Asia Pacific Journal of Management and Education (APJME)
Vol. 8 No. 1, pp.18-41, March, 2025
E-ISSN: 2655-2035 P-ISSN: 2685-8835
https://www.ejournal.aibpmjournals.com/index.php/APJME

Factors Influencing the Intention to Use E-Wallet Payment Among Millennials and Generation Z in Malaysia

Kia Hui Gan [1*], Hui Ling Lim[1], Ke Shan Choo[2], Jes Yee Chong[2], Jing En Chong[2], Xin Yi Chong[2], Kai Wen Choong[2], Anees Janee Ali[2], Daisy Mui Hung Kee[2]
[1]INTI International University & Colleges, Pulau Pinang, Malaysia
[2]Universiti Sains Malaysia, Malaysia
*Corresponding Email: kiahui.gan@newinti.edu.my[1]

ARTICLE INFORMATION

Publication information

Research article

HOW TO CITE
Gan, K. H., Lim, H. L., Choo, K. S., Chong, J. Y., Chong, J. E., Chong, X. Y., …, & Kee, D. M. H. (2025). Factors influencing the intention to use e-wallet payment among Millennials and Generation Z in Malaysia. *Asia Pacific Journal of Management and Education*, *8*(1), 18-41.

DOI:
https://doi.org/10.32535/apjme.v8i1.3855

Received: 18 January 2025
Accepted: 19 February 2025
Published: 20 March 2025

ABSTRACT

The monetary climate has evolved due to the rapid advancement of digital payment systems, and Touch 'n Go is one of the contactless smart card systems that is commonly used to conduct transactions, especially among younger generations. Touch 'n Go is the foundation of the digital revolution within Malaysia's mobility ecosystem, creating an enjoyable shopping experience for millions of Malaysians. Thus, this study investigates the factors influencing Millennials and Generation Z's intention to use e-wallets. The research focuses on four key variables: perceived security, perceived usefulness, consumer's attitude, and social influence. Data was collected through a survey of 150 Millennials and Generation Z respondents and the impact of these factors on the intention to use e-wallets was analysed using quantitative methods. The findings show that perceived usefulness and consumer attitude significantly drive Touch 'n Go eWallet adoption, emphasizing functionality and user experience. However, perceived security and social influence had no significant impact on usage intention. The study offers insights for digital wallet providers and legislators looking to boost the adoption rate of digital payment systems in Malaysia.

Keywords: Digital Payment Systems; E-Wallet; Touch 'n Go; Malaysia; Millennials; Generation Z

INTRODUCTION

E-wallets were born in the field of financial technology (FinTech), using digital technology to enable users to conveniently make payments, transfer money, and manage funds, allowing them to complete transactions without carrying cash or bank cards (Loke et al., 2022). FinTech refers to the industry that improves or transforms financial services and products via the use of innovative technology. It integrates finance and technology, leveraging cloud computing, big data, blockchain, and artificial intelligence (AI) to provide individuals and businesses with more efficient, convenient, and secure financial solutions (Kee et al., 2024).

In Malaysia, e-wallets have also become a popular payment mechanism. Based on the information from Adyen Index 2024, 63% of Malaysians have started to use e-wallets for making payments and transactions compared to cash payments. The index, which surveyed 13,000 merchants and 38,000 consumers across 26 markets, highlights that Malaysia leads the world in the use of mobile wallets. Due to the COVID-19 pandemic in 2022, more than half of Malaysians began using cashless payments on a daily basis, which helped to boost the trend of cashless payments. E-wallet usage reached its highest in 2023, getting closer to the 64% total usage peak recorded in 2021. The integration of e-wallets with other services has pushed consumers to primarily use one e-wallet for their payment needs despite the fact that the average number of e-wallets used per consumer dropped slightly from 2.5 to 1.9 (Farid, 2024).

In Malaysia, three e-wallets are categorized as the best e-wallets in Malaysia, which are the Touch 'n Go eWallet, Grab eWallet, and Boost eWallet as they have a wide range of features (Suraya, 2023). However, among the top three e-wallets, the Touch 'n Go eWallet remains the most commonly used cashless payment brand and the trend has continued since 2020. In addition, in 2023, the Touch ‘n Go eWallet maintained a leading usage rate in Malaysia for four consecutive quarters, with rates of 54%, 90%, 78%, and 93%, significantly surpassing competitors such as Boost, Alipay, WeChat Pay, and Grab Pay (Asha, 2024). This is because cashless payments at highway toll booths and public transportation are widely accepted, which contributes to its 62% preference among Malaysian users (Farid, 2024). Touch 'n Go has evolved into a full digital wallet app that offers users a wider range of financial services such as cashless payments, FNC transit card top-ups, bill payments, micro-investments, and more (Touch ’n Go, 2024). Most of its users are Chinese men between 25 years old and 34 years old, and their monthly income ranges from RM3,000 to RM10,000 (Farid, 2024).

Generation Z, aged between 12 and 28, and Millennials, aged between 29 and 43 (referred to as Generation Y), are currently the most prominent primary users of e-wallets. Approximately 45% of the total population, comprising Generation Z and Millennials, are eager to explore and experience this digital payment method, seeking the convenience and security that e-wallets offer (Haroon, 2020). According to a survey in Malaysia, in 2020, 70% of Generation Y used e-wallets in the first quarter, and 71% of Generation Z used e-wallets in the third quarter (Oppotus, 2020). These two generations are categorized as “digital natives”, and since they grew up during a time when cellphones and the internet were widely used, they are regarded as a significant consumer base for the e-wallet industry. Digital tools have become a part of their lives, making them more inclined to accept and adapt to using e-wallets. Moreover, the instant transfer services provided by e-wallets align with the efficient lifestyle pursued by these two generations. Existing e-wallets on the market recommend discounts or rewards based on consumption habits to attract more users, which quite satisfies their preference for personalized shopping experiences. More importantly, they are the main force in the era of online shopping. A 2022 survey of Malaysian e-commerce consumers found that

27.4% of users were under the age of 20. Overall, Generation Z and Millennials constitute the majority of internet shoppers (Siddharta, 2023). E-wallet applications are linked with shopping websites, providing online shoppers with more convenient payment methods, enabling a society where shopping and consumption can happen anytime and anywhere. This also meets the needs of both generations quite well.

Problem Statement

As the global business landscape increasingly shifts towards electronic payments to conduct business, Malaysia is also making strides toward a cashless economy. This is because, in 2020, the Malaysian government launched a series of economic stimulus plans, allocating RM750 million to promote using e-wallets nationwide to revitalize the economy in Malaysia (Fong, 2024). Aside from that, the Ministry of Finance launched the MyDigital project in 2021, which aims for all government service payments to be cashless by 2022. This will enhance transaction security, increase efficiency, curb corruption, and facilitate information sharing, making transactions between the public and government officials more transparent (Natrah, 2021). The government's active promotion of cashless transactions also includes the fact that using cash makes some transactions unrecorded, leading to a reduction in government tax revenue. In 2023, LHDN pointed out that individuals and companies evaded up to RM6.34 billion in taxes by underreporting taxable income and failing to declare their earnings. Worse still, it is estimated that another RM7 billion comes from economic losses in the shadow economy, including illegal businesses and cash transactions (Pfordten, 2024).

However, Malaysia still faces a variety of problems with the usage of e-wallets, such as money being stolen from e-wallet accounts. In 2022, Malaysia had a news report about teachers and workers from several schools who claimed that their Touch ‘n Go eWallets were compromised. The total amount of money that had been taken from them was around RM 20,000. Sin Chew Daily report showed teachers told the DAP Public Complaints Bureau that this issue happened during Chinese New Year, resulting in the theft of large sums of money through auto-reloads. Additionally, they stated that the cash that was placed into the TnG Go+ was also stolen, indicating that the issue was not limited to the e-wallet amount. According to the victims, credit or debit cards were used for automated reloads in the majority of the cases, thus causing money scams to occur (Jerrica, 2024). Moreover, Malaysian musician Zahid Baharudin claimed that his wife's bank account, purportedly linked to Touch 'n Go eWallet, had lost money (Wong, 2024).

These news reports show that security issues may affect consumers' intention to use e-wallets. In order to better understand and enhance Malaysia's e-wallet services, these challenges underscore the need for thorough research and validation into the factors influencing the intention of using digital payment solutions, such as the Touch 'n Go eWallet. Hence, building the research framework outlined in the research background, it is essential to investigate how perceived security, perceived usefulness, consumer’s attitudes, and social influence affect Malaysian Millennials’ and Generation Z’s intention to use the Touch ‘n Go eWallet. Touch 'n Go eWallet became the subject of this study because it has a higher usage rate in Malaysia. In the four quarters of 2023, the usage rate of this e-wallet was leading.

