The Behavioural Intention of Mobile Payment Adoption in Food Service Establishments Among Generation X

Journal of Tourism, Hospitality & Culinary Arts (JTHCA) 2025, Vol. 7 (2) pp 158-177 © The Author(s) 2025 Reprints and permission: UITM Press Submit date: 20st August 2025 Accept date: 15th September 2025

Publish date: 30th September 2025

Zulaikha Che Muhamad Zuni

Faculty of Hotel and Tourism Management, UiTM Cawangan Terengganu, Malaysia Zulaikhazuni1802@gmail.com

Fauziah Deraman*

Faculty of Hotel and Tourism Management, UiTM Cawangan Terengganu, Malaysia fauziahd@uitm.edu.my

Maisarah Abd. Hamid

Faculty of Hotel and Tourism Management, UiTM Cawangan Terengganu, Malaysia maisa179@uitm.edu.my

Noralisa Ismail

Faculty of Hotel and Tourism Management, UiTM Cawangan Terengganu, Malaysia noral634@uitm.edu.my

Proposed citation:

Zuni, Z. C. M., Deraman, F., Hamid, M. A., & Ismail, N. (2025). The behavioural intention of mobile payment adoption in food service establishments among Generation X. Journal of Tourism, Hospitality & Culinary Arts, 17(2), 158-177.

Abstract

This study investigates a relationship between the behavioural intention of mobile payment adoption in food services establishments among Generation X in Dungun, Terengganu. Specifically, the research has examined the influence of three key factors, which are Performance Expectancy (PE), Effort Expectancy (EE), and Trust (TR), on the Behavioural Intention to adopt mobile payment technologies within the food service industry. The objectives of this study are to assess the relationship between Performance Expectancy (PE) and Behavioural Intention towards mobile payment adoption, to examine the relationship between Effort Expectancy (EE) and Behavioural Intention, and to observe the relationship between Trust (TR) and Behavioural Intention towards mobile payment adoption in food service establishments. A quantitative approach has been employed, with data collected through questionnaires administered to 378 respondents. The data have been analysed using IBM SPSS Version 29 to determine the extent to which PE, EE, and TR influence Generation X's behavioural intention towards mobile payment adoption in food services. This study has provided insights into the factors that drive or hinder the adoption of mobile payment systems in the food service sector in Dungun, Terengganu, contributing

to a theoretical and practical understanding of the mobile payment adoption behaviour. Based on the multiple linear regression analysis, this study has confirmed that Performance Expectancy, Effort Expectancy, and Trust have a positive relationship with Behavioural Intention.

Keywords:

Mobile payment, Generation X, behavioural intention, performance expectancy, effort expectancy, trust

1 Introduction

The widespread adoption of mobile payment has transformed financial transactions and significantly impacted consumer behaviour in Malaysia's food and beverage industry. Despite its low adoption rate, mobile payment is seen as an essential step towards a world without cash given the increase in smartphone use and government initiatives to support electronic payments (MCMC, 2017; PwC Malaysia, 2018; Jayaseelan, 2017). The ability and willingness of Generation-X users in Dungun, Terengganu to accept mobile payment in the food and beverage industry would be the primary focus of this study's analysis of their behaviour, while looking for factors that encourage higher acceptance rates within this demographic.

The convenience of buying and managing business through mobile devices has changed how individuals conduct financial transactions, with benefits ranging from ease of use to a decrease in the requirement for physical cash (Hyland, 2019). According to the Unified Theory of Acceptance and Use of Technology (UTAUT), user intention to accept technology is influenced by a variety of elements, including social influence, performance and effort expectations, and facilitating variables. Recent improvements to the UTAUT model that take into account factors like feeling satisfied and trust have provided an improved comprehension of technology adoption (Al-Saedi et al., 2020; Sobti, 2019).

User adaptation to new technology and changes in the economy has slowed down Malaysia's adoption of mobile payment (Wei & Tsu, 2018). The willingness of Generation X to accept mobile payment might be impacted by some barriers, such as concerns about security and usability (Fan et al., 2018; Khalilzadeh et al., 2017). Arora and Yadav (2018) have stated that Generation-X savers cannot simply digitise their finances. This is because cash payment is their norm. It is also known that each generation prefers a different payment method. Millennials may find it as easy as playing a video game, while older people, especially those who are not tech-savvy, may struggle. This electronic payment system may be difficult for Generation X, who may prefer cash for products and services over mobile payment.

Meanwhile, Hanson (2010) has claimed that older generations are more conservative, skeptical, cautious, risk-averse, conventional, and doubtful of technology. Knowing why elders over 60 years old dislike technology may assist overcoming adoption challenges. Cash dependency affects innovative adoption behaviour, according to Hsu and Lin (2016) and Matemba et al. (2018). Consequently, this mobile payment adoption may pose a challenge for Generation X.

With an emphasis on the UTAUT model, this study would investigate how Generation-X consumers intend to act while accepting mobile payment in the food and beverage sector. This is to assist in determining the elements that could positively or negatively impact mobile payment adoption in this population.

2 Literature Review

2.1 Mobile Payment

Mobile payment refers to a technology that enables users to make financial transactions with a mobile device, wireless connection, or mobile Internet (Lu et al., 2011). Even though mobile payment comes in a wide variety of forms, it is mostly carried through two types of technology, which are near-distance and long-distance. Before they use their mobile devices to make long-distance payments, customers must first register for the service, which usually involves downloading an app. Payment service company, such as Google and PayPal, employ an online, long-distance approach to enable mobile payment at stores. However, the customers must hold their smartphones, tablets, or other electronic devices within a few inches of a payment terminal to complete a near-distance purchase (Rivas et al., 2011). As new retail channels made possible by mobile and Internet technologies have emerged, there is an increasing need for creative payment methods that enable rapid and easy transactions.

In the twenty-first century, businesses have increasingly used mobile payment, known as m-payments, as a new way to transact business (Dennehy & Sammon, 2015). Paying through a mobile device allows businesses to reach customers to offer goods or services at different places. A more efficient and secure payment process also improves customer satisfaction and experience. From a commercial perspective, this new payment ability allows businesses to take full advantage of mobile payment to serve customers from different locations.

2.2 The UTAUT Model

According to the UTAUT model, three primary characteristics that impact behavioural intention and usage are performance expectancy, effort expectancy, and trust (Venkatesh et al., 2003). Other factors that affect behaviour include age, gender, experience, and voluntary use. When tested on real data, the model has demonstrated a high degree of explanatory power of 70% (Venkatesh et al., 2003), which is why it has been used in a variety of domains (Venkatesh et al., 2016).

