

Beyond Brick & Mortar: Unveiling Gen Z's Fintech Choices in Post-COVID Malaysia

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Abstract

As the world adjusts to living with COVID-19, the Malaysian government has actively stimulated fintech payments at all ages through initiatives like the e-Tunai Rakyat Programme and ePenjana. This study aims to determine how likely Malaysian Generation Z, existing users of fintech payments, are to continue using them after the pandemic, which would benefit economic growth and sustainability. Applying the Unified Theory of Acceptance and Use of Technology (UTAUT) model with an added trust factor, we surveyed 200 individuals through a web platform. The findings discovered that the majority of the existing Malaysian Generation Z fintech users are intended to continue using these services for everyday transactions post-pandemic, averaging a few times a week. The popular platforms include Touch 'n Go, GrabPay, and MAE. Moreover, factors such as performance expectancy, effort expectancy, and facilitating conditions significantly influence continued fintech adoption among these existing users of Generation Z in Malaysia. Interestingly, social influence and trust exhibit no significant impact. This has put forward the claim that Malaysian Generation Z is less swayed by others' opinions on technology and relatively comfortable using fintech, even with a moderate level of trust. Efficiency, accessibility, usability, and functionality are important features in keeping users engaged. Stakeholders, including the government, retailers, and fintech service providers, should collaborate to advance fintech development and customise strategies to the preferences of Generation Z. Regulatory policies should be in place to promote fintech innovation, financial literacy education, and industry standards for trust and reliability. Fintech solutions for seamless payments personalise marketing, with data analytics to be integrated. User-friendly interfaces, transparency, and security should be prioritised.

Introduction

In the past decades, the information technology industry has become a cornerstone of economic growth, productivity, and employment (Toader et al., 2018). Such enhancement has been progressing with the wide usage of mobile devices, notable development in the electronics market, alternating consumer expectations, along with the available supportive regulations (Horner & Cunnane, 2017). The information technology industry has enabled a

digitalised, easy-to-use, safe, and seamless user experience, leading to a paradigm shift in the financial sector. The Fourth Industrial Revolution (IR4.0) is embodied in the invention of financial technology (fintech), which has introduced a compelling alternative to the conventional financial services model. Digital payments (i.e., mobile devices, e-wallets, QR payments, and other electronic-based transactions) have emerged as one of its manifestations as a result of this development; however, their viability depends on consumer accessibility and lifestyle as well as other economic factors (Liebana-Cabanillas & Lara-Rubio, 2017).

In Malaysia, fintech usage has risen in recent years. However, the cashless revolution completely gained momentum during the COVID-19 pandemic (2019–2022), which had a negative impact on people's lives and the Malaysian economy. The government implemented travel bans, corporate closures, and blockades as preventative measures to disrupt social and economic activities and endanger businesses (Shah et al., 2020). Fintech has been identified as having significantly improved the development of business transactions during the provided era, notwithstanding health costs and economic concerns. (Fu & Mishra, 2020). According to Oi (2024), the key trends shaping Malaysia's fintech landscape in 2024 include the rise of digital banks, the growth of decentralised finance (DeFi), and the increasing adoption of digital payments. These trends are a result of factors like changing consumer needs, technological advancements, and the entry of large tech companies into the financial services industry.

Reich (2021) established that the pandemic accelerated the usage of Fintech by 3 -10 years. As of 2020, during the upsurge of the Malaysian Movement Control Order (MCO), the nation saw a 3 million hike in mobile banking subscriptions (Aziz, 2022). Furthermore, as reported by Bank Negara Malaysia (2020), the usage of fintech transactions in Malaysia grew by 14%, up to 5.5 billion transactions, in 2020. A 2020 International Data Corporation (IDC) survey revealed that near half (42.8%) of Malaysian consumers attributed their switch to contactless fintech payments to the COVID-19 pandemic. (Gomes, 2020).

Despite this growth, challenges remain in ensuring widespread and stable adoption, especially in emerging economies like Malaysia (Rahman et al., 2020). As we enter the post-pandemic era, the Malaysian government is actively promoting fintech, through cash handout programmes (i.e., e-Tunai Rakyat Programme and ePenjana Initiative) on the available digital wallet platforms and particularly among Generation Z, the largest age group (25% of the population).

This paper focuses on Generation Z to understand the factors influencing their post-pandemic's continual adoption of FinTech services. Understanding their motivations and preferences is crucial for decision-makers aiming to retain and motivate users in this competitive digital landscape. The specific research objectives are as follow:

1. To determine if performance expectancy affects Gen Z's willingness to continue using fintech after the pandemic in Malaysia.
2. To determine if effort expectancy affects Gen Z's willingness to continue using fintech after the pandemic in Malaysia.
3. To determine if social influence affects Gen Z's willingness to continue using fintech after the pandemic in Malaysia.

4. To determine if facilitating conditions affects Gen Z's willingness to continue using fintech after the pandemic in Malaysia.
5. To determine if trust affects Gen Z's willingness to continue using fintech after the pandemic in Malaysia.

Research Framework

Figure 1.1 depicts the established research framework for this study which relates the predictors (performance expectancy, effort expectancy, social influence, facilitating conditions, and trust) with the dependent variable – post pandemic adoption of fintech services among Generation Z.

