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A DESCRIPTIVE ANALYSIS OF SHARIAH-COMPLIANT DIGITAL PAYMENT USAGE AMONG GENERATION Z IN MALAYSIA

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Abstract: *The rapid growth of digital payment technologies has accelerated the shift toward cashless transactions, particularly among younger consumers. In Muslim-majority countries such as Malaysia, this development has increased interest in Shariah-compliant payment technology, which emphasises ethical financial practices and adherence to Islamic principles. Despite the prominence of Generation Z as a key user group of digital payments, empirical evidence on how demographic characteristics shape their intention to adopt Shariah-compliant payment technology remains limited. This study aims to examine demographic differences in Generation Z's intention to adopt Shariah-compliant payment technology in Malaysia. Using a quantitative, survey-based research design, data were collected from 437 Generation Z respondents across Malaysia through an online questionnaire. The data were analysed using SPSS, employing independent sample t-tests, one-way ANOVA, and correlation analysis to assess differences in adoption intention across selected demographic factors, including gender, religion, age, education level, monthly income, ethnic group, and marital status. The findings*

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reveal that adoption intention varies significantly across several demographic categories, indicating that Generation Z is not a homogeneous group in its acceptance of Shariah-compliant payment technology. The results contribute to the existing literature by providing empirical evidence on demographic-based differences in Shariah-compliant PayTech adoption, an area that has received limited scholarly attention. From a practical perspective, the findings offer valuable insights for policymakers, Islamic financial institutions, and PayTech providers in developing targeted strategies and inclusive digital payment solutions that align with the diverse demographic profiles of Generation Z consumers in Malaysia.

Keywords: *Shariah-compliant payment technology; Islamic PayTech; Generation Z; demographic differences; adoption intention; Malaysia*

Introduction

The rapid growth of digital payment technologies has fundamentally reshaped the way financial transactions are conducted, particularly among younger consumers who are highly reliant on mobile and cashless payment systems. In Malaysia, the widespread use of electronic wallets, mobile banking, and contactless payment platforms reflects the country's broader transition toward a digital economy (Bank Negara Malaysia 2023). However, within Muslim-majority societies, the adoption of payment technologies is not driven solely by convenience and efficiency; it is also influenced by compliance with Islamic principles that prohibit riba (interest), gharar (excessive uncertainty), and maysir (gambling) (Dusuki and Abdullah 2007; El-Gamal 2006). Consequently, Shariah-compliant payment technology has emerged as an important segment within the digital finance ecosystem, emphasising ethical conduct, transparency, and alignment with Islamic financial principles.

Generation Z, generally defined as individuals born between the mid-1990s and early 2010s, plays a pivotal role in driving the adoption of digital financial services. As digital natives, this generation demonstrates high technological familiarity, frequent use of digital platforms, and strong engagement with mobile applications (Priporas, Stylos, and Fotiadis 2017). Prior studies on technology adoption suggest that younger users are more receptive to digital financial innovations due to their perceived ease of use and compatibility with daily lifestyles (Venkatesh et al. 2012).

Generation Z is widely recognised as a digitally native cohort with greater exposure to and acceptance of financial technologies (Addula, 2025). A prior study by Jamaludin et al. (2024) in Malaysia shows that Generation Z consumers are highly familiar with financial technology and have integrated the use of electronic payment systems into their daily activities, indicating strong engagement with digital payment tools such as e-wallets and mobile banking. However, existing research predominantly focuses on general fintech adoption, with limited attention given to Shariah-compliant payment technologies within the Malaysian context.

Nevertheless, adoption behaviour among Generation Z is not uniform. Existing literature indicates that demographic characteristics, including gender, age, education level, income, Islamic education background, and marital status, may influence individuals' attitudes and intentions toward financial technology adoption (Ryu 2018; Liébana-Cabanillas, Muñoz-Leiva, and Rejón-Guardia 2013).

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Despite the growing body of research on digital payment adoption, much of the existing literature has focused on technological and behavioural determinants such as perceived usefulness, perceived ease of use, trust, and social influence (Dahlberg et al. 2015; Oliveira et al. 2016). Comparatively less attention has been given to demographic-based differences, particularly in the context of Shariah-compliant payment technology. Studies that explicitly examine how demographic factors shape adoption intention remain limited, especially among Generation Z in emerging Islamic fintech markets such as Malaysia. This represents a notable gap, as demographic background may influence individuals' financial values, awareness of Shariah principles, and sensitivity toward ethical financial practices.

To address this gap, the present study adopts an empirical, survey-based approach to examine demographic differences in Generation Z's intention to adopt Shariah-compliant payment technology in Malaysia. By analysing variations in adoption intention across selected demographic factors, this study contributes to the existing fintech and Islamic finance literature by offering a more nuanced understanding of Generation Z consumers. The findings are expected to provide practical insights for policymakers, Islamic financial institutions, and PayTech providers in designing inclusive and targeted strategies that promote the adoption of Shariah-compliant digital payment solutions.