2.2.1 Behavioural Intention

Behavioural intention (BI) is a measure of an individual's willingness to purchase or use a specific product, service, or technological innovation (Davis, 1989). Some research has been conducted to identify critical factors influencing the utilisation of new technology. According to Ajzen (1991), a previous study has demonstrated that behavioural intention plays a crucial role in deciding how new systems are used and implemented. According to Lu, Huang, and Lo (2010), behavioural intention is the

willingness of an individual to participate in such activities and is seen to be an act of spontaneity. According to Davis, Bagozzi, and Warshaw (1989), a desire to keep utilising technology is the behavioural intention about it.

In the meantime, according to Spears and Singh (2004), intention represents personal resources that individuals prepare for execution. A high level of intention creates powerful internal drivers that lead people to execute certain activities. Health-based behavioural theories specifically focus on the pivotal aspect of intention in their approaches. According to scientific investigation, intention proves to be the most effective predictor that influences actual conduct. People base their performance and behaviour on what they feel and know based on their understanding and history. This indicator shows that both driving forces and determination was the approach to complete specified activities (Gellman (Ed.), 2020).

However, the desired relationship between behavioural intention and actual technology usage has been excluded from this study because of time limitations despite relevant studies by Venkatesh et al. (2003), Ghalandari (2012), and Rosnidah et al. (2018). This is because this research has faced restrictions in conducting the study in real time, or in other words, requiring a defined duration for assessing behavioural intention leading to technology usage. Hence, research focusing on the impact of behavioural intention on actual technology use operations would not be used to analyse this relationship in the study.

2.2.2 Performance Expectancy

The benefits of technology are used in terms of Performance Expectancy (PE) (Venkatesh et al., 2012). User expectation about a technology's performance is an important aspect that influences technology adoption, as proven by earlier research on mobile payment (Thakur, 2013). According to a collection of recent research, customer adoption of technology depends on how useful consumers believe it to be (Saif Almuraqab, 2019; Alalwan et al., 2016). In contrast to cash, there is a reason to believe that mobile payment allows banking at any time and from any locations and is a common, quick payment option (Slade, 2015). However, people may only find mobile payment useful if it saves time or is more convenient to carry out than bringing cash along. Research from many different fields and locations has shown that PE has a major impact on behavioural intention (Riquelme & Rios; 2010 Sripalawat et al., 2011; Verkijika, 2018).

Performance expectancy represents the expected functionality and performance of recognised technology among users, according to Sarfaraz (2017). Performance expectation stands among the primary motivational factors, which drives users to adopt technologies through information systems (Dwivendi et al., 2017). A belief that new technology will simplify everyday tasks increases customer acceptance for adoption (Alalwan et al., 2016). Venkatesh et al. (2003) have identified Performance Expectancy from various elements across previous models. Marnest and colleagues (2003) have described five primary components that strengthen motivation under the Innovation

Diffusion Theory, Motivational Model PC Utilisation Model, Technology Adoption Models, and Social Cognition Theory.

When technology is used, performance expectation measures users' perceived improvement in work performance (Venkatesh,2023). There are five sub-facets that make up performance expectation in general, which are (i) perceived usefulness—the belief that implementing technology increases productivity; (ii) extrinsic motivation—the belief that implementing the technology adds value; (iii) job-fit—the belief that implementing the technology enhances job performance; (iv) relative advantage—the belief that implementing the new technology is superior to the old one; and (v) outcome expectation—the expectation that one will feel a sense of satisfaction and success after implementing the technology.

2.2.3 Effort Expectancy

Effort expectation (EE) has also been used to identify the convenience of technology (Venkatesh et al., 2012). According to studies, EE influences why people use technology (Thakur, 2013). Using mobile payment may speed up transactions because of their user-friendly design, which makes life easier. Some members of Generation X may think that younger people should not utilise current technology since it is hard to use. However, younger customers prefer easy-to-use technology since it frees up their time for studying and other social activities (Govender & Sihlali, 2014). They may choose to adopt it if they notice how simple it is to learn and use. That is why EE and its effect on behavioural intentions have been measured by researchers from a variety of fields (Sripalawat et al., 2011; Riquelme & Rios, 2010; Venkatesh et al., 2003).

The UTAUT model contains effort expectation as a primary factor determining technology adoption. The degree of ease related to system usage has been defined as EE by Venkatesh et al. (2003). Cimperman et al. (2016) have explained that PEOU, complexity, and ease of use serve as primary factors, which influence effort expectation. Research studies involving mobile network service adoption have demonstrated that effort expectation proves to be a significant factor in shaping behavioural intention, as shown in Alalwan, Dwivedi, and Rana (2017), Rosnidah et al. (2018), Venkatesh et al. (2003), and Ghalandari (2012). It is clear that effort expectancy demonstrates a relationship with consumer mobile payment usage because these particular systems need specific skills and understanding from users.

According to Hanif and Lallie (2021), Generation-X users are often associated with complaints because effort expectation is a significant factor in the intent of the older users to utilise the mobile application. Despite many benefits of mobile payment, the older generations of users, such as Generation X, or countries with ageing populations, may be dissatisfied with time and effort needed to learn and operate mobile payment apps, as well as their motivation to utilising mobile payment systems. Thus, mobile payment applications' simplicity of use may be explained by effort expectation. However, the use of mobile payment becomes more appealing to mature populations when these systems prove to be straightforward as per their needs for a country with an ageing population.

2.2.4 Trust

Consumers who have carefully studied their online businesses' features come to believe that they are trusted. According to Pavlou (2003), trust is a fundamental element that combines reliability, kindness, honesty, and dependability. The level to which people believe that using mobile payment technology is secure is known as trust (Nur & Panggabean, 2021). Despite their recent acceptance, users' concerns regarding the security, privacy, and reliability of mobile payment continues to be an important barrier to adoption (Septiani, Handayani, & Azzahro, 2017). Alalwan et al. (2017) have defined trust as the "accumulation of trust beliefs: integrity, benevolence, and ability that relate with the bank and mobile-banking channel", while Arpaci (2016) has described it as "perceptions about the reliability and trustworthiness of the system".

Previous studies by Arpaci (2016) and Alalwan et al. (2017) have discovered that students' views or beliefs about trust and dependability (i.e., ability, kindness, and integrity) in connection to mobile payment have operationalised their trust levels. The lack of trust in m-commerce is typically caused by the fact that buyers and sellers transact business online without meeting in person. To illustrate further, the customers are concerned that the sellers could take advantage of their personal information or defraud them (Septiani et al., 2017). As a result, they may be unwilling to purchase products or services from online merchants if they lack confidence. According to earlier studies, trust has a beneficial effect on behavioural intention to use certain technology (Patil et al., 2020; AlSaedi et al., 2020).