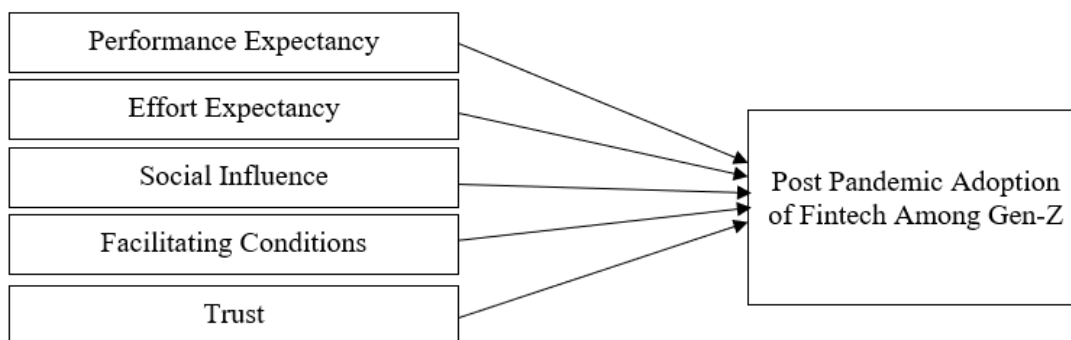


Figure 1.1: Research Framework

Literature Review

Fintech Payments Emerge during COVID-19: Will They Sustain

Fintech, short for financial technology, integrates technologies (i.e., mobile devices and the internet) to enhance productivity and competency of financial services, bypassing traditional financial institutions (Chuang et al., 2016). Accordingly, fintech payments (also known as digital payments) use electronic instruments, including mobile payments, electronic payments, and mobile wallets.

The COVID-19 pandemic noticeably changed lives and economies globally. As the World Health Organisation (WHO) and studies Tang et al (2020) highlight, transmission is possible via direct and indirect contacts, increasing the infection risk. The rise of concerns about cash contamination has widely contributed to the alertness and reluctance to use cash for financial transactions (Schijven et al., 2022). Accordingly, banks, consumers, and governments sought safer alternatives, favouring digital modes wherever possible.

The contactless nature of FinTech payments offered both mental and physical relief during the pandemic. As restrictions like social distancing were imposed worldwide, FinTech services allowed users to access, perform, and sustain financial services. Research even shows a significant increase in daily downloads of finance-related mobile apps during the pandemic (Fu & Mishra, 2020). As a result, the usage of digital payment services has accelerated swiftly, presenting a notable opportunity for service providers in the presence of a health crisis (Al-Qudah et al., 2022).

However, a critical question remains unanswered: Will the increase in fintech payment usage persist after the pandemic? Our research aims to fill this gap in the existing literature.

Understanding Generation Z (Post-Millennials)

Generations are often defined by shared experiences and time periods (Table 2.1). This outlines their perspectives, responses to change, and even how they react to economic challenges (Stack, 2018). Post-Millennials, or Generation Z, offer an exclusive case. Growing up entirely in the digital age, they are not only comfortable with technology; they fully rely on it and are more demanding of the widely used digital technologies than others, aside from their need to feel secure in the digital world (Bassiouni & Heckley, 2014). Studies suggest their personal experiences heavily influence their choices, both in products and services (Bassiouni & Heckley, 2014).

Table 2.1

Generational Groups (Pew Research Centre, 2019)

Generation	Age Bracket
The Silent Generation	Born 1928 – 1945
Baby Boomers	Born 1946 – 1964
Generation X	Born 1965 – 1980
Millennials	Born 1981 – 1996
Generation Z	Born 1997 – 2012
Generation Alpha	Born 2010s – 2025

When it comes to technology and lifestyle, the younger generation, particularly Generation Z, shows a different attitude towards purchasing goods and services compared to previous generations. They are less loyal to brands and value positive expectations and firsthand experiences (Ismail, Nguyen, Chen, Melewar, & Mohamad, 2020). While Generation Z exhibits these traits more than millennials, Kristina, Venny, Veronika, and Sundiman (2019) discovered that millennials possess adequate education, skills, knowledge, and experience with new technology. This suggests that millennials are also sensitive to the idea of adopting new technology (Lee, Kim, Ryu, & Lee, 2011). Generation Z is now the generation most proficient at and comfortable with keeping up with emerging developments, including financial technology.

Theoretical Background

To date, numerous studies have been carried out, be it in the specialization of sociology, psychology, or information system to identify the determinants of one's adoption behaviour of information technology. The Unified Theory of Acceptance and Use of Technology (UTAUT) model established by Venkatesh et al (2003) is a combination of eight research models, namely, the Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA), TPB (Theory of Planned Behaviour), Motivational Model (MM), Social Cognitive Theory (SCT), Innovation Diffusion Theory (IDT), and the Model of PC Utilization (MPCU). As such, UTAUT consists of four constructs – performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC). In fact, these variables and its relevant constructs are directly linked with users' perception towards digital payment services; and was tested and utilized in numerous past studies (Yaseen & Qirem, 2018; Abushanab & Pearson, 2007; Al-Somali et al., 2009; Riffai et al., 2012). Therefore, the UTAUT model is effective in scrutinizing the components which influence the intention to use, or actual use of technology.

The UTAUT model helps understand technology adoption but overlooks trust and security. Security is crucial for customers' confidence in online financial transactions (Kim et al., 2008). To address this gap, scholars suggest merging trust and UTAUT for a more comprehensive framework in fintech adoption research (Al Nawayseh, 2020; Kim et al., 2008). This study combines UTAUT and customer trust to explore factors affecting Generation Z's adoption of FinTech payment services in Malaysia, aiming for a deeper understanding of contextual influences on their decisions.

