



DIGITAL TRANSITION AT GOLDEN YEARS: UNCOVERING WHAT FUELS, THE SHIFT TO DIGITAL BANKING SERVICES AMONG MALAYSIAN SENIORS

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Abstract:

The purpose of this research is to identify the factors that affect the behavioural intention to adopt digital banking among senior citizens in Malaysia. The adoption of digital banking among senior citizens is relatively low compared to the younger generation. Therefore, a survey was conducted to evaluate the factors that affect the behavioural intention to adopt digital banking among senior citizens in Malaysia. 390 questionnaires were collected from senior citizens in Malaysia's Klang Valley. Based on the data collected, correlation analysis and multiple regression analysis were used to evaluate the responses. The findings suggested that performance expectancy, effort expectancy, price value, habit, social influence, and hedonic motivation significantly influence the behavioural intention to adopt digital banking among senior citizens in Malaysia. This study's findings will allow banks, financial institutions, and policymakers to broaden their understanding of what drives the adoption of digital banking services and the obstacles that stand in the way of adopting these services. The results from this study can aid financial institutions and the banking sector in improving or enhancing these factors so that elderly banking consumers can benefit and experience the total value offered by the banking sector. The banking sector should develop digital banking services appropriately to entice senior citizens to use digital banking services. The digital banking platform should be aesthetically designed to improve senior citizens' experiences. The marketing of digital banking could be strategized based on the factors studied in this research.

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1. Introduction

The innovation of the internet has revolutionised how banking is conducted. The banking sector has embraced technological innovation to offer its users financial services that are convenient and uncomplicated (Jain, 2022). The benefit of digital banking is not only to the customers but also to the bank. Digitalization has increased the efficiency of the bank while reducing operational costs as a lesser workforce is needed. Digital banking has become normalised, and it is essential in today's lifestyle. Most of the banks' customers have access to the online banking service. They can do banking transactions conveniently anytime and anywhere.

According to a study, factors such as performance expectancy, effort expectancy, price value, facilitating conditions, and habit have a favourable impact on behavioural intent and, as a result, the adoption of online banking among consumers. Meanwhile, hedonic motivation and social influence had a negative relationship and were unimportant for behavioural intention (Mohd Thas Thaker, 2022).

Another study shows that perceived benefits influenced the adoption of online banking decisions more than perceived risks did, and it has been determined that perceptions of benefit play a crucial role in influencing how people adopt digital banking (Jain, 2022). This suggests that users are optimistic despite the significant market constraints associated with utilising online banking. The study also considered how different generational cohorts perceive things.

According to (Afroze, 2022), there is a discrepancy between mobile financial service registered users and active users, and certain intriguing elements have been identified as contributing to this phenomenon. Dependency, a lack of fundamental digital literacy, a lack of perceived utility, a lack of perceived usability, security worries, and transaction expenses are some of them.

This research aims to identify the factors affecting the behavioural intention to adopt digital banking among Malaysian senior citizens. Initially, this chapter will cover a statement of the research problem. Next, this chapter will provide the objective of the study, research questions, and hypotheses. Finally, the significance of the study and chapter layout will be deliberated.

1.1 Research Problem Statement

Age has been investigated as a demographic factor influencing the adoption of technology. Several studies have discovered a link between getting older and being less likely to adopt new technology (Chung, 2010). According to (Michael Harris, 2022), a person's actual age can have an impact on how willing they are to adopt new technology. The consequence is that a decision about adoption in the future can be understood by looking at how elderly people now choose to adopt. The future adoption decision can be

understood by studying how the elderly of today make a current adoption decision (Harris, 2016).

Digital banking adoption among senior citizens is still relatively low compared to other age groups. More than half of non-internet users in Malaysia (51.8%) are 60 years of age or older, which also contributes to the lowest number of senior citizens using digital banking, according to a 2020 survey by the Malaysian Communications and Multimedia Commission.

The long-awaited digital banking licence from Bank Negara Malaysia was finally made public in 2022 (Xiao, 2022). Banks must offer underserved and neglected groups a digital financial solution, including Malaysia's increasingly ageing elders. With more than 7% of the population being over 65, Malaysia had already transitioned into an "ageing society" by 2020. It is on its way to becoming an "aged society" by 2044 and a "super-aged society" by 2056, with 14 and 20 percent of the population aged 65 and older, respectively. The growing senior population is a business from the perspective of online banking. In terms of monthly wages, people 50 to 54 and 55 to 59 years old are in the top two positions. Hence, it is crucial to assure that this population is capable of adapting well to online banking. Therefore, this research aims to identify the factors affecting the behavioural intention to adopt digital banking among Malaysian senior citizens. However, performance expectations, surprisingly, do not always drive the intention to adopt digital technology. A study on SMEs' adoption of electronic tendering in Morocco found that perceived performance had no significant impact on their intent to adopt this technology (Nassir, Lebdaoui, Chetioui, & Lebdaoui, 2023). In research about the adoption of technology in the e-market, it was found that perceived direct benefit, top management support, external pressure, and trust have a positive influence on adoption (Xiaoxia Duan, 2012). However, this research did not study other determinants such as performance expectancy, effort expectancy, price value, habit, social influence, and hedonic motivation. Similar to another study on factors affecting mobile banking adoption by (Elhajjar & Ouaida, 2020), The results show that digital literacy, resistance to change, perceived risk, perceived ease of use, and perceived usefulness were found to be the main variables affecting users' attitudes towards the adoption of mobile banking. However, it does not study other variables, such as performance expectancy. The key factors that will be studied are performance expectancy, effort expectancy, price value, habit, social influence, and hedonic motivation.

According to (Nguyen et al., 2020), there is a positive influence of performance expectations on behavioural intention to adopt digital banking. Whether using digital banking would enhance a customer's capacity to complete their work and assist them in doing so depends on how. Performance (Elhajjar, 2020) expectancy plays a huge role in the intention to adopt digital banking development. According to (Mohd Thas Taker, 2022), performance expectancy has a favourable impact on behavioural intention and, as a result, the adoption of online banking among consumers.

The term "effort expectancy" refers to a person's assessment of the simplicity or difficulty of using a certain service or piece of technology to complete associated tasks.

This notion fits with the idea of perceived usability Dwivedi (2017), which has been proven to have a positive and significant impact on consumers' views towards utilising a service or technology (Hung, 2013; Navavongsathian, 2020). However, according to (Yaseen, 2022), effort expectancy has an insignificant effect on the adoption of mobile banking smart services. It was discovered that performance expectancy, perceived trust, and hedonic motivation have significant relationships with behavioural intention.

Price and cost may have a big impact on consumer technology use. The price value was empirically confirmed to be the most significant behavioural intention in the adoption of digital banking (Venkatesh et al., 2012; Anggraeni et al., 2021). However, the findings of the Venkatesh, et al., (2012) study do not support the findings of the earlier study, which revealed that the impact of price value is tempered by age and gender-financial factors but not on older women's adoption of technology. But, (Iskandar et al., 2020) stated that the benefit from the cost of using a digital banking account is not significant enough for users to adopt digital banking.

Besides that, (Davis & Venkatesh, 2004) discovered that habit, along with behavioural intention, is a component of technology use. In agreement with the findings of (Anggraeni et al., 2021), habits have a high level of predictive power since they are found to be the primary antecedents of usage. This is because habits are goal-directed, automatic responses. People who were integrating digital technology into their daily lives and habits promoted technological literacy. However, the outcome of the study conducted by (Farah et al., 2018) demonstrates that habit has a negative impact on a person's inclination to use mobile m-banking. The study also noted that because new technology interferes with pre-existing routines, consumers are likely to be unwilling to embrace it.

Studies also found a connection between social impact and behavioural intention to adopt mobile banking. According to data (De Leon, 2019), people who intend to use mobile banking are those who let their close friends and family influence them. People who have adopted a technology will then be able to persuade others in their social circle to also adopt it (Anggraeni, 2021). However, a study done in India claimed that there is no connection between social impact and behavioural intention. Indian consumers clearly don't care what their friends, family, or social network are up to. This might be a result of the high degree of trust, practicality, and technological support already present (Inder, 2022).

It has been demonstrated that hedonic motivation has a major impact on forecasting generational adoption and use. It is defined as the enjoyment or pride derived from the application of a specific era. In the context of consumer reputation, hedonic motivation has been found to be a factor influencing behaviour and the intention to accept, and adopt (Yaseen, 2018).