Meanwhile, trust in mobile banking among consumers can be operationalised by combining customer values like honesty with compassion and capability because these elements build their willingness to using mobile banking for financial transactions (Gefen, Karahanna, & Straub, 2003). Studies conducted by Alalwan, Dwivedi, and Rana (2017) and Perkins and Annan (2013), along with Salloum and Al Emran (2018), have shown that trust plays a crucial role in predicting how consumers will react to mobile payment. Research by Alalwan, Dwivedi, and Rana (2017) has unveiled that trust remains an essential factor, which determines customer decision to use mobile banking. Perkins and Annan's (2013) research have also indicated that trust is seen as a crucial component in the study's examination of students' intentions to utilise an electronic payment system. Therefore, the present study has assumed that consumer willingness to utilising mobile payment services is directly impacted by trust.

3 Methodology

3.1 Research Design

This study has used a quantitative research design to collect data and analyse hypotheses developed to meet the study's objectives. Quantitative research is an organised study of issues using measurable data and computer, mathematical, or statistical methods (Mohajan, 2020). The phrase 'quantitative research' describes an approach that employs structured questions with a high number of respondents and

predetermined response choices. The relationship between independent and dependent variables may be determined and studied using this method. The design's output has been shown numerically. This study has made use of the earlier collected researcher data using online and questionnaire surveys to guarantee the validity and reliability of the data.

Meanwhile, correlational studies aim to identify differences in a population's regions based on whether or not people who have been exposed to a naturalistic event or activity were there. A method for gathering early information on a subject is correlational research. The dependent variables in this study would correlate with the three types of the independent factors. Additionally, the correlational research is a technique that helps to determine how the variables interact, which is to see the relationship between performance expectancy with behavioural intention, effort expectancy with behavioural intention, and trust with behavioural intention, respectively.

3.2 Population

The members of Generation X currently range between the ages of 44 and 59, having been born between 1965 and 1980. The demographic of Generation X living in the Dungun province in the State of Terengganu amounts to 22,350 individuals. The population data for Dungun, Terengganu have been obtained from the 'City Population' website (https://www.citypopulation.de), a reliable source for demographic statistics. The researchers have accessed the population data through a Dungun-specific link to verify data accuracy and suitability for the study (https://www.citypopulation.de/en/malaysia/admin/terengganu/1102dungun/). website 'City Population' has been developed by German demographer Dr. Stefan Seitz, who has a vast experience in data collection and research, and she is working on numerous demographic studies. The website has been developed to give cities, towns, and regions throughout the world accurate, easily available, and thorough demographic statistics.

Based on the statistics from the United Nations, national statistical offices, and other reliable sources, 'City Population' is regularly updated to take into account the most recent data.

3.3 Sample Size and Sampling Technique

The determination of an appropriate sample size relies on statistical equations, which factor in desired confidence levels together with desired margin errors. The standard choice in educational research uses 95% confidence with a 5% margin of error. Raosoft has provided the calculation method for determining an appropriate sample size among the Generation-X residents in Dungun, Terengganu. It is easier to determine the sample size for the Generation-X population in Dungun, Terengganu because it has preset default tools like a confidence level of 95% and a margin of error of 5%. These default values can be changed based on users' needs with a quick starting point for most studies. Implementing Raosoft as a research tool has simplified work because it helps to

determine precise and dependable sample sizes quickly. Users can access a straightforward interface through Raosoft, which automatically computes sample sizes by inputting parameters, such as population dimensions together with a margin of error data confidence thresholds and response data notions. The selection process guarantees both statistical validity and population-representative effects. Besides, Raosoft has also provided a practical sample size calculation tool that prevents both under-sampling and over-sampling, hence, the researchers could achieve accurate and trustworthy outcomes very efficiently. For this purpose, 378 would be the sample size employed in this study. To choose the participants to complete the survey, a purposive sampling methodology has been employed. Purposive sampling is appropriate as the researchers focus on the specific respondents, which are Generation X.

3.4 Data Collection

The process of gathering reliable data for the target variables in a predetermined, systematic fashion is referred to as the data-collection method. The study has used the primary data to collect information required to analyse the stated hypotheses and meet its objectives. First-hand observations or information collected straight away from the subjects of interest are known as primary data, and they are useful for understanding a specific issue or testing a theory. There are many appropriate methods that exist to collect primary data, such as surveys, interviews, and direct observations (Malhotra, 2008). However, the required data for this study have been collected via an online questionnaire developed for the targeted respondents to collect the data. The questionnaire has used a series of questions that vary in scale to collect relevant information from the respondents.

Research investigating the use of mobile payment by the Malaysian Generation-X individuals, particularly in Dungun, has significant benefits. This is because Malaysia is leading the way in digital payment by designing a government-led programme that encourages people to reject cash transactions. The level of adoption of mobile payment solutions has shown a key difference between urban and rural settings. The urban-rural combination of the Dungun District has created a different view of Generation X's reactions to mobile payment systems beyond the context of major cities. A study of local customer behaviour in Dungun has revealed unique usage challenges, such as technology availability along with security and trust-related issues, so that organisations can adjust their mobile payment promotion plans to match different Malaysian market areas. The correlations between this Behavioural Intention and Performance Expectancy (PE), Effort Expectancy (EE), and Trust (TR) are the objectives of this study.

A pilot test had been run as a reliability test prior to the actual one. The pilot test has been conducted to test the reliability and validity of the items for each variable. It had been conducted before the main research was carried out for the thirty respondents of Generation X in Dungun, Terengganu. The research instrument has been improved ever since. Although the questionnaire has been previously valid for different target populations and locations, a pilot test has still been conducted to determine whether or not the questionnaire could be used for Generation X in Dungun, Terengganu. Feedback

from the respondents has revealed that all the items are relevant and have strong Cronbach's Alpha, which means that all the variables are more than 0.7. The pilot test has helped to identify logistical challenges, such as ways to find people to answer the survey, especially for Generation X.

The questionnaire has five sections, including one demographic question, three independent variables, and one dependent variable. The demographic questions consist of age, gender, and income level, while the variables are Performance Expectancy (PE), Effort Expectation (EE), Trust (TR), and Behavioural Intention (BI). The data have been collected through the online survey using Google Form. The link has been blasted through WhatsApp, Telegram, and Facebook. In the questionnaire, there has also been a screening question to filter the respondents who were not needed in this study. After all the data had been collected, the data that were unnecessary were excluded and only those required were taken, focusing on Generation X. To cut off the respondents from answering the questions, the researchers have disabled the access to Google Form to get the exact number of the respondents.