Performance Expectancy

As per Venkatesh et al (2003), performance expectancy refers to the perception that the given technology would boost the efficiency and effectiveness of the user's working performance; past research discovered performance expectancy as the major factor associated with users' beliefs and intentions towards the adoption of a technology. Numerous empirical studies have shown performance expectancy significantly influences consumers' behavioural intentions towards technologies, such as learning systems (Chao, 2019); mobile commerce (Ali & Qaisar, 2018); and digital payment services (Jung et al., 2020).

Studies across the world focusing on the mobile payment field have established the significance of performance expectancy or its alternative constructs on consumer attitude (Bailey et al., 2017; Tian & Dong, 2013; Wulandari, 2017). As discovered by Rahi et al (2018), performance expectancy validated 80.2% of variance as the main determinant that positively influences users' intention to use online banking, which is part of the fintech payment varieties. Moreover, a positively significant relationship has been identified between performance expectancy and consumer intention in Pakistan and China (Aslam et al., 2017; Tian & Dong, 2013). Alongside, Wulandari (2017); Bailey et al (2017), and Schierz, Schilke, and Wirtz (2010) claimed perceived usefulness to significantly affect the acceptance of cashless payment in Indonesia, the United States, and Germany, respectively.

In the Malaysian context, a study by Ahmad et al (2021) argued that the expectation of improved performance significantly influences employed fresh graduates' adoption of fintech payment methods. Similarly, Karim et al (2020) claimed that perceived usefulness significantly influences behavioural intention among young adults as the usage of digital payments provides the enjoyment of time savings and convenience. Duly, the following hypothesis is developed:

H1: Performance expectancy has a positive significant impact on Gen Z's willingness to continue using fintech services after the pandemic in Malaysia.

Effort Expectancy

Effort expectancy is referred to as the ease of using the given technology; it is commonly explained via the three fundamental concepts of complexity (MCPU), ease of use (IDT), and perceived ease of use (TAM) (Venkatesh et al., 2003). Effort expectancy emphasises a technology's simplicity of use in minimising users' effort and time spent on a task (Venkatesh et al., 2012). As claimed by Salloum et al (2018), customers are more inclined towards the use of a new technology if it helps them achieve their goals. Additionally, ease of use is defined as an individual's judgement that the operation of a technology is free of effort, be it both mental and physical (Moore & Benbasat, 1991).

Past studies have established mixed outcomes on the association between effort expectancy and consumers' attitudes—both significant and non-significant. To date, numerous studies

have explored the significance of the impact of effort expectancy or its similar constructs on consumer attitude and intention in their acceptance of digital payments (Bailey et al., 2017; Schierz et al., 2010; Wulandari, 2017). As verified, effort expectancy appears to be considered the most important factor in shaping attitudes and providing values among current and prospective users in the digital payment arena (Liébana-Cabanillas, Munoz-Leiva, & Sanchez-Fernandez, 2018; Dahlberg & Mallat, 2002). Moreover, Aydin and Burnaz (2016) contended that ease of use should be highly emphasised to boost the behavioural intention of potential users of digital wallets. Likewise in the Indian context, empirical studies have discovered the positive impact of effort expectancy on consumers' mobile payment technology acceptance (Gupta & Arota, 2020; Batra & Kalra, 2016). These highlighted the preference for mobile payment usage due to the fewer efforts necessitated to operate the systems.

Nonetheless, a study by Aslam et al (2017) claimed that consumers do not consider ease of use as an important decision-making factor when it comes to the adoption of digital payments. Moreover, a study on varying categories of mobile payment systems has discovered the significance of effort expectancy on adoption intention is only applicable to some systems. To illustrate, de Luna, Liebana-Cabanillas, Sanchez-Fernandez, and Muñoz-Leiva (2019) claimed the influence of perceived ease of use to only be significant for short message service (SMS) payment transactions but not applicable for near field communication (NFC) and quick response (QR) payment systems. Following the mix findings, the following hypothesis is developed:

H2: Effort expectancy has a positive significant impact on Gen Z's willingness to continue using fintech services after the pandemic in Malaysia.

Social Influence

Social influence, being replaceable as subjective norms, is defined as the extent to which an individual believes that influential groups believe he or she should be using a new technology (Venkatesh et al., 2012). As claimed by several studies, consumers are highly shaped by the opinions of others around them as they are new to a given technology, especially in the social media era (Ameen et al., 2020; de Sena Abrahao et al., 2016; Grover & Kar, 2018). As consumers encounter a new technology, they may sense uncertainty towards the given products and the consequences of their usage. Such uncertainty could have been minimised by acquiring the opinions of others that an individual value (Schierz et al., 2010). To boot, Beldad and Hegner (2018) established that positive opinions and recommendations on a new technology from family, peers, and co-workers may persuade an individual to adopt it.

Various past studies Al Nawayseh (2020); de Luna et al (2019); Yang et al (2012) supported that social influence positively affects the individual's inclination towards fintech services (i.e., mobile payment and online banking). Moreover, as substantiated by Taylor and Todd (1995), the subjective norm was discovered to be a more significant predictor of adoption among those individuals with no prior experience or those in the pre-stage of technology development. In a varying field, Abdullah et al (2018) discovered evidence to validate that social influence remarkably affects users' usage of fintech in administering their investment activities. Furthermore, as validated by Nysyeen et al (2005), individuals use digital services in a public social context in which they observe and adapt to others' activities and interactions.

