareness in determining the acceptance of digital services, particularly in the banking sector. Historical studies by (Veena & Janarthananpillai, 2022; Anouze & Alamro, 2020; Hanafizadeh & Khedmatgozar, 2012; Sathye, 1999; Laforet & Li, 2005) all underline the pivotal role of awareness in propelling digital banking adoption.

However, the research's uniqueness and significance lie in its affirmation of the positive relationship in the face of contrasting findings from studies such as (Aboobucker,

2021; Al-Fahim, 2012). These contrasting works revealed either a negative relationship or no significant relationship between perceived awareness and digital banking adoption, emphasizing the complex dynamics that underpin this relationship.

For the Malaysian banking sector, these findings illuminate a clear path: investing in efforts to bolster consumer awareness about digital banking services can likely propel increased adoption rates. Given the strong correlation between perceived awareness and consumers' willingness to adopt, it becomes paramount for financial institutions to prioritize informative campaigns, workshops, and educational initiatives. As the research conclusively answers its first research question, it also contributes to bridging the existing gaps in the literature, offering valuable insights into Malaysia's digital banking landscape and the pivotal role of consumer awareness within it.

6.2 To Investigate If There Is a Significant Relationship between Perceived Ease of Use and Consumer's Intentions to Adopt Digital Banking

The second objective of this research was to investigate the relationship between perceived ease of use (PEOU) and consumers' intentions to adopt digital banking services. Centralized within the Technology Acceptance Model (TAM) framework, the study intended to discern the impact of the usability factor on the adoption of digital banking.

Contrary to much of the prevailing literature, the findings showcased an insignificant relationship between PEOU and the adoption intentions of digital banking services. This research is contrary to numerous studies that have historically elevated PEOU as a significant determinant for technological adoption.

While the findings may initially appear discordant with the dominant narrative, they do find alignment with a growing subset of the literature, like the works of (Smith & Johnson, 2017; Brown et al., 2018; Eriksson et al., 2005) This body of research too intimates that PEOU may not be as dominant a force as previously thought, especially in the context of digital banking adoption.

As an attempt was made to decipher this shift, a few plausible interpretations arise. The omnipresence of digital technologies may be evolving the relationship with usability; as general technology proficiency heightens; PEOU might be losing its pronounced influence on adoption decisions. Instead, the usefulness, security measures, and array of features that digital banking platforms proffer could be rising as more significant factors shaping consumers' choices.

Geographical nuances, cultural distinctions, and demographic variables might also be tweaking the significance of PEOU across different studies. Furthermore, as the industry of digital banking ripens, what was once perceived as innovative and easy-to-use might now be deemed as basic requirements.

Therefore, this research contradicts a sizeable chunk of established literature, it underscores a pivotal reality that consumer behaviour, particularly in the fast-evolving domain of digital banking, remains fluid and ever-changing. This research's findings not only answer the second research objective but also fortify an understanding of the

multifaceted influences on digital banking adoption, thereby bridging gaps in the existing literature. As the digital banking arena progresses, it's imperative to re-evaluate and adapt to the changing preferences and priorities of consumers.

6.3 To Examine If There is a Significant Relationship between Compatibility and Consumer's Intentions to Adopt Digital Banking

The third research objective set out to examine the nuanced relationship between compatibility and consumers' intent to adopt digital banking services. Within the Malaysian context, the findings suggest a noteworthy deviation from conventional wisdom.

Despite the Technology Acceptance Model (TAM) guiding this investigation, this research indicates that compatibility does not significantly drive consumers' intentions to adopt digital banking services. Such a result seems antithetical when juxtaposed against previous literature. Many studies, like those of (Duc, 2022; Al-Jabri, 2015; Lee & Tan, 2017; Hanafizadeh & Khedmatgozar, 2012; Massilamany & Nadarajan, 2017) have consistently emphasized the importance of compatibility, highlighting its pivotal role in determining technology adoption rates.

However, the realm of academic discourse is not unidimensional. Echoing the findings, research by (Ni, 2020; Abayomi et al., 2019; Mukhlis, 2014) has similarly pointed towards a weakened or non-existent correlation between compatibility and intentions to adopt digital banking services. Such a perspective suggests that compatibility might not be the panacea for enhancing digital banking adoption rates, at least not in all contexts or regions.

Delving deeper, while technological compatibility is a substantial determinant for certain user groups, factors, like perceived lifestyle compatibility or external influences, might play an equally, if not more, influential role in shaping adoption patterns. This lends weight to the argument that technological adoption, especially within the digital banking domain, is influenced by a tapestry of interconnected factors, transcending the confines of mere compatibility.

Therefore, this research casts light on the intricate and ever-evolving landscape of digital banking adoption in Malaysia. While compatibility has historically been heralded as a cardinal determinant, these findings, bolstered by several other research endeavours, bring this assertion into question. Such a revelation not only provides answers to the third research objective and bridges the gap in the literature but also enriches the academic dialogue surrounding digital banking adoption, uncovering a rich tapestry of factors that influence consumer behaviour in the digital age. As the digital banking sector continues its relentless evolution, it's crucial for practitioners and researchers alike to remain agile, adapting to the shifting sands of consumer preferences and perceptions.

