
International Journal of Management, Finance and Accounting

What Drives Consumers to Use InsurTech Apps? The Role of Insurance Literacy

Jia Chun Chia¹, Hui Shan Lee^{1,*}, Bik Kai Sia¹

¹Faculty of Accountancy and Management, Universiti Tunku Abdul Rahman, Kajang, Malaysia

*Corresponding author: hslee@utar.edu.my
(ORCID: 0000-0003-1017-3434)

Abstract

Although financial technology has spread worldwide, the adoption of InsurTech in Malaysia is still low because of the knowledge-action gap, in which people continue to use traditional agents. This study examines the factors that determine behavioral intention to use InsurTech apps by incorporating the Unified Theory of Acceptance and Use of Technology (UTAUT) and including a novel insurance literacy factor. A cross-sectional quantitative research design was adopted, and 406 valid responses were gathered from 406 Malaysian Generation Z individuals and analyzed using partial least squares structural equation modelling (PLS-SEM). The findings indicate that the model explains 58% of the variance in behavioral intention, with trust as the best predictor, followed by insurance literacy, performance expectancy, information quality, and social influence. In contrast, effort expectancy and perceived risk were found to be insignificant. Rather than concentrating on technical features, this study demonstrates that individuals tend to use financial applications more when they are familiar with them. Such results provide guidance to insurers who create educational centers that simplify the language of insurance; hence, the divide between technological accessibility and real user behavior is reduced to increase financial resilience in emerging countries.

Keywords: InsurTech Adoption, Behavioral Intention, Unified Theory of Acceptance and Use of Technology (UTAUT), Insurance Literacy, Generation Z, Financial Inclusivity

Received on 30 January 2026; Accepted on 30 April 2026; Published on 30 August 2026

To cite this article: Chia, J. C., Lee, H. S., & Sia, B. K. (2026). What Drives Consumers to Use InsurTech Apps? The Role of Insurance Literacy. *International Journal of Management, Finance and Accounting*, 7(2), 83–114.
<https://doi.org/10.33093/ijomfa.2026.7.2.3>

1.0 Introduction

Financial technologies (FinTech) have become important drivers of innovation in the global financial system. For example, global fintech investment reached approximately USD 116 billion in 2025, highlighting the growing importance of digital financial innovation in the global economy (KPMG, 2025). The insurance industry has been greatly affected by this surge, leading to the emergence of InsurTech, the rise of digital innovations to automate the traditional insurance business, and enhanced the efficiency (Cortis et al., 2019). Although InsurTech can be advantageous to the company by lowering operational expenses and improving customer engagement through personalization (Jung et al., 2018), the adoption of InsurTech services in Malaysia remains relatively low (UOB, 2022). Although the Malaysian insurance market has been growing strongly, a significant part of policyholders continues to use traditional agents to manage and advise them (Fintech Malaysia Report, 2021). This study aims to examine the key determinants of Malaysian consumers' behavioral intention to adopt InsurTech applications, particularly how insurance literacy can help bridge the gap between knowledge and action.

Although the Malaysian insurance sector has a long way to go, it is crucial to analyze it with an emphasis on its gaps. Malaysia's insurance coverage has remained around 40% to 50% of the population and has not changed in years (Bank Negara Malaysia, 2024). This is a clear demonstration of the insurance coverage gap in society. Very few fintech companies have launched digital insurance, and in fact, Touch 'n Go Digital via the Touch 'n Go e-wallet app has launched a one-stop insurance center called GOprotect. This contrasts with many consumers who seek the advice and policy management of traditional agents (TNGlobal, 2024). According to past research, this dependency can be motivated by a lack of financial and insurance education, which is a deficiency in systematic knowledge or comprehension of insurance products, coverage conditions, and risk management. This low level of literacy may cause consumer panic and disorientation in the face of complicated digital insurances (Antony et al., 2023; Feng et al., 2023; Iddrisu et al., 2025; Stolper & Walter, 2017; Tereszkiewicz & Cichowicz, 2024). When users lack sufficient understanding of policy terms, coverage structures, and risk-sharing mechanisms, they may feel uncertain or confused when using complex

insurance services. This disconnection results in a knowledge-action gap, in which the consumer might be aware of the advantages of digital tools but lacks sufficient insurance knowledge to confidently complete insurance transactions without human assistance. Understanding these factors is important for achieving the United Nations Sustainable Development Goal 8, which aims to help local financial institutions make insurance more accessible to everyone. Learning how consumer drivers, such as trust and insurance literacy, influence consumer behavior is key to helping industry leaders design effective digital strategies that will make the country financially resilient.

Prior research on technology adoption has primarily focused on digital banking and general FinTech services, and little attention was paid to the peculiarities of the insurance sector, particularly in emerging markets such as Malaysia (Hasan et al., 2021). Many of these studies have employed the Unified Theory of Acceptance and Use of Technology (UTAUT) to determine the technological drivers, such as performance expectancy and effort expectancy (Venkatesh et al., 2003). Subsequent research has further incorporated psychological barriers, including perceived risk and trust in digital financial environments (Guo et al., 2013; Xie et al., 2021). However, insurance differs fundamentally from other financial services due to its contractual complexity, long-term protection horizon, and risk-pooling mechanisms, which require a higher level of domain-specific understanding. While general financial literacy has been widely examined (Stolper & Walter, 2017), limited research has integrated insurance-specific literacy into established technology adoption frameworks used to explain digital financial service adoption. In this study, insurance literacy refers to an individual's ability to understand insurance concepts, policy terms, coverage conditions, and risk-sharing principles necessary for making informed insurance decisions in digital environments (Kiwanuka & Sibindi, 2023; Lusardi & Mitchell, 2014). The absence of such domain-specific cognitive readiness may constrain consumers' ability to evaluate InsurTech platforms beyond surface-level technological features.