In the interim, the researchers have also approached the respondents in the food service establishments and other places and invited them to answer the survey. The survey has used an ordinal scale that functions to measure the variables in order. The questionnaire has been measured on a scale from 1 = Strongly Disagree; 2= Disagree; 3= Natural; 4= Agree; and 5 = Strongly Agree.

3.5 Data Analysis

The data collected from 378 respondents have been analysed using the Statistical Package for Society Science (SPSS) Version 29. All the planned tests, including multiple regression, reliability, and descriptive statistics, have been conducted to address the study's objectives, questions, and hypotheses.

4 Findings

4.1 Demographic Profile

The demographic profile of the respondents includes a variety of characteristics, such as age, gender, income level, and level of education, which have been collected to ensure a diverse sample, but the main focus of this discussion is on the behavioural factors influencing mobile payment adoption.

The respondents in this study have been from Generation X with the age range between 44 and 60 years old. The highest number of the respondents falls into the 49-to-53-year-old age group, comprising 45% (n =170). The second largest group belongs to the 44-to-48-year-old age group, representing 31.5% (n=119). The smallest group goes to the 54-to-59-year-old age group, making up 23.5% (89 respondents). The gender distribution of Generation X is almost the same; male 50.8% (n=192) and female 49.2% (n=186).

The findings of the study have revealed significant variations in income levels. A considerable portion of the respondents (4%) have reported earning less than RM1,000, while 34.7% earn between RM1,001 to RM3,000. About 27.8% of the respondents secure an income between RM5,001 and RM7,000, and 9% earn more than RM7,000 and above.

For the education level, primary school or below represents 9.5% (n=36), secondary school represents 32.5% (n=123), diploma or certificate represents 25.1% (n=95), and Master's degree or higher represents 9% (n=34).

4.2 Test on Reliability

The Cronbach's Alpha reliability coefficients have been used to reflect the internal consistency of the three constructs, namely, Performance Expectancy, Effort Expectancy, and Trust. For the measurement model, the reliability values for Performance Expectancy (PE) are 0.941 for Cronbach's Alpha, 0.948 for Effort Expectancy (EE), and 0.940 for Trust (TR). Meanwhile, the Cronbach's Alpha for Behavioural Intention (BI) is 0.959. All the reliability coefficients, which are greater than 0.9, suggest great internal consistency, stating that the items within a particular construct have measured well the corresponding concept. Such reliability proves that it is appropriate to use this measurement tool as it provides strong evidence for evaluating these constructs in the given study.

4.3 Hypotheses Testing

Concerning Hypothesis 1 (H1), which predicts that Performance Expectancy has a positive relationship with Behavioural Intention, the p-value < 0.001. Since the p-value is less than 0.05 or 0.001, the researchers can conclude that the result is statistically significant and, thus, accept the hypothesis. In the case of Hypothesis 2 (H2), which suggests that Effort Expectancy has a positive relationship with Behavioural Intention, it is discovered that the p-value is 0.001. Since the p-value is also less than 0.05, this means that it has reached a statistical significance to back the hypothesis. For Hypothesis 3 (H3), which proposes that Trust affects Behavioural Intention, the p-value is 0.000, a result that is highly significant to support the hypothesis.

4.4 Regression Analysis

The multiple regression analysis has been conducted to examine whether or not Performance Expectancy (IV1), Effort Expectancy (IV2), and Trust (IV3) significantly predict Behavioural Intention (BI). The regression results have indicated that the three predictors explain 95.9% of the variance in BI ($R^2 = 0.959$, F(3, 374) = 2914.791, p < .001), while the other 4.1% is explained by other factors that are not included in this study.

It is found that IV1 significantly predicts BI (β = 0.431, p < .001). On top of that, IV2 also significantly predicts BI (β = -0.137, p < .001). Additionally, IV3 also significantly predicts BI (β = 0.429, p < .001).

However, IV3, which is Trust, has a more significant value (14.875) compared to IV1, which is Performance Expectancy (9.685), and IV2, which is Effort Expectancy (13.875). Therefore, Research Hypotheses H1, H2, and H3 are validated, suggesting that Performance Expectancy, Effort Expectancy, and Trust have a significant, positive effect on the behavioural intention of Generation X in adopting mobile payment.

5 Discussion

This study has proposed and tested a research framework, which aims to examine how performance expectancy, effort expectancy, and trust can influence Generation X's behavioural intention to adopt mobile payment. Examining the role of mobile payment in behavioural intention would elicit a better understanding of what can be improved in the future. In brief, the three hypotheses have been empirically supported. The first one is the relationship between performance expectancy and behavioural intention towards mobile payment adoption in the food service establishments among Generation X. The second one is the relationship between effort expectancy and behavioural intention towards mobile payment adoption in the food service establishments among Generation X. The third one is the relationship between trust and behavioural intention towards mobile payment adoption in the food service establishments among Generation X in Dungun, Terengganu.

The results of this study have shown that Performance Expectation has a significant, positive effect on Behavioural Intention of using mobile payment services. The technology demonstrates increased user interest as more people recognise it as simple to operate. The research results have confirmed the findings from Abrahao et al. (2016) who have demonstrated that users display greater acceptance towards mobile payment systems when they perceive them as useful and efficient. The emphasis of Generation X on practical solutions and time efficiency leads performance expectation to be a central factor in shaping their behaviour regarding mobile payment.

Previous empirical research has indicated that performance expectancy has a major impact on behaviour intention. To investigate behaviour intention to embrace mobile technology, Jambulingam (2013) has used the UTAUT model. The researcher has found that performance expectancy positively influences behavioural intention. In a study report on elements influencing users' behavioural intention towards mobile learning technology, Ayoade (2015) has found that performance expectation has a much greater impact on behavioural intention than effort expectancy, social influence, and enabling conditions.

According to Davis, Bagozzi, and Warshaw (1989), when people believe that new technology will be more beneficial and useful in their daily lives, they are more likely to adopt and employ it. Regarding technology adoption, Zhou, Lu, and Wang (2010) have claimed that users' expectations of a technology's performance will rise in proportion to how comfortable they are using it. Numerous prior studies, including Venkatesh et al. (2003), Ghalandari (2012), Rosnidah et al. (2018), Alalwan, Dwivedi, and Rana (2017), together with Zhou, Lu, and Wang (2010), have shown that expectation output drives

behavioural intention. The assessment of mobile payment adoption at a population scale requires an accurate evaluation of performance expectation.