Inversely, several studies demonstrated an insignificant result of social influence on technology acceptance, further implying that the adoption of technology solely relies on voluntary action (Ahmad et al., 2021; Chen et al., 2019). These studies contend that users are

less attentive to the attitudes of their influential groups. As claimed by the findings of Venkatesh et al (2003), subjective norms and the sense of impression tend to work through perceptions rather than intention; potential users are more likely to base their intentions on the perceptions of informal social networks instead of blindly following the fashion among their influential groups. Moreover, a study by Aydin and Burnaz (2016) validated that social influence is insignificant to adoption intention and further claimed that, in the absence of strong influence by others, consumers' attitudes are majorly affected by discrete factors such as the marketing activities of service providers. Duly, the following hypothesis is developed:

H3: Social influence has a positive significant impact on Gen Z's willingness to continue using fintech services after the pandemic in Malaysia.

Facilitating Conditions

Facilitating conditions can be referred to as how much an individual believes that the organisational and technical infrastructure exists to facilitate their use of the system (Venkatesh et al., 2003). As established by Gupta, Dogra, and George (2018), facilitating conditions represent the significance of the necessitated resources (viz., internet connection and phone memory) in enhancing the intention to use a technology. Accordingly, if such infrastructure exists, consumers' attitudes towards adopting digital payments will elevate (Oliveira et al., 2016). Controversially, as validated by Al-Shafi and Weerakkody (2009), facilitating conditions were about the adoption intention of users based on trust, such as supportive approaches from the government.

Various studies have proposed the significance of facilitating conditions on adoption intention, whereas the study by Oliveira et al (2016) discovered the impact to be non-significant. As claimed by Kurniasari et al (2022), government policies and support (i.e., privacy policy) effectively strengthen the facilitating conditions for adopting fintech payment services among the employed fresh graduates in Indonesia. According to Ghalandari (2012), the positive relationship between making things easier and wanting to adopt was found in Iran. Because of this, it is important for parties to give people the resources, information, and ongoing support they need to use financial services that fit their lifestyles. Concurrently, a study on mobile banking adoption among urban Indians by Joshua and Koshy (2011) demonstrated that accessibility to gadgets and the internet induces an elevated adoption rate. Notably, a study focusing on the adoption intention of mobile wallets during the COVID-19 era has validated the significance of facilitating conditions: the higher the accessibility of facilitating conditions, the wider its impact on the adoption of the services (Shane, Chan, & Mohan, 2022). The same study contended that constructs of facilitating conditions (i.e., technical infrastructures and in-app guidance) may certainly act on consumers' adoption. Accordingly, the following hypothesis is developed:

H4: Facilitating conditions has a positive significant impact on Gen Z's willingness to continue using fintech services after the pandemic in Malaysia.

Trust

As established by Hu et al (2019), trust has been placed as a major focus in adoption research as a critical factor in attracting consumers, having been unitarily accepted as an additional construct of the UTAUT model. Trust may represent consumers' trust in a technology, service, or service provider (Nawaz & Yamin, 2018). Trust is identified as the belief that a party will

fulfil its obligations in electronic financial transactions, in which consumers are exposed to risks, uncertainty, and a sense of loss of control in the online environment with a lack of social cues and anonymity (Lu et al., 2011; Zhou, 2013). As contended by Stewart and Jürjens (2018), trust is notable in the adoption of technology resulting from the security structure's reliability, as users need to believe that such adoption would not lead to potential losses. In other words, this term offers a subjective guarantee that consumers hold positive experiences regarding the honesty, ability, and goodwill of digital payment service providers.

Lwoga and Lwoga (2017) established that trust positively affects both performance expectancy and effort expectancy, while Nawaz and Yamin (2018) claimed that trust significantly influences the behavioural intention of technology use. Past studies discovered that greater trust in the concerned payment technology would significantly influence users' behavioural intentions towards its usage (Liebana-Cabanillas et al., 2018; Lu et al., 2011). Similarly, Zhou (2013) with a modified trust-based model proved that trust significantly, be it direct or indirect, influences users' intention to use digital payment; with the absence of trust towards service providers, consumers will not obtain a convincing experience in the usage of given technology.

In contrast, a study by Chua et al (2020), which focuses on the extent to which Malaysians perceive security to be insignificant towards consumers' behaviour to engage in the adoption of mobile wallets. Notably, a study focusing on the adoption intention of mobile wallets during the COVID-19 era has validated the insignificance of perceived trust towards consumers' intentions, with such a result justified by consumers' perceived risk towards the usage of digital payment systems (Shane et al., 2022). Similarly, a study has contended perceived security is no longer a factor influencing adoption, as users in the current era emphasise more on the suitability, usability, and functionality of digital payments than security concerns, and in fact, such services have been reliably shielded under renowned financial institutions (Lau, Lam, Cheung, & Leung, 2019). Hence, the following hypothesis is developed:

H5: Trust has a positive significant impact on Gen Z's willingness to continue using fintech services after the pandemic in Malaysia.

Research Methodology

Research Design

As supported by Yauch and Steudel (2003), numerical data acquired via a quantitative approach enables the analogy between groups, thereby allowing the scrutinization of the degree of agreement or disagreement of respondents' attitudes. As this paper seeks to study the broad trend of the determinants influencing the post-COVID-19 adoption of fintech services among Malaysian Generation Z, a quantitative primary data collection was obtained through the demand-side survey.

Following that, the targeted respondents of this research are to be Malaysian citizens, born between 1997 and 2012. Just as this study is to explore the perception of Generation Z in Malaysia as a whole, the survey participants are to be citizens of any state or federal territory within Malaysia with prior experience with fintech payment services. Thereupon, a total of 200 closed-ended Google Forms questionnaires were distributed and collected online. All participants were unequivocally advised on the purpose of this study and voluntarily conveyed their interest in participating.