Hedonic motivation also affects how strongly users want to accept new technology. The motivation to use technology is higher when the tools and features are fun and engaging. According to the Hedonic Motivation System adoption model, fundamental motivations like joy, curiosity, and control have a substantial impact on

technology adoption. Hedonic motivation has also received empirical validation and support as a substantial predictor of behavioural intentions in the contexts of mobile technology, internet banking, and e-learning (Dhiman, 2020).

On the other hand, a study conducted on Lebanese and British consumers revealed that hedonic motivation is not significantly influencing consumers' intentions to adopt mobile banking (Merhi et al., 2019). It is due to consumers' perception of mobile banking services in Lebanon as a beneficial service as opposed to bringing joy and enjoyment, while in England, the established function of digital banking made it more of a habit than a joyful or enjoyable technology (Merhi et al., 2019).

1.2 Research Questions

RQ1: Is there a significant relationship between performance expectancy and the intention to adopt digital banking services among senior citizens?

RQ2: Is there a significant relationship between effort expectancy and the intention to adopt digital banking services among senior citizens?

RQ3: Is there a significant relationship between price value and the intention to adopt digital banking services among senior citizens?

RQ4: Is there a significant relationship between habit and the intention to adopt digital banking services among senior citizens?

RQ5: Is there a significant relationship between social influence and the intention to adopt digital banking services among senior citizens?

RQ6: Is there a significant relationship between hedonic motivation and the intention to adopt digital banking services among senior citizens?

1.3 Research Objectives

RO1: To examine the relationship between performance expectancy and the intention to adopt digital banking services among senior citizens.

RO2: To examine the relationship between effort expectancy and the intention to adopt digital banking services among senior citizens.

RO3: To examine the relationship between price value and the intention to adopt digital banking services among senior citizens.

RO4: To examine the relationship between individuals' habit and the intention to adopt digital banking services among senior citizens.

RO5: To examine the relationship between social influence and the intention to adopt digital banking services among senior citizens.

RO6: To examine the relationship between hedonic motivation and the intention to adopt digital banking services among senior citizens.

2. Theoretical Underpinning, Literature Review and Hypothesis Development

This section focuses on the underpinning theory and the relevant literature on the relationship between the independent variables (performance expectancy, effort expectancy, price value, habit, social influence, hedonic motivation) and the dependent variable (intention to adopt digital banking services).

2.1 Theoretical Underpinning – (UTAUT)

In order to study the research on how factors can influence the behavioural intention to adopt digital banking development among Malaysian senior citizens, the researchers must understand the theories developed to explain the situation, phenomenon, and behaviour type with regard to the study. The theories will thereafter enable greater comprehension of the study's problems and the capacity to predict them. For this research, the Unified Theory of Acceptance and Performances of Technology (UTAUT) and Extension of the UTAUT Model will be used.

This study will use the Unified Theory of Acceptance and Performances of Technology (UTAUT) and the Extension of the UTAUT Model. The UTAUT model provides a theoretical framework for studies on consumers' willingness to adopt new technology-based products or services. The model uses four elements to explain how customers plan to adopt new technologies: performance expectations, effort expectations, social influence, and facilitating factors (Venkatesh, 2003). Nevertheless, various studies found that the only significant predictors of customers' inclinations to adopt new technologically or mobile-based systems or services are performance expectancy and effort expectancy (Alraja, 2016; Kiat, 2017; Juaneda-Ayensa, 2016).

This method examines widely held notions regarding technology acceptability and frequently offers contradicting or incomplete viewpoints on the subject, providing empirical insights into the topic. According to UTAUT, the hypothesised factors explain 70% of the variation in use intention. According to (Venkatesh et al., 2003) this model offers stronger predictive power compared to the rest of the models that examine technology acceptance, such as those developed by (Davis, 1993; Sheppard, Hartwick & Warshaw, 1988). The interaction of a number of components with individual and demographic variables demonstrates the complexity of the technology adoption process, which is influenced by people's age, gender, and experience (Venkatesh et al., 2003).

However, there were some doubts over the UTAUT model's capability to elaborate on individuals' technology adoption. As a result, the model has been extended by adding more external variables. This is expected to better predict the adoption of IT (Martins, 2014).

In some other research, variables such as self-efficacy, trust, habits, satisfaction, perceived risk, personal innovation, attitude, and perceived enjoyment have been added to the original UTAUT model to evaluate the user's behavioural intention to use IT, mobile payments, and adoption of technology (Kabra et al., 2017; Khalilzadeh, 2017; Alalwan, 2017; Chang, 2017).

2.2 Intention to Adopt Digital Banking Services among Malaysian Senior Citizens

A person's deliberate decision to carry out specific activities is referred to as a behavioural intention. The earlier investigations have verified the relationship between planned behaviour and actual behaviour. Hence, figuring out the purpose will give good consumer behaviour predictions (Nagdev, 2021).

Consumer behaviour is the conduct that consumers exhibit when looking for, acquiring, using, assessing, and discarding the good or service they believe will meet their needs. An individual whose purpose is to receive goods or services that satisfy their needs might be referred to as a consumer in the context of this sentence (Blundell, 1988). Modern studies on consumer behaviour consider a number of consumer behaviours outside of traditional buying and numerous customer-influencing elements. These processes frequently include determining a need, acquiring information, weighing your options, and coming up with a purchase intention. Then, the purchase is made, the item is consumed, and finally, it is disposed of (Bray, 2008).

Digital banking is the practise of doing financial transactions online or through a mobile platform. They include activities including account opening and management, fund transfers, bill payment, and access to financial data. Currently, most banks have installed an internet banking system since it is one of the most profitable e-commerce tools, and it also helps businesses cut costs and enhance customer service (Rahi, 2019).

According to statistics, individuals in Malaysia have been conducting more internet banking transactions between 2016 and 2022. (Statista.com) and has been identified as a nation where younger people use digital-only banks at a higher rate than older people do (Laycock, 2022).

The fact that Bank Negara Malaysia granted a digital bank licence in April 2022 indicates that Malaysia will soon implement totally digital banking services. Yet, as seniors make up most of the population in Malaysia, just 20% of senior citizens and middle-aged people have used e-wallets in the past two years (Xiao, 2022).

The West has already experienced a transition to an ageing society, and businesses must prepare to serve them (Mason, 2023). According to (Xiao, 2022), in 2020, Malaysia will already be an "*ageing society*". Due to the growing number of older citizens in Malaysia, it is crucial to comprehend their behavioural intentions to utilise digital banking (Sinha, 2022). People over the age of 55 are more likely to be interested in virtual banking customers, according to a PwC survey (Xiao, 2022), and they are also more willing to pay extra for the service compared to youngsters (Sinha, 2022).

2.3 The Relationship between Performance Expectancy and Intention to Adopt Digital Banking Services

Performance expectancy is the degree to which a person expects that utilising a specific service or piece of technology will allow them to successfully execute the related task (Venkatesh, 2003). Performance expectancy is based on the idea that if someone finds a new service or technology to be helpful, they will be more likely to adopt it (Dwivedi, 2017). Several studies have shown that people's attitudes towards adopting types of

electronic and mobile-based services have a favourable and significant impact on performance expectations (Dwivedi, 2017; Khalilzadeh, 2017). Based on a study on the adoption of mobile shopping services by U.S. consumers, it was discovered that there is a favourable association between performance expectations and attitudes towards that adoption (Yang, 2010). According to (Rahi, 2019), website design, customer service, and customers' inclination to use internet banking were found to be positively and significantly mediated by performance expectancy and effort expectancy. Hence, performance expectancy is proven to have an impact on the intention to adopt new technology, as it is helpful and can increase performance.

Performance expectancy plays a huge role in the intention to adopt digital banking development. According to (Ali et al., 2022; Mohd Thas Taker, 2022; Inder et al., 2022), performance expectancy has a favourable impact on behavioural intention and, as a result, the adoption of online banking among consumers. Many studies have proven that performance expectancy has a significant impact on the decision whether to adopt digital banking or not (Dwivedi, 2017; Khalilzadeh, 2017). Moreover, (Ramos, 2017) discovered that performance expectancy has the highest impact on behavioural intention to use digital banking services. Performance expectancy, surprisingly, does not always drive the intention to adopt digital technology. A study on SMEs' adoption of electronic tendering in Morocco found that perceived performance had no significant impact on their intent to adopt this technology (Nassir, Lebdaoui, Chetioui, & Lebdaoui, 2023). Therefore, based on the literature review above, it can be hypothesised as follows:

H1: There is a significant relationship between performance expectancy and the intention to adopt digital banking services among Malaysian senior citizens.