Literature Review

Shariah-Compliant Payment Technology

Shariah-compliant payment technology refers to digital payment systems that operate in accordance with Islamic principles, particularly the prohibition of riba (interest), gharar (excessive uncertainty), and maysir (gambling), while promoting fairness, transparency, and ethical conduct in financial transactions (El-Gamal 2006; Dusuki and Abdullah 2007). Unlike conventional payment systems that may involve interest-based mechanisms or unclear contractual structures, Shariah-compliant payment technologies are designed to ensure that transaction processes and underlying financial arrangements comply with Shariah requirements (Hassan, Aliyu, and Huda 2020).

The rapid expansion of fintech has created both opportunities and challenges for Islamic finance. While digital payment technologies enhance financial inclusion and transaction efficiency, they simultaneously introduce concerns related to Shariah compliance, governance, and consumer trust (Arner, Barberis, and Buckley 2017). This duality highlights a critical tension: although technological innovation promotes accessibility, it may also increase the risk of non-compliant structures if not properly governed.
In response, Islamic financial institutions and fintech providers have ~~increasingly~~ developed Shariah-compliant digital payment solutions that integrate Islamic principles into technological innovation (Firmansyah and Anwar 2019). However, existing literature tends to emphasise the institutional and technological development of such systems, with relatively limited focus on how users perceive and respond to these Shariah-compliant features. This gap is particularly evident in contexts such as Malaysia, where the availability of Shariah-compliant financial services is high, yet consumer adoption behaviour remains insufficiently explored.

Generation Z and Digital Payment Adoption

Generation Z, typically defined as individuals born between the mid-1990s and early 2010s, is widely recognised as a generation that has grown up with digital technology as part of everyday life (Priporas, Stylos, and Fotiadis 2017). As digital natives, they show high familiarity with

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mobile applications, online platforms, and cashless payment systems, making them an important driver of digital payment adoption (Francis and Hoefel 2018). Many studies also report that Generation Z uses digital financial services more frequently and shows higher acceptance compared to older generations (Szymkowiak et al. 2021).

However, these findings are not always consistent. While some studies highlight strong adoption behaviour among Generation Z, others suggest that their usage is mainly driven by convenience and habit rather than deep understanding or long-term commitment (Venkatesh et al. 2012). This means that high usage does not always reflect strong intention or loyalty.
In addition, Generation Z should not be treated as a homogeneous group. Even though they share similar exposure to technology, differences in socio-demographic and cultural backgrounds still influence their financial attitudes and behaviour (Ryu 2018). This suggests that variations in adoption intention may still exist within Generation Z, especially when factors such as religion, education, and income are considered. Therefore, it is important to examine how these differences shape their intention to adopt specific technologies, such as Shariah-compliant payment systems.

Demographic Factors and Adoption Intention

Demographic characteristics are widely recognised as important factors influencing consumer behaviour and technology adoption. Variables such as gender, age, education level, income, Islamic education background, ethnicity, and marital status may shape individuals' financial preferences, risk perceptions, and decision-making processes (Liébana-Cabanillas, Muñoz-Leiva, and Rejón-Guardia 2013; Oliveira et al. 2016).

However, prior findings on the role of demographic factors are not always consistent. While some studies report significant differences in adoption behaviour across demographic groups, others find limited or no effect, particularly in digitally advanced environments. This inconsistency suggests that the influence of demographic factors may depend on context and type of technology.

In the context of digital payment adoption, demographic differences may influence access to technology, financial literacy, and attitudes toward innovation. Therefore, it remains important to examine whether such differences persist in specific settings, such as Shariah-compliant payment technology among Generation Z in Malaysia.

Gender

Gender differences in technology adoption have been widely discussed in the literature. Earlier studies often report that males show higher adoption intention toward financial technologies due to greater risk tolerance and higher confidence in using technology, while females tend to place more emplasis on security and trust (Venkatesh et al. 2012; Ryu 2018).

However, more recent studies suggests that these differences are becoming less clear, especially among younger user who share similar levels of digital exposure (Szymkowiak et al. 2021). This indicates that the role of gender may be weakening in digitally familiar groups such as Generation Z.

These inconsistent findings suggest that the influence of gender is not stable and may depend on context. Therefore, it is important to re-examine whether gender differences still exist in

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specific settings, such as Shariah-compliant payment technology among Generation Z in Malaysia.

Islamic Education Background

Islamic education background plays an important role in shaping financial behaviour, particularly in the context of Islamic finance. Unlike religious affiliation, which reflects identity, Islamic education background reflects an individual's level of understanding of Shariah principles and financial rules. Individuals with greater exposure to Islamic education are more likely to understand what constitutes permissible financial practices and therefore, may show stronger preference for Shariah-compliant financial technologies (Amin, Rahman, and Razak 2014).