In this research, the non-probability sampling technique is incorporated in the distribution of questionnaires, which is to pick respondents based on subjective judgments of the researcher rather than random selection for close proximity and swift response (Jager, Putnik, & Bornstein, 2017). Accordingly, not all of the population has an equal probability of being selected, but instead, participants who meet the inclusion criteria of the study were selected because they happened to be accessible (Sedgwick, 2013).

Research Instrument

A self-structured survey questionnaire based on the research topic was employed to identify factors affecting the post-COVID-19 adoption of fintech payments among Generation Z in Malaysia. The questionnaire consists of up to seven sections, each covering a varying focus of the study. By employing multiple choice methods, the first division incorporates questions pertinent to the demographic attributes of respondents, along with the participants' average usage frequency of fintech payments and their preferred platforms.

Concurrently, the next six sections each separately cover the proposed independent variables for this study: performance expectancy, effort expectancy, social influence, facilitating conditions, trust, and adoption intention. Respondents are to express their perspective on the 24 established statements through a 5-point Likert scale to optimise the reliability of the study and to truly reveal the judgement of the participants.

Data Analysis

After collecting the questionnaires, the data was analysed using the Statistical Package for Social Sciences (SPSS) version 29.0 (IBM Corp., 2022). The programme ran several tests, such as descriptive analysis, reliability analysis, Pearson correlation, multiple regression, and one-way ANOVA, to see how the variables associated to each other.

Data Analysis and Findings

Descriptive Analysis

Table 4.1.1 depicts the frequency analysis in assessing the demographic profile of respondents collected from this survey.

Table 4.1.1
Demographic Profile of Respondents

Variables	Category	Frequency	Percentage (%)	Cumulative Percentage (%)
Gender	Male	77	38.5	38.5
	Female	123	61.5	100.0
Age	Below 18 years old	25	12.5	12.5
	18 to 20 years old	54	27.0	39.5
	21 to 23 years old	91	45.5	85.0
	24 to 26 years old	30	15.0	100.0
Level of Education	PhD/Master	4	2.0	2.0
	Bachelor's Degree	101	50.5	52.5
	Diploma	46	23.0	75.5
	Certificate	3	1.5	77.0
	STPM/A-level	12	6.0	83.0
	SPM/O-level	34	17.0	100.0
Employment Status	Student	102	51.0	51.0
	Employed	85	42.5	93.5
	Unemployed	13	6.5	100.0
Average Usage Frequency of FinTech Payment Service	A few times a month	30	15.0	15.0
	A few times a week	106	53.0	68.0
	Once a day	28	14.0	82.0
	Several times a day	36	18.0	100.0

A total of 200 responses were collected for this study, and the descriptive data validated that 38.5% of the respondents were male and the remaining 61.5% were female. Moreover, it is observable that this sample incorporates responses from varying age groups within the established age range of Generation Z, below 18 (11–17) as 12.5%; 18–20 as 27%; 21–23 as 45%; and 24–26 as 15%, with a majority of them in the age group of 18–23 years old. As for the level of education, more than half of the participants are currently enrolled in a bachelor's degree programme (50.5%), followed by diploma holders (23%), and SPM/O-level students (17%), notably indicating that respondents are educated and are able to wisely incorporate their opinions in this study. Accordingly, up to 51% of the respondents are currently studying, with the remaining 42% and 6.5% being employed and unemployed, respectively.

The usage frequency of fintech payment services data collected shows majority of the respondents opted for usage of "a few times a week" (53%), followed by "several times a day" (18%), "a few times a month" (15%) and "once a day" (14%). These findings depict that the majority of the respondents are using fintech payment for their transactions on a weekly and daily basis.

Table 4.1.2
Fintech Payment Service Application Used

Variables	Category	Frequency	Percentage (%)	
FinTech Payment Services Used	PayPal	Yes	2	1.0
		No	198	99.0
	Ipay88	Yes	9	4.5
		No	191	95.5
	Boost	Yes	16	8.0
		No	184	92.0
	Fave	Yes	18	9.0
		No	182	91.0
	GrabPay	Yes	113	56.5
		No	87	43.5
	Touch 'n Go E-wallet	Yes	149	74.5
		No	51	25.5
	FPX	Yes	59	29.5
		No	141	70.5
	MAE	Yes	76	38.0
		No	124	62.0
	BigPay	Yes	25	12.5
		No	175	87.5
	ShopeePay	Yes	30	15.0
		No	170	85.0

The information in Table 4.1.2 presents the preferences among the respondents of the Malaysia Generation Z regarding fintech payment service applications. The survey reveals that Touch 'n Go E-wallet is the most frequently chosen option, with 149 respondents (74.5%) choosing it. Following closely, GrabPay is preferred by 56.5% of respondents, while MAE is chosen by 38%.

Reliability Analysis

Cronbach's alpha is used for the reliability analysis for each of the predictors and dependent variables in this study. As a general rule, the threshold level of reliability in this test should be at least 0.60 (Griethuijsen et al., 2014).