2.4 The Relationship between Effort Expectancy and Intention to Adopt Digital Banking Services

An individual's perception of the ease or complexity of utilising a certain service or piece of technology to do related tasks is referred to as their effort expectancy (Venkatesh, 2003). This idea is compatible with perceived ease of use (Dwivedi, 2017), which has been shown in earlier studies to have a favourable and significant influence on consumers' attitudes about adopting a service or technology (Hung, 2013; Navavongsathian, 2020). Therefore, when people embrace electronic or mobile-based services, there is a positive and strong relationship between effort expectancy and attitude (Dwivedi, 2017). According to (Farah, 2018) the crucial elements that define how consumers use and want to use mobile banking (m-banking), the majority of the intention-predictive elements, such as perceived value, performance expectancy, habit, social influence, effort expectancy, hedonic incentive (other than the enabling condition), perceived risk, and trust, are all demonstrated through adoption.

According to a study on the adoption of e-banking in Colombia (Sánchez-Torres, 2018), trust, performance expectations, and effort expectations have a positive impact on the use of financial websites in Colombia.

Perceived enjoyment has a significant impact on satisfaction, effort expectancy, and performance expectancy, according to (Esawe, 2022) who studied the factors that influence behavioural intention and usage of e-wallets by extending the Unified Theory of Acceptance and Use of Technology (UTAUT). Furthermore, in contrast to performance expectancy, effort expectancy has a considerable impact on customer intention to adopt technology. According to (Rahi, 2019), findings show that consumer intention to utilise internet banking is directly influenced by performance expectations, effort expectations, website design, customer service, assurance, and reliability.

Similar to performance expectancy, effort expectancy has also been proven to have a positive correlation with the intention to adopt technology (Mohd Thas Taker, 2022). Meanwhile, effort expectancy significantly influences customer satisfaction in contrast to performance expectancy (Esawe, 2022). According to (Farah, 2018), effort expectancy, along with some other factors such as habit, social influence, hedonic motivation, perceived risk, task, and trust, significantly drive the intention to use mobile banking services. When effort expectations are high, particularly during the early phases of product/service uptake, consumers have been proven to exhibit high levels of intention. If a customer anticipates that these apps will be simple to use and involve minimal effort, they are more likely to use the service. However, according to (Yaseen, 2022), effort expectancy has an insignificant effect on the adoption of mobile banking smart services. Thus, this research will study the relationship between effort expectancy and the intention to adopt digital banking services among Malaysian senior citizens. Therefore, based on the literature review above, it can be hypothesised as follows:

H2: There is a significant relationship between effort expectancy and the intention to adopt digital banking services among Malaysian senior citizens.

2.5 The Relationship Between Price Value and Intention to Adopt Digital Banking Services

Price and expense may have a big impact on consumer technology use. This can be seen from the study done by (Chan et al., 2008) found that the cheap cost of SMS in comparison to other kinds of mobile internet apps is responsible for its popularity in China. In a marketing research done by (Zeithaml, 1988), was found that the determination of perceived value for the products or services is being conceptualised together with the quality of the products or services.

A study conducted by (Iskandar, Hartoyo & Hermadi, 2020) on the price value factor indicated an insignificant effect on the cost of using mobile banking. This is because their research uncovered that using banking mobile applications is usually free of charge, and the benefits are greater. Similarly, (Kusumawati & Rinaldi, 2020; Baptista & Oliveira, 2015; Yang et al., 2012) found that the relationship between price value and behavioural intention was insignificant.

Additionally, the study by (Venkatesh et al., 2012) found that the implication of price value is moderated by age and gender-monetary factors but not by technology

adoption by older consumers. Moreover, (Iskandar, Hartoyo & Hermadi, 2020) stated that the benefits from the cost of using digital banking services are not significant enough for users to adopt this technology. However, it was discovered that their behavioural intention to use digital banking in the future is unaffected by price value.

Meanwhile, it was noted that financial risk costs, evaluation costs, learning costs, and setup costs are just a few of the costs that technical innovation imposes on users (Yasmin & Grundmann, 2019). According to (Kamilah & Kusumawati, 2019) customers are more likely to adopt technology if they feel that it is more reasonably priced than the benefits it offers. Despite these findings, (Anggraeni et al., 2021) found that there is a significant relationship between price value and behavioural intention, which may have resulted from the direct cost attributable to digital banking.

From studies done by (Venkatesh et al., 2012; Anggraeni et al., 2021), it was found that the price value was a significant factor that impacts behavioural intention when adopting digital banking services. Their study showed that the use of digital banking services increased only if the system added more value than the monetary cost paid.

Contrarily, a previous study by (Nguyen et al., 2020) found that there is no significant impact of price value on behavioural intention to use internet banking. The study was done on respondents who were between 18 and over 55 years old in order to prove that price value influences the behavioural intentions of Vietnamese customers. Additionally, price value was not found to be a significant predictor of behavioural intention (Khan et al., 2022).

Moreover, a study conducted by (Arenas Gaitán et al., 2015) indicated that financial institutions should inhibit any kind of doubt among consumers about having to pay for digital banking services. On the other hand, (Pasaribu & Rabbani, 2022) found that there is a significant influence of price value on the adoption of digital banking services post-COVID-19 pandemic. As we know, during the pandemic outbreak, most of the country implemented a lockdown period where face-to-face interaction became restricted. It is reported that the use of mobile banking channels has increased by almost 50% (Pasaribu & Rabbani, 2022). This result can also be supported by a study done by (Andrianto, 2020) who found that price value significantly impacts the behavioural intention of consumers using digital banking services. Therefore, based on the literature review above, it can be hypothesised as follows:

H3: There is a significant relationship between price value and the intention to adopt digital banking services among Malaysian senior citizens.

2.6 The Relationship between Habit and Intention to Adopt Digital Banking Services

According to (Alalwan et al., 2015), habit is described as the degree to which someone carries out a particular action automatically and repeatedly as a result of experience and knowledge gained over time. Based on (Venkatesh et al., 2012) habit is a person's propensity to act in certain ways naturally as a result of learning. Besides, it has been

pointed out by (Davis & Venkatesh, 2004), that habits can result from factors such as technology use, and behavioural intention.

Previous research has confirmed that habit is one of the key predictors of customer intention and behaviour when adopting mobile or internet banking services. Habitual behaviour in using a technology plays a big part in facilitating consumers' actual behaviour towards mobile banking (Farzin et al., 2021; Alalwan et al., 2015; Hadad, 2013; Venkatesh et al., 2012)

In line with these findings (Anggraeni et al., 2021), also found that habit is a goal-directed automatic response, that leads to high predictive power. Taking this into consideration, habit is found to be the main antecedent of usage. Additionally, the literacy of technology has enabled digital banking services to penetrate into consumers' lives and habits. According to (Salleh et al., 2022) the habit of utilising technology has enabled consumers to adopt digital banking facilities to collect and distribute zakat.

Additionally, past researchers have discovered that there is a significant positive effect of habit on the intention to use M-banking in Pakistan (Raza et al., 2019). As pointed out by (Nguyen et al., 2020) in their study in Vietnam, the positive result between habit and adoption of digital banking services is deemed to be coherent considering the development of technology, especially in digital banking advancement, which can be seen from time to time. Specifically, it may ease the daily task for the consumer when transferring funds and paying bills, which may become a habit. Habit has also shown a significant impact on inducing the usage of internet banking. But the literacy rate shows an insignificant and negative impact on the adoption of digital banking services (Pasaribu & Rabbani, 2022). Moreover, the impact on the adoption of internet banking services amongst the elderly based on habit also shows a direct effect, and the researchers believe that if the perceived risks can be reduced, it can combat the issue of resistance towards digital banking services amongst the elderly (Arenas Gaitán et al., 2015).

Conversely, the results of a study conducted by (Farah et al., 2018), show the negative impact of habit on an individual's mobile m-banking adoption intention. The study also pointed out that consumers are likely to be uncertain about adopting new technology because it contradicts ingrained habits. Moreover, (Moorthy et al., 2017) mentioned that one of the most significant barriers to customers' acceptance of new technology is habit. Hong et al. (2008) also agreed that habit is something that is natural depending on one's usual activities, however, patterns of thought, feelings, and behaviours are also hard to shake off and may create resistance in whatever situation may necessitate further rational effort. Tradition can also be a barrier to digital banking, causing customers to be hesitant to use digital banking services and possibly give it up (Chemingui & Hajer, 2013). Therefore, the newer technologies, such as digital banking services, are introduced to banking consumers, the greater the resistance from these prospective consumers. Therefore, based on the literature review above, it can be hypothesised as follows:

H4. There is a significant relationship between habit and the intention to adopt digital banking services among Malaysian senior citizens.