According to a recent study, Malaysians are highly financially anxious about old age, medical bills, and monthly living expenses, including anxiety that is directly correlated with the levels of education and earnings (Lee & Kuang, 2025). These findings suggest that technology adoption in the insurance context cannot be sufficiently

explained by system-related attributes alone. Even when digital platforms are perceived as useful or easy to use, consumers lacking insurance-specific understanding may remain hesitant to adopt self-service digital insurance solutions. Consequently, the role of insurance literacy in shaping consumers' behavioral intention to adopt InsurTech services remains underexplored, particularly in emerging markets such as Malaysia.

To address this gap, this study builds on the UTAUT model by adding the technological and psychological domains with insurance literacy as a specific sub-construct. By integrating the technological dimension with the cognitive aspect, this study offers a more enriched understanding of the willingness to adopt InsurTech. Digital financial technology is also influenced by age cohort. Krupa and Buszko (2023) found that consumers younger than 30 years old use fintech products and services to a much greater extent than older cohorts, indicating that younger consumers are more tech-savvy and engaged digitally. This is one of the reasons that Generation Z deserves attention, as they are digital natives but tend to lack experience and exposure to financial outlay. Finally, these findings are useful for insurers and policymakers in creating more innovative, digital, and literate technologies and closing the divide between technology access and user behavior.

2.0 Literature Review and Hypotheses Development

2.1 Theory for Technology Acceptance and User-Centric Drivers

The Unified Theory of Acceptance and Use of Technology (UTAUT) represents a significant milestone in understanding digital transformation, consolidating various models to explain how users perceive new systems (Venkatesh et al., 2003). The core of this theory comprises performance expectancy, effort expectancy, social influence, and facilitating conditions. In this study, performance expectancy (PE), effort expectancy (EE), and social influence (SI) are retained as key technological determinants influencing behavioral intention. Facilitating conditions refer to the extent to which an individual believes that the necessary organizational and technical infrastructure exists to support system use (Venkatesh et al., 2003). In the context of mobile-based InsurTech applications, access to the required technological infrastructure is relatively widespread.

Most consumers already own smartphones and can easily download apps through digital distribution platforms such as the App Store or Google Play. As a result, facilitating conditions are less likely to be a critical determinant of adoption intention in this context and are therefore not incorporated into the proposed framework. Although the original UTAUT model includes moderating variables such as gender, age, experience, and voluntariness of use, many studies applying UTAUT in consumer technology contexts adopt a simplified structure by focusing on the direct determinants of behavioural intention (Venkatesh et al., 2012). Since the objective of this study is to examine the key drivers of InsurTech adoption intention rather than group differences, moderating variables are not incorporated into the proposed framework.

Performance expectancy assumes that people would be more willing to use InsurTech applications if they see a definite benefit to handle their insurance status, such as time-management benefits or easier claims (Venkatesh et al., 2003). In the same spirit, the expectancy of efforts implies that the level of comfort linked to the interface of the application is the sole determinant of user-interaction. When an InsurTech platform is perceived as overly complicated in the Malaysian context, a policyholder who values efficiency may choose to stick to older paradigms that employ humans. Moreover, the social influence is a crucial factor in the Malaysian collective culture, in which the views of relatives, friends, and social circles are a stimulus to the use of new digital financial tools (Xue et al., 2024).

Although functional benefits motivate intention, the literature shows considerable debate about psychological barriers. Trust is one of the pillars of the insurance relationship and, in the online environment, requires consumers to perceive the service provider's integrity and reliability to mitigate the absence of physical interaction (Zhang et al., 2023). On the other hand, perceived risk is the uncertainty about losing money or compromising data privacy, which is a key deterrent to using FinTech platforms (Xie et al., 2021). Application performance expectancy may be high, but a high perceived risk can stop adoption. This study examines these factors alongside literacy and information quality to provide a comprehensive understanding of the enablers and barriers shaping the Malaysian InsurTech ecosystem. Therefore, insurance literacy should not be viewed

merely as another independent variable, but rather as a cognitive enabler that enables consumers to process and evaluate insurance-related information in digital environments.

A critical gap in current scholarship is where users have access to technology but lack the confidence to use it. This study implies that insurance literacy, such as particular skills of gaining an awareness of risk pooling, policy exclusions, and indemnity are a direct motivation for digital action, and it is called insurance literacy (Stolper & Walter, 2017). The lack of insurance-specific knowledge usually leaves consumers paralyzed with fear of being inadequately covered by an app. The success of information quality supplements this. To be adopted, the information presented within the InsurTech application should be precise, recent, and comprehensible (DeLone & McLean, 2003). High-quality information has lowered the cognitive burden on users, enabling people with varying levels of literacy to navigate complex insurance products with greater confidence.

2.2 Hypothesis Development

2.2.1 Performance Expectancy

Performance expectancy is the extent to which an individual feels that when he or she employs a given system, it will assist him or her to carry out some tasks in a more efficient way (Venkatesh et al., 2003). This is associated with the perceived utility of InsurTech apps in the insurance sector to simplify policy management, expedite claims, provide instant access to coverage information, and offer a live call centre. The latter digitalization process can accelerate insurance dealings. When Malaysian consumers perceive that these digital tools can significantly reduce the time and effort traditionally spent on manual paperwork or waiting for agent responses, their intention to use the technology strengthens. More specifically, expectations of convenience in using InsurTech can induce a customer to use InsurTech. Previous research in FinTech has consistently shown that the potential for greater productivity and efficiency is a key motivator for users to switch from traditional to digital platforms (Idrees & Ullah, 2024; Marcevičiūtė et al., 2025).

H1: Performance expectancy has a significant positive effect on Malaysian policyholders' behavioral intention to adopt InsurTech applications.

2.2.2 Effort Expectancy

Effort expectancy is the connotation of perceived ease of use in a technological system (Venkatesh et al., 2003). For InsurTech apps, this includes simple navigation, a clear user interface, and minimal technical complexity during onboarding. Insurance products are inherently complex, so they are more likely to be accepted on a digital platform that simplifies the user journey. Unless the application is very easy to use, users may become demoralized and switch to older systems, especially those who are less technologically savvy. Thus, a frictionless experience is the key to transforming the interest of a potential user into a real intention to use the app (Padma Kiran & Vedala, 2025).