Table 4.2.1
Reliability Statistics of Variables

Variables	Valid N	N of Items	Cronbach's Alpha
Performance Expectancy	200	4	0.837
Effort Expectancy	200	4	0.900
Social Influence	200	4	0.905
Facilitating Conditions	200	4	0.658
Trust	200	4	0.956
Post COVID-19 Adoption of Fintech Payment Services	200	4	0.859

In the designated survey questionnaire, 4 varying questions were designed to each of the variables in identifying respondents' opinions towards the statements. As observed in table 4.2.1 above, each variable, including both the independent and dependent variables, achieved a Cronbach's alpha value exceeding 0.60. This indicates that all variables are reliable and meet the criteria for consistency. Specifically, performance expectancy (0.837), effort expectancy (0.900), social influence (0.905), and trust (0.956) are highly reliable with its Cronbach's alpha of more than 0.70, while having the facilitating conditions to obtain an acceptable level of 0.658.

Normality Analysis

The quantile-quantile (Q-Q) plots depicted in Figure 4.3.1; Figure 4.3.2; and Figure 4.3.3, are used to evaluate the normality of the data distribution in this study. Essentially, the Q-Q plot illustrates the data distribution (y-axis) against the expected normal distribution (x-axis). If the points roughly lie on or near the diagonal line at a 45-degree angle, it suggests a positive correlation between the sample and normal quantiles (Maden, 2004).

The data collected for this study follows a normal distribution, encompassing demographics such as age, education level, and employment status. Based on the normality tests conducted, the data distribution is deemed normal, thereby accurately representing the targeted population – Generation Z in Malaysia.

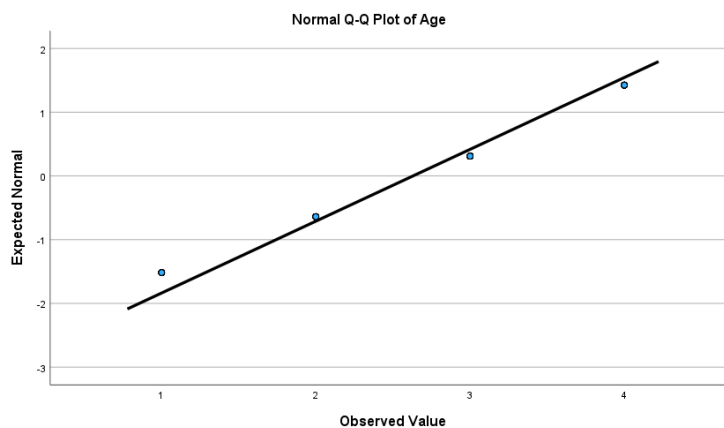


Figure 4.3.1 Normality Test: Age

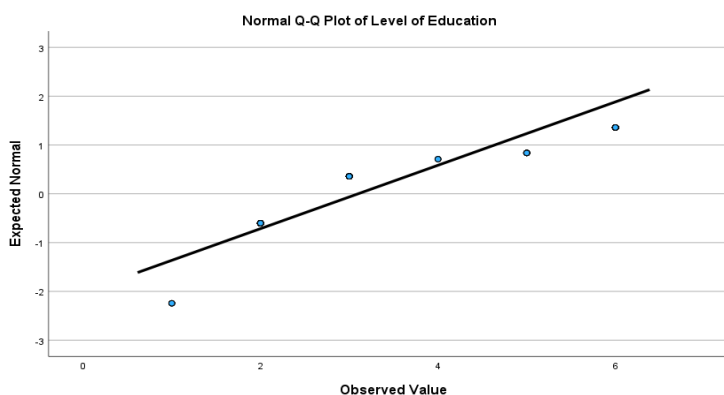


Figure 4.3.2 Normality Test: Level of Education

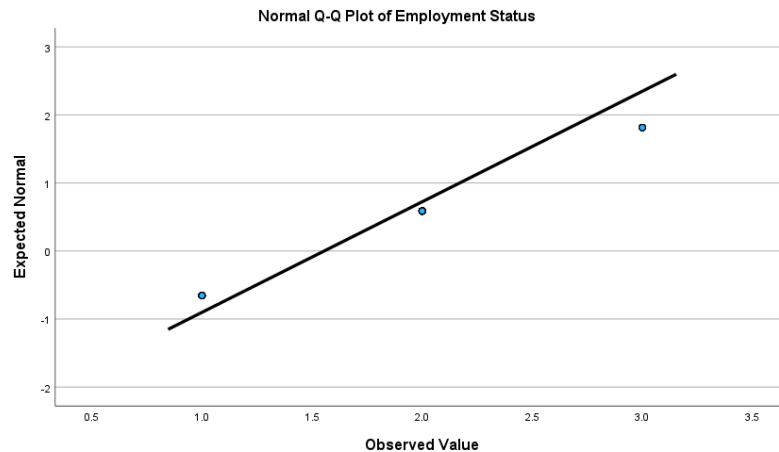


Figure 4.3.3 Normality Test: Employment Status

Pearson Correlation

Pearson correlation is used to assess the association between the independent variables and the dependent variable (Figure 4.4.1). Generally, a correlation between variables is considered significant if the p-value (sig. 2-tailed) is equal to or less than 0.10 (10%) or 0.05 (5%) and 0.01 (1%). Our findings indicate that when associated with the dependent variable (post COVID-19 adoption), performance expectancy ($p < .001$), effort expectancy ($p < .001$), and facilitating conditions ($p < .001$) all demonstrated significant correlations with p-values less than 1% level. Furthermore, these three predictor variables, performance expectancy, effort expectancy, and facilitating conditions, exhibit low positive associations with the dependent variable, fintech adoption (Pearson correlation coefficients being 0.417**, 0.495**, and 0.477** respectively), which suggests that an increase in these independent variables is associated with an increase in fintech adoption.