In the interim, this study's findings have also revealed a positive and significant relationship between Effort Expectancy and Behavioural Intention. The research findings have aligned with Jambulingam (2013) who has emphasised that platform friendliness enhances technology adoption behaviour. Generation-X technology experts prefer interactive interfaces with minimal learning requirements. Barry et al. (2024) have indicated that customers will start using mobile payment apps if these solutions become easy-to-use to them. The strength of perceived ease-of-use function is one of the main factors that drive mobile payment adoption (Liu et al., 2022). People's adoption interest in a technology directly relates to their beliefs about its ease of learning and mastery.

These positive views of many studies are required if technological adoption is to take place. According to Wulandari and co-workers (2024), the use of simpler interfaces renders systems easier to use and users' intellectual burden less, making it more likely for the acceptance and use of them to be done properly. Likewise, Al-Qudah, Alqudah Al Okaily, and Ghazlat (2024) have also found that perceived ease of use directly has an impact on perceived usefulness and user acceptance in the context of the COVID-19 pandemic. It indicates that such simple user interfaces must be developed by financial institutions to encourage the usage of mobile banking. Meanwhile, Kazakov, Osman, and Hossain (2024) have paid special attention to the significance of user interface as having significance for timely transaction completing with respect to day-to-day usage. Literature sources have confirmed that user interface with easy-to-use features leads to high adoption rates of technology, hence, the importance of friendly interface is undeniable. Nonetheless, Mahaputra and Mahaputra (2023) have observed that effort expectation shows no relationship with mobile payment intention.

However, several studies have shown that behavioural intention is positively associated with performance expectancy (Chou et al., 2018; Faqih & Jaradat, 2015; Liébana-Cabanillas et al., 2017). This is because once consumers become aware of a technology's advantages, they may be inclined to accept it. Smartphone, for instance, is used almost everywhere by younger customers, who depend on it very much. However, due to a lack of time and resources, Generation X are unable to make regular visits to banks or ATMs just to withdraw the required amount of money to purchase kitchenware or pay bills. Though, mobile payment has flexibility in terms of time and place (Constantiou et al., 2006). Since it is unsafe for Generation X to carry a lot of cash around, many prefer to stay at home for personal freedom and independence.

This study has confirmed that the involvement of Trust significantly influences behavioural intention. User interest in adopting a specific technology grows directly based on customer confidence in its dependability. Studies have aligned with this finding, including work by Patil et al. (2020), Singh and Sinha (2020), Widyanto et al. (2020), and Gong et al. (2019). Nur and Panggabean (2021) have found that handling information technology transactions needs careful work from operators to build and

keep customer trust. This trust greatly affects what consumers intend to do and how they act during transactions, whether or not they use mobile payment. As Generation X's beliefs in the safety and reliability of online transactions increase, a greater percentage of them are more likely to use the service.

According to Jouda (2020), trust is a willingness to utilise a good or service with positive expectations like certainty or confidence despite of risk concerns. Technology will not be implemented in situations where there is a lack of trust in it (Wu, 2023). Customers want to keep using mobile banking applications when they believe that the business has the ability of meeting their needs and expectations in terms of performance and customer satisfaction (Jarad, 2022). According to several studies, consumer intention to use mobile banking is positively and considerably impacted by trust (Hasan et al., 2024; Wu, 2023; Jouda, 2020; Silanoi et al., 2023; Jason Lim et al., 2017; Jarad, 2022; Merhi et al., 2019; Abu-Taieh et al., 2022). Nonetheless, Chawla and Joshi (2019) have discovered that trust is beneficial but has no significantly different impact on consumer intention. In contrast, Singh and Srivastava (2018) have discovered that trust has a negative effect, but not significantly, on customer intention. This suggests a favourable relationship between trust and consumers' behavioural intention to utilise mobile banking.

Trust is crucial in the banking industry, particularly when it comes to reducing customer concerns over the lack of human connection and control in a cellular setting, which causes worry and uncertainty (Mostafa, 2020). For mobile payment that uses mbanking apps to provide a satisfying experience, they must be trusted to give confidentially for Generation X. The primary focus of this trust research is the security and privacy provided by the mobile payment application. Because they are limited to using mobile payment platforms and lack access to traditional banking services, users place significant importance on trust (Luo et al., 2010).

All of these findings have supported the hypotheses that trust, performance expectations, and effort expectations are the important factors that influence the Generation-X consumers' behavioural intention to use mobile payment systems. To encourage usage in this group, service providers must focus on improving the perceived utility, usability, and dependability of their platforms.

6 Conclusion

The findings of this study have provided valuable insights into the behavioural intention of Generation X in Dungun, Terengganu to adopt mobile payment systems in the food service industry. The significant influence of Performance Expectancy (PE) and Effort Expectancy (EE) has highlighted the importance of perceived usefulness and ease of use in driving adoption. Similarly, it has been discovered that Trust (TR) is an important factor, highlighting consumers' concerns about the security and reliability of their data.

Mobile payment system providers must prioritise maximum simplified user experience for their platforms' consumers. Customers who lack experience with technological systems should find guidance features helpful to understand the system setup and usability leading to simplified usage. A fast and easily accessible customerservice system allows platform users to get assistance if needed, which boosts their trust in the platform. A user-friendly interface, combined with clear navigation, remains essential to eliminate unnecessary confusion from the platform so that customers can navigate it easily.

Research has indicated that performance positive aspects matter most to the Generation-X users in Dungun, Terengganu although convenience stands as a critical factor in mobile payment promotion. To streamline the platform, the system should keep its valuable features but also present new beneficial capabilities that enhance transaction speeds and user convenience and reduce costs. Customers will likely base their payment choices on these advantageous features more than any other factors.

To strengthen adoption more, there needs to be a higher priority on making it an effortless user experience for developers and providers. Promoting fast loading times, reducing unnecessary stages in the process, and assuring an appealing and clear interface are the goals. Incorporating a simplified and easy experience can increase consumers' confidence in using mobile payment methods.

The acceptance of mobile payment depends on the establishment of trust as a fundamental factor. The security of both financial and personal data must be trustworthy to users. Strong security measures should be implemented by providers to achieve consumer trust through the encryption of data and two-factor authentication, along with regular system upgrades, for preventing hacking incidents. This is because users require complete data-protection instructions to learn exactly how their information is collected, stored, and used by the platform. When the users understand these methods through proper disclosure, they will develop trust in the platform.

Apart from that, building trust also requires reliability. Users need mobile payment systems to execute transactions safely and easily to establish trust. They will trust and remain with the platform only if it maintains smooth and uninterrupted operations.