H2: Effort expectancy has a significant positive effect on Malaysian policyholders' behavioral intention to adopt InsurTech applications.

2.2.3 Social Influence

Social influence represents the extent to which an individual perceives those important others, such as family members, friends, or colleagues, believe they should use a new technology (Venkatesh et al., 2003). In Malaysia's collectivist society, social circles and word-of-mouth recommendations play a powerful role in shaping financial behavior. Youths are highly influenced by the digital trends and testimonials shared within their social networks (Xue et al., 2024). When individuals see their peers successfully using InsurTech apps for protection, they feel social pressure and desire to fit in. They were strongly urged to use similar tools to keep pace with their peers. These feelings often encourage them to adopt the technology themselves.

H3: Social influence has a significant positive effect on Malaysian policyholders' behavioral intentions to adopt InsurTech applications.

2.2.4 Insurance Literacy

Some part of financial knowledge that assists consumers in managing risk management products involves insurance literacy (Stolper & Walter, 2017). Instead of the general financial skills, insurance literacy is concerned with the capacity of an individual to comprehend the conditions of insurance policies, grasp the concept of indemnity, and distinguish between a variety of cover types (Kiwanuka & Sibindi, 2023). Insurance literacy reduces psychological obstacles by sealing the knowledge gap and enabling consumers to embrace and make better use of digital insurance products and services (Bongini et al., 2023). Consequently, more insured consumers are not only more likely to trust and navigate InsurTech platforms but also more likely to believe that these platforms are a feasible alternative to traditional insurance models. Therefore, insurance literacy helps eliminate psychological barriers and enables users to interact more effectively with InsurTech applications by alleviating confusion caused by complex insurance language.

H4: Insurance literacy has a significant positive effect on Malaysian policyholders' intention to adopt InsurTech applications.

2.2.5 Trust

Trust is the foundation of any financial relationship. This is especially true in the insurance industry, where long-term commitments are made to ensure future protection. In the digital insurance environment, trust reflects users' confidence in the reliability, integrity, and goodwill of InsurTech providers (Alalwan et al., 2017; Amnas et al., 2023). In the absence of physical interaction, insurance companies' reputations are correlated with the perceived security of their digital platforms. Consumers do not readily buy digital insurance products when they do not trust them, which is mostly because they fear that they may not be able to claim when the time comes (Andrés-Sánchez & Gené-Albesa, 2023). In this respect, trust is a major psychological process that enables consumers to believe in and use distant insurance services.

H5: Trust has a significant positive effect on Malaysian policyholders' behavioral intention to adopt InsurTech applications.

2.2.6 Perceived Risk

Perceived risk can be said to be a subjective measure of the harm that is likely to result in financial loss, privacy invasion, and malfunction of technology by the consumer (Xie et al., 2021). The sensitivity of personal health and financial information is a key factor that heightens such concerns in the Malaysian InsurTech environment. Policyholders lose confidence in using the technology when they believe the application is prone to cyber threats or that digital transactions are less secure than traditional, face-to-face transactions. Consequently, the perceived risk becomes one of the important psychological obstacles to the further uptake of digital insurance management (Appiah & Agblewornu, 2025).

H6: Perceived risk significantly and negatively influences Malaysian policyholders' behavioral intention to adopt InsurTech applications.

2.2.7 Information Quality

Based on the information systems success literature, information quality is determined as the degree to which the content presented using an application is accurate, complete, and timely (DeLone & McLean, 2003). In the InsurTech landscape, customers rely on digital platforms to explicitly project policy coverage, premium frameworks, and claim development. In cases of uncertainty, information aging, and possible misguidance, user satisfaction will decrease, along with the intention to use the application. On the other hand, high-quality information also reduces mental effort and gives users clarity and confidence when making insurance-related decisions on digital platforms. Therefore, high-quality information presented on digital platforms improves users' confidence and facilitates better decision-making, thereby strengthening their behavioral intention to adopt InsurTech services (Azzahra et al., 2023).

H7: Information quality has a significant positive effect on Malaysian policyholders' behavioral intention to adopt InsurTech applications.

Based on the above theoretical discussion, the proposed research framework for this study is presented in Figure 1.

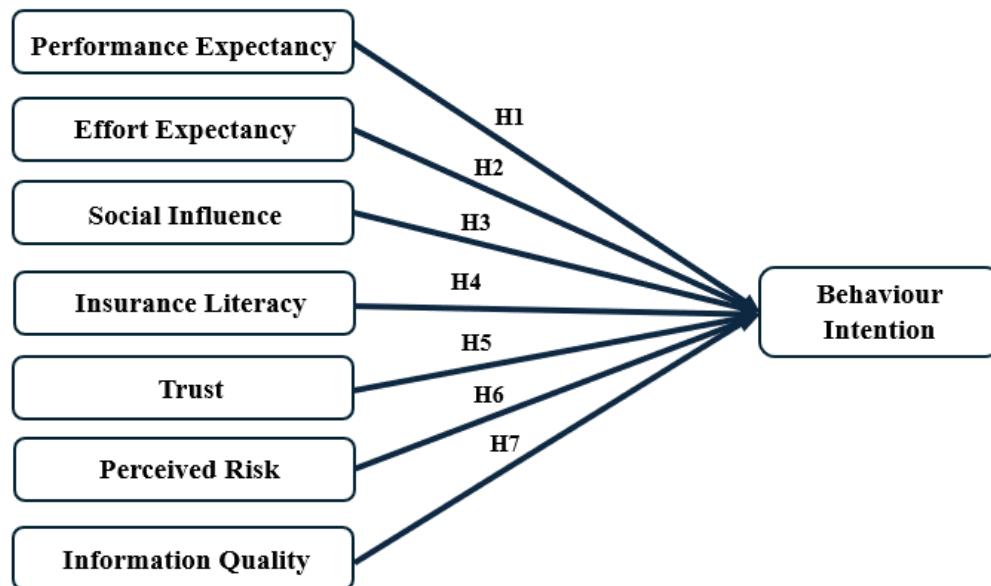


Figure 1: Research Framework

3.0 Methodology

This study aimed to examine the variables that influence InsurTech adoption among Generation Z consumers in Malaysia. In line with established quantitative research practices, the study was conducted to generate reliable, replicable findings. The university's ethics committee provided ethical approval for this research (Reference No. U/SERC/78-414/2024).