However, prior studies show that awareness of Shariah principles does not always lead to actual adoption. While some individuals prioritise Shariah compliance in financial decision-making, others may still focus on functional benefits such as convenience and efficiency (Souiden and Rani 2015). This suggests that knowledge alone may not be sufficient to drive adoption behaviour.

These mixed findings indicate that the influence of Islamic education background may vary depending on individual priorities and context. Therefore, it is important to examine whether differences in Islamic education background led to variation in adoption intention toward Shariah-compliant payment technology among Generation Z in Malaysia.

Age

Although Generation Z fall within a relatively narrow age differences within this group may still affect adoption intention. Individuals at the younger end may be more careful behaviour due to greater financial awareness and responsibilities while those slightly older may show more careful behaviour due to greater financial awareness and responsibilities (Ryu 2018).

However, prior studies do not always agree on the role of age in technology adoption. Some studies highlight its influence through differences in experience and risk perception, while others find that such effects are minimal in digitally familiar groups (Dahlberg et al. 2015).

This suggests that the effect of age may not be consistent within Generation Z and could depend on context. Therefore, it is important to examine whether variation in age still contributes to differences in adoption intention toward Shariah-compliant payment technology.

Education Level

Education level is often linked to financial literacy and awareness of digital financial services. Individuals with higher education levels are more likely to understand the benefits and risks associated with fintech adoption, leading to stronger adoption intention (Oliveira et al. 2016). However, this relationship may not always be consistent. In highly digital environments, basic familiarity with technology is widespread, which may reduce differences between education groups. This is particularly relevant for Generation Z, where exposure to digital tools is common regardless of formal education (Szymkowiak et al. 2021).

In the context of Shariah-compliant payment technology, education may also influence awareness of Islamic financial principles and the importance of Shariah compliance. Therefore,

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it remains important to examine whether differences in education level still influence adoption intention in this specific setting.

Income

Income level affects consumers' access to financial services and their ability to engage with digital payment technologies. Higher-income individuals may have greater access to smartphones, stable internet connections, and banking services, which facilitate fintech adoption (Liébana-Cabanillas et al. 2013).

However, prior findings suggest that the role of income may be changing. As digital payment platforms become more accessible and widely available, cost-related barriers may be reduced, allowing broader participation across income groups (Venkatesh et al. 2012; Dahlberg et al. 2015).

Conversely, lower-income users may face greater barriers in adopting digital payments including cost constraints, limited access to infrastructure, and lower levels of financial and digital literacy (Ali & Fazil, 2025). It is therefore necessary to examine whether income differences still play a role in the adoption of Shariah-compliant payment technology among Generation Z.

Ethnic Group

In multicultural societies such as Malaysia, ethnic background may influence financial behaviour through cultural norms, values, and social networks. Previous studies have shown that ethnicity can affect attitudes toward financial institutions and trust in financial systems (Abdul-Rahman et al. 2018). Empirical evidence further indicates that ethnicity significantly influences financial risk tolerance and decision-making behaviour, as it moderates how individuals respond to financial situations and uncertainty (Rahman, Albaity, & Isa, 2020).

In addition, studies have found that differences across ethnic groups are associated with variations in financial participation, such as access to banking services and use of financial products (Guiso, Sapienza, & Zingales, 2008).

However, most of this evidence is based on general financial behaviour rather than digital payment contexts. Therefore, it remains unclear whether these differences persist in the adoption of Shariah-compliant payment technology among Generation Z in Malaysia.

Marital Status

Marital status may influence financial priorities and risk preferences. Married individuals may exhibit more conservative financial behaviour due to family responsibilities, while unmarried individuals may be more open to experimenting with new technologies (Ryu, 2018).

Prior research also suggests that marital status can be associated with financial risk tolerance; however, this relationship is not always consistent (Grable, Kwak, and Chen 2022). While married individuals may consider household responsibilities in their decisions, unmarried individuals may exhibit greater flexibility in risk-taking behaviour.

Nevertheless, evidence indicates that marital status alone may not be a strong predictor of financial behaviour compared to other factors such as income, financial knowledge, and demographic characteristics (Grable, Kwak, and Chen 2022). Therefore, it remains important

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to examine whether marital status contributes to differences in adoption intention toward Shariah-compliant payment technology among Generation Z in Malaysia.

Summary of Literature and Research Focus

The reviewed literature indicates that while digital payment adoption among Generation Z is generally high, adoption intention may vary across different demographic groups. Existing studies on fintech adoption have predominantly focused on behavioural and technological determinants, with limited emphasis on demographic-based differences, particularly in the context of Shariah-compliant payment technology. Accordingly, this study seeks to address this gap by empirically examining whether adoption intention toward Shariah-compliant payment technology differs across selected demographic characteristics among Generation Z in Malaysia.