In Dungun, Terengganu, mobile payment providers may reduce the worries of Generation X and encourage them to accept mobile payment systems as the useful, safe, and effective options for doing business by emphasising ease of use, strong security, dependability, and trust-building initiatives.

However, the pilot test's small sample size could have made it more difficult to identify all possible problems, especially those involving various demographic groups. Hence, a more detailed pilot test may be useful in future research to address this barrier. However, the results of the primary and pilot studies have advanced the researchers' knowledge on how Generation X use mobile payment in this area.

About the authors

Zulaikha Che Muhamad Zuni graduated with a diploma in Food Service Management from UiTM Cawangan Terengganu, Terengganu, Malaysia in 2021 and is currently pursuing a bachelor's degree in Science (Hons) in Food Service Management at the same campus, with an expected graduation date in 2025. Her undergraduate project is titled "The Behavioural Intention of Mobile Payment Adoption among Generation X in Dungun Terengganu". The author is dedicated to understanding and improving the adoption of Generation-X mobile payment through her research.

Fauziah Deraman is a senior lecturer in the Hotel Department, Faculty of Hotel and Tourism Management, Universiti Teknologi MARA Cawangan Terengganu, Terengganu, Malaysia. She is an accomplished researcher who has a deep interest in green practices, food and beverages, and hospitality management.

Maisarah Abdul Hamid is a senior lecturer in the Tourism Department, Faculty of Hotel and Tourism Management, Universiti Teknologi MARA Cawangan Terengganu, Terengganu, Malaysia. Her research interest is Tourism Management, Islamic Tourism, and Smart Tourism.

Noralisa Ismail is a senior lecturer at the Faculty of Hotel and Tourism Management, Universiti Teknologi MARA Cawangan Terengganu, Terengganu, Malaysia. Her research interest is on Smart Tourism Technology, Customer Behaviour, and Culture Heritage Tourism.

8 References

- Abrahão, R. de S., Moriguchi, S. N., & Andrade, D. F. (2016). Intention of adoption of mobile payment: An analysis in the light of the Unified Theory of Acceptance and Use of Technology (UTAUT). RAI Revista de Administração E Inovação, 13(3), 221–230. https://doi.org/10.1016/j.rai.2016.06.003.
- Abu-Taieh, E. M., AlHadid, I., Abu-Tayeh, S., Masa'deh, R., Alkhawaldeh, R. S., Khwaldeh, S., & Alrowwad, A. (2022). Continued intention to use of m-banking in Jordan by integrating UTAUT, TPB, TAM and service quality with ML. *Journal of Open Innovation: Technology, Market, and Complexity*, 8, 120.
- Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211.
- Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*, 37(3), 99-110.
- Alalwan, A. A., Dwivedi, Y. K., & Williams, M. D. (2016). Customers' intention and adoption of telebanking in Jordan. *Information Systems Management*, 33(2), 154-178.
- Alalwan, A. A., Dwivedi, Y. K., Rana, N. P. P., & Williams, M. D. (2016). Consumer adoption of mobile banking in Jordan. *Journal of Enterprise Information Management*, 29(1), 118–139.https://doi.org/10.1108/JEIM-04-2015-0035
- Al-Qudah, A. A., Al-Okaily, M., Alqudah, G., & Ghazlat, A. (2024). Mobile payment adoption in the time of the COVID-19 pandemic. *Electronic Commerce Research*, 24(1), 427-451.

- Al-Saedi, K., Al-Emran, M., Ramayah, T., & Abusham, E. (2020). Developing a general extended UTAUT model for M-payment adoption. *Technology in Society*,62(January), 101293. https://doi.org/10.1016/j.techsoc.2020.101293
- Arora, M., & Yadav, M. P. (2018). A Study on Perception of Different Generation in the Use of E Wallet. *Journal of IMS Group*, 15(1).
- Arpaci, I. (2016). Understanding and predicting students' intention to use mobile cloud storage services. Comput. Hum. Behav. 58, 150–157. doi: 10.1016/j.chb.2015.12.067.,
- Ayoade, O. B. (2015). Factors influencing students' behavioural intention to adopt and use mobile learning in higher educational institutions in Nigeria: An example of Ekiti State University, Ado-Ekiti. *International Journal of Emerging Technology and Advanced Engineering*, 5(4), 307–313.
- Barry, M., Haque, A. A., & Jan, M. T. (2024a). Factors affecting the intention to use mobile commerce in Malaysia: An integration of TAM And IS success model. *International Journal of Academic Research in Business and Social Sciences*, 14(3), 726-753. http://dx.doi.org/10.6007/IJARBSS/v14-i3/21037.
- Chawla, D., & Joshi, H. (2020). The moderating role of gender and age in adoption of mobile wallet. Foresight, 22 (4), 483-504.
- Chou, Y. H. D., Li, T. Y. D., & Ho, C. T. B. (2018). Factors influencing the adoption of mobile commerce in Taiwan. *International Journal of Mobile Communications*, 16(2), 117.https://doi.org/10.1504/IJMC.2018.089754
- Cimperman, M., Brenčič, M. M., and Trkman, P. (2016). Analyzing older users' home telehealth services acceptance behavior—applying an extended UTAUT model. *Int. J. Med. Inform.* 90, 22–31. doi: 10.1016/j.ijmedinf.2016.03.002
- Constantiou, I. ., Damsgaard, J., & Knutsen, L.(2006). Exploring perceptions and use of mobile services: user differences in an advancing market. *International Journal of Mobile Communications*, 4(3), 231–247.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). Technology acceptance model. *J Manag Sci*, 35(8), 982-1003
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly: Management Information Systems, 13(3), 319–340. https://doi.org/10.2307/249008
- Dennehy, D., & Sammon, D. (2015). Trends in mobile payments research: A literature review. Journal of Innovation Management, 3(1), 49–61. https://doi.org/10.24840/2183-0606 003.001 0006
- Dwivendi, Y. K., Rana, N. P., Janssen, M., Lal, B., Williams, M. D., & Clement, M. (2017). An empirical validation of a unified model of electronic government adoption (UMEGA). *Government Information Quarterly*, 34(2), 211-230.
- Fan, B., Ji, H., Wei, J., & Lambert, S. (2018). Development of tactical solutions for the e-credit card issuing industry. *International Journal of Accounting and Information Management*, 26(1), 115–131. https://doi.org/10.1108/IJAIM-02-2017-0014
- Faqih, K. M. S., & Jaradat, M.-I. R. M. (2015). Assessing the moderating effect ofgender differences and individualism-collectivism at individual-level on the adoption of mobile commerce technology: TAM3 perspective. *Journal of Retailing and Consumer Services*, 22, 37–52. https://doi.org/10.1016/j.jretconser.2014.09.006
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. MIS quarterly, 51-90.
- Gellman, M. D. (Ed.). (2020). *Encyclopedia of behavioral medicine*. Cham: Springer International Publishing.