3.1 Research Design and Target Population

The research design used in this study was a cross-sectional quantitative approach to provide an overview of consumer behavior and insurance literacy levels. The target market was Generation Z in Malaysia, people aged 18 to 30. The selection of this group

is based on the fact that, as digital natives, they will be at the center of the future of the Malaysian insurance market, and they tend to have a knowledge-action gap since they are in the earlier phases of the financial life cycle. The sample in the study was a non-probability purposive focus group to broaden the population, since the study aimed at a wide (non-probability) sample of individuals who act as digital users and are likely to have existing or potential insurance needs. Non-probability purposive sampling was adopted because there is no comprehensive sampling frame that identifies Malaysian Generation Z consumers as potential users of InsurTech applications. This approach is commonly used in technology adoption studies where the target population cannot be easily identified through a complete sampling frame (Etikan, 2016).

3.2 Data Collection Procedure

A self-administered online questionnaire, structured and data gathered, is widely used in social science research because it is cost-efficient for reaching respondents across wide geographic areas. The questionnaire was distributed through various digital platforms, including social media and messaging applications, from May to July 2025. To protect data quality, the questionnaire began with a screening question to ensure that respondents were aged between 18 and 30 and lived in Malaysia. In total, 406 valid responses were received. This exceeds the minimum recommended for a population of this size, supporting a 95% confidence level and providing a solid foundation for statistical analyses and conclusions.

3.3 Research Instrument and Measurement

This study instrument was designed to measure the seven key constructs listed in the research framework. Specifically, it covers Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Insurance Literacy (IL), Trust (TR), Perceived Risk (PR), and Information Quality (IQ), all of which are hypothesized to influence Behavioral Intention (BI). The measurement items and their corresponding sources are shown in Appendix A. To enhance robustness and content validity, the items were drawn

and modified from previous empirically validated scales in earlier studies within the literature, including those based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model (Venkatesh et al., 2003). This study uses established metrics to capture questions that accurately reflect individuals' perceptions and evaluations of InsurTech applications. Respondents indicated agreement with each statement using a five-point Likert scale (1=Strongly Disagree; 5=Strongly Agree). The reason for using this response format is its simplicity and natural response behavior, which allows positive/or negative opinions while also having a neutral center. Therefore, the scale enhances a more accurate reflection of young consumers' perceptions and attitudes toward InsurTech applications.

3.4 Data Analysis Strategy

After data screening and removal of incomplete questionnaires, 406 valid questionnaires were retained for analysis. The collected data were analyzed using a two-step process. First, this study uses descriptive statistics to present participants' demographic information, including gender distribution, education level, employment status, insurance ownership, and experience using InsurTech platforms. This measure created the necessary background information concerning the Gen Z sample and their awareness of online insurance products. The second stage involved using inferential analyses to test the study's hypotheses and the stipulated research framework. Partial least squares structural equation Modelling (PLS-SEM) was used. This was done to enable the concurrent analysis of the seven hypotheses on the main outcome variable, Behavioral Intention. PLS-SEM enabled researchers to rigorously evaluate the measurement and structural models. Construct reliability and validity were assessed in the measurement model, and the strength and significance of the hypothesized relationships were assessed in the structural model.

4.0 Results and Discussion

The subsequent sections outline the demographic characteristics of Malaysian Generation Z participants, followed by an assessment of the measurement model to verify the convergent and discriminant validity of the UTAUT components and insurance literacy. Finally, a structural model analysis is presented to test the hypothesized relationships between these technological and human-centric drivers and the behavioral intention to adopt InsurTech apps.

4.1 Profile of Respondents

A total of 406 valid responses were received from participants, forming the final dataset for Generation Z in Malaysia. As seen in Table 1, male and female respondents were fairly evenly distributed in the sample, with males comprising 54.43% and females 45.57%. This balance helps ensure that the research results reflect the perspectives of both male and female groups, rather than being biased toward one group. As for the respondents' age, most were between 21 and 25 (46.80%), followed by those between 26 and 30 (41.62%). This demographic distribution will mirror the more mature segments of Generation Z, some of whom are already transitioning to full-time employment or pursuing higher education. Consequently, these individuals are more likely to have begun making independent financial and insurance-related decisions.

Additionally, the sample was relatively well educated, with 46.31% holding bachelor's degrees and 21.67% holding postgraduate qualifications. This shows that the majority of the sample is well-educated and has sufficient financial and technical knowledge to understand the features involved in this survey. Private sector employment accounts for 31.03% of employment, while nearly half of all respondents (47.78%) identify as students. This combination highlights a group of people who are both familiar with digital technology and increasingly active in the labor market. Importantly, these characteristics make Generation Z a relevant and emerging segment in the insurance industry, particularly amid digitalization and the adoption of InsurTech.

In addition, Table 2 shows respondents' awareness of insurance and the types of insurance products held. According to the results, many respondents already have life, health, and non-life insurance products. This indicates that the participants had prior exposure to insurance services, making them an appropriate sample for studying behavioral intentions toward InsurTech adoption. Most respondents (50.49%) reported having experience using InsurTech applications, while the others do not use these platforms at all. This distribution supports technology adoption research by enabling analysis of behavioral intention among current and potential users. While Mobile Insurance users are a helpful and relevant sample of Generation Z consumers, early-stage adopters, who have engaged with InsurTech services but may no longer use them, offer additional insight into the motivations that appeal to each segment.