Table 1: Definition and Measurement of Demographic Factors

Demographic Factor	Definition	Measurement / Coding	Supporting Literature
Gender	Biological classification of respondents	1 = Male; 2 = Female	Venkatesh et al. 2012; Ryu 2018
Islamic Education Background	Level of exposure to Islamic education, either formal or informal	1 = Yes; 2 = No	Amin, Rahman, and Razak (2014); Souiden and Rani (2015)
Age	Respondents' age in years	Continuous variable (years)	Dahlberg et al. 2015
Education Level	Highest level of formal education attained	1 = Secondary; 2 = Diploma; 3 = Bachelor's degree; 4 = Postgraduate	Oliveira et al. 2016
Monthly Income	Average monthly personal income	Categorised income ranges (RM)	Liébana-Cabanillas, Muñoz-Leiva, and Rejón-Guardia 2013
Ethnic Group	Ethnic background of respondents	1 = Malay; 2 = Chinese; 3 = Indian; 4 = Others	Abdul-Rahman et al. 2018
Marital Status	Legal marital status of respondents	1 = Single; 2 = Married; 3 = Others	Ryu 2018
Employment Status	Current employment condition of respondents	1 = Student; 2 = Employed; 3 = Self-employed; 4 = Unemployed	Venkatesh et al. (2012); Oliveira et al. (2016)

Source: Author's own compilation

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Research Methodology

Research Design

This study adopts a quantitative research design using a cross-sectional survey approach to examine demographic differences in Generation Z's intention to adopt Shariah-compliant payment technology in Malaysia. A quantitative approach is appropriate as the objective of the study is to identify differences across demographic groups through statistical comparison rather than to explore subjective meanings or experiences (Creswell and Creswell 2018). Cross-sectional survey designs are widely used in fintech and technology adoption studies as they allow data to be collected efficiently from a large population at a single point in time (Dillman, Smyth, and Christian 2014).

Population, Sample, and Data Collection

The target population of this study comprises Generation Z consumers in Malaysia, defined as individuals born between the mid-1990s and early 2010s. Data were collected using an online self-administered questionnaire, which is considered suitable for reaching digitally active respondents and has been widely employed in studies involving young consumers and digital technology adoption (Venkatesh et al. 2012; Szymkowiak et al. 2021).

The questionnaire was distributed online from March 2025 to September 2025, with the main phase of data collection conducted between July and September 2025. Participation was voluntary. A total of 459 responses were received. After data screening and removal of incomplete or invalid responses, 437 usable responses were retained for further analysis. This sample size exceeds the minimum requirements recommended for quantitative analysis involving group comparisons and provides sufficient statistical power for t-tests and one-way ANOVA (Hair et al. 2019).

Measurement Instrument

The questionnaire consisted of two main sections. Section A captured respondents' demographic information, including gender, Islamic education background, age, education level, monthly income, ethnic group, and marital status. These demographic variables were measured using categorical and continuous scales and coded for statistical analysis, following established practices in fintech adoption research (Liébana-Cabanillas, Muñoz-Leiva, and Rejón-Guardia 2013; Oliveira et al. 2016).

Section B measured respondents' intention to adopt Shariah-compliant payment technology. The measurement items were adapted from prior technology adoption and fintech studies to ensure content validity (Venkatesh et al. 2012; Ryu 2018). The instrument consists of six constructs: behavioural intention (7 items), social influence (6 items), perceived benefit (6 items), perceived security (6 items), trust (7 items), and religiosity (8 items). Responses were recorded using a five-point Likert scale, ranging from 1 = "strongly disagree" to 5 = "strongly agree," which is commonly used in behavioural intention research due to its reliability and ease of interpretation (Hair et al. 2019).

Sample items include: "I plan to use Shariah-compliant payment technology" (behavioural intention), "I receive encouragement from my family to use Shariah-compliant payment technology." (social influence), and "I think Shariah-compliant payment technology completely secure when operating it." (perceived security).

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Prior to the main data collection, the questionnaire underwent expert review and pilot testing to assess clarity, relevance, and reliability of the measurement items. A pilot test was conducted, and all constructs demonstrated high internal consistency, with Cronbach's alpha values exceeding 0.80 across both pilot samples.

Table 2: Reliability Analysis Results

Variables	No. of Items	Cronbach's Alpha (n = 43)	Cronbach's Alpha (n = 53)
Behavioural Intention	7	0.848	0.855
Social Influence	6	0.913	0.904
Perceived Benefit	6	0.914	0.914
Perceived Security	6	0.944	0.943
Trust	7	0.932	0.925
Religiosity	8	0.965	0.951

All values exceed the recommended threshold of 0.70, indicating strong reliability (Hair et al. 2019). Two rounds of pilot testing were conducted to refine the instrument and ensure consistency of the measurement scales. Construct validity was supported through the use of measurement items adapted from established studies, combined with expert review and pilot testing to ensure the clarity, relevance, and appropriateness of each construct.