However, social influence and trust are found to be insignificantly correlated with the adoption of fintech (p-values of 0.07 and 0.407 respectively). So, social influence and trust signified no association to the fintech adoption.

Table 4.4.1
 Correlation Matrix

Variables		Post Covid-19 Adoption of FinTech Payment Services	Performance Expectancy	Effort Expectancy	Social Influence	Facilitating Conditions	Trust
Post Covid-19 Adoption of FinTech Payment Services	Pearson Correlation	1					
	Sig. (2-tailed)						
Performance Expectancy	Pearson Correlation	.417**	1				
	Sig. (2-tailed)	<.001					
Effort Expectancy	Pearson Correlation	.495**	.396**	1			
	Sig. (2-tailed)	<.001	<.001				
Social Influence	Pearson Correlation	.191**	.318**	.190**	1		
	Sig. (2-tailed)	.007	<.001	.007			
Facilitating Conditions	Pearson Correlation	.477**	.312**	.470**	.284**	1	
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		
Trust	Pearson Correlation	.059	.161*	.110	.186**	.136	1
	Sig. (2-tailed)	.407	.022	.121	.008	.055	

** , Correlation is significant at the 0.01 level (2-tailed), * , Correlation is significant at the 0.05 level (2-tailed)

Multiple Regression Analysis

The R-squared value of 0.375 (Table 4.5.1) suggests that the five selected independent variables account for 37.5% of the variance in the fintech adoption. The remaining 62.5% of the variance is attributable to other factors not included in this study. An acceptable Durbin-Watson value of 1.748, falling within the normal range of 1.5 to 2.5, indicates that there is no significant autocorrelation among the residuals in the regression model (Durbin & Watson, 1950).

Table 4.5.1
 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.612 ^a	.375	.359	.58319	1.748

- a. Dependent Variable: Post COVID-19 Adoption of Fintech Payment Services
- b. Predictors: (Constant), Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Trust

The ANOVA test results show that all five independent variables were mutually exclusive and not related. Given a p-value (sig.) of <0.001, the established research model for this study is appropriate and significant, hence the hypotheses are compatible with the data collected (Table 4.5.2).

Table 4.5.2
Analysis of Variance (ANOVA)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	39.614	5	7.923	22.156	<.001 ^b
Residual	69.374	194	.358		
Total	108.989	199			

a. *Dependent Variable: Post COVID-19 Adoption of Fintech Payment Services*

b. *Predictors: (Constant), Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Trust*

Table 4.5.3 presents the results of coefficient values, showing the impact of each predictor on the fintech adoption, whether positive or negative. Specifically, the coefficients for performance expectancy ($\beta = 0.274$; $p < .001$), effort expectancy ($\beta = 0.298$; $p < .001$), social influence ($\beta = -0.006$; $p = 0.923$), facilitating conditions ($\beta = 0.303$; $p < .001$), and trust ($\beta = -0.031$; $p = 0.438$). A 1% increase in performance expectancy, effort expectancy, and facilitating conditions would respectively lead to a 27.4%, 29.8%, and 30.3% increase in the post-COVID-19 adoption of fintech services among Generation Z.

The null hypotheses are rejected if the p-value (sig.) is equal to or less than 0.05, indicating a significant relationship. Conversely, the null hypothesis is failed to be rejected if the p-value exceeds 0.05, indicating statistical insignificance. Among the five variables, performance expectancy, effort expectancy, and facilitating conditions led to the rejection of the null hypothesis with significant values of <.001, indicating their significant impact on the post-COVID-19 fintech adoption among Generation Z. Facilitating conditions, with a beta of 0.303, exerted the strongest influence. In contrast, social influence and trust were found to be insignificant, with p-values of 0.923 and 0.438, respectively.

Table 4.5.3
Coefficient Values

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	Beta	Std. Error	Beta		
(Constant)	.769	.351		2.189	.030
Performance Expectancy	.274	.078	.228	3.489***	<.001
Effort Expectancy	.298	.073	.277	4.075***	<.001
Social Influence	-.006	.057	-.006	-.097	.923
Facilitating Conditions	.303	.072	.283	4.229***	<.001
Trust	-.031	.040	-.046	-.777	.438

***p-value significant at the 0.01 level (2-tailed).

Discussion

This study reveals that Malaysian Generation Z, already active users of fintech payment services, intends to persist in utilising these services for financial transactions in the post-COVID-19 era. According to the gathered data, the majority of users plan to use fintech payments several times a week.

Our study found that performance expectancy has a significant impact on the post COVID-19 adoption of fintech payment services among Generation Z. This result is backed by the studies of Aslam et al (2017); Tian and Dong (2013); Rahi et al (2018), even though some studies such as Teo et al (2020) contended perceived usefulness to insignificant predictor for consumers' attitudes. With that, in the post pandemic period, the Malaysian Generation Z do perceive that the usage of fintech payments offered the aspects of usefulness, efficiency, convenience, and productivity, further implies that consumers are to adopt the service if the system conveys the message that it could boost the efficiency and effectiveness of users' daily transaction performances (Venkatesh et al., 2003). This is corroborated by a local study by Karim et al (2020), which found that the perceived usefulness of fintech payments significantly influences the behavioural intentions of young adults. Using fintech payments offers the benefits of time-saving and convenience, contributing to their enjoyment.