This study aims to examine the key factors influencing Millennials’ and Generation Z’s intention to use e-wallets in Malaysia, with a focus on perceived security, perceived usefulness, consumer attitudes, and social influence. Given the government’s push for a cashless economy through initiatives like MyDigital and economic stimulus programs, understanding user adoption is critical. However, recent security concerns surrounding e-wallet transactions highlight potential barriers to widespread acceptance. This research is significant as it contributes to the literature on digital payment adoption by

addressing both motivational drivers and security concerns. The study's novelty lies in integrating real-world security incidents into the behavioral analysis of e-wallet adoption, offering a more comprehensive view of consumer trust and risk perception. The findings will provide valuable insights for policymakers, financial institutions, and digital payment providers in enhancing security measures and user experience, ultimately supporting Malaysia's transition to a cashless society.

LITERATURE REVIEW

Underpinning Theory

Technology Acceptance Model (TAM)

An influential framework in the study of technology adoption is the Technology Acceptance Model (TAM), introduced by Davis, Bagozzi, and Warshaw in 1989. It identifies perceived usefulness as the main variable affecting an individual's willingness to embrace new technologies. The usefulness perception demonstrates how a company's view of technology's value enhances its operations. In the meantime, businesses view the adoption of technology as a natural process, which is often reflected in their perceived ease of use. According to a number of earlier TAM research, perceived utility has a significant impact on people's intentions to utilize technology. TAM shows that perceived ease of use influences how effective a system is seen because the more user-friendly a system is, the more beneficial it is (Rafique et al., 2019). TAM is employed as a supporting theoretical framework, given its widespread validation through numerous empirical studies, which demonstrate its effectiveness in explaining e-commerce adoption. Specifically, TAM helps in understanding how consumers form behavioral intentions and exhibit actual behaviors toward online transactions and digital platforms (Marikyan & Papagiannidis, 2023). It is a simple, effective, and rigorous framework that can help explain and predict how people use technology.

Dependent Variable

Intention to Use Touch 'n Go eWallet Among Millennials and Generation Z

Intention means an individual is motivated to use an e-wallet based on the variables that Millennials and Generation Z take into account (Kuppusamy & Xiang, 2024). This study addressed e-wallets, a relatively new form of payment method that has become very popular among Millennials as a way to avoid face-to-face interactions during transactions, especially during the COVID-19 pandemic (Toh et al., 2022).

Customers typically complete these transactions in physical stores by using their mobile device to scan the QR code without bringing a real wallet among Generation Z (Morgan et al., 2023). Its online payment options allow customers to benefit from the flexibility offered by Touch 'n Go eWallet, as its goal is to make cashless payment methods safe, quick, and easy for everyone (Ling et al., 2023). Among the factors affecting Millennials' and Generation Z's desire to use Touch 'n Go eWallet are consumers' attitude, perceived security, social influence, and perceived usefulness (Teo et al., 2020).

Factors Influencing the Intention to Use Touch 'n Go eWallet Among Millennials and Generation Z

Perceived Security

Perceived security is the level of assurance a user has that using a specific application will not reveal personal information to an unauthorized party, fraud, and abuse of authority (Siagian et al., 2022). To dispel this misconception and enhance trust in e-wallets, relevant authorities, and governments can give users accurate and beneficial insights about e-wallet safety features. This can be achieved by educating users on cybersecurity, sharing statistics on e-wallet fraud, and highlighting measures that prevent such incidents (Osman & Yi, 2021).

Information security factors like authentication, encryption, transaction processing, user privacy, and information supplied impact the continuous utilization of digital wallets (Prawira et al., 2024). The analysis emphasizes the importance of security in accelerating the intention of using a cashless payment system. Increasing the effectiveness and frequency of cashless transactions requires enhancing technological accessibility, strengthening security protocols, and creating a competitive atmosphere (Madhavedi et al., 2024). Based on the analysis, the application could protect their privacy, identify malware, and take preventative measures to avoid cybersecurity concerns (Lim et al., 2022). The following is a form of the hypothesis:

H1: Perceived security positively influences the intention to use Touch 'n Go eWallet among Millennials and Generation Z.

Perceived Usefulness

Perceived usefulness is one of TAM's most vital features. It is the extent where a user believes that utilizing the services system provided by digital wallets would benefit them (Efendi et al., 2024). A type of external motivation and encouragement known as perceived usefulness occurs when a potential adopter thinks that utilizing a specific system will help them or them perform better (Yan, 2023). Although perceived usefulness can differ from person to person, a technology is unlikely to be adopted if it is not seen as useful, even with careful implementation efforts. As a result, many studies have looked at this variable in connection with the adoption of technology (Hazim, 2020). Numerous research studies have shown that users' intentions to use online payment systems, such as e-payment, e-wallets, and e-banking, are significantly influenced by perceived utility (Haider et al., 2024).

Young consumers in Malaysia, irrespective of gender, educational attainment, or past usage experience, strongly perceive e-wallets as useful because they believe they save time (Mun, 2024). According to the findings of Daragmeh et al. (2021), users' decisions to continue utilizing a mobile application or technology may be influenced by their perceptions of its worth and utility. If consumers make extensive use of the e-wallet features, it can ease problems and simplify life. Previous studies suggest that perceived usefulness significantly influences people's behavioral intention to adopt an e-wallet. The present study makes the assumption that customers will stick with e-wallets provided the service providers can add new features that attract their interest. Given the literature, it is hypothesized that:

H2: Perceived usefulness positively influences the intention to use Touch 'n Go eWallet among Millennials and Generation Z.

Consumer's Attitude

Attitude is a metric for actions that indicates how favorably or unfavorably a behavior is valued (Davis et al., 1989). Consumers' attitudes indicate an individual's overall evaluation or readiness to use an e-wallet, which can be impacted by elements such as previous experience, perceived ease of use, and expected benefits (Almawash & Saleh, 2024). Attitudes are often shaped by perceptions of utility and convenience, with positive attitudes typically correlating with greater willingness to adopt new technologies (Toros, Asiksoy & Sürücü, 2024). Among Millennials and Gen Z, attitudes towards digital financial tools such as e-wallets are generally positive, as these generations tend to be more digitally inclined and open to innovation (Hodžić, 2024). Due to their high exposure to technology from a young age, these groups value efficiency and the flexibility to conduct transactions easily on their mobile devices (Puiu et al., 2022). These features align well with the values of Millennials and Gen Z, who prioritize ease and speed in

digital transactions. Furthermore, studies suggest that Millennials and Gen Z form their attitudes based on the usability and level of personalization offered by the platform.

E-wallets that offer user-friendly interfaces and rewards programmes tailored to these age groups foster more positive attitudes and increase the likelihood of adoption (Setiawan & Ti, 2024). It was discovered that attitude is a predictive factor that influences the behavioral intention to use an e-wallet. It was demonstrated that because e-wallet platforms promote the creation of great experiences, customers would be more interested in using them as a preferred financial platform for their transactions (Tian et al., 2023). According to some research, young consumers may still be hesitant because of security and privacy concerns, even with generally positive attitudes. In view of the literature, it is hypothesized that:

H3: Consumer's attitude positively influences the intention to use Touch 'n Go eWallet among Millennials and Generation Z.

Social Influence

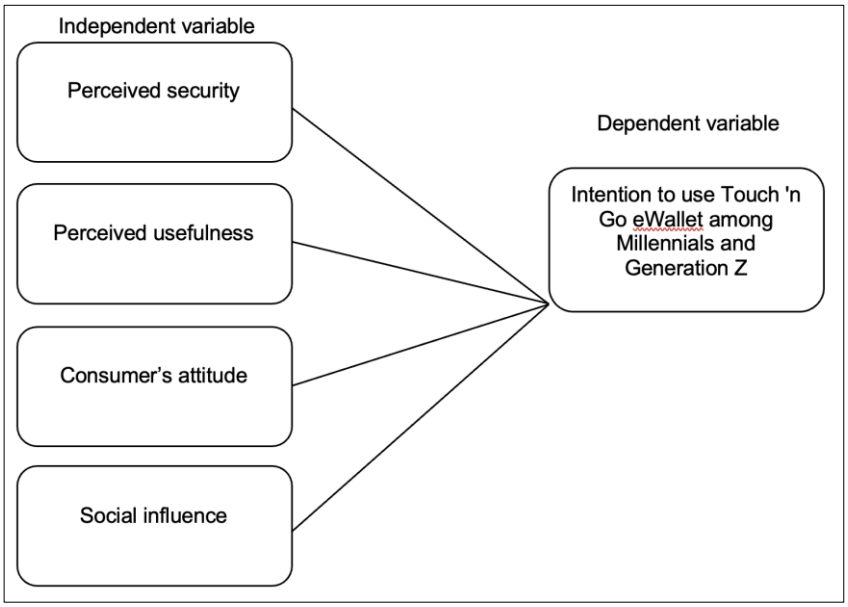
The term "social influence" describes how much a person's beliefs affect their desire to use new technologies. Accordingly, customers can get reviews and feedback on e-wallets by using social networks (Tenk et al., 2020). People who are new to using technology often rely heavily on the advice, suggestions, or opinions of those close to them. It is easy for new users to embrace e-wallets when reviews, comments, suggestions, and observations are shared. Based on the research, social influence helps students to examine reviews or comments regarding their plan to use e-wallets before doing something new (Kaur & Bahar, 2022).