Table 1: Respondents' Demographic Profile

Participant' Demographic Information		Number	Percentage
Gender	Male	221	54.43%
	Female	185	45.57%
Age	18-20 years	47	11.58%
	21-25 years	190	46.80%
	26-30 years	169	41.62%
Marital Status	Single	335	82.51%
	Married	71	17.49%
Education Level	No Formal Education	7	1.72%
	Primary School	20	4.93%
	Secondary School	14	4.48%
	Pre-university/Foundation/STPM/A-level	52	12.81%
	Certificate of Diploma	33	8.13%
	Bachelor of Degree	188	46.31%
	Postgraduate	88	21.67%
	Professional Qualifications	4	1.00%
Employment Status	Student	194	47.78%
	Employee in the Private Sector	126	31.03%
	Employee in the Government Sector	63	15.52%
	Gig Worker	3	0.07%
	Employer	7	1.72%
	Self-employed	11	2.71%
	Unemployed	2	0.49%

Table 2: Respondents' Insurance Awareness

	Descriptions	Frequency	Percentage
Insurance Awareness	Very important	192	47.29%
	Important	195	48.52%
	Neutral	17	4.18%
	Not important	2	0.01%
Type of Insurance(S)	Life Insurance	81	19.95%
	Health Insurance (Medical Card, Critical Illness, etc.)	79	19.46%
	Non-Life Insurance (car insurance, travel insurance, etc.)	16	3.94%
	Life & Health Insurance	164	40.40%
	Life & Non-Life Insurance	6	1.48%
	Health & Non-Life Insurance	20	4.92%
	Life, Health Insurance & Non-Life Insurance	40	9.85%
Experience Using Apps	Yes	205	50.49%
	No	201	49.51%

4.2 Measurement Model Assessment

Before hypothesis testing, the measurement model (Figure 2) was evaluated to establish convergent and discriminant validity. This step is essential to ensure that the measurement items accurately capture the theoretical constructs they are intended to represent, rather than reflecting unrelated concepts. Convergent validity was confirmed, as all outer loadings reported in Table 3 exceeded the recommended threshold of 0.70. In practical terms, this indicates that each measurement item was strongly associated with its respective construct, suggesting that respondents interpreted the items consistently and meaningfully. In addition, the Average Variance Extracted (AVE) values for all constructs surpassed the recommended minimum of 0.50. Specifically, Performance Expectancy recorded an AVE of 0.604, Insurance Literacy 0.797, and Behavioral Intention 0.659. These results indicate that the constructs explained more than half of the variance in their corresponding indicators, providing further evidence that the measurement model demonstrates satisfactory convergent validity.

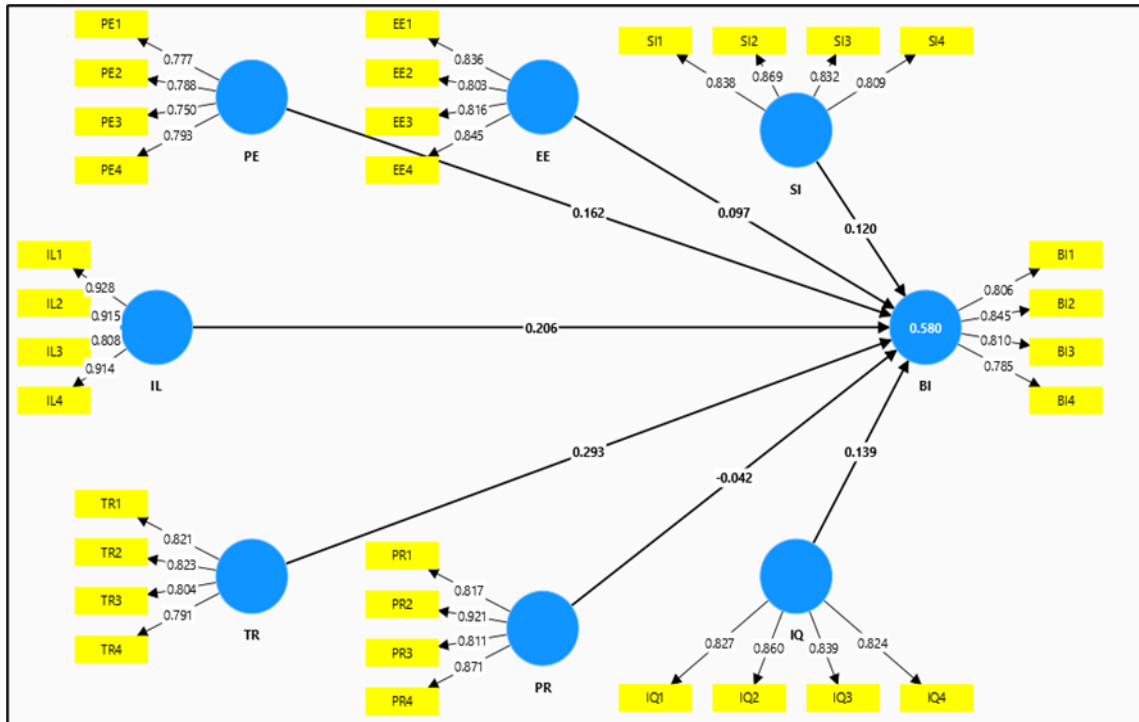


Figure 2: Measurement Model for Convergent and Discriminant Validity

Table 3: Outer Loadings

	PE	EE	SI	IL	TR	PR	IQ	BI
PE1	0.777							
PE2	0.788							
PE3	0.750							
PE4	0.793							
EE1		0.836						
EE2		0.803						
EE3		0.816						
EE4		0.845						
SI1			0.838					
SI2			0.869					
SI3			0.832					
SI4			0.809					
IL1				0.928				
IL2				0.915				
IL3				0.808				
IL4				0.914				
TR1					0.821			
TR2					0.823			
TR3					0.804			
TR4					0.791			
PR1						0.817		

	PE	EE	SI	IL	TR	PR	IQ	BI
PR2						0.921		
PR3						0.811		
PR4						0.871		
IQ1							0.827	
IQ2							0.860	
IQ3							0.839	
IQ4							0.824	
BI1								0.806
BI2								0.845
BI3								0.810
BI4								0.785

The reliability of the measurement model was also found to be robust. The results in Table 4 show that the values of both Cronbach's Alpha and Composite Reliability for all constructs ranged from 0.783 to 0.940, which falls within the recommended range of 0.70 to 0.95. These scores suggest that the measures of internal consistency were high, indicating that the items within each construct were consistent in measuring the same concept. The heterotrait Monotrait Ratio (HTMT) was also used to test discriminant validity, and the results of the test are in Table 5. The HTMT values for all constructs were below the conservative threshold of 0.85, indicating that the constructs were empirically distinct. Put differently, the measures reflected conceptually distinct dimensions of InsurTech adoption rather than similarity or redundancy of thought. To address potential multicollinearity, the Variance Inflation Factor (VIF) values were examined, and the results are presented in Table 6. The VIF values ranged from 1.551 to 4.403, all below the critical value of 5.0. This indicates that the predictor variables were not found to be problematic in terms of correlation, as their respective effects can be estimated with high confidence.