Data Analysis Techniques

Data analysis was conducted using Statistical Package for the Social Sciences (SPSS). Descriptive statistics were first employed to summarise respondents' demographic profiles and overall adoption intention. To address the research objective, inferential statistical analyses were performed to examine differences in adoption intention across selected demographic factors.

Specifically, independent samples t-tests were used to analyse differences between two-group demographic variables such as gender and religion. One-way analysis of variance (ANOVA) was applied to demographic variables with more than two categories, including education level, income, ethnic group, and marital status. For age, which was measured as a continuous variable, Pearson correlation analysis was employed to examine its relationship with adoption intention. These statistical techniques are widely used and appropriate for examining group differences and associations in behavioural and fintech adoption research (Field 2018; Hair et al. 2019). Statistical significance was assessed at the conventional 5 per cent significance level ($p < 0.05$).

Ethical Considerations

Ethical considerations were observed throughout the research process. Participation was voluntary, and respondents were informed of the purpose of the study prior to completing the questionnaire. Anonymity and confidentiality of responses were assured, and the data were used solely for academic research purposes, in line with standard ethical guidelines for social science research (Israel and Hay 2006).

Results

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Respondents' Demographic Profile

A total of 437 valid responses from Generation Z participants in Malaysia were included in the analysis. Table 1 summarises the demographic characteristics of the respondents.

In terms of gender, 69.3 per cent of the respondents were female (n = 303), while 30.7 per cent were male (n = 134). The sample was predominantly Malay (91.3 per cent), followed by Indian (3.0 per cent), Others (3.0 per cent), and Chinese respondents (2.7 per cent). With respect to marital status, the majority of respondents were single (93.6 per cent), while 5.9 per cent were married and 0.5 per cent were divorced.

Regarding education level, most respondents held a bachelor's degree (70.0 per cent), followed by diploma holders (17.4 per cent), respondents with high school education or below (7.8 per cent), and those with postgraduate qualifications (4.8 per cent). In terms of employment status, students constituted the largest group (76.0 per cent), followed by private sector employees (11.9 per cent), government servants (6.4 per cent), self-employed individuals (3.9 per cent), and unemployed respondents (1.8 per cent).

For monthly income, the majority of respondents reported earning less than RM1,200 (75.1 per cent), reflecting the high proportion of students in the sample. Smaller proportions of respondents reported income levels ranging from RM1,201 to RM2,400 (17.4 per cent), RM2,401 to RM3,600 (4.6 per cent), and above RM3,600 (2.9 per cent combined). In terms of Islamic education background, 66.4 per cent of respondents indicated having received Islamic education, while 33.6 per cent reported no formal Islamic education.

Overall, the demographic profile indicates a sample largely composed of young, educated, and digitally active Generation Z individuals, providing an appropriate basis for examining demographic differences in adoption intention (Hair et al. 2019).

Descriptive Statistics of Study Variables

Table 2 presents the descriptive statistics for the main study variables. Adoption intention toward Shariah-compliant payment technology recorded a high mean value (M = 4.14, SD = 0.80), indicating a generally strong inclination among respondents to adopt such payment technologies.

Similarly, social influence (M = 3.84, SD = 0.93), perceived benefits (M = 4.25, SD = 0.78), perceived security (M = 4.24, SD = 0.75), trust (M = 4.28, SD = 0.72), and religiosity (M = 4.40, SD = 0.74) all demonstrated relatively high mean values. These descriptive results suggest that respondents generally expressed favourable perceptions toward Shariah-compliant payment technology and related constructs.

Descriptive analysis serves as an important preliminary step in understanding respondents' overall tendencies before proceeding to inferential statistical testing (Dahlberg et al. 2015; Hair et al. 2019).

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Demographic Differences in Adoption Intention

Table 3: Independent Samples t-Test Results for Adoption Intention

Variable		Group	N	Mean	SD	t	p
Gender		Male	134	4.29	0.76	2.667	0.008
		Female	303	4.07	0.80		
Islamic Background	Education	Yes	290	4.22	0.45	3.048	0.002
		No	147	3.98	0.68		

Note: $p < 0.05$ Indicates Statistical Significance.

Gender Differences

An independent samples t-test was conducted to examine whether adoption intention toward Shariah-compliant payment technology differed by gender. Prior to the analysis, Levene's test for equality of variances was performed and indicated that the assumption of equal variances was met ($p = 0.666$).

The results of the t-test revealed a statistically significant difference in adoption intention between male and female respondents ($t = 2.667$, $p = 0.008$). Male respondents reported a higher mean adoption intention score ($M = 4.29$, $SD = 0.76$) compared to female respondents ($M = 4.07$, $SD = 0.80$).