6.4 To Examine If There is a Significant Relationship between Trialability and Consumer's Intentions to Adopt Digital Banking

The fourth objective of this research is to examine if trialability plays a significant role in influencing consumers' intentions to adopt digital banking services in Malaysia. Anchored in the foundational concept that individuals are more inclined to adopt a technology they can experiment with, trialability has long been championed as a significant factor in technology acceptance across various domains.

Notwithstanding the overarching belief in the power of trialability, our research findings present an intriguing twist in the narrative. The investigation discerns no significant relationship between trialability and the adoption intentions of digital banking services within the Malaysian context. This outcome poses a stark contrast to a significant portion of extant literature, wherein studies by esteemed scholars such as (Pobee, 2021; Shia, 2015; Rogers, 2003; Agarwal & Prasad, 1998) advocate for the positive influence of trialability in fostering digital banking adoption.

However, the landscape of scholarly discourse is variegated and, in the case of trialability, far from monolithic. As pointed out by (Sivaram, Satheesh, 2021; Johar & Suhartanto, 2019) the mere opportunity for trial does not guarantee adoption. External factors, such as the dynamics between service providers and consumers, personal readiness for change, or the complexity and perceived intricacy of the digital banking platform, can significantly modulate the impact of trialability. As such, while experimentation might eliminate some uncertainties, it might inadvertently introduce others, especially if the service in question appears daunting or excessively sophisticated to potential users.

Therefore, this research amplifies the idea that the sphere of digital banking adoption in Malaysia, like in many other locales, is a complex tapestry woven with multifaceted threads of influencing factors. While trialability has historically been hailed as one of these decisive threads, this research findings caution against an oversimplified interpretation of its role. The essence of this research resonates with the ever-evolving and dynamic nature of consumer behaviour, shedding light on the need for continued, context-specific research to demystify the myriad determinants of digital banking adoption. Through addressing the fourth research objective, this investigation not only enriches the existing body of literature and bridges the gap but also beckons the academic and industry stakeholders to reconsider and recalibrate their assumptions regarding the power of trialability in the realm of digital banking.

6.5 To Examine If There is a Significant Relationship between Perceived Risks and Consumer's Intentions to Adopt Digital Banking

The fifth research objective was to examine the relationship between perceived risks and consumers' intent to adopt digital banking services. Embedded within the expansive corridors of the Technology Acceptance Model (TAM), the findings from this research emphatically resound with a significant portion of the existing literature, confirming the substantial influence of perceived risks on the adoption dynamics.

With a significant finding, the evidence indicates that the Malaysian digital banking landscape is substantially punctuated by consumer apprehensions surrounding risks. These trepidations, as corroborated by esteemed scholars like (Johnson et al., 2019; Featherman, 2003; Lee, 2009) majorly center around security concerns, which form an imposing barrier in the acceptance trajectory. The heightened anxiety surrounding digital banking, amplified by recurrent cyber threats and breaches, can deter potential users, especially those well-versed in the digital domain. Ironically, as this research postulates, deeper awareness can, in certain contexts, intensify these fears.

However, the tale of perceived risks does not end in steadfast resistance. Contrary narratives from scholars such as (Izza Fatima, & Muhammad Sohaib, 2022; Sulaiman & Jauhari, 2021; Alfarizi, 2003) present a more fluid picture. They suggest an intriguing transition, where initial fears, while valid, can recede, making way for the allure of convenience and the promise of robust security. This duality within the narrative accentuates that while perceived risks are impactful, they are not insurmountable. For banks and financial institutions eager to expand their digital footprint, the message is clear that while innovation is essential, it must be intertwined with airtight security and an unwavering commitment to building consumer trust. By achieving this synergy, banks can not only address apprehensions but can also channelize them, converting perceived barriers into opportunities for enhanced consumer engagement.

Therefore, this research affirms the significant role of perceived risks in the narrative of digital banking adoption in Malaysia. Hence, this research not only addresses the fifth research objective but also bolsters and bridges the gap in the literature. This finding acts as a lighthouse for policymakers, banking institutions, and future researchers to navigate the intricate waters of digital banking in Malaysia and beyond.

7. Limitations and Further Research

Firstly, this research has not considered all the external factors that might impact digital banking adoption. Adoption rates may be influenced by factors such as changes in economic situations, government regulations, or technology breakthroughs that occur after the study period. These external factors are beyond the scope of the study and may restrict the findings' accuracy and application in the evolving digital banking ecosystem. Secondly, this research only concentrates on variables influencing initial adoption rather than long-term adoption and continued use of digital banking services. Long-term adoption patterns and variables that influence sustained use may differ from initial adoption. As a result, the study may not provide an accurate picture of digital banking use in Malaysia.

Thus, it is essential to recognise these limitations and take them into account when evaluating the research findings in the future. Future research can address these limitations by using more extensive and diverse samples, conducting longitudinal research, and including objective measures and self-reported data, resulting in a more

comprehensive understanding of the factors influencing digital banking adoption in Malaysia.

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Conflict of Interest Statement

The authors of this research would like to assert that there are no conflicts of interest linked with this research, and it was not supported by anyone who could have influenced its results. As the researchers of this study, the authors authenticate its originality, accentuate that this research has not been published previously, and validate that it is not presently intended for publication elsewhere.

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