Young consumers' propensity to buy and repurchase goods using e-payment can be explained by social influence. It facilitates safer, quicker, easier, and less expensive transactions (Yang et al., 2021). Consumers' intention to use mobile wallets is positively correlated with social influence (Jin et al., 2020). One of the things that motivates people to use e-wallets is the social influence of their surroundings, including friends and family. Social influence provides consumers with more accurate information through recommendations and counsel from reliable information sources and makes it easier for users to conduct financial activities (Halim et al., 2020). Drawing from the above discussions, the hypothesis is proposed:

H4: Social influence positively influences the intention to use Touch 'n Go eWallet among Millennials and Generation Z.

The following Figure 1 illustrates the research model of this study.

Figure 1. Research Model



RESEARCH METHOD

Sample and Procedure

The survey gave the researchers the opportunity to gather a great deal of data and support verified models (Edeh et al, 2021). Objective measurements, numerical, mathematical, or statistical analysis of data from surveys, polls, and questionnaires, as well as the application of computational tools to adjust previously collected statistical data, are the main focuses of quantitative methods (USC Libraries, 2024). In quantitative methods, we used the Google Form application to create a questionnaire and gather data from the respondents to provide a meaningful study case. The questionnaires were disseminated via Google Survey, a market research tool that polls the target population to find out about market trends (Edeh et al, 2021).

The two largest generational groups, Millennials and Generation Z, can shape business and consumer trends over the ensuing ten years. Young people are important; Millennials and Generation Z are thought to comprise 63% of the global population. According to the Department of Statistics (DOSM), 17.1 million Malaysians, or 52.5% of the country's total population are between the ages of 10 – 40 years old (ICMR, 2021). Since the establishment year was at the end of the 90s, it is close to Millennials, and after the Millennials comes Generation Z. In these two generations, it shows that the use of the Touch ‘n Go is increasing, going high for some reason. So, our team took these opportunities to conduct a survey with USM students to collect some data on the report use.

According to many statisticians, a minimum sample size of 100 is required for significant results. We should try to survey every member if the population is smaller than that. According to the same site, we should aim for no more than 10% of the population to reply, but no more than 1000. For example, 10% of a population of 250,000 people would be 25,000 people (Fox, 2024). According to the Touch ‘n Go, the first Touch ’n Go card was introduced on March 18, 1997. Nowadays, most USM students are from Generation Z (1990 – 2010), and most of them know how to use Touch ‘n Go eWallet. When we are trying to do the survey, there are some challenges, such as the fact that USM has a large number of students, which makes it impossible to survey everyone in the population. So, 150 people will be our target and show that the result will show, will reflect the majority opinion of USM students. A sample size was established to compute the sample size.

The sample size should be larger than thirty and less than five hundred to achieve an appropriate sample size (Lim et al., 2024). At the same time, we also will not forget Millennials, as they will be a part of our research, and all the data collection will come from Google Forms, which can be filled out by groups of Millennials and Generation Z.

The sample size of this survey was 150 respondents, who are Malaysians using Touch 'n Go eWallet. Malaysian consumers are the study's target demographic. Because Touch 'n Go eWallet is so popular in Malaysia, it is a pertinent subject for research within the country, which is why customers who remained in Malaysia were chosen. Its uptake is indicative of more general shifts in customer tastes and behavior toward digital payment methods (Lim et al., 2024). The sampling method that is used in this study is convenience sampling, which uses the respondents who are "convenient" for the researcher. They could be gathered by just asking people who happen to be in the street, a public building, or a workplace, for example. There is absolutely no pattern in the process of obtaining these responses (Edgar & Manz, 2017).

Other than that, one can determine whether one independent variable in this study is connected to the dependent variable based on the data analysis from the Google form that was done for this investigation. Subsequently, we started to assemble all the data in the questionnaire into Excel and all the data was analyzed using Statistical Package for Social Sciences (SPSS).

In SPSS, we will use Cronbach's Alpha, a statistical metric that is used to evaluate a set of scales or test items' internal consistency or reliability. When evaluating reliability, Cronbach's Alpha compares the variance, or shared variation, among the items that make up an instrument to the variance as a whole (Collins, 2007). Thus, Cronbach's Alpha offers a useful substitute method for computing and evaluating outcomes.

Research Instrument

A research questionnaire comprises a series of questions or items to collect data and elicit information about respondents' knowledge, opinions, attitudes, beliefs, and behaviors. It is based on a positivist philosophy, which sees methods primarily as a set of rules for knowledge production (Caduff & Ranganathan, 2023). Furthermore, running an online survey comes at a relatively low cost. As the research tool and data collecting approach, a self-administered survey will be employed to gather the data for this study. Respondents can complete this questionnaire on their own without any help or interview.

In this study, the questionnaire has been divided into six sections to measure the factors influencing the intention to use e-wallet payment among Millennials and Generation Z, which are demographic profiles, four independent variables, and one dependent variable.

The demographic profiles include gender, age, ethnicity, education level, marital status, monthly income, and monthly spending on Touch 'n Go eWallet. According to this, demographic profiles will be measured as 'Multiple choice'. The independent variables are perceived security, perceived usefulness, consumer attitude, and social influence, and the dependent variable is the intention to use Touch 'n Go eWallet among Millennials and Generation Z.

Scale Measurement

This research instrument consists of three sections which are nominal scale, ordinal scale, and interval scale for demographic profiles, independent and dependent variables. First, a nominal scale was used as a starting point for the qualifying questions. For example, the question asks respondent whether their marital status is single or married.

There is no indication that the number 1 is in a better position than the number 0 (Li & Wong, 2006).

On the other hand, another measurement, an ordinal scale, is also applicable to questions that assess variables that can simultaneously be categorized and ranked. For example, in the section demographic profiles, the question asks respondents to select only one of four options of monthly spend on Touch 'n Go eWallet (RM100 and below, RM101 – RM300, RM301 – RM500, RM501 and above).

The final section is the interval scale, which is a kind of metric scale that represents quantitative values (Statista, 2024). The Linear scale, a five-point interval measuring scale, was employed in the survey. The independent and dependent variables will be analyzed and measured based on the 'Linear Scale' with a range from 1 (strongly disagree) to 5 (strongly agree). For example, the respondents asked the question, "E-wallets ensure protection against risk," and they needed to choose one of the options between 1 and 5. Table 1 presents all the measures and questions below. All these questionnaires, as well as the details of the reliability tests, including Cronbach alpha, will likely be mentioned in the results and the discussion. For example, the results will be analyzed through descriptive statistics, Cronbach's alpha, and zero-order correlation for study variables, as well as regression analysis.

Table 1. Measures, Questions, and Cronbach Alpha

Measures	Questions	Cronbach Alpha	Sources
Perceived Security	1. I am confident in making payments through my e-wallet. 2. I believe that transactions conducted through e-wallets are secure. 3. I believe the service has the potential to be safer than traditional payment options such as credit cards and cash. 4. I believe the chances of losing money stored in e-wallet are low. 5. E-wallets ensure protection against risk.	0.811	Morgan et al. (2023)
Perceived Usefulness	1. Using e-wallet services saves my time. 2. Using e-wallet helps me buy easily. 3. E-wallet services have improved my productivity. 4. E-wallet has improved quality of my job performance. 5. I find e-wallet useful in the buying process. 6. E-wallet services increase my effectiveness.	0.879	Morgan et al. (2023)