2.7 The Relationship between Social Influence and Intention to Adopt Digital Banking Services

Social influence is the extent to which people believe that their family, friends, and other significant others concur that they should utilise technology (Chua, 2018; Rahi et al., 2018). Social influence can also be defined as a person's impression of how he or she should behave based on the people who matter most to him or her. If a behaviour is beneficial to the referent group, people tend to engage in it even if they do not like it (Kaabachi, 2019).

Social influence can also be determined as the assurance and information given by the person that could impact the customers' intention to adopt technology, such as digital banking services. Due to the influence of friends and family members, social influence may also have an impact on the service provider's credibility. These factors may shape people's opinions of the service provider's reputation (Gupta, 2019).

Social influence can be categorised into two parts: mass media influence and interpersonal influence. A person exhibits mass media influence when advertisements on television, in newspapers, on the radio, and online promotions occur. On the other hand, interpersonal influence occurs when a person's behaviour is influenced by affinity groups that affect their beliefs, attitudes, and actions, for example, relatives, close friends, and coworkers (Chua, 2018).

Furthermore, (Ligaraba, 2022) elucidates that there are additionally two more types of social influence: informational social influence and normative social influence, often known as subjective norms. The concept of a subjective norm can be defined as the social pressure that certain individuals experience to engage in a particular action, regardless of their personal beliefs and attitudes about the behaviour. For instance, some people think that if they do not use technologies such as digital banking services, they will become redundant or old-fashioned. On the other hand, when people witness that their social group is successfully using digital banking services, they will also embrace it. Therefore, consumers' intentions might be influenced by other people's opinions and knowledge based on who is already using digital banking services. Customers that have used or implemented digital banking will have a good attitude because of the benefits they receive from the service. As a result, they will then be able to persuade others in their social circle to adopt digital banking services (Anggraeni, 2021).

A relationship between social influence and behavioural intention to use mobile banking was also discovered in other studies. Researchers (Chaouali et al., 2016) claimed that an individual who believes that important others believe his usage of new products or services will be more inclined to use these products or technology services. Likewise, (Martins et al., 2014) affirmed that social influence has a significant influence on users' intentions to adopt digital banking services. Additionally, (De Leon, 2019) indicated that people who intend to utilise mobile banking are those who are influenced by their close

friends and family members. Moreover, according to (Grifoni et al., 2017) the social influence of friends and family members can impact customers' intentions to adopt digital banking services. This is because individuals tend to trust the opinions and recommendations of their social networks, which in turn affects their perception of the service provider's credibility and reputation. Similarly, Tiong's study in Malaysia revealed that perceived compatibility and social influence positively influence customers' intentions to use digital banking services, especially among Generation Y individuals (Azmeem & Azami, 2023).

Conversely, a study carried out in India, asserted that there is no significant relationship between social influence and behavioural intention. It is apparent that Indian consumers do not worry about what their friends, family, or social circle are doing. This can be because there is already a high level of trust, convenience, and technical assistance (Inder, 2022). In another study (Salleh et al., 2022) it was also discovered that social influence does not have a significant impact on the adoption of digital banking services. Even in an older study by (Tan & Teo, 2000), there was evidence that social influence did not play a significant role in influencing the intention to adopt digital banking. This reveals that banking consumers have not changed their intention to adopt digital banking services for over two decades, even though the technology has advanced tremendously. Therefore, based on the literature review above, it can be hypothesised as follows:

H5. There is a significant relationship between social influence and the intention to adopt digital banking services among Malaysian senior citizens.

2.8 The Relationship between Hedonic Motivation and Intention to Adopt Digital Banking Services

Hedonistic motivations examine consumption patterns in relation to happiness, myth, entertainment, enjoyment, and pride when using technology such as digital banking services (Venkatesh et al., 2012; Pikkarainen et al., 2004). The primary benefit of these hedonistic motivational characteristics is to elicit strong emotional and sensory reactions (Santo, 2021).

According to (Santo, 2021), hedonic motivation has an impact on purchase intention. To condition a person's strong belief, motivation is an emotional state. A larger buying motivation will favour a higher-fine belief because, in general, buying motivations are seen as inner urges that prompt people to act to satisfy their goals (Tena-Monferrer, 2022). When we are dealing with a subjective assessment of the character, a person with a higher hedonic incentive towards acquisition, knowledge of a greater propensity for leisure, and sensory experimentation will result in a better perceived good (Tena-Monferrer, 2022)

Hedonic motives are naturally founded on egotistical desires, curiosities, entertainment, self-expression, and other things, and they characterise the purchasing process in terms of fulfilment, luxury, and comfort. Online shopping behaviour is positively and significantly influenced by hedonic and self-esteem reasons (Indrawati,

2022). Motivation is an emotional state to be able to do this. Online shoppers could also be motivated by hedonic factors. There have been enjoyable encounters at various stages of online browsing or even leisurely shopping as a result of the evolution of the web environment and continued client use. Customers recommended making online purchases throughout the pandemic because they instantly improved their mood (Indrawati, 2022).

Hedonic motivation has been shown to play a significant role in predicting adoption and use (Boonsiritomachai & Pitchayadejanant, 2017). Moreover, hedonic motivation has been identified as a factor determining behaviour intention to accept, adopt, and use in the context of customer reputation (Yaseen, 2018). Also, e-banking technology packages contain special features that can be applied to hedonic incentives, giving the opportunity to look at a user's motivation from a variety of angles. Many scholars have expressed concern that hedonic incentives are thought of as feelings of delight. (Yaseen, 2018)

Hedonic motivation also influences how strongly users want to accept new technologies. People are more motivated to employ technologies that have interesting, entertaining features and tools. According to the Hedonic Motivation System adoption model, fundamental motives like joy, curiosity, and control have a significant impact on technology adoption. Similarly, in the context of mobile technology, internet banking, and e-learning, hedonic motivation has received empirical validation and support as a significant predictor of behavioural intentions (Dhiman, 2020; Venkatesh et al., 2012).

Another key factor impacting the acceptance of modern financial services was hedonic incentives. According to a study conducted in Vietnam by (Nguyen, 2020), being able to keep up with the current trend of international banking development might be seen as an enticing and entertaining aspect to customers since digital banking services are still relatively new.

The hedonic drive has a favourable, considerable impact on behavioural intention, according to a study conducted in Pakistan. This established connection suggests that consumers who recognise that using internet banking is a joyful, enjoyable, and entertaining experience will be more likely to adopt the technology. Using internet banking may provide value in the form of modernity and novelty, which increases their intrinsic drive to use such channels (Sharif & Raza, 2017).

Hedonism's significance has been recognised, especially considering the frustration that nearly always dominates online activities. It is well recognised that this feature significantly and favourably influences the uptake of e-banking and other comparable online services. Meanwhile, other studies argued that the addition of enjoyable characteristics is little and could confuse consumers (Salimon, 2017).

On the other hand, a study conducted on Lebanese and British consumers revealed that hedonic motivation is not significantly influencing consumers' intentions to adopt mobile banking services (Merhi et al., 2019). In Lebanon, consumers did not perceive that mobile banking services were beneficial or joyful, and in England, the established functions of digital banking made it more of a habit than a joyful or enjoyable experience

for consumers (Merhi et al., 2019). Additionally, a study conducted by (Tamilmani et al., 2019) also exposed that hedonic motivation does not lead to the adoption of technology such as digital banking services. Therefore, based on the literature review above, it can be hypothesised as follows:

H6. There is a significant relationship between hedonic motivation and the intention to adopt digital banking services among Malaysian senior citizens.

2.9 Proposed Conceptual Framework

Based on the literature review, the following conceptual framework is formulated, as shown in Figure 1. This conceptual framework will guide this study by providing context and clarity, directing data collection and analysis, interpreting findings, bridging the gap, and concluding this study.