Islamic Education Background Differences

An independent samples t-test was also conducted to examine differences in adoption intention based on respondents' Islamic education background. Levene's test for equality of variances indicated that the assumption of equal variances was satisfied ($p = 0.618$).

The t-test results showed a significant difference in adoption intention between respondents with an Islamic education background and those without ($t = 3.048$, $p = 0.002$). Respondents who reported having an Islamic education background demonstrated a higher mean adoption intention ($M = 4.22$, $SD = 0.45$) compared to those without such a background ($M = 3.98$, $SD = 0.68$).

One-Way ANOVA Results

One-way analysis of variance (ANOVA) was conducted to examine whether there were significant differences in Generation Z's intention to adopt Shariah-compliant payment technology across demographic variables with three or more categories, namely ethnic group, marital status, education level, employment status, and monthly income.

Ethnic Group

Levene's test for homogeneity of variances was significant ($p = 0.010$), indicating that the assumption of equal variances was violated. Therefore, a Welch-robust approach with Games–Howell post hoc comparisons was employed.

The ANOVA results revealed a statistically significant difference in adoption intention across ethnic groups, $F(3, 433) = 25.150$, $p < 0.001$. Post hoc analysis using the Games–Howell test indicated that Malay respondents reported significantly higher adoption intention than Chinese and Indian respondents. In addition, Chinese respondents exhibited significantly lower adoption

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intention compared to respondents from the "Other" ethnic category. No significant differences were observed between Malay and Other ethnic groups, or between Indian and Other ethnic groups.

Marital Status

Levene's test indicated that the assumption of homogeneity of variances was satisfied ($p = 0.385$). The one-way ANOVA results showed no statistically significant difference in adoption intention across marital status groups, $F(2, 434) = 0.663$, $p = 0.516$.

Education Level

Levene's test for equality of variances was not significant ($p = 0.402$), indicating that the homogeneity assumption was met. The ANOVA results demonstrated no significant difference in adoption intention among respondents with different education levels, $F(3, 433) = 0.829$, $p = 0.479$.

Employment Status

The assumption of equal variances was satisfied based on Levene's test ($p = 0.718$). The ANOVA results indicated no statistically significant difference in adoption intention across employment status groups, $F(4, 432) = 1.545$, $p = 0.188$.

Monthly Income

Levene's test confirmed that the assumption of homogeneity of variances was met ($p = 0.535$). The ANOVA results revealed no significant difference in adoption intention across monthly income groups, $F(6, 430) = 0.843$, $p = 0.537$. As the overall ANOVA was not significant, post hoc analysis was not conducted.

Table 4: Summary of One-Way ANOVA Results

Demographic Variable	F	p-value	Result
Ethnic Group	25.150	< 0.001	Significant
Marital Status	0.663	0.516	Not significant
Education Level	0.829	0.479	Not significant
Employment Status	1.545	0.188	Not significant
Monthly Income	0.843	0.537	Not significant

Note: Significance Level Set at $p < 0.05$.

Discussion

This study examined demographic differences in Generation Z's intention to adopt Shariah-compliant payment technology in Malaysia. The findings reveal that adoption intention is not uniform across all demographic groups, highlighting the importance of demographic context in understanding Shariah-compliant PayTech adoption.

Gender Differences in Adoption Intention

The results indicate a significant difference in adoption intention between male and female respondents, with male respondents demonstrating a higher intention to adopt Shariah-compliant payment technology. This finding is consistent with prior technology adoption studies, which suggest that males tend to exhibit higher risk tolerance and stronger confidence in adopting new financial technologies (Venkatesh et al. 2012; Ryu 2018). Although the gender gap in digital technology usage has narrowed among younger generations, gender-based

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differences may still persist in financial decision-making contexts, particularly those involving perceived risk and innovation (Szymkowiak et al. 2021).

In the context of Shariah-compliant payment technology, male respondents may be more inclined to explore new financial solutions, while female respondents may exhibit greater caution due to concerns related to security, trust, and reliability. This finding suggests that gender remains a relevant demographic factor in shaping adoption intention, even within a technologically literate Generation Z cohort.

Islamic Education Background and Adoption Intention

The findings further reveal a significant difference in adoption intention between respondents with and without an Islamic education background. Respondents who had received Islamic education demonstrated a higher intention to adopt Shariah-compliant payment technology. This result aligns with Islamic finance literature, which emphasises the role of religious knowledge and awareness in shaping consumers' financial preferences and decision-making (Amin, Rahman, and Razak 2014; Souiden and Rani 2015).

Islamic education may enhance individuals' understanding of Shariah principles, thereby increasing sensitivity toward the permissibility of financial products and services. As a result, individuals with stronger exposure to Islamic teachings may perceive Shariah-compliant payment technology as more aligned with their religious values, leading to stronger adoption intention. This finding underscores the importance of religious literacy in promoting Shariah-compliant digital financial solutions.