Consumer's Attitude	1. I am happy with the Touch 'n Go eWallet payment system. 2. I am fascinated with the Touch 'n Go eWallet payment. 3. Overall, I am satisfied with the Touch 'n Go eWallet. 4. I am enjoying using the Touch 'n Go eWallet when shopping. 5. I am happy with the Internet connection when accessing the Touch 'n Go eWallet services. 6. I am pleased with the Touch 'n Go eWallet application for its privacy reason. 7. I am pleased with the Touch 'n Go eWallet application for its security reason.	0.895	Kadir et al. (2022)
Social Influence	1. Family and people who are important to me affect my intention to use the Touch 'n Go eWallet. 2. Friends and colleagues affect my intention to use the Touch 'n Go eWallet. 3. The media and advertisement affect my intention to use the Touch 'n Go eWallet. 4. I use Touch 'n Go eWallet because the people I know also use it.	0.833	Siew et al. (2020)
Intention to Use Touch 'n Go eWallet Among Millennials and Generation Z	1. I use e-wallet more frequently than traditional (cash) payment. 2. I have the intention to purchase using E-wallet. 3. I am willing to use an e-wallet all the time. 4. I am willing to continue using e-wallet services in the near future rather than not use them. 5. I believe e-wallet is better than cash payment. 6. I will use the E-wallet when the shops are available with the E-wallet code.	0.779	Morgan et al. (2023)

RESULTS

Table 2. Respondents' Profile Summary (N=150)

Response	Frequency	Percentage (%)
Gender		
Female	102	68.00
Male	48	32.00
Age		
18-24 years old	104	69.30
25-30 years old	29	19.30
31-35 years old	8	5.30
36-40 years old	4	2.70
41-43 years old	5	3.30
Education Level		
Bachelor's Degree	90	60.00
Master's Degree	14	9.30
SPM	12	8.00
STPM	34	22.70
Marital Status		
Married	13	8.70
Single	137	91.30
Ethnicity		
Chinese	111	74.00
Indian	12	8.00
Malay	25	16.70
Bajau	1	0.70
Sino Kadazan	1	0.70
Monthly Income		
Do not have income	92	61.30
RM1,500 and below	15	10.00
RM1,501 – RM2,500	10	6.70
RM2,501 – RM3,500	12	8.00
RM3,501 – RM4,500	12	8.00
RM4,500 and above	9	6.00
Monthly Spend on Touch 'n Go eWallet		
None	1	0.70
RM100 and below	28	18.70
RM101 – RM300	66	44.00
RM301 – RM500	32	21.30
RM500 and above	23	15.30

Table 2 shows the demographic profile of the respondents, and the total number of respondents in this result is 150 respondents. From the result, the majority of respondents are female, which is 68.00% (N=102) and the male respondents are 32.00% (N=48). Then, the largest age group is 18-24 years old, that is 69.30% (N=104), 19.30% of respondents in the age group of 25-30 years old (N=29), 5.30% in the age group of 31-35 years old (N=8), the age group of 36-40 years old is in 2.70% (N=4) and lastly is 3.30% (N=5) of respondents in the age group of 41-43 years old. In terms of marital status, most respondents are single, that is 91.30% (N=137), and only 8.70% (N=13) of respondents are married. In addition, the findings show that predominantly Chinese (74.00%) (N=111), followed by Malay, that is 16.70% (N=25). Other ethnicities have minimal representation, that is 8.00% of Indian (N=12), 0.70% for both Bajau and Sino Kadazan (N=1). In addition, the majority of the respondents do not have any income,

which is 61.30% (N=92), followed by 10.00% of respondents' income in the range of RM1,500 and below (N=15). 6.70% of respondents (N=10) earn between RM1,501 and RM2,500, while 8.00% of respondents get income between RM2,501 and RM3,500 monthly and between RM3,501 and RM4,500. Only 6.00% of monthly income is in the range of RM4,500 and above (N=9). Lastly, the result shows that most respondents (44.00%, N=66) spend RM101 to RM300 monthly on the Touch 'n Go eWallet, 21.30% of respondents (N=32) spend RM301 to RM500 monthly, and monthly spending RM100 and below on Touch 'n Go eWallet is 18.70% (N=28). 15.30% of the respondents (N=23) spend more than RM500 monthly on Touch 'n Go eWallet and only one respondent (0.70%) does not spend money on Touch 'n Go eWallet.

Table 3. Descriptive Statistics, Cronbach's Alpha, and Zero-order Correlations for Study Variables

Variables		1	2	3	4	5
1	Perceived Security	0.832				
2	Perceived Usefulness	0.485**	0.879			
3	Consumer's Attitude	0.624**	0.779**	0.895		
4	Social Influence	0.504**	0.519**	0.576**	0.833	
5	Intention to Use Touch 'n Go eWallet among Millennials and Generation Z	0.460**	0.767**	0.723**	0.519**	0.874
Mean		4.0133	4.3144	4.2638	3.9400	4.2783
Standard Deviation		0.77437	0.67294	0.62888	0.86344	0.72615

Note: N = 150; *p < 0.1 **p < 0.05, ***p < 0.01. The diagonal entries represent Cronbach's Alpha.

Table 3 shows descriptive statistics, which involve a variety of techniques and will be used to identify and evaluate the main features of a dataset, such as its central tendency, variability, and distribution. Such techniques give an overview of the information and aid in identifying relationships and patterns (Kumar, 2024). A measure of internal consistency called Cronbach's alpha reveals the reliability of a scale by evaluating the degree to which a group of items is related to one another (Tavakol & Dennick, 2011). When two variables, independent and dependent variables, correlate without taking into consideration the impact of any other variables, this is known as a zero-order correlation. To obtain a better understanding of the interactions when other variables are taken into account, it is helpful to comprehend the basic bivariate correlations between the variables when performing an analysis with more than two variables (Moran, 2024).

In the table, there are four independent variables: perceived security, perceived usefulness, consumer attitude, and social influence. Based on the table, we analyze the perceived security and intention to use have a moderate significant correlation, which is 0.460**, $p < 0.05$. Then, perceived usefulness and intention to use show a strong significant correlation, which is r=0.767**, $p < 0.05$, whereas consumer's attitude and intention to use have a strong significant correlation, which is 0.723**, $p < 0.05$. Social influence and intention to use exhibit a moderate significant correlation, which is 0.519**, $p < 0.05$. Thus, we can see that all variables are highly reliable compared to Cronbach's Alpha.

Table 4. Regression Analysis

Variables		Intention to Use Touch 'n Go eWallet among Millennials and Generation Z
1	Perceived Security	-0.008
2	Perceived Usefulness	0.501***
3	Consumer's Attitude	0.279**

4	Social Influence	0.102
Adjusted R^2		0.625
F value		63.119
Durbin-Watson Statistic		1.934

Note: N = 150; *p < 0.1, **p < 0.05, ***p < 0.01.

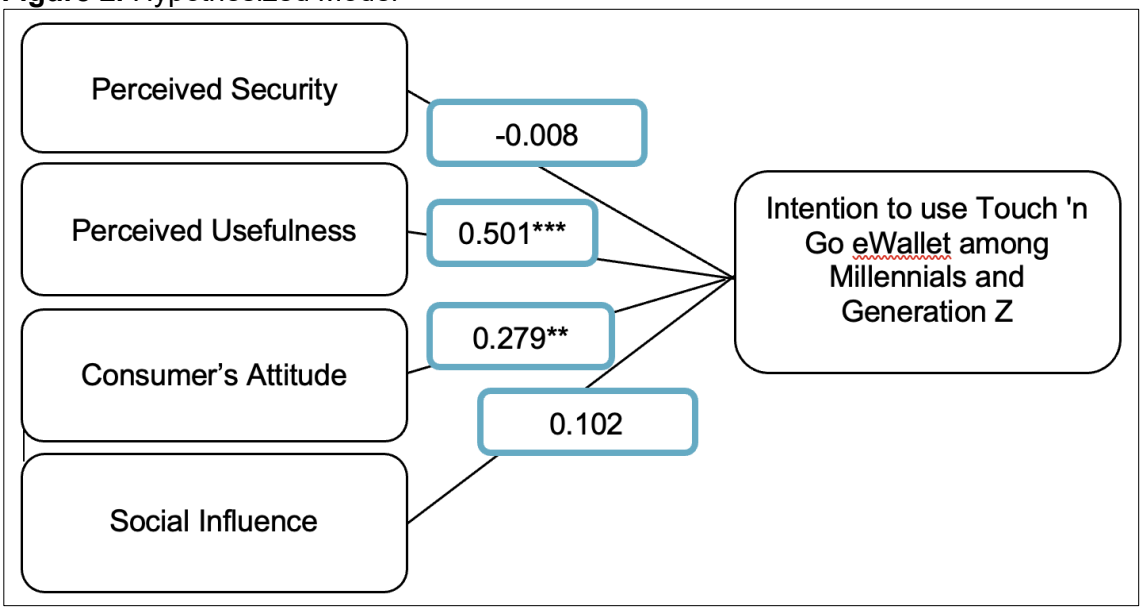
Table 4 shows regression analysis, which is defined as a form of statistical technique for examining a correlation between two or more variables. It makes use of data on the other variables to predict or explain one of the variables (Freund et al., 2010). As a corrected goodness-of-fit (model accuracy) metric, adjusted R^2 is used for linear models. It shows the extent to which the input or inputs can account for the variance in the target field (IBM, 2024a). F value is produced by several statistical tests. The test's statistical significance can be ascertained using the value (IBM, 2024b). The Durbin-Watson statistic is a test statistic for determining autocorrelation in regression analysis residuals. In this statistic, a value between 0 and 4 is always assumed. No autocorrelation will occur when DW = 2 is present (CFI Team, 2024).