The Unified Theory of Acceptance and Performance of Technology (UTAUT), which brings together multiple factors that affect how users accept and use technology, works well with the suggested conceptual framework, especially when it comes to digital banking services for older people. The Unified Theory of Acceptance and Use of Technology (UTAUT) says that performance expectancy (H1), effort expectancy (H2), and social impact (H5) directly affect behavioural intention, such as the intention to use digital banking. The incorporation of price value (H3) as a variable is consistent with the concept of facilitating conditions in the Unified Theory of Acceptance and Use of Technology (UTAUT), while habit (H4) pertains to the element of accumulated experience. Finally, the inclusion of hedonic motivation (H6) in the Unified Theory of Acceptance and Use of Technology (UTAUT) is a valuable addition since it recognises that individuals may be motivated to adopt a technology not only for practical reasons but also for the joy and satisfaction it brings. Consequently, it can be observed that each of the hypotheses establishes a strong connection with the principles of the Unified Theory of Acceptance and Use of Technology (UTAUT), making it a suitable theoretical basis for the proposed framework.

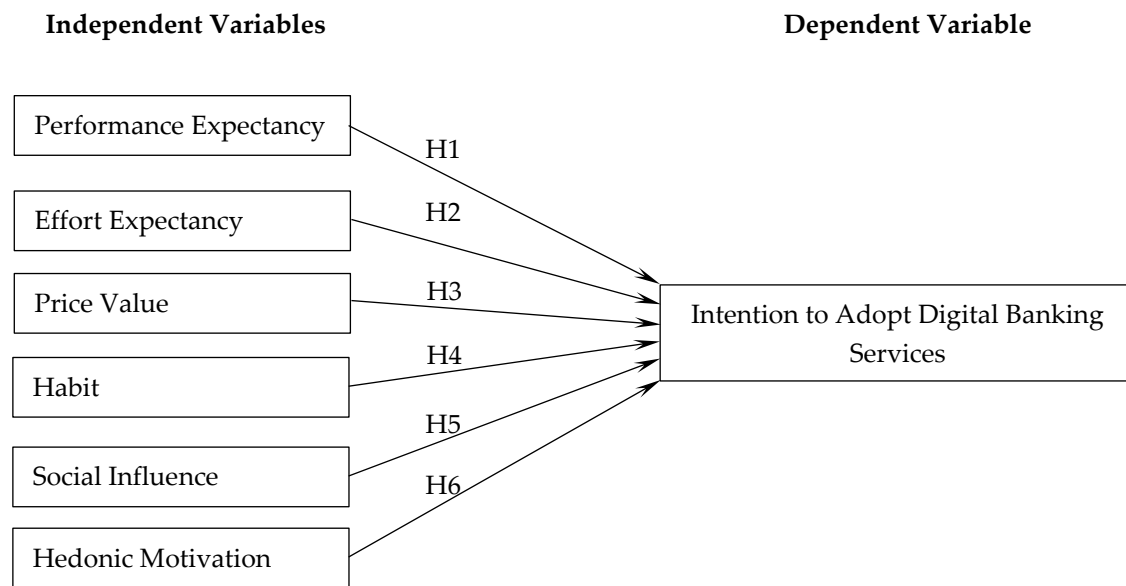


Figure 1: Proposed Research Conceptual Framework

3. Methodology

3.1 Population, Sampling & Measurements

This study uses a deductive method to test theories that already exist. Explanatory research is the form of research used in this study, and it is quantitative in nature. Explanatory research (quantitative) will be able to pinpoint the causes and motivations as well as offer proof in favour of the hypothesis and justification that make up the research study. Because of its interoperability, this is the best choice.

This research is targeting Malaysia’s senior citizens aged 60 years and older. The ageing population in Malaysia was estimated at 5.6 million as of 2023 (Akhtar, 2023). Therefore, the sampling frame selected is senior citizens aged 60 and above. In the first instance, the frame comprises, first, the list of households and, second, the list of senior citizens in each household. The sampling location is the place where the sample is taken.

This survey will be conducted at various locations in the Klang Valley. A total of 1000 questionnaires were distributed via Google Documents, and a response of 411 was collected. Out of the 411 responses collected, 21 were incomplete. Therefore, 390 complete responses provided the results for this study, which is approximately a 39 percent response rate.

The non-probability sampling strategy, which has the advantages of being less expensive, manageable, and less complex, was employed in this research investigation. Closed-ended questionnaires were used in this element of the study instrument. The five levels of the Likert scale, which range from 1 (strongly disagree) to 5 (strongly agree), were used to base the questions. Primary data that aids in understanding the target

population and secondary data gathered from prior research and published works by other researchers were used as the two sources for data collection.

3.2 Reliability Analysis

Table 1: Reliability Analysis (N = 390)

Variables	Cronbach's Alpha	No. of Items
Performance Expectancy	0.958	5
Effort Expectancy	0.944	5
Price Value	0.817	5
Habit	0.969	6
Social Influence	0.903	5
Hedonic Motivation	0.946	6
Behavioral Intention	0.969	6

Based on Table 1, Reliability Analysis aims to ensure the accuracy and consistency of the survey instrument. Cronbach's alpha values were calculated for each variable: performance expectancy (0.958) with 5 items, effort expectancy (0.944) with 5 items, price value (0.817) with 5 items, habit (0.969) with 6 items, social influence (0.903) with 5 items, hedonic motivation (0.946) with 6 items, and behavioural intention (0.969) with 6 items. With values greater than 0.9, the constructs are considered excellent for further analysis.

4. Findings & Interpretation

This fourth section provides the findings of this study, including the respondents' demographic profiles, descriptive analysis, correlation matrix, and regression analysis.

4.1 Demographic Profile

The profile of the respondents studied is displayed in Table 2.

Table 2: Demographic Profile of Respondents (N = 390)

Variable	Category	Frequency	Percentage (%)
Gender	Male	212	54.4
	Female	178	45.6
Age	60 – 65 years old	270	69.2
	66 – 70 years old	62	15.9
	71 – 75 years old	50	12.8
	76 – 80 years old	0	0
	81 years old and above	8	2.0
Educational Level	High school	100	25.6
	Diploma	75	19.2
	Bachelor's Degree	191	48.9
	Master's Degree	20	5.1
	Doctorate Degree	4	1.0

Table 2, Demographic Attributes for 390 respondents, reveals a balanced gender distribution of senior citizens, with 212 males (54.4%) and 178 females (45.6%). Respondents are predominantly aged between (60 - 65) which is 69.2% or 270, followed by 15.9% and 12.8% between (66 - 70) and (71 - 75) respectively. The age group of respondents above 81 years old has the lowest frequency at 2.0%, or 8 respondents, and no respondents between the ages of 76 - 80 years old.

Most respondents hold a bachelor's degree (48.9%), 25.6% are high school graduates, 19.2% have a diploma, 5.1% have a master's degree, and only 1% have a doctorate.

4.3 Mean and Standard Deviation Analysis

Table 3, Descriptive Statistics displays the mean, standard deviation (SD), skewness and kurtosis values of this research.

Table 3: Descriptive Statistics (N=390)

Factors	Mean	SD	Skewness	Kurtosis	Min	Max
Performance Expectancy (PE)	3.363	1.212	-0.555	-0.609	1	5
Effort Expectancy (EE)	3.185	1.168	-0.522	-0.672	1	5
Price Value (PV)	3.192	0.933	-0.303	0.281	1	5
Habit (H)	3.006	1.096	-0.215	-0.671	1	5
Social Influence (SI)	3.092	1.310	-0.279	-1.125	1	5
Hedonic Motivation (HM)	3.159	1.037	-0.415	-0.450	1	5
Behavioral Intention (BI)	3.308	1.211	-0.426	-0.729	1	5

From Table 3, the factor performance expectancy shows the highest mean value of 3.363 ± 1.212. The lowest mean value is habit, 3.006 ± 1.096. Additionally, the normality test in Table 3 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).

4.4 Correlation Analysis

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

Table 4: Correlation Matric (N = 390)

Variable	PE	EE	PV	H	SI	HM	BI
Performance Expectancy (PE)	1						
Effort Expectancy (EE)	0.924**	1					
Price Value (PV)	0.771**	0.741**	1				
Habit (H)	0.861**	0.865**	0.756**	1			
Social Influence (SI)	0.715**	0.644**	0.781**	0.707**	1		
Hedonic Motivation (HM)	0.794**	0.788**	0.774**	0.882**	0.784**	1	
Behavioral Intention (BI)	0.884**	0.880**	0.783**	0.931**	0.744**	0.826**	1

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

According to the correlation matrix shown in Table 4, it was noted that the data significantly supported the measurement model. All the independent variables (performance expectancy, effort expectancy, price value, habit, social influence, and hedonic motivation) show a high and positive correlation with the dependent variable (behavioural intention to adopt digital banking services). Moreover, the correlation between all the independent variables also demonstrates a high and positive correlation.