- Ghalandari, K. (2012). The effect of performance expectancy, effort expectancy, social influence and facilitating conditions on acceptance of e-banking services in Iran: The moderating role of age and gender. *Middle-East Journal of Scientific Research*, 12(6), 801-807.
- Gong, X., Zhang, K. Z. K., Chen, C., Cheung, C. M. K., & Lee, M. K. O. (2019). What drives trust transfer from web to mobile payment services? The dual effects of perceived entitativity. *Information & Management*, 57(7), 103250. https://doi.org/10.1016/j.im.2019.103250
- Govender, I., & Sihlali, W. (2014). A Study of Mobile Banking Adoption among University Students Using an Extended TAM. *Mediterranean Journal of Social Sciences*, 5(7), 451. https://doi.org/10.5901/mjss.2014.v5n7p451
- Hanif, Y., & Lallie, H. S. (2021). Security factors on the intention to use mobile banking applications in the UK older generation (55+). A mixed-method study using modified UTAUT and MTAM-with perceived cyber security, risk, and trust. Technology in Society, 67, 101693.
- Hanson, V. L. (2010). Influencing technology adoption by older adults. *Interacting with Computers*, 22(6), 502-509. https://doi.org/10.1016/j.intcom.2010.09.001
- Hasan, A., Sikarwar, P., Mishra, A., Raghuwanshi, S., Singhal, A., Joshi, A., Singh, P. R., and Dixit, A. (2024). Determinants of Behavioral Intention to use digital payment among Indian youngsters. *Journal of Risk and Financial Management*, 17, 87
- Hsu, C., & Lin, J. C. (2016). Effect of perceived value and social influences on mobile app stickiness and in-app purchase intention. *Technological Forecasting and Social Change*, 108, 42-53. https://doi.org/10.1016/j.techfore.2016.04.012
- Hyland, R. (2019). 13th Asian Cinema Studies Society Conference: The Environments of Asian Cinemas, La Salle College of the Arts, Singapore, 24–26 June 2019. Asian Cinema, 30(2).
- Jambulingam, M. (2013). Behavioural intention to adopt mobile technology among tertiary students. *World Applied Sciences Journal*, 22(9), 1262–1271.
- Jarad, A. L. G. A. (2022). Continuous intention to use mobile banking apps: Empirical study in Iraq. *Review of Business and Management TMP*, 18(1), 61–74
- Jayaseelan, R. (2017). The e-wallet race hots up. The Star Online. Business section. Jul 29
- Jouda, H. (2020). Expanding TAM and Investigating the Factors that Effect Consumer Intention to Adopt Mobile Banking in Palestine. *Financial Internet Quarterly* 2020, 16(3), 29–50
- KAZAKOV, T., Islam, M. F., OSMAN, E., & HOSSAIN, M. B. (2024). An Analysis of Consumer Decision-Making in Mobile Payment Adoption: Exploring Influencing Factors.
- Khalilzadeh, J., Ozturk, A. B., & Bilgihan, A. (2017). Security-related factors in extended UTAUT model for NFC based mobile payment in the restaurant industry. *Computers in Human Behavior*, 70(2017), 460–474. https://doi.org/10.1016/j.chb.2017.01.001
- Liébana-Cabanillas, F., Ramos de Luna, I., & Montoro-Ríos, F. (2017). Intention to use new mobile payment systems: a comparative analysis of SMS and NFCpayments. *Economic Research-Ekonomska Istraživanja*, 30(1), 892 910. https://doi.org/10.1080/1331677X.2017.1305784
- Liu, C. H., Chen, Y. T., Kittikowit, S., Hongsuchon, T., & Chen, Y. J. (2022). Using unified theory of acceptance and use of technology to evaluate the impact of a Mobile payment app on the shopping intention and usage behavior of middle-aged customers. *Frontiers in Psychology*, 13. DOI:10.3389/fpsyg.2022.830842
- Lu, C. T., Huang, S. Y., & Lo, P. Y. (2010). An empirical study of on-line tax filing acceptance model: Integrating TAM and TPB. *African Journal of Business Management*, 4(5), 800.
- Lu, Y., Yang, S., Chau, P. Y. K., & Cao, Y. (2011). Dynamics between the trust transfer process and intention to use mobile payment services: A cross environment perspective. *Information & Management*, 48(8), 393–403. https://doi.org/10.1016/j.im.2011.09.006
- Luo, X., Li, H., Zhang, J., & Shim, J. P. (2010). Examining multi-dimensional trust and multi-faceted risk in initial acceptance of emerging technologies: An empirical study of mobile banking

- services. Decision Support Systems, 49(2), 222–234.https://doi.org/10.1016/j.dss.2010.02.008
- Mahaputra, M. R., & Mahaputra, M. R. (2023). The influence of perceived usefulness, perceived ease of use, and social influence on mobile commerce usage activities. *Greenation International Journal of Tourism and Management*, 1(1), 8-15. https://doi.org/10.38035/gijtm.v1i1.17
- Malaysian Communications and Multimedia Commission. (2014). Pocket Book of Statistics 2014.