In Table 4, perceived security has a negative but not significant relationship with intention to use. Although the coefficient of perceived security is negative (-0.008), its lack of significance indicates that perceived security does not reliably predict changes in intention to use. Intention to use and perceived usefulness have a positive and statistically significant relationship, indicating that every one-unit increase in perceived usefulness significantly enhances the intention to use Touch ‘n Go eWallet by 0.501 on average. Additionally, there is a positive and strong relationship between the intention to use and the consumer’s attitude. The average increase in intention to use is 0.279 units for every unit rise in the consumer’s attitude. Lastly, social influence has no relationship with intention to use. While the coefficient of social influence is 0.102 without significance, it indicates that social influence may not reliably predict intention to use. This could imply a weaker or inconsistent effect with this model.

Furthermore, the adjusted R-squared is 0.625 of the variances in intention to use Touch ‘n Go eWallet among Millennials and Generation Z can be explained by the predictors whether perceived security, perceived usefulness, consumer’s attitude, and social influence. This suggests a strong model fit; other unaccounted factors may also influence satisfaction. The F-value is statistically significant, as the table indicates, with a value of 63.119. This indicates that at least one of the predictors significantly contributes to explaining Millennials' and Generation Z's intention to use Touch 'n Go eWallet. The Durbin-Watson Statistic is 1.934, which is close to 2, indicating the residuals of this regression model most certainly do not exhibit considerable autocorrelation.

The research results are summarized in the following Figure 2.

Figure 2. Hypothesized Model



DISCUSSION

This study aims to investigate how Millennials and Generation Z intend to use the Touch 'n Go eWallet in relation to perceived security, perceived usefulness, consumer's attitude, and social influence. According to the summary of the research findings, consumers' attitude and perceived usefulness are significantly and positively correlated with the intention to use the Touch 'n Go eWallet.

Perceived Security

According to the results of the regression analysis, there is a negative and not statistically significant relationship between perceived security and the intention of Millennials and Generation Z to use the Touch 'n Go eWallet, as its regression coefficient is -0.008. Its lack of significance indicates that perceived security cannot reliably predict changes in intention to use. Therefore, H1 is rejected.

According to the research findings of Nguyen et al. (2021), perceived security does not directly affect users' intention to continue using fintech services. Although user satisfaction increases with the improvement of the system's security level, users who are more concerned about information security often do not pay much attention to whether to continue using the service. Instead, they may choose to abandon its use due to some security risks. Moreover, the study by Siagian et al. (2022) indicates that perceived security does not directly affect consumer intentions, but rather influences consumer intentions indirectly through trust. When users believe that the application can protect the security of their personal data, they will then consider whether to continue using it. In summary, perceived security does not directly affect the intention to use e-wallets.

Perceived Usefulness

Research findings demonstrate a strong positive regression coefficient of 0.501 for perceived usefulness, which is statistically significant. This suggests that the intention to use Touch 'n Go eWallet will rise by an average of 0.501 units for every unit increase in perceived usefulness. Millennials and Generation Z in Malaysia have a strong correlation between their intention to use Touch 'n Go eWallet and its perceived usefulness. Therefore, H2 is supported.

A study by Effendy et al. (2021) confirmed that perceived usefulness has a positive impact on users' intention to use e-wallets. Additionally, people's desire to use new technology will be greatly influenced by its perceived usefulness (Wicaksono & Maharani, 2020). The study by Kim and Niehm (2009) pointed out that by improving functionality and user experience, technological systems can significantly enhance consumers' trust and reliance on online platforms. This finding aligns with the importance of perceived usefulness in user behavior emphasized by the TAM. The practicality of e-wallets significantly affects users' intention to use them. Useful features and functionalities that offer personalization, timeliness, localization, accessibility, and reliability will encourage users to be more willing to use e-wallets. If they believe that the value of the e-wallet can enhance productivity, even if the operation may not be very smooth, users will still choose to continue using it. Therefore, perceived usefulness is one of the important factors influencing the intention of Malaysian Millennials and Generation Z to use e-wallets (Morgan et al., 2023).

Consumer's Attitude

The research findings reveal a positive and significant relationship (0.279) between consumer's attitude and intention to use. This figure shows that the intention to use Touch 'n Go eWallet will rise by an average of 0.279 units for every additional unit in consumer's attitude. There is a significant relationship between consumers' attitudes and their intention to use the Touch 'n Go eWallet among Millennials and Generation Z in Malaysia. Therefore, H3 is supported.

Attitudes significantly impact users' acceptance of technology. Users' attitudes towards technology, such as impressions, feelings, and opinions, greatly influence their intention to use electronic wallets (Lim, 2024). According to an online survey analysis of customer emotions involving 257 participants conducted by Ilieva et al. (2023), 72% of people hold a positive attitude towards the use of e-wallets, believing that e-wallets bring convenience to daily payments and are currently using or intend to use e-wallets. Not only that, Ilieva et al. (2023) summarized the attitudes of 86 respondents towards the use of e-wallets based on their text replies. The results showed that 62 respondents held a positive attitude towards the use of e-wallets and pointed out their advantages, 17 respondents had a negative attitude and complained about issues such as security and internet connection quality, while the remaining seven were neutral. By combining past research and studies we have conducted, it can be concluded that consumers' attitudes significantly influence their intention to use e-wallets.

Social Influence

According to the results, social influence has no significant relationship with intention to use. Social influence cannot accurately predict intention to use, as evidenced by the non-significant coefficient of 0.102 for social influence. Millennials and Generation Z's intention to utilize the Touch 'n Go eWallet is not significantly correlated with social influence. Therefore, H4 is rejected.

According to the study by Alalwan et al. (2017), Jordanian bank customers do not intend to use the service based on others' recommendations, as using online banking is a voluntary behavior. People who receive rewards or punishments are more likely to want to meet others' expectations, while consumers using e-wallets do so voluntarily and are not subject to rewards or punishments (Shaw & Sergueeva, 2018). The study by Riffai et al. (2012) on predicting customers' intention to use online banking also shows that social influences such as social expectations and reference groups do not affect customers' intention to use these channels. Therefore, the insignificance of social influence is also consistent with other studies.

Implications of the Study

With the widespread adoption of e-wallets and the complex composition of user groups, the demand for e-wallets' functions and user experience has become increasingly diverse. This study, based on the core factors of perceived usefulness and consumers' attitude, proposes innovative directions to help Touch 'n Go eWallet app developers identify and explore untapped potential features, thereby further enhancing market competitiveness and user loyalty.

According to the study by Daragmeh et al. (2021), it is hypothesized that if the functions of e-wallets can alleviate problems and simplify life, consumers will widely use the e-wallet. Although e-wallets on the market, including Touch 'n Go eWallet, already help users categorize their spending, they still lack in-depth analysis and guidance on users' financial behavior. Researchers recommend that developers introduce a smart financial assistant feature to help users analyze spending records, suggest savings plans, and assess financial health. For example, the e-wallet can generate personalized monthly reports based on the user's spending habits, require users to fill out a monthly budget, remind users of any budget overruns, or provide targeted savings goal planning. This not only enhances users' reliance on the Touch 'n Go eWallet but also cultivates their rational consumption habits, thereby increasing the perceived usefulness of the e-wallet. An e-wallet is not just a piece of technology; it is a life partner that constantly reminds users to consume rationally.

As of now, e-wallets on the market have not fully integrated into users' social interaction scenarios. Researchers suggest that Touch 'n Go eWallet develop social payment and group collaboration features and support users in creating temporary payment groups. When a group of users needs to pay for shared expenses like dining out or traveling, they can use the bill-splitting feature to separate payments in real-time by Touch 'n Go eWallet, eliminating the need for subsequent money transfers among each other. This feature can provide intelligent cost-sharing calculations while also supporting online collaboration by discussing expense distribution and real-time adjustments of shared amounts. This functionality will create a brand-new social experience for users.

In addition, developers can adjust the reward ratios based on users' payment frequency and transaction amounts, implementing a dynamic points and personalized rewards system. For example, they can offer double points to users who frequently use the Touch 'n Go eWallet and reach specific payment amounts. Moreover, developers can organize user preference data to provide more personalized reward redemption options, such as coupons for merchants that users frequently pay or discounts on products related to users' interests. A personalized user experience can enhance user engagement. Higher user engagement will lead to greater loyalty to the application (Tariq & Tariq, 2024). This not only enhances user engagement but also further improves users' perception of the Touch 'n Go eWallet.