Consequently, it can be deduced that there is a blend of high and very high correlations with a positive association between all the independent variables and the dependent variable examined in this study.

4.5 Regression Analysis

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0.953	0.908	0.906	0.374
Predictors: (Constant), PE, EE, PV, SI, H, HM Dependent Variable: BI				

From Table 5 Model Summary, $R = 0.53$, which signifies the multiple correlation coefficient value, reveals a high degree of predictive accuracy. The $R^2 = 0.908$. This infers that 90.8% of the variation in the dependent variable (behavioural intention) can be explained by the independent variables (performance expectancy, effort expectancy, price value, habit, social influence, and hedonic motivation).

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	525.462	6	87.577	626.906	0.000 ^b
	Residual	53.504	383	0.140		
	Total	578.966	389			

Table 6 ANOVA, shows that the independent factors statistically and substantially forecast the dependent variable, ($F = 626.906$, $p < 0.001$). Therefore, the regression model fit is good. Hence, the independent variables (performance expectancy, effort expectancy, price value, habit, social influence, and hedonic motivation) will be able to project the dependent variable (behavioural intention).

Table 7: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Variable	(Constant)*	0.086	0.071		1.217	0.004
	Performance Expectancy	0.118	0.046	0.118	2.568	0.011
	Effort Expectancy	0.195	0.047	0.186	4.176	0.000

Price Value	0.086	0.038	0.066	2.241	0.026
Habit	0.607	0.039	0.651	15.671	0.000
Social Influence	0.178	0.034	0.152	5.237	0.000
Hedonic Motivation	-0.177	0.043	-0.159	-4.164	0.000

Table 7 shows that the coefficients for performance expectancy (PE), effort expectancy (EE), price value (PV), habit (H), social influence (SI), and hedonic motivation (HM) are significant at $p < 0.05$, indicating that these factors are statistically significant in predicting behavioural intention to adopt digital banking among senior citizens.

The regression equation represents the relationship between the independent variables (habit, social influence, performance expectancy, effort expectancy, price value, and hedonic motivation) and the dependent variable (behavioural intention).

Based on Table 7 Coefficients, the linear regression equation is as follows:

$$BI = 0.086 + 0.118 (PE) + 0.195 (EE) + 0.086 (PV) + 0.607 (H) + 0.178 (SI) + (-0.177) (HM)$$

BI = Consumers' Purchasing Intention,

PE = Performance Expectancy,

EE = Effort Expectancy,

PV = Price Value,

H = Habit,

SI = Social Influence,

HM = Hedonic Motivation,

0.086 = Constant or the y-intercept.

The result indicates that with a one-unit increase in performance expectancy (PE), there is an increase in behavioural intention (BI) by 0.118 units. Similarly, a one-unit increase in effort expectancy (EE) will increase the senior citizen's (BI) by 0.195 units. Next, BI will increase by 0.086 units when price value (PV) increases by one unit, and a one-unit increase in habit (H) will increase (BI) by 0.607 units. When social influence (SI) increases by one unit, (BI) will increase by 0.178 units. Meanwhile, when hedonic motivation (HM) increases by one unit, (BI) decreases by 0.177 units.

4.6 Summary of Hypothesis Results

Table 8: Summary of Hypothesis Results (N = 390)

Hypothesis	P-value	Result
H1: There is a significant relationship between performance expectancy and the intention to adopt digital banking services among Malaysian senior citizens.	0.011	Supported by data
H2: There is a significant relationship between effort expectancy and the intention to adopt digital banking services among Malaysian senior citizens.	0.000	Supported by data

H3: There is a significant relationship between price value and the intention to adopt digital banking services among Malaysian senior citizens.	0.026	Supported by data
H4: There is a significant relationship between habit and the intention to adopt digital banking services among Malaysian senior citizens.	0.000	Supported by data
H5: There is a significant relationship between social influence and the intention to adopt digital banking services among Malaysian senior citizens.	0.000	Supported by data
H6: There is a significant relationship between hedonic motivation and the intention to adopt digital banking services among Malaysian senior citizens.	0.000	Supported by data

For a sample size of 390, the data supports the factors (performance expectancy, effort expectancy, price value, habit, social influence, and hedonic motivation). All factors indicate a significant relationship to the behavioural intention to adopt digital banking services among senior citizens.

5. Discussion

In this section, the results of the study are discussed. The results are generated using the IBM Statistical Package for Social Science, version 28. The multiple regression analysis was applied to determine the relationship between the independent variables (performance expectancy, effort expectancy, price value, habit, social influence, and hedonic motivation) and the dependent variable (behavioural intention). Moreover, Pearson's correlation coefficient was observed to determine the size and direction of the association and whether it was statistically significant.

Firstly, this study examined if there is a significant relationship between performance expectancy and the intention to adopt digital banking services among Malaysian senior citizens and tested hypothesis H1: There is a significant relationship between performance expectancy and the intention to adopt digital banking services among Malaysian senior citizens. The result showed a significant relationship between performance expectancy and the intention to adopt digital banking services among Malaysian senior citizens ($\beta = 0.118$, p-value less than 0.05). This shows that the results are consistent with the literature, suggesting that performance expectancy is a significant determinant of senior citizens' intention to adopt digital banking services in Malaysia.

Further dissection of what influences seniors' performance expectancy reveals that factors like prior experiences with technology, perceived complexity, perceived security, and peer influences could be significant. These factors are intricately tied to performance expectancy, and as such, they could be important in shaping performance expectations among seniors. These elements might have an impact on aspects of perceived usefulness and perceived ease of use, both of which fall under the performance expectancy umbrella.

The finding of this study corroborates with previous researchers (Inder et al., 2022; Mohd Thas Taker, 2022; Ali et al., 2022; Rahi, 2019; Dwivedi, 2017; Khalilzadeh, 2017; Yang, 2010) who affirm that performance expectancy has a positive impact on behavioural intention and, as a result, the adoption of online banking services among consumers. This study also validates the findings of (Ramos, 2017), who ascertained that

performance expectancy has the highest impact on behavioural intention to use digital banking facilities.

Additionally, the result of this study negates the previous findings of (Nassir, Lebdaoui, Chetioui, & Lebdaoui, 2023) who mentioned that performance expectancy does not impact the intention to adopt digital banking services.

Based on the current study, the future of digital banking adoption among senior citizens appears bright. With increasing internet literacy and improved technology interfaces, the performance expectancy might increase, and hence the adoption rate might increase even further. Technological advances are consistently being made to make digital banking services more user-friendly, secure, and efficient, all of which can lead to enhanced performance expectancy.

Therefore, the findings of this study and the previous studies have proven that performance expectancy significantly impacts the decision whether to adopt digital banking services or not. So, the data support hypothesis H1, and the results of this study were able to address, conclude, and close the gap in the literature, as well as confirm a positive and significant relationship between performance expectations and the intention of Malaysian senior citizens to use digital banking services.

Secondly, this study examined if there is a statistically significant relationship between effort expectancy and the intention to adopt digital banking services among Malaysian senior citizens and tested the hypothesis H2: There is a significant relationship between effort expectancy and the intention to adopt digital banking services among Malaysian senior citizens.

The results showed a significant relationship ($\beta = 0.195$, $p < 0.05$). This shows that the results are consistent with the literature, suggesting that effort expectancy significantly determines the intention to adopt digital banking services among Malaysian senior citizens.

The findings of this study are parallel to the discoveries of (Navavongsathian, 2020; Farah, 2018; Hung, 2013), who confirms that the less effort taken to operate the technology, the greater the level of intention to adopt digital banking services. The result of this research also complements previous research findings of (Sánchez-Torres, 2018) in Colombia, who discovered that effort expectancy positively impacts the adoption of financial websites.

On the other hand, the result of this study invalidates the findings of (Yaseen, 2022), who mentioned that effort expectancy has an insignificant effect on the adoption of mobile banking smart services. This indicates that the respondents in (Yaseen, 2022) study has shown a negative attitude towards the intention to adopt mobile banking services based on effort expectancy. But this current study has proven that effort expectancy is a highly significant factor for seniors who are trying to adopt digital banking services.