The findings of this study align with previous research by Bailey et al (2017); Schierz et al (2010); Wulandari (2017), indicating that ease of use significantly impacts the adoption of fintech payments. However, this contrasts with a study by Aslam et al (2017), which suggested that consumers do not prioritise ease of use when adopting fintech services. It can be argued that respondents perceive fintech services in the Malaysian market as accessible, clear, and easy to master, which likely contributes to their willingness to adopt these services. This preference for using such services in the post-COVID-19 period can be attributed to the reduced effort required to operate the systems (Gupta & Arora, 2020; Batra & Kalra, 2016).

Next, this study aligns with previous research by Ahmad et al (2021); Chen et al (2019); Shane et al (2022), Ridaryanto, Firmansyah, Kartono and Sundjaja (2019), and Rachmawati Kartawinata, Wijayangka and Hasbi (2020), which found that social influence does not significantly impact the fintech adoption. This suggests that technology adoption largely depends on voluntary action and could be explained by the nature of the respondents, who are existing users of fintech services. As Taylor and Todd (1995) argued, subjective norms are a more significant predictor among individuals with no prior experience with a technology. However, this contradicts the findings of Al Nawayseh (2020); de Luna et al (2019); Yang et al (2012), who found a significant impact of social influence on users' attitudes. We concluded that in the post-pandemic era, Malaysian Generation Z is less influenced by the attitudes of their social groups.

Facilitating conditions have emerged as the key factor predicting the post-COVID-19 attitudes of Generation Z towards using fintech services. Greater accessibility to facilitating conditions has a more significant impact on service adoption. This finding is consistent with previous studies by Ghalandari (2012); Joshua and Koshy (2011); Shane et al (2022), but contradicts Oliveira et al (2016), who found the impact to be non-significant. Users who were provided with technical and organisational infrastructures (such as guidance, resources, capability, experience, and assistance) to facilitate their use of fintech services have contributed to their willingness to adopt the system. Hence, resources, information, and continuous support are

essential for encouraging consumer engagement with financial services that align with their lifestyles (Ghalandari, 2012).

Trust is insignificant in influencing the post-COVID-19 adoption of fintech services among Generation Z. This aligns with previous research by (Chua et al., 2020; Aydin and Burnaz, 2016; Vaicondam et al., 2021; Shane et al., 2022). Shane et al (2022), focusing on the COVID-19 era, suggested that existing users may have low concern about platform security. In addition, Lau et al.'s (2019) claim that current users prioritise the suitability, usability, and functionality of fintech payments over security concerns. It is worth noting that fintech services in Malaysia, such as MAE by Maybank Berhad, are reliably secured by renowned financial institutions. Therefore, the continuation of fintech payment service adoption among Malaysian Generation Z after the pandemic may not be hindered solely by a lack of trust (i.e., security issues), but rather by the emphasis on performance expectancy, effort expectancy, and facilitating conditions as determinants of attitudes.

Conclusion

This study suggests that the COVID-19 pandemic has influenced the continued use of fintech payment services among the respondents, who are representative of the target population and are existing users of Fintech payments. In the post-COVID-19 era, Malaysians, particularly Generation Z, are embracing fintech payments as part of the new normal, where the economy has stabilized after the pandemic, though full and stable implementation is yet to be achieved. The findings indicate that performance expectancy, effort expectancy, and facilitating conditions positively impact the adoption of fintech payments among Generation Z in Malaysia, while social influence and trust have an insignificant association. These results may differ from previous studies using the Unified Theory of Acceptance and Use of Technology (UTAUT) due to the unique cultural context of Malaysia, the focus on Generation Z, and the post-COVID-19 period.

Implications of the Study

By concentrating on the technology acceptance of Generation Z, this study provides valuable insights for users such as the Malaysian government, retailers, and service providers regarding this market segment's perception of fintech payments in the post-pandemic context. It suggests that if fintech services are efficient, accessible, easy to use, and capable, existing users are likely to continue using them even without the pandemic-induced need for contactless and seamless cashless payments. Therefore, it is important for all stakeholders, including the Malaysian government, Fintech payment service providers, financial institutions, and retailers, to collaborate in enhancing the development of financial technology (fintech) in the country, considering its potential positive impact on economic growth, productivity, and employment.

For service providers, it is important to focus on performance expectancy and effort expectancy to enhance consumer experiences and services, thereby potentially improving attitudes toward digital financial transactions. For example, companies like Touch 'n Go E-wallet, GrabPay, and MAE should strive to make their systems user-friendly while offering comprehensive functionality to retain users.

Additionally, consumers are less influenced by their social circles (such as family, peers, and colleagues) and are more impacted by specific factors, such as marketing practices. Therefore, the government and service providers can tailor their strategies to the preferences of

Generation Z in Malaysia by focusing on key influencing factors when offering financial products.

Trust was found to be a less impactful factor, suggesting that Generation Z may be unaware of the impact of potential risks (e.g., cyber-attacks and data breaches) associated with fintech usages. Consequently, authorities should emphasize educating this demographic about the risks to reduce security incidents.

The Malaysian government has previously promoted fintech payments among young people through incentive programs. These efforts could be further refined based on the study's findings regarding the importance of facilitating conditions. To improve the skills, experiences, and resources of consumers, the government could offer training on fintech payment services. Simultaneously, service providers could enhance customer support to help users with any issues or uncertainties they encounter.

Limitation and Recommendations for Future Study

The major limitation of this study was its sampling approach. Purposive sampling was employed, where not all of the population has an equal probability of being selected. Most respondents were aged 18 to 23, potentially not fully representing all of Generation Z. Future studies should aim for a more balanced demographic. Additionally, to advance findings, future research could explore the acceptance of fintech services post-COVID-19, focusing on other generations' views. Studies in different cultural settings could also reveal significant differences among people.

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