To meet the diverse needs of users, researchers also suggest that Touch 'n Go eWallet introduce voice assistants and accessible payment features. This feature will enable users to check their balance or manage bills through voice commands, and even, when application security is adequately developed, to make payments using a combination of voice and facial recognition. This feature is particularly meaningful for driving scenarios, visually impaired users, or those with mobility challenges. By providing accessible payment features, Touch 'n Go eWallet can significantly expand their user base and enhance social recognition and perceived value.

By developing features such as intelligent financial assistants, social payment and group collaboration functions, dynamic points and personalized reward systems, as well as

voice assistants and accessible payment options, Touch ‘n Go eWallet can better meet the currently unmet needs of users. This will enhance the perceived usefulness of the application, and align more closely with the consumer’s attitudes of the majority of users. At the same time, these innovative features will effectively improve user experience, shape positive consumers’ attitudes, and increase user loyalty, giving the Touch ‘n Go eWallet a competitive edge in the fierce.

CONCLUSION

In conclusion, the purpose of this study was to look into the factors influencing the intention to use the Touch 'n Go eWallet among Millennials and Generation Z in Malaysia. The research focused on four key variables: perceived security, perceived usefulness, consumer’s attitude, and social influence.

The findings revealed that perceived usefulness and consumers’ attitude significantly influence the intention to use the Touch 'n Go eWallet. These factors highlight the importance of functionality and user experience in driving e-wallet adoption among younger generations. However, it was discovered that the intention to utilize the e-wallet was not significantly impacted by perceived security and social influence. This suggests that while security is a concern, it does not directly affect the decision to adopt e-wallets, and social recommendations are less influential in this context.

The study provides practical implications for e-wallet providers. To enhance user acceptance and loyalty, providers should focus on improving the perceived usefulness of their services and fostering positive consumers’ attitudes. This can be achieved by introducing features such as intelligent financial assistants, social payment tools, personalized rewards, and accessible payment options.

Furthermore, the study gathered information from respondents using a quantitative methodology, specifically structured questionnaires, to investigate the factors impacting the intention to utilize the Touch ‘n Go eWallet among Millennials and Generation Z. According to the survey, Millennials and Generation Z’s likelihood to use the Touch ‘n Go eWallet is highly influenced by perceived usefulness and consumer’s attitude, whereas perceived security and social influence have less of an effect. These findings give developers and governments practical advice by highlighting how crucial it is to prioritize both functionality and usability to increase e-wallet adoption.

To improve customer experience and loyalty, it is advised to implement features like voice assistants, social payment tools, financial helpers, personalized rewards, and more. The company can take steps to improve all the customers' needs by following user preferences, enhancing the use of the Touch ‘n Go eWallet. Finally, the Touch ‘n Go eWallet company can continue improving and making the Touch ‘n Go eWallet more convenient and useful in the future by considering this research.

LIMITATION

The research contains limitations. The survey was limited to a specific generation of Malaysia and was not widely distributed to the respondents. If the questionnaire could ideally be distributed to people of different age groups in Malaysia, the analysis might be different. This is due to the fact that the lifestyles of different age groups in Malaysia may have a substantial impact on the reliability of digital payment methods in terms of the intention to use e-wallet payment. It is recommended that future researchers conduct a larger population survey with samples from different age groups, including more states and regions in Malaysia, to improve the accuracy of the study. It is suggested that more variables be included in the study, like customer loyalty.

ACKNOWLEDGMENT
The authors gratefully acknowledge the contributions of informants, colleagues, and all individuals who supported this research through their insights and engagement. Their involvement greatly enriched the quality and depth of this study.

DECLARATION OF CONFLICTING INTERESTS
The authors have no conflicts of interest to declare with respect to the research, authorship, and publication of this article.

REFERENCES

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. https://doi.org/10.1016/j.ijinfomgt.2017.01.002

Almawash, M., & Saleh, M. (2024). Factors influencing consumer's attitude toward adopting e-wallets in purchase transactions. *International Journal of Economics, Business and Management Research, 08*(06), 148–170.

Asha, A. (2024, January 30). *Malaysian e-wallet usage in 2023: Peaking and here to stay*. Oppotus. https://www.oppotus.com/malaysian-e-wallet-usage-in-2023-peaking-and-here-to-stay/#:~:text=Touch%20'n%20Go%20maintains%20its,Go%20in%20terms%20of%20popularity.

Caduff, C., & Ranganathan, P. (2023). Designing and validating a research questionnaire - Part 1. *Perspectives in Clinical Research*, *14*(3), 152. https://doi.org/10.4103/picr.picr_140_23

CFI Team. (2024, May 26). *Durbin Watson Statistic*. Corporate Finance Institute. https://corporatefinanceinstitute.com/resources/data-science/durbin-watson-statistic/

Collins, L. M. (2007). Research design and methods. In *Encyclopedia of Gerontology* (pp. V2-433). Elsevier. https://doi.org/10.1016/b0-12-370870-2/00162-1

Daragmeh, A., Sági, J., & Zéman, Z (2021). Continuous intention to use e-wallet in the context of the Covid-19 pandemic: Integrating the Health Belief Model (HBM) and Technology Continuous Theory (TCT). *Journal of Open Innovation Technology Market and Complexity, 7*(2), 1-23. https://doi.org/10.3390/joitmc7020132

Davis, F. D., Bagozzi, R. P. and Warshaw, P. R. (1989) User acceptance of computer technology: A comparison of two theoretical models. *Management Science, 35*, 982-1003.

Edeh, F. O., Aryani, D. N., Subramaniam, T. A., Kee, D. M. H., Samarth, T., Nair, R. K., …, & Teh, Y. C. (2021). Impact of COVID-19 pandemic on consumer behaviour towards the intention to use e-wallet in Malaysia. *International Journal of Accounting & Finance in Asia Pasific, 4*(3), 42-59. http://doi.org/10.32535/ijafap.v4i3.1205

Edgar, T. W., & Manz, D. O. (2017). Exploratory study. In *Research Methods for Cyber Security* (pp. 95–130). Elsevier. https://doi.org/10.1016/b978-0-12-805349-2.00004-2

Efendi, B., Ekasari, S., Sani, I., Wakhidah, E. N., & Munizu, M. (2024). Analysis of the influence of behavioral intention, perceived ease of use and perceived usefulness on actual usage of digital wallet customers. *JEMSI (Jurnal Ekonomi, Manajemen, dan Akuntansi)*, *10*(1), 209-214.

Effendy, F., Hurriyati, R., & Hendrayati, H. (2021, September). Perceived usefulness, perceived ease of use, and social influence: Intention to use e-wallet. In *5th*

Global Conference on Business, Management and Entrepreneurship (GCBME 2020) (pp. 311-315). Atlantis Press. https://doi.org/10.2991/aebmr.k.210831.060

Farid, A. (2024, October 17). *E-Wallet App Usage & Demographics Malaysia (2024 Statistics)*. Upstack Studio. https://upstackstudio.com/blog/e-wallet-malaysia/

Fong, V. (2024, April 1). *Malaysia to Spend RM 1.2 billion Promoting E-Wallets in 2020*. Fintech News Malaysia. https://fintechnews.my/23971/e-wallets-malaysia/e-wallet-malaysia-pejana/

Fox, S. (2024, September 11). *How to Determine Survey Sample Size: A Short Guide*. Survicate. https://survicate.com/blog/survey-sample-size/

Freund, R. J., Wilson, W. J., & Mohr, D. L. (2010). Linear regression. In *Statistical Methods* (3rd ed., pp. 321–374). https://doi.org/10.1016/b978-0-12-374970-3.00007-x

Haider, A., Khan, M. A., Khoja, M., Alharthi, S., & Minhaj, S. M. (2024). The role of e-banking, mobile-banking, and e-wallet with response to e-payment and customer trust as a mediating factor using a structural equation modelling approach. *Journal of Infrastructure, Policy and Development, 8*(9), 6644.

Halim, F., Efendi, E., Butarbutar, M., Malau, A. R., & Sudirman, A. (2020, October). Constituents driving interest in using e-wallets in Generation Z. *Proceeding on International Conference of Science Management Art Research Technology, 1*(1), 101-116.