 Retrieved February 27, 2015, from http://www.skmm.gov.my/skmmgovmy/media/General/pdf/SKMM-Q4-2014_BI_1.pdf.
- Malhotra, N. K. (2008). Marketing Research: An Applied Orientation, 5/E. Pearson Education India.
- Matemba, E. D., Li, G., & Maiseli, B. J. (2018). Consumers' stickiness to mobile payment applications: an empirical study of WeChat wallet. *Journal of Database Management*, 29(3), pp. 43-66.
- Merhi, M., Hone, K., & Tarhini, A. (2019). A cross-cultural study of the intention to use mobile banking between Lebanon and the UK. *Computers in Human Behavior*, 89, 123–136
- Mohajan, H. K. (2020). Quantitative Research: A Successful Investigation in Natural and Social Sciences. *Journal of Economic Development, Environment and People,* 9(4), 50–79. https://doi.org/10.26458/jedep.v9i4.679
- Mostafa, R. B. (2020). Mobile banking service quality: a new avenue for customer value cocreation. *International Journal of Bank Marketing*, 38(5), 1107–1132.https://doi.org/10.1108/IJBM-11-2019-0421
- Nur, T., & Panggabean, R. R. (2021). Factors Influencing the Adoption of Mobile Payment Method among Generation Z: the Extended UTAUT Approach. *Journal of Accounting Research, Organization and Economics,* 4(1), 14–28. https://doi.org/10.24815/jaroe.v4i1.19644
- Patil, P., Tamilmani, K., Rana, N. P., & Raghavan, V. (2020). Understanding consumer adoption of mobile payment in India: Extending Meta-UTAUT model with personal innovativeness, anxiety, trust, and grievance redressal. *International Journal of Information Management*, 54(February), 102144. https://doi.org/10.1016/j.ijinfomgt.2020.102144
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trustand risk with the technology acceptance model. *International Journal of Electronic Commerce*,7(3), 101–134. https://doi.org/10.1080/10864415.2003.11044275
- Perkins, E. Z. D., & Annan, J. (2013). Factors affecting the adoption of online banking in Ghana: implications for bank managers. *International Journal of Business and Social Research* (*IJBSR*), 3(6), 94-108.
- Riquelme, H. E., & Rios, R. E. (2010). The moderating effect of gender in the adoption of mobile banking. *International Journal of Bank Marketing*, 28(5), 328 341.https://doi.org/10.1108/02652321011064872
- Rivas, R. A., Borcherding, J. D., González, V., & Alarcón, L. F. (2011). Analysis of Factors Influencing Productivity Using Craftsmen Questionnaires: Case Study in a Chilean Construction Company. *Journal of Construction Engineering and Management,* 137(4), 312–320. https://doi.org/10.1061/(asce)co.1943-7862.0000274
- Rosnidah, I., Johari, R. J., Sulistyowati, W. A., Siddiq, D. M., & Setiawan, A. (2018). Students' Intention in Pursuing Accounting Study: Theory of Planned Behaviour Perspective. *Advanced Science Letters*, 24(12), 9475-9478.

- Saif Almuraqab, N. A. (2020). Predicting determinants of the intention to use digital currency in the UAE: An empirical study. *The Electronic Journal of Information Systems in Developing Countries*, 86(3), e12125.
- Salloum, S. A., & Al-Emran, M. (2018). Factors affecting the adoption of E-payment systems by university students: Extending the TAM with trust. *International Journal of Electronic Business*, 14(4), 371-390.
- Sarfaraz, J. (2017). Unified theory of acceptance and use of technology (UTAUT) model-mobile banking. *Journal of Internet Banking and Commerce*, Jahangirabad Institute of Technology.
- Septiani, R., Handayani, P. W., & Azzahro, F. (2017). Factors that affecting behavioral intention in online transportation service: Case study of GO-JEK. *Procedia Computer Science*, 124, 504–512. https://doi.org/10.1016/j.procs.2017.12.183
- Silanoi, W., Naruetharadhol, P., & Ponsree, K. (2023). The confidence of and concern about using mobile banking among generation Z: A case of the post COVID-19 situation in Thailand. *Social Sciences*, 12, 198
- Singh, N., & Sinha, N. (2020). How perceived trust mediates merchant's intention to use a mobile wallet technology. *Journal of Retailing and Consumer Services*, 52(July 2019), 101894. https://doi.org/10.1016/j.jretconser.2019.101894
- Singh, S., & Srivastava, R. K. (2018). Predicting the intention to use mobile banking in India. International *Journal of Bank Marketing*, 36(2), 357–378
- Slade, E. L. (2015). Slade, E. L., Dwivedi, Y. K., Piercy, N. C., & Williams, M. D. (2015). Modelling Consumers' Adoption Intentions of Remote Mobile Payments in the United Kingdom: Extending UTAUT with Innovativeness, Risk, and University of Bristol-Explor.32, 860–873.https://doi.org/10.1002/mar.20823/abstract
- Sobti, N. (2019). Impact of demonetization on diffusion of mobile payment service in India: Antecedents of behavioral intention and adoption using extended UTAUT model. *Journal of Advances in Management Research*, 16(4), 472–497. https://doi.org/10.1108/JAMR-09-2018-0086
- Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. Journal of current issues & research in advertising, 26(2), 53-66.
- Sripalawat, J., Thongmak, M., & Ngramyarn, A. (2011). M-banking in metropolitan Bangkok and a comparison with other countries. *Journal of computer information systems*, 51(3), 67-76.
- Thakur, R. (2013). Customer Adoption of Mobile Payment Services by Professionals across two Cities in India: An Empirical Study Using Modified Technology Acceptance Model. *Business Perspectives and Research*, 1(2), 17–30. https://doi.org/10.1177/2278533720130203
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.
- Venkatesh, V., Thong, J., & Xu, X. (2016b). Unified Theory of Acceptance and Use of Technology: A Synthesis and the Road Ahead. *Journal of the Association for Information Systems*, 17(5), 328–376. https://doi.org/10.17705/1jais.00428
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157–178. https://doi.org/10.2307/41410412
- Verkijika, S. F. (2020). An effective response model for understanding the acceptance of mobile payment systems. *Electronic Commerce Research and Applications*, 39, 100905. https://doi.org/10.1016/j.elerap.2019.100905
- Wang, H. Y., & Wang, S. H. (2010). User acceptance of mobile internet based on the unified theory of acceptance and use of technology: Investigating the determinants and gender differences. *Social Behavior and Personality: an international journal*, 38(3), 415-426.

- Wei, L. Z., & Tsu, D. K. P. (2018). Transforming mobile phones into e-wallets in Malaysia. *Bank Negara Malaysia Quarterly Bulletin*, 35–43. www.bnm.gov.my
- Widyanto, H. A., Kusumawardani, K. A., & Septyawanda, A. (2020). Encouraging behavioural intention to use mobile payment: an extension of Utaut2. *Jurnal Muara Ilmu Ekonomi Dan Bisnis*, 4(1), 87.https://doi.org/10.24912/jmieb.v4i1.7584
- Wu, X. (2023). The Examination on mobile banking's use behavior of retired chinese in Shaoxing. *ABAC ODI Journal Vision. Action. Outcome*, 11(1), 378–396
- Wulandari, A. A., Nurhaipah, T., & Ohorella, N. R. (2024). Perceived ease of use, social influencers, facilitating conditions, user experience on the influence of human-machine interaction on interaction efficiency, emotional impact of using chat GPT. *Journal of Digital Media Communication*, 2(2), 61-75.
- Zhou, T., Lu, Y., & Wang, B. (2010). Integrating TTF and UTAUT to explain mobile banking user adoption. *Computers in human behavior*, 26(4), 760-767.