Table 4: Cronbach's Alpha and Composite Reliability Scores

Variables	Cronbach's alpha	Composite Reliability (rho_c)	AVE
PE	0.783	0.859	0.604
EE	0.845	0.895	0.681
SI	0.859	0.904	0.701
IL	0.920	0.940	0.797
TR	0.827	0.884	0.656
PR	0.886	0.916	0.773

Variables	Cronbach's alpha	Composite Reliability (rho c)	AVE
IQ	0.859	0.904	0.702
BI	0.827	0.885	0.659

Table 5: Heterotrait Monotrait Ratio (HTMT) Scores

	BI	EE	IL	IQ	PE	PR	SI	TR
BI								
EE	0.732							
IL	0.596	0.512						
IQ	0.529	0.616	0.179					
PE	0.763	0.803	0.414	0.688				
PR	0.484	0.532	0.585	0.265	0.526			
SI	0.702	0.717	0.597	0.354	0.715	0.585		
TR	0.814	0.767	0.603	0.441	0.786	0.551	0.760	

Table 6: Variance Inflation Factor (VIF) Results

Item	VIF (<5)
PE1	1.987
PE2	1.926
PE3	1.865
PE4	2.035
EE1	2.123
EE2	2.183
EE3	2.595
EE4	2.530
SI1	2.262
SI2	3.225
SI3	2.883
SI4	2.012
IL1	4.403
IL2	3.913
IL3	1.931
IL4	3.540
TR1	2.006
TR2	2.512
TR3	2.417
TR4	1.869
PR1	2.215
PR2	3.484
PR3	2.115
PR4	2.324
IQ1	2.502
IQ2	3.299

Item	VIF (<5)
IQ3	3.126
IQ4	2.482
IQ5	1.551
BI1	2.117
BI2	2.825
BI3	2.573
BI4	1.961

4.3 Structural Model and Hypothesis Testing

The structural model was tested using the measurement model after evaluating the hypothesis of the direct relationships. According to Figure 3, the model generated an R^2 of 0.580 for Behavioral Intention. This indicates that the combined set of independent variables explains 58% of the variance in Malaysian Generation Z's intention to adopt InsurTech applications. This explanatory power is widely judged as moderate and acceptable in behavioral and social science research, particularly when examining complex human decision-making processes. The path coefficient results in Table 7 reveal that five out of the seven hypothesized relationships significantly influence the behavioral intention of Malaysian Generation Z to adopt InsurTech applications.

The strongest predictor (H5) was trust ($\beta = 0.293$, $p < 0.001$), which implies that trust in the digital provider's reliability must be high given the long-term nature of insurance. This is then succeeded by Insurance Literacy (H4) ($\beta = 0.206$, $p < 0.001$), which proves the hypothesis that the internal competence and the ability to learn complicated provisions of the policy are the key to adopting digital self-service. Although other variables, such as performance expectancy (H1), social influence (H3), and information quality (H7), had significant positive effects, variables such as effort expectancy (H2) and perceived risk (H6) were not significant. This suggests that for 'digital natives' like Generation Z, ease of use is a basic expected condition rather than a primary motivator, and they may view digital risks as a normal aspect of online interactions rather than a decisive barrier to entry.