Ethnic Differences in Adoption Intention

Among the demographic variables examined, ethnic group emerged as a significant factor influencing adoption intention. The results indicate that Malay respondents exhibited higher adoption intention compared to Chinese and Indian respondents. This finding is particularly relevant in Malaysia's multi-ethnic context, where cultural background and religious affiliation often intersect with financial behaviour (Abdul-Rahman et al. 2018).

As Malays in Malaysia are constitutionally Muslim, higher adoption intention among Malay respondents may reflect stronger alignment between Shariah-compliant payment technology and religious identity. Conversely, lower adoption intention among non-Malay respondents may be attributed to differing religious beliefs or lower perceived relevance of Shariah compliance. Nevertheless, the presence of significant differences between certain non-Malay groups suggests that ethnicity should not be viewed solely through a religious lens but also as a cultural and social factor influencing fintech adoption behaviour.

Non-Significant Demographic Factors

In contrast, the study found no significant differences in adoption intention across marital status, education level, employment status, and monthly income. These findings suggest that Generation Z's intention to adopt Shariah-compliant payment technology is relatively consistent across socioeconomic backgrounds. This aligns with prior studies indicating that younger consumers' fintech adoption behaviour is increasingly driven by lifestyle compatibility and digital familiarity rather than traditional socioeconomic distinctions (Dahlberg et al. 2015; Oliveira et al. 2016).

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The lack of significant differences across income and employment status may also be explained by the high proportion of students within the sample, reflecting Generation Z's shared life stage. Similarly, the absence of education-level differences may indicate that awareness of digital payment technologies is widespread among Generation Z, reducing disparities in adoption intention.

Contribution to Literature

Overall, the findings contribute to the growing literature on Islamic fintech by providing empirical evidence on demographic-based differences in Shariah-compliant payment technology adoption among Generation Z. While existing studies have largely focused on technological and behavioural determinants, this study highlights the continued relevance of demographic characteristics, particularly gender, ethnicity, and Islamic education background, in shaping adoption intention. By focusing on Generation Z in Malaysia, this study extends fintech adoption research into a demographic group that is both digitally native and increasingly influential in shaping the future of Islamic financial services.

Limitations and Future Research

Despite its contributions, this study is subject to several limitations that should be acknowledged. First, the study adopts a cross-sectional research design, which captures respondents' intention to adopt Shariah-compliant payment technology at a single point in time. As a result, the findings do not allow for causal inference or examination of changes in adoption intention over time. Future studies may consider employing longitudinal research designs to better understand how adoption intention evolves as digital payment technologies and regulatory frameworks continue to develop (Dahlberg et al. 2015).

Second, the data were collected using a self-administered online questionnaire, which may be subject to common method bias and self-reporting bias. Although this approach is widely used in fintech and technology adoption research due to its efficiency and accessibility, respondents' answers may reflect perceptions rather than actual usage behaviour (Podsakoff et al. 2003). Future research could complement survey data with qualitative interviews or usage-based data to gain deeper insights into consumers' actual adoption behaviour.

Third, the study focuses exclusively on Generation Z respondents in Malaysia, which may limit the generalisability of the findings to other generational cohorts or national contexts. While Generation Z represents a critical segment for digital payment adoption, future research may extend the scope to include other generations, such as Millennials or Generation X, to enable intergenerational comparison. Additionally, comparative studies across different countries or Islamic finance markets could provide broader insights into demographic influences on Shariah-compliant payment technology adoption.

Finally, this study examines demographic differences using descriptive and inferential statistical techniques without incorporating mediating or moderating variables. Future research may build upon these findings by integrating behavioural, psychological, or religiosity-related constructs into more advanced analytical frameworks, such as structural equation modelling, to provide a more comprehensive understanding of adoption behaviour.

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Conclusion

This study set out to examine demographic differences in Generation Z's intention to adopt Shariah-compliant payment technology in Malaysia. Using a survey-based empirical approach and statistical analysis, the findings demonstrate that adoption intention among Generation Z is not entirely uniform, with certain demographic characteristics playing a more influential role than others.

The results reveal that gender, ethnic background, and Islamic education significantly differentiate adoption intention toward Shariah-compliant payment technology. These findings suggest that demographic and socio-cultural factors remain relevant even among digitally native consumers. In contrast, marital status, education level, employment status, and monthly income were found to have no significant effect on adoption intention, indicating that Generation Z's acceptance of Shariah-compliant payment technology may be shaped more by identity- and value-related factors than by socioeconomic conditions.

By focusing specifically on demographic differences, this study contributes to the growing body of literature on Islamic fintech and digital payment adoption. It extends existing research by highlighting those demographic characteristics—particularly those linked to religious exposure and cultural background—continue to influence behavioural intention in Shariah-compliant financial contexts. From a practical standpoint, the findings provide valuable insights for policymakers, Islamic financial institutions, and PayTech providers in designing targeted awareness programmes and inclusive digital payment solutions that address the diverse profiles of Generation Z consumers.