Therefore, the findings of this study and the previous studies have proven that effort expectancy significantly impacts the decision whether to adopt digital banking services or not. As a result, data support hypothesis H2, and the results of this study were

able to address, conclude, and close the literature gap as well as validate a positive and significant relationship between effort expectancy and the intention to adopt digital banking services among Malaysian senior citizens.

Thirdly, this study scrutinised if there is a significant relationship between price value and the intention to adopt digital banking services among Malaysian senior citizens and tested the hypothesis H3: There is a significant relationship between price value and the intention to adopt digital banking services among Malaysian senior citizens.

The results showed a significant relationship between price value and the intention to adopt digital banking services among Malaysian senior citizens. ($\beta = 0.086$, $p < 0.05$). This shows that the results are parallel to the literature, which suggests that price value is a significant determinant of the intention to adopt digital banking services among Malaysian senior citizens. This study's findings align with the outcomes of (Anggraeni et al., 2021; Venkatesh et al., 2012; Chan et al., 2008), who confirm that the use of digital banking services increased only if the system added more value than the monetary cost paid.

Moreover, the result of this study has overturned the previous findings of (Iskandar, Hartoyo & Hermadi, 2020; Kusumawati & Rinaldi, 2020; Baptista & Oliveira, 2015; Yang et al., who found that the relationship between price value and behavioural intention was insignificant.

Therefore, the findings of this study and the previous studies have proven that price value significantly impacts the decision whether to adopt digital banking services or not. So, the data support hypothesis H3, and the results of this study were able to address, conclude, and close the gap in the literature as well as confirm a positive and significant relationship between price value and Malaysian senior citizens' plans to use digital banking services.

Fourthly, this research examined if there is a significant relationship between habit and the intention to adopt digital banking services among Malaysian senior citizens and analysed hypothesis H4: There is a significant relationship between habit and the intention to adopt digital banking services among Malaysian senior citizens.

The result showed a significant relationship between habit and the intention to adopt digital banking services among Malaysian senior citizens ($\beta = 0.607$, p -value less than 0.05). This shows that the results are consistent with the literature, suggesting that habit is a significant determinant of senior citizens' intention to adopt digital banking services in Malaysia.

Likewise, research conducted by (Farzin et al., 2021; Alalwan et al., 2015; Hadad, 2013; Venkatesh et al., 2012) discovered that habitual behaviour in using technology plays a big part in facilitating consumers' actual intention to adopt mobile banking services.

Conversely, the findings of this study invalidate the previous findings of (Farah et al., 2018; Moorthy et al., 2017) who pointed out that consumers will not adopt digital banking services because it contradicts their deep-rooted habits, and these habits also create a barrier to accepting digital banking services.

But, the findings of this study and the previous studies have proven that habit significantly impacts the decision whether to adopt digital banking services or not. This study has affirmed that habit has a greater influence on inducing the use of digital banking services among senior citizens in Malaysia. Thus, hypothesis H4 is supported by data, and the findings of this study were able to address, conclude, and narrow the literature gap and validate a positive and significant relationship between habit and the intention to adopt digital banking services among Malaysian senior citizens.

Fifthly, this research examined if there is a significant relationship between social influence and the intention to adopt digital banking services among Malaysian senior citizens and investigated hypothesis H5: There is a significant relationship between social influence and the intention to adopt digital banking services among Malaysian senior citizens.

The result showed a significant relationship between social influence and the intention to adopt digital banking services among Malaysian senior citizens ($\beta = 0.178$, p-value less than 0.05). This shows that the results are consistent with the literature, suggesting that social influence is a significant determinant of senior citizens' intention to adopt digital banking services in Malaysia.

The result of this research supports previous research findings by (De Leon, 2019; Chaouali et al., 2016; Martins et al., 2014) who revealed that interpersonal influence by affinity groups can affect the intention to adopt digital banking services. This ascertains that the influence of friends, family, or a social circle has a tremendous impact on the intention to adopt digital banking services by senior citizens in Malaysia.

On the other hand, this study negates the findings of (Salleh et al., 2022; Inder, 2022; Tan & Teo, 2000) who found an insignificant relationship between social influence and the intent to adopt digital banking services. This might be the case because customers don't give a damn what their friends, family, and neighbours think, and they don't let them influence their decision to use digital banking services.

Nevertheless, the findings of this study and the previous studies have proven that social influence significantly impacts the decision whether to adopt digital banking services or not. This study has verified that social influence has a greater influence on inducing the use of digital banking services among senior citizens in Malaysia. Thus, hypothesis H5 is supported by data, and the findings of this study were able to address, conclude, and narrow the literature gap and validate a positive and significant relationship between social influence and the intention to adopt digital banking services among Malaysian senior citizens.

Finally, this research examined if there is a significant relationship between hedonic motivation and the intention to adopt digital banking services among Malaysian senior citizens and investigated hypothesis H6: There is a significant relationship between hedonic motivation and the intention to adopt digital banking services among Malaysian senior citizens.

The result showed a significant relationship between hedonic motivation and the intention to adopt digital banking services among Malaysian senior citizens ($\beta = -0.177$,

p-value less than 0.05). This shows that the results are coherent with the literature, suggesting that hedonic motivation is a significant determinant of senior citizens' intention to adopt digital banking services in Malaysia.

In this study, hedonic motivation is counterintuitive, as one would typically expect that greater pleasure or satisfaction derived from a service would increase the likelihood of its adoption. It might be that senior citizens who derive pleasure from traditional banking methods are less likely to transition to contemporary digital banking services. But it's important to note that this result is consistent with existing literature, suggesting that hedonic motivation plays a significant role in determining senior citizens' intention to adopt digital banking services in Malaysia. This signifies that hedonic motivation, despite its negative association in this instance, is a key factor to consider when understanding the digital banking behaviours of Malaysian senior citizens.

Therefore, the findings of this study can be corroborated by previous research (Tena-Monferrer, 2022; Indrawati, 2022; Santo, 2021) which verified that hedonic motivation has been shown to play a significant role in initiating the adoption and use of digital banking services.

On the other hand, this study has annulled previous studies by (Merhi et al., 2019; Tamilmani et al., 2019) who encountered that hedonic motivation does not lead to the adoption of technology such as digital banking services. However, the findings of this study and the previous studies have proven that hedonic motivation significantly impacts the decision whether to adopt digital banking services or not. This study has verified that hedonic motivation has a greater influence on inducing the use of digital banking services among senior citizens in Malaysia. Thus, hypothesis H6 is supported by data, and the findings of this study were able to address, conclude, and narrow the literature gap and validate a significant relationship between hedonic motivation and the intention to adopt digital banking services among Malaysian senior citizens.

6. Conclusion

This study was conducted to examine the factors that affect the behavioural intention to adopt digital banking among Malaysian senior citizens.

The first objective of this study was to determine if there is a significant relationship between performance expectancy and behavioural intention to adopt digital banking among Malaysian senior citizens. Based on the results, performance expectancy shows a significant impact on the behavioural intention to adopt digital banking among Malaysian senior citizens. This is aligned with previous studies by (Mohd Thas Taker, 2022; Rahi, 2019; Yang, 2010) who have shown that performance expectancy highly influences the adoption of digital banking services. The results of this study also negate the finding of (Nassir, Lebdaoui, Chetioui, & Lebdaoui, 2023) who mentioned that perceived performance had no significant impact on their intent to adopt technology.

Additionally, the UTAUT model, with its focus on performance expectancy, plays a crucial role in understanding the acceptance of digital banking services among

Malaysian seniors. The conclusion strengthens the applicability of this theory, showing that when performance expectancy is high, the elderly are more inclined to adopt digital banking, thereby affirming the theory's fundamental premise.

Moreover, the conclusion also negates findings from other research studies that suggest perceived performance had no significant impact on the intent to adopt technology. This reiterates the robustness of the UTAUT model and its applicability in different demographics and contexts, reaffirming its role as an effective underpinning theory for this research.

Hence, it can be concluded that the elderly are more likely to adopt the digital banking service if they think that using it is beneficial, compatible with their lifestyle, and will make their financial management more efficient or enhance their ability to conduct banking transactions. This could involve the perception of digital banking as a convenient way to avoid long queues at the bank or as a tool for managing finances more independently.