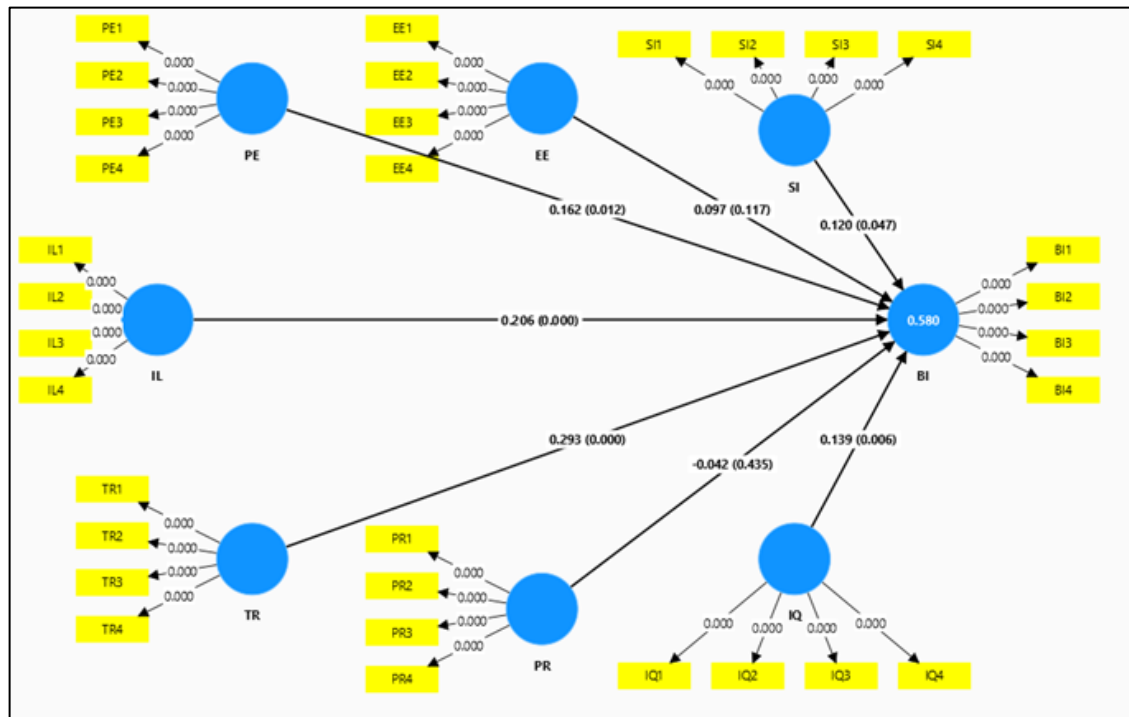


Figure 3: Structural Model

Table 7: Path Coefficient Results

Direct effects	β	T-statistics & P-value	P values
H1: PE > BI	0.162	2.520 (0.012)	Significant
H2: EE > BI	0.097	1.569 (0.117)	Not Significant
H3: SI > BI	0.120	1.990 (0.047)	Significant
H4: IL > BI	0.206	3.994 (0.000)	Significant
H5: TR > BI	0.293	4.100 (0.000)	Significant
H6: PR > BI	-0.042	0.781 (0.435)	Not Significant
H7: IQ > BI	0.139	2.733 (0.006)	Significant

4.4 Discussion

These results can be used to draw important conclusions about the knowledge and action gaps among young people in Malaysia in the context of InsurTech. The high impact of insurance literacy indicates that technological availability is not the main barrier; rather, consumers' ability to understand the value and meaning of insurance products is the key factor. Gen Zers with a stronger understanding of insurance-specific information is more likely to use digital self-service platforms, as this knowledge enables them to prepare

individual financial statements with confidence. This finding is consistent with prior studies suggesting that domain-specific financial knowledge plays an important role in the adoption of digital financial services (Anwarul Islam & Saifuddin Khan, 2024; Sumartini et al., 2024). Therefore, literacy may also reduce uncertainty when using digital insurance services, thereby indirectly enhancing consumers' confidence in using InsurTech applications.

The most effective predictor was trust, which is related to characteristics unique to the insurance industry. Compared with the usual FinTech apps used for payments, insurance is associated with a promise of protection over a long period. The integrity and reliability of the online platform are critical to Malaysian youth when deciding whether to adopt InsurTech. This result is consistent with previous research on FinTech adoption, which highlights trust as a fundamental determinant of consumers' willingness to engage with digital financial services (Amnas et al., 2023). Because of the long-term nature of relationships and future claims that must be settled, trust is a key factor in the insurance industry. Customers must trust the perceived credibility and reliability of digital insurance providers to utilize InsurTech services. The ambiguity associated with policy coverage and terms will be reduced with accurate, clear, and comprehensive information about insurance. The information that digital insurance providers give to their clients will enhance the trust that consumers have in the service providers and the platform (Sinulingga et al., 2024).

In addition, within Malaysia's cultural and collectivist framework, the recommendations and experiences of social units, including family, friends, and online communities, continue to be influential in deciding the technology adoption process. In evaluating innovative digital financial services, social recommendations are of great importance within the collectivist paradigm (Xue et al., 2024). Interestingly, the effects of Effort Expectancy and Perceived Risk were not significant. This may reflect the fact that Generation Z consumers are often described as digital natives, who have an inherent understanding of and flexibility with digital interfaces. For this generation, ease of use is often perceived as a basic expectation of digital technologies rather than a motivating factor for adoption. This point of view also explains why perceived online insecurity and threats are frequently regarded as an established part of their online presence, rather than

as ultimate deterrents. Apparently, having personal utility (Performance Expectancy) and self-confidence in negotiating insurance products (Insurance Literacy) have more influence on adoption decisions than applying pressure or relying on external opinions about risk. One possible explanation is that the influence of perceived risk may operate indirectly through other psychological mechanisms such as trust. Prior studies suggest that higher levels of trust in digital financial platforms can reduce consumers' perception of uncertainty and mitigate the negative effect of perceived risk on adoption decisions (Appiah & Agblewornu, 2025; Devlin et al., 2025). In addition, this study shows that higher levels of insurance literacy help consumers better understand insurance products and policy structures, reducing ambiguity when using digital insurance platforms. Therefore, individuals with greater insurance knowledge may perceive lower risk, thereby weakening the direct effect of perceived risk on adoption intention.

5.0 Conclusion and Future Research

This study offers an in-depth analysis of the dynamics shaping the use of InsurTech apps among Generation Z in Malaysia. This population is driving the country's digitalization of the financial sector. By combining the Unified Theory of Acceptance and Use of Technology (UTAUT) with critical dimensions such as insurance literacy, trust, and information quality, the study identifies the key motivators of digital insurance use. According to the findings, the technological qualities of performance and Social Influence will remain important. Nevertheless, the shift towards digital self-service still depends on consumers' internal capabilities, insurance literacy, and their trust in the digital ecosystem. This study accounts for 58% of the differences in behavioral intentions and emphasizes that the effectiveness of technology largely depends on how well consumers understand and trust it.

5.1 Theoretical Implications

Theoretically, this study contributes to the literature by bridging the gap between knowledge and action through the concept of insurance literacy. Most traditional

adoption models, such as UTAUT, focus on system-level attributes, but this study's results indicate that insurance literacy (H4) is a strong direct predictor of behavioral intention. This is a sign that in a complex financial environment, technology adoption is driven not only by convenience but also by knowledge empowerment. In addition, this study found that trust (H5) is the strongest predictor, indicating that in high-risk financial markets, adoption is a psychological commitment rather than a technological commitment. The negligible impact of perceived risk suggests a shift in generational definitions. Digital natives may perceive heightened online risk, shifting the theoretical focus of online risk mitigation toward building trust.