Haroon, R. (2020, July 5). *E-Wallet Gaining Traction in Malaysia*. NST Online. https://www.nst.com.my/opinion/columnists/2020/07/605958/e-wallet-gaining-traction-malaysia

Hazim, M. (2020). *Factors Influencing the Adoption of E-Wallet Among UNISHAMS Students* (Master's thesis, Universiti Utara Malaysia). UUM Electronic Theses and Dissertation. https://etd.uum.edu.my/10034/1/s825396_01.pdf

Hodžić, A. (2024). *Impact of Generation Z Values and Attitudes on Their Consumer Behaviour* (Master's thesis, University of Sarajevo). University of Sarajevo School of Economics and Business Repository. https://ebiblioteka.efsa.unsa.ba/xmlui/handle/EFSA/664

IBM Cognos Analytics. (2024a, February 29). *Adjusted R Squared*. IBM Cognos Analytics 11.1x. https://www.ibm.com/docs/en/cognos-analytics/11.1.0?topic=terms-adjusted-r-squared

IBM Cognos Analytics. (2024b, February 29). *F Value*. IBM Cognos Analytics 11.1.x. https://www.ibm.com/docs/en/cognos-analytics/11.1.0?topic=terms-f-value

Ilieva, G., Yankova, T., Dzhabarova, Y., Ruseva, M., Angelov, D., & Klisarova-Belcheva, S. (2023). Customer attitude toward digital wallet services. *Systems, 11*(4), 185. https://doi.org/10.3390/systems11040185

Institute for Capital Market Research. (2021). *The Rise of Millennial & Gen Z Investors: Trends, Opportunities, and Challenges for Malaysia*. Institute for Capital Market Research. https://www.icmr.my/wp-content/uploads/2021/10/FINAL-VERSION-The-Rise-of-Millennial-and-Gen-Z-Investors.pdf

Jerrica, J. (2024, April 8). *Close to RM 20k Scammed from 20 Teachers' TnG E-Wallet Accounts*. WapCar News. https://www.wapcar.my/news/close-to-rm-20k-scammed-from-20-teachers%E2%80%99-tng-ewallet-accounts-41275

Jin, C. C., Seong, L. C., & Khin, A. A. (2020). Consumers' behavioural intention to accept of the mobile wallet in Malaysia. *Journal of Southwest Jiaotong University*, *55*(1), 1-13. https://doi.org/10.35741/issn.0258-2724.55.1.3

Kadir, H. A., Ismail, R., Wok, S., & Manan, K. A. (2022). The mediating effect of attitude on e-wallet usage among users in Malaysia. *Journal of Communication Education*, *2*(1), 58-77.

Kaur, J. J., & Bahar, A. A. (2022). Factors influencing the intention to adopt electronic wallet among undergraduate student in Klang Valley. *Quantum Journal of Social Sciences and Humanities*, *3*(4), 48-61. https://doi.org/10.55197/qjssh.v3i4.157

Kee, D. M. H., Kum, Y. L., Lee, J. H., Lee, N. C., Lee, X. T., & Muckar, D. S. (2024). Riding the fintech wave: Exploring service satisfaction and trust among Generations Y and Z. *International Journal of Accounting & Finance in Asia Pasific, 7*(3), 342–360. https://doi.org/10.32535/ijafap.v7i3.3616

Kim, H., & Niehm, L. S. (2009). The impact of website quality on information quality, value, and loyalty intentions in apparel retailing. *Journal of Interactive Marketing*, *23*(3), 221-233.

Kumar, A. (2024, September 30). *What is Descriptive Statistics: Definition, Types, Applications, and Examples*. Simplilearn. https://www.simplilearn.com/what-is-descriptive-statistics-article

Kuppusamy, J., & Xiang, E. L. J. (2024, January). Factors that influence the intention to use E-wallet among Generation Z in Malaysia. In *4th International Conference on Communication, Language, Education and Social Sciences (CLESS 2023)* (pp. 33-43). Atlantis Press. https://doi.org/10.2991/978-2-38476-196-8_4

Li, Y., & Wong, A. S. (2006). Psychology and sensory comfort. In *Clothing Biosensory* (pp. 9–27). Elsevier.

Lim, H. L., Kuek, T. Y., Yeoh, G. L., Yeap, P. Y., Yang, D., Xu, K., ... & Thakur, G. (2022). Factors affecting users' behavorial intention toward touch 'N Go E-Wallet in Malaysia. *International Journal of Applied Business and International Management*, *7*(3), 108-120. https://doi.org/10.32535/ijabim.v7i3.2069

Ling, W. A., Raam, A., Rizal, A., Ali, A., Khoiruwnia, F., Utama, A., & Ban, D. (2023). Factors influencing consumers' behavioural intention to use electronic wallet: A Study of Touch 'n Go eWallet. *Journal of Community Development in Asia, 6*(2), 148-158. http://doi.org/10.32535/jcda.v6i2.2295

Loke, M. Q., Lok, X. L., Ma, Y., Fadli, M. F., & Sushen, B. S. (2022). Case study of Touch'n Go in Malaysia: Are you a user of e-wallet. *International Journal of Accounting & Finance in Asia Pasific*, *5*(3), 97-106. https://doi.org/10.32535/ijafap.v5i3.1932

Madhavedi, S., Hoo, W. C., Goh, K. W., Liau, C. H., Cheng, A. Y., & Pandey, R. K. (2024). Understanding the dynamics of cashless payment system: The effects of technology advancement, security concerns, and competition on merchant adoption in Hyderabad, India. *Journal of Ecohumanism, 3*(7), 1878-1893. https://doi.org/10.62754/joe.v3i7.4338

Marikyan, D., & Papagiannidis, S. (2023) Technology Acceptance Model: A review. In S. Papagiannidis (Ed.), *TheoryHub Book*. TheoryHub Book. https://open.ncl.ac.uk/theory-library/technology-acceptance-model.pdf

Moran, M. (2024, April 24). *What are Zero-order, Partial, and Part Correlations?* Statistics Solutions. https://www.statisticssolutions.com/what-are-zero-order-partial-and-part-correlations/

Morgan, E., Meng, N., Zaini, N., & Asri, N. (2023). *Factors influencing the intention to use e-wallet payment system among Gen Z in Penang, Malaysia* (Undergraduate thesis, Universiti Malaysia Kelantan). UMK Repository. http://discol.umk.edu.my/id/eprint/13080/1/SAK17.pdf

Mun, A. (2024). *Young adults' intention to use mobile payment in Malaysia* (Undergraduate thesis, Universiti Tunku Abdul Rahman). UTAR Institutional Repository. http://eprints.utar.edu.my/6711/1/202310%2D37_FYP_ALVIN_CHOW_MUN_SING_ALVIN_CHOW_MUN_SING.pdf

Natrah, N. (2021, June 8). *All payments for govt services to be made on cashless basis by 2022 – Tengku Zafrul*. Kementerian Kewangan. https://www.mof.gov.my/portal/en/news/press-citations/all-payments-for-govt-services-to-be-made-on-cashless-basis-by-2022-tengku-zafrul

Nguyen, D. D., Nguyen, T. D., Nguyen, T. D., & Nguyen, H. V. (2021). Impacts of perceived security and knowledge on continuous intention to use mobile fintech

payment services: An empirical study in Vietnam. *The Journal of Asian Finance, Economics and Business, 8*(8), 287–296. https://doi.org/10.13106/jafeb.2021.vol8.no8.0287

Oppotus. (2020, November 25). *E-Wallet Usage in Malaysia 2020: Thriving in Lockdown*. Oppotus. https://www.oppotus.com/e-wallet-usage-in-malaysia-2020/

Osman, S., & Yi, L. Y. (2021). Factors influencing the intention to adopt ewallet among students of Universiti Putra Malaysia. *International Journal of Academic Research in Business and Social Sciences, 11*(11), 1624–1641. http://dx.doi.org/10.6007/IJARBSS/v11-i11/11650

Pfordten, D. (2024, February 21). *INTERACTIVE: RM6.34bil lost to tax evasion - LHDN*. The Star. https://www.thestar.com.my/news/nation/2024/02/22/interactive-rm634bil-lost-to-tax-evasion---irb

Prawira, F.R., Prakoso, N.T., Handayani, P.W., Harahap, N.C. (2024). The influence of information security factors on the continuance use of electronic wallet. *Procedia Computer Science, 234*, 1467-1475. https://doi.org/10.1016/j.procs.2024.03.147

Puiu, S., Demyen, S., Tănase, A. C., Vărzaru, A. A., & Bocean, C. G. (2022). Assessing the adoption of mobile technology for commerce by Generation Z. *Electronics*, *11*(6), 866. https://doi.org/10.3390/electronics11060866

Rafique, H., Almagrabi, A. O., Shamim, A., Anwar, F., & Bashir, A. K. (2019). Investigating the acceptance of mobile library applications with an extended Technology Acceptance Model (TAM). *Computers & Education, 145*, 103732. https://doi.org/10.1016/j.compedu.2019.103732

Riffai, M., Grant, K., & Edgar, D. (2012). Big TAM in Oman: Exploring the promise of on-line banking, its adoption by customers, and the challenges of banking in Oman. *International Journal of Information Management, 32*(3), 239–250. https://doi.org/10.1016/j.ijinfomgt.2011.11.007

Setiawan, C., & Ti, S. (2024). Factors influencing e-wallet usage intentions among Gen Z and Millennials in Jabodetabek. *International Journal of Scientific Research and Management, 12*(05), 6386–6401.