The second objective of this study was to determine if there is a statistically significant relationship between effort expectancy and behavioural intention to adopt digital banking among Malaysian senior citizens. Based on the results, effort expectancy shows a significant impact on the behavioural intention to adopt digital banking among Malaysian senior citizens. Seniors are more likely to adopt the new service or technology if they think that using it is easy, convenient, and requires less effort. This is aligned with previous studies by (Farah, 2018) that studied the crucial elements that define how consumers use mobile banking. This study aligns with (Farah, 2018). On the other hand, the results of this study also negate the finding of (Yaseen, 2022) which mentioned that effort expectancy has an insignificant effect on the adoption of mobile banking smart services.

Consequently, to attract seniors to digital banking platforms, user-friendly features that decrease effort expectancy are essential. This is in line with the UTAUT theory's stipulation that ease of use can enhance technology acceptance, reinforcing the relevance of the UTAUT model.

The findings of this study also challenge previous studies that discounted the impact of effort expectancy on technology adoption. Instead, these findings corroborate those of research that underscores the crucial role effort expectancy plays in adopting technology, such as mobile banking, reinforcing the validity of the UTAUT model.

It is evident that the UTAUT theory's pertinence demonstrates that when effort expectancy is reduced, seniors are more likely to adopt digital banking, thus strengthening the theory's fundamental tenet. Therefore, a critical component that a digital banking platform must have to attract the elderly is user-friendly features. Hence, if a digital banking system is designed to be easy to navigate with intuitive features, it can reduce the effort expectancy, making it more likely for them to adopt these services. The third objective of this study was to determine if there is a statistically significant relationship between price value and behavioural intention to adopt digital banking amongst senior citizens in Malaysia. Digital banking has made it easier for senior citizens

who have mobility challenges or live in remote areas to access financial services. By embracing digital banking, seniors may actively participate in the economy, complete transactions, pay bills, and manage their money more effectively. Having greater financial inclusion can help economic growth by increasing banks' customer bases and encouraging spending. This study has proven a significant relationship between price value and senior citizens behavioural intention to adopt digital banking services. Conversely, this study negates the previous studies by (Nguyen et al., 2020), Khan et al., 2022; Arenas Gaitán et al., 2015) who found an insignificant relationship between price value and behavioural intention in utilising digital banking services daily.

This study shows that the UTAUT model is useful by showing how price value and performance expectations affect senior citizens' use of digital banking in Malaysia. It also shows that its extension models could help us understand this phenomenon in a more complete way.

Nevertheless, despite the encouragement from the banking or financial sector, senior citizens will encounter similar difficulties in integrating the new digital era into their daily routines without financial stability. If the perceived benefits of digital banking services are high compared to their monetary cost, senior citizens may see a high price value, which in turn could significantly increase their intention to adopt digital banking. Therefore, it is crucial for banks to clearly articulate the benefits of their digital banking services and ensure their cost-effectiveness for senior citizens.

The fourth objective of this study was to investigate if there is a statistically significant relationship between habit and behavioural intention to adopt digital banking among senior citizens in Malaysia. This study has found that there is a significant relationship between habit and behavioural intention and supports previous studies by (Nguyen et al., 2020; Pasaribu & Rabbani, 2022; Raza et al., 2019) Additionally, (Arenas Gaitán et al., 2015), believe that risk averse habits can combat the issue of resisting digital banking among senior citizens.

This study strongly indicates that if senior citizens are used to using digital banking services in their daily lives, they are more likely to adopt these services in the long run. The findings of this study further strengthen the argument of (Nguyen et al., 2020; Pasaribu & Rabbani, 2022; Raza et al., 2019) on the role of habit in the adoption of internet banking, reinforcing the validity of the UTAUT model.

Additionally, this study acknowledges the influence of perceived risk on seniors' resistance to digital banking. This aspect corresponds with the extended UTAUT model, where perceived risk is often incorporated as an external variable. By stating that perceived risk can be reduced to encourage adoption, this study recognises the importance of trust, a variable that has been incorporated in other UTAUT extensions to examine technology acceptance.

Therefore, this study demonstrates the applicability of the UTAUT model and its extensions by highlighting the significance of habit and perceived risk in influencing the behavioural intention of Malaysian senior citizens to adopt digital banking services.

It is critical to recognise that not all senior citizens are familiar with or have access to digital banking. Inadequate computer proficiency, inadequate internet connectivity, and concerns about security and privacy could all pose problems. To address these issues, financial institutions and the government should provide assistance and education programmes to promote senior citizens' digital literacy, broaden their access to the internet, and ensure strong security measures are in place. Therefore, it will help to combat the issue where usually senior citizens are prone to using traditional financial transactions. Moreover, by fostering positive experiences, banks can encourage the formation of new habits around digital banking, thereby promoting its adoption among senior citizens.

The fifth objective of this study was to acknowledge positive experiences and recommendations from family, friends, or social networks if they significantly influence the intention to adopt digital banking among senior citizens. The use of technology is often encouraged by children. This institution can exhibit its legitimacy by encouraging parents to interact with one another, which can persuade elders to use digital banking services. This indicates that the acceptance of technologies can be influenced by other people's behaviours. According to (Gathongo, 2019), social communications significantly impact the adoption of digital banking in Nairobi. Furthermore, (Fong, 2022), also stated that elders are more inclined to use technological devices and services due to positive feedback or recommendations from other people.

This study has emphasised the influential role of positive experiences and recommendations from family, friends, or social networks in the digital banking adoption process among senior citizens. This, in essence, reflects the impact of social influence as posited by the UTAUT model. This study aligns with the findings of (Fong, 2022; Gathongo, 2019) which reinforce the role of social communications and positive feedback in influencing elderly individuals to adopt digital banking. These studies mirror the UTAUT's assertion about the significance of social influence in technology adoption processes.

Therefore, it is crucial for financial institutions to motivate their current customers to share their positive experiences by developing a contest or campaign for the intended senior citizen population. Most senior citizens may rely heavily on the opinions and recommendations of their peers and family members. If their close social circles are using and benefiting from digital banking, they may be more inclined to adopt it. The perceived legitimacy and trust associated with recommendations from trusted individuals can significantly influence their decision to engage with digital banking services.

The final objective of this study was to determine if hedonic motivation plays a significant role in influencing senior citizens to adopt digital banking. Hedonic motivation has been found as a factor influencing behaviour intention to accept and adopt in this study, which corroborates previous findings by (Dhiman 2020; Yaseen, 2018).

Hedonic motivation, which pertains to the pleasure or satisfaction derived from the use of technology, is found to be counterintuitive in this study. Despite the seemingly

counterintuitive nature of the role it plays, as one would expect that more pleasure derived from a service would generally increase its adoption, this is consistent with the extensions to the UTAUT model that consider variables such as perceived enjoyment, which is closely tied to hedonic motivation.

Additionally, this study suggests that senior citizens who derive pleasure from traditional banking methods might be less inclined to transition to digital banking services, possibly due to their familiarity and comfort with existing systems. The relationship between hedonic motivation and technology adoption is complex and can vary based on demographic and individual factors, as highlighted by (Venkatesh et al., 2003). In the context of this study, the senior citizens' enjoyment in traditional banking methods could act as a barrier to the adoption of digital banking services, reflecting the nuanced interplay of the components within the UTAUT framework.

There is a lot of evidence that this study works well with UTAUT and its extended model by focusing on the role of hedonic motivation, a key factor that is often taken into account in the extended UTAUT models, in how Malaysian seniors use digital banking. This highlights the multi-dimensional nature of technology adoption, with emotional and psychological factors like hedonic motivation playing a significant role, along with other factors examined in this study.

In order to properly customise their marketing strategy, financial institutions must perform rigorous market research and understand their target demographic, which is specifically older citizens. Financial institutions can create aesthetically pleasing user interfaces for mobile apps and digital platforms that will improve the user's hedonistic experience. They can also provide consumers with added or premium benefits, and personalised offers that can surprise and please them. Additionally, if the use of digital banking services provides senior citizens with a sense of satisfaction or enjoyment, perhaps through the convenience it offers or the sense of autonomy it affords them, they may be more motivated to adopt these services.

7. Limitations and Further Research

The findings of this study may give banks or policymakers some suggestions for improving their understanding of what drives adoption as well as what obstacles stand in the way of adoption. The adoption of digital banking among elderly people ought to be able to rise as a result of knowing these aspects. There are a lot more insights on hedonic motivation for elderly people. Thus, future research should examine the elements that provide hedonic motivation to the elderly in order to adopt digital banking services.

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Conflict of Interest Statement

The authors of this study would like to state that there are no conflicts of interest associated with it and that no one supported it in a way that could have influenced its findings. 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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