In conclusion, this study underscores the importance of recognising demographic diversity when promoting Shariah-compliant payment technology. As Generation Z continues to shape the future of digital finance, understanding the demographic patterns underlying their adoption behaviour will be essential for advancing the development of ethical, inclusive, and sustainable Islamic digital financial services.

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References

Abdul-Rahman, A., Abdul-Razak, D., & Ismail, A. G. (2018). Ethnicity, religiosity, and trust in Islamic financial institutions. *Journal of Islamic Accounting and Business Research, 9*(3), 420–437. https://doi.org/10.1108/JIABR-02-2017-0021

Addula, S. R. (2025). *Mobile banking adoption: A multi-factorial study on social influence, compatibility, digital self-efficacy, and perceived cost among Generation Z consumers in the United States*. Journal of Theoretical and Applied Electronic Commerce Research, 20(3), 192. https://doi.org/10.3390/jtaer20030192

Ali, M. A. M. Z., & Fazil, K. N. M. (2025). *Challenges and prospects of digital payment adoption among low-income households in India*. In *Horizons of Thought (II): Unveiling Concerns in Humanities and Social Sciences* (pp. 15–20).

Amin, H., Rahman, A. R. A., & Razak, D. A. (2014). Consumer acceptance of Islamic home financing. *International Journal of Housing Markets and Analysis, 7*(1), 17–37. https://doi.org/10.1108/IJHMA-11-2012-0066

Arner, D. W., Barberis, J., & Buckley, R. P. (2017). FinTech and RegTech in a nutshell, and the future in a sandbox. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3094039

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.

Dahlberg, T., Guo, J., & Ondrus, J. (2015). A critical review of mobile payment research. *Electronic Commerce Research and Applications, 14*(5), 265–284. https://doi.org/10.1016/j.elerap.2015.07.006

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method* (4th ed.). Wiley.

Dusuki, A. W., & Abdullah, N. I. (2007). Why do Malaysian customers patronise Islamic banks? *International Journal of Bank Marketing, 25*(3), 142–160. https://doi.org/10.1108/02652320710739850

El-Gamal, M. A. (2006). *Islamic finance: Law, economics, and practice*. Cambridge University Press.

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.

Francis, T., & Hoefel, F. (2018). 'True Gen': Generation Z and its implications for companies. *McKinsey & Company*.

Guiso, L., Sapienza, P., & Zingales, L. (2008). Trusting the stock market. *The Journal of Finance, 63*(6), 2557–2600. https://doi.org/10.1111/j.1540-6261.2008.01408.x

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.

Israel, M., & Hay, I. (2006). *Research ethics for social scientists*. Sage Publications.

Jamaludin, N. A., Zaki, H. O., Ramli, R. M., & Suffarruddin, S. H. (2024). *Towards a sustainable financial future: Exploring the influence of e-wallet adoption among Gen Z in Malaysia*. *Institutions and Economies, 16*(4), 113–138. https://doi.org/10.22452/IJIE.vol16no4.4

Liébana-Cabanillas, F., Muñoz-Leiva, F., & Rejón-Guardia, F. (2013). The determinants of satisfaction with e-banking. *Journal of Financial Services Marketing, 18*(1), 26–41. https://doi.org/10.1057/fsm.2012.32

Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption. *Computers in Human Behavior, 61*, 404–414. https://doi.org/10.1016/j.chb.2016.03.030

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review. *Journal of Applied Psychology, 88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

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Journal of Islamic, Social, Economics and Development (JISED)
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DOI: 10.55573/JISED.118401

Priporas, C. V., Stylos, N., & Fotiadis, A. K. (2017). Generation Z consumers' expectations of interactions in smart retailing. *Journal of Business Research, 77*, 374–381. https://doi.org/10.1016/j.jbusres.2017.01.028

Rahman, M., Albaity, M., & Isa, C. R. (2020). Behavioural propensities and financial risk tolerance: The moderating effect of ethnicity. *International Journal of Emerging Markets, 15*(4), 728–745. https://doi.org/10.1108/IJOEM-01-2018-0024

Ryu, H. S. (2018). Understanding benefit and risk framework of fintech adoption. *Computers in Human Behavior, 78*, 270–278. https://doi.org/10.1016/j.chb.2017.10.002

Souiden, N., & Rani, M. (2015). Consumer attitudes and purchase intentions toward Islamic banks. *Journal of Retailing and Consumer Services, 23*, 73–84. https://doi.org/10.1016/j.jretconser.2014.12.002

Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021). Information technology and Gen Z: The role of digital literacy. *Technology in Society, 65*, 101565. https://doi.org/10.1016/j.techsoc.2021.101565

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory. *MIS Quarterly, 36*(1), 157–178. https://doi.org/10.2307/41410412