Shaw, N., & Sergueeva, K. (2018). The non-monetary benefits of mobile commerce: Extending UTAUT2 with perceived value. *International Journal of Information Management, 45*, 44–55. https://doi.org/10.1016/j.ijinfomgt.2018.10.024

Siagian, H., Tarigan, Z. J. H., Basana, S.R., & Basuki, R. (2022). The effect of perceived security, perceived ease of use, and perceived usefulness on consumer behavioural intention through trust in digital payment platform. *International Journal of Data and Network Science, 6*, 861-874. http://dx.doi.org/10.5267/j.ijdns.2022.2.010

Siddharta, A. (2023, November 30). *Distribution of e-commerce consumers in Malaysia 2022, by age group*. Statista. https://www.statista.com/statistics/878419/malaysia-online-shoppers-by-age/

Siew, C. T., Pei, L. L., & Ah, C. K. (2020). Factors affecting adoption of e-wallets among youths in Malaysia. *Journal of Information System and Technology Management, 5*(19), 3950. https://doi.org/10.35631/jistm.519004

Statista. (2024). *Interval scale - Statista Definition*. Statista Encyclopedia. https://www.statista.com/statistics-glossary/definition/320/interval_scale/

Suraya, S. (2023, July 27). *50+ E-Wallets in Malaysia: Which are the best?* Ringgit Oh Ringgit. https://ringgitohringgit.com/shopping/e-wallets-in-malaysia/

Tariq, L., & Tariq, L. (2024, July 26). *How to increase app engagement in 2024?* Adapty Tech Inc. https://adapty.io/blog/how-to-increase-app-engagement/

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2*, 53–55. https://doi.org/10.5116/ijme.4dfb.8dfd

Tenk, T. T. M., Yew, H. C., & Heang, L. T. (2020): E-wallet Adoption: A case in Malaysia. *International Journal of Research in Commerce and Management Studies, 2*(2), 216-233.

Teo, S. C., Law, P. L., & Koo, A. C. (2020). Factors affecting adoption of e-wallets among youths in Malaysia. *Journal of Information System and Technology Management, 5*(19), 39-50.

Tian, Y., Chan, T. J., Suki, N. M., & Kasim, M. A. (2023). Moderating role of perceived trust and perceived service quality on consumers' use behaviour of Alipay e-wallet system: The perspectives of technology acceptance model and theory of planned behaviour. *Human Behaviour and Emerging Technologies*, *2023*, 1–14. https://doi.org/10.1155/2023/5276406

Toh, T. L., Kiew, J. P., & Wong, A. H. A. (2022). Factors influencing the intention to use e-wallet among Millennials. *International Journal of Academic Research in Business and Social Sciences, 12*(11), 344 – 354. http://dx.doi.org/10.6007/IJARBSS/v12-i11/14862

Toros, E., Asiksoy, G., & Sürücü, L. (2024). Refreshment students' perceived usefulness and attitudes towards using technology: A moderated mediation model. *Humanities and Social Sciences Communications, 11*(1). https://doi.org/10.1057/s41599-024-02839-3

Touch 'n Go. (2024). *Our Story*. Touch 'n Go. https://www.touchngo.com.my/about-us/our-story/

USC Libraries. (2024). *Research Guides: Organizing your Social Sciences Research Paper: Quantitative Methods*. USC Libraries. https://libguides.usc.edu/writingguide/quantitative

Wicaksono, A., & Maharani, A. (2020). The effect of perceived usefulness and perceived ease of use on the technology acceptance model to use online travel agency. Journal of Business Management Review, 1(5), 313–328. https://doi.org/10.47153/jbmr15.502020

Wong, A. (2024, April 23). *TNG eWallet denies fraud activity in singer Zahid Baharuddin's case, so how did his wife lose over RM10,000?* Malay Mail. https://www.malaymail.com/news/malaysia/2024/04/23/tng-ewallet-denies-fraud-activity-in-singer-zahid-baharuddins-case-so-how-did-his-wife-lose-over-rm10000/130410

Yan, W. X. (2023). *Continuance intention to use e-wallet as a payment instrument among generation z in Malaysia– A behavioural study* (Master's thesis, Universiti Tunku Abdul Rahman). UTAR Institutional Repository. http://eprints.utar.edu.my/6114/1/MBA_2023_WXY.pdf

Yang, M., Mamun, A.A., Mohiuddin, M., Nawi, N.C., & Zainol, N.R. Cashless Transactions: A Study on Intention and Adoption of e-Wallets. *Economic and Business Aspects of Sustainability, 13*(2), 1-18. https://doi.org/10.3390/su13020831

ABOUT THE AUTHOR(S)

1st Author
Dr. Gan Kia Hui is a Head of Programme cum lecturer at INTI International College Penang. Her research focuses on organisational behaviour and management, as well as psychological safety climate. She earned her MBA degree from the School of Business, Universiti Malaysia Sabah, and her Doctoral degree in School of Management of the Universiti Sains Malaysia. She won the Best Paper Award at the 1st International Youth Conference in 2021. She is on the Editorial Boards of Organizational Psychology (a specialty section of Frontiers in Psychology and Frontiers in Communication) as a review editor. She also participated as ASIA International Conference's scientific committee.
Email: kiahui.gan@newinti.edu.my
Orcid ID: 0000-0002-9245-3386

2nd Author
Dr Lim Hui Ling is Peninsula College's Head of School of Accountancy, Business, Travel and Tourism. Dr. Lim Hui Ling obtained her Bachelor of Economis (Business Administration) with First Class Honours from Universiity of Malaya. She is also a Japanese Government Monbukagakusho (MEXT) scholar, where she received her Master of Science (Development Finance) from Hiroshima Universiti, Japan. She graduated with a Doctor of Business Administration (DBA) From Universiti Utara Malaysia. Her focus is on Organisational Behaviour and Professional Development Planning, namely students's personal education and career development.
Email: bestpartneracad@gmail.com
Orcid ID: 0000-0003-4811-0084
.

3rd Author
Ke Shan Choo is currently undergraduate student focusing on Accounting at Universiti Sains Malaysia.

4th Author
Jes Yee Chong is currently undergraduate student focusing on Accounting at Universiti Sains Malaysia.

5th Author
Jing En Chong is currently undergraduate student focusing on Accounting at Universiti Sains Malaysia.

6th Author
Xin Yi Chong is currently undergraduate student focusing on Accounting at Universiti Sains Malaysia.

7th Author
Kai Wen Choong is currently undergraduate student focusing on Accounting at Universiti Sains Malaysia.

8th Author
Dr. Anees Janee Ali is an Associate Professor at the School of Management, Universiti Sains Malaysia (USM). He earned his Ph.D. from the University of Groningen, The Netherlands, with a dissertation titled "The Intercultural Adaptation of Expatriate Spouses and Children." Additionally, he holds an M.Sc. in International Business from the same institution, a Bachelor's degree in Management from USM, and a Diploma in General Science from Canada. Since 2003, Dr. Anees has been a senior lecturer at USM, specializing in International Human Resource Management, International Management, International Business, Business Communication, and Organizational Behaviour. His research interests encompass Organization, International Business, Human Resource Management, Intercultural Adaptation and Management, Business Communication, and Organizational Behaviour.
Email: aneesali15@yahoo.com

9th Author
Daisy Mui Hung Kee is an Associate Professor at the School of Management, Universiti Sains Malaysia. Her areas of interests are in Human Resource Management, Organizational Behavior, Work Values, Leadership, Entrepreneurship, and Psychosocial safety climate. Her current program of research focuses on Leadership and Psychosocial safety climate. She holds a PhD in Business and Management from International Graduate School of Business, University of South Australia. She was the secretary of

Management Case Study Journal, Australia (2004-2006). She was award recipient of Merdeka Award 2006 from the Australia Malaysia Business Council of South Australia (AMBCSA) by former South Australia Governor Sir Eric Neal (2006). The award recognizes the Most Outstanding Malaysian University students in South Australia.She earned her MBA from School of Management, Universiti Sains Malaysia. She was awarded Dean's List for being one of the top MBA students (2003). Presently, she is an active academician and researcher supervising a numbers of MBA, MA and PhD candidates with working experience across diverse industries. She has published a good numbers of journal papers during the course of her career. She has conducted series of training related to motivation and research in USM under Professional and Personal Development (PPD) workshop.

Email: daisy@usm.my
ORCID ID: 0000-0002-7748-8230