5.2 Practical Implication

On a practical basis, the results guide both insurers and policymakers. The significance of Information Quality (H7) for InsurTech developers means that digital platforms should not be merely transactional; they should also serve as educational hubs. Insurance terminology can be simplified; clear, high-quality content can be made available, and users can be empowered to make confident decisions. This study facilitates the achievement of Sustainable Development Goal 9, which seeks to advance robust local technology in the financial sector by promoting innovation and accessible digital solutions. For organizations such as the Financial Education Network (FEN), results can indicate the need to focus on insurance-specific competencies in financial literacy policies. Once Gen Z can assess risk and coverage on their own, they will use digital platforms more frequently, reducing their dependence on costly traditional distribution channels and encouraging financial inclusion for more individuals.

5.3 Limitations and Future Research

This study has limitations despite its contributions. First off, the study's cross-sectional design captures only a single point in time, whilst consumer trust and literacy may change as the InsurTech ecosystem matures. Longitudinal studies can be conducted in the future to examine causal changes in adoption behavior as individuals become more familiar

with digital claims. Second, the research design was limited to Gen Z; parallel research with older generations, such as Baby Boomers, might help provide additional information about age-specific literacy influences on technology acceptance. Lastly, although the model explains 58% of the variation in behavioral intention, future studies can investigate other variables, e.g., characteristics of gamification or policy encouragement (e.g., tax breaks for adopting digital insurance), to account for the remaining variance. To sum up, the road to a digital-first insurance industry in Malaysia hinges on bridging the gap between technological availability and consumer affordability. Stakeholders could achieve this by focusing on insurance literacy and building trust in online applications, ensuring that InsurTech serves as an empowerment tool rather than a source of exclusion.

Author Contributions Statement: C.J.C performed the research, collected data, and drafted the manuscript. L.H.S reviewed the manuscript and analysed the result. S.B.K conceptualized the research framework.

Funding Statement: Not applicable.

Informed Consent Statement: Informed consent from the respondent was secured before the data collection

Data Availability Statement: The data can be obtained from the corresponding author upon request.

Acknowledgement: The authors express their gratitude to the respondents for their participation in this study.

Conflict of Interest Statement: There is no conflict of interesting arising from this study.

References

- Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*, 37(3), 99–110. <https://doi.org/10.1016/J.IJINFOMGT.2017.01.002>
- Amnas, M. B., Selvam, M., Raja, M., Santhoshkumar, S., & Parayitam, S. (2023). Understanding the determinants of fintech adoption: integrating UTAUT2 with trust theoretic model. *Journal of Risk and Financial Management*, 16(12), 505. <https://doi.org/10.3390/jrfm16120505>
- Andrés-Sánchez, J., & Gené-Albesa, J. (2023). Explaining policyholders' chatbot acceptance with an unified technology acceptance and use of technology-based model. *Journal of Theoretical and Applied Electronic Commerce Research*, 18(3), 1217–1237. <https://doi.org/10.3390/JTAER18030062>
- Antony, J., Budi, H., & Sudaryanto, S. (2023). Determinants of insurance awareness and perceived value and their impact on unit linked insurance customer retention with the COVID-19 Pandemic as moderator. *Journal of Social Science*, 4, 483–505. <https://doi.org/10.46799/jss.v4i2.532>
- Appiah, T., & Agblewornu, V. V. (2025). The interplay of perceived benefit, perceived risk, and trust in Fintech adoption: Insights from Sub-Saharan Africa. *Heliyon*, 11(2), e41992. <https://doi.org/10.1016/j.heliyon.2025.e41992>
- Azzahra, S. F., Ramadani, L., & Rahmad, B. (2023). *Integrating System Quality, Information Quality, and Service Quality for Evaluating IS Quality* (pp. 217–229). https://doi.org/10.2991/978-94-6463-340-5_19
- Bank Negara Malaysia. (2024). *Deputy Governor's Keynote Address at the Launch of LIAM's Starter Pack Insurance Fund*. Bank Negara Malaysia.
- Bongini, P., Cucinelli, D., & Soana, M. G. (2023). Insurance holdings: Does individual insurance literacy matter? *Finance Research Letters*, 58, 104511. <https://doi.org/10.1016/j.frl.2023.104511>

- Cortis, D., Debattista, J., Debono, J., & Farrell, M. (2019). *Disrupting Finance. Palgrave Studies in Digital Business & Enabling Technologies*. <https://doi.org/10.1007/978-3-030-02330-0>
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>
- Devlin, J. F., Roy, S. K., Sekhon, H., Moin, S. M. A., & Sahiner, M. (2025). Trust and FinTech: A review and research agenda. *Electronic Markets*, 35(1). <https://doi.org/10.1007/s12525-025-00803-w>
- Etikan, I. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Feng, X., Sun, T., Dong, C., & Yan, X. (2023). The development of digital inclusive finance in chinese counties: index construction, measurement and analysis 1. In *Finance in Rural China* (pp. 85-108). Routledge.
- Fintech Malaysia Report. (2021). *Fintech Malaysia Report 2021 - Fintech Reaches an Inflection Point in Malaysia - Fintech News Malaysia*. <https://fintechnews.my/27070/malaysia/fintech-malaysia-report-2021/>
- Guo, X., Sun, Y., Wang, N., Peng, Z., & Yan, Z. (2013). The dark side of elderly acceptance of preventive mobile health services in China. *Electronic Markets*, 23(1), 49–61. <https://doi.org/10.1007/S12525-012-0112-4/METRICS>
- Hasan, R., Ashfaq, M., & Shao, L. (2021). Evaluating Drivers of Fintech Adoption in the Netherlands. <https://doi.org/10.1177/09721509211027402>
- Iddrisu, K., Abor, J. Y., Boadi, E. K., & Gyebi, F. O. (2025). InsurTech in Africa: Redefining Insurance for the Underserved. In *Banking on Inclusion: Overcoming Financial Exclusion in Africa through FinTech Innovations* (pp. 159-187). Cham: Springer Nature Switzerland.

- Idrees, M. A., & Ullah, S. (2024). Comparative analysis of FinTech adoption among Islamic and conventional banking users with moderating effect of education level: A UTAUT2 perspective. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(3), 100343. <https://doi.org/10.1016/j.joitmc.2024.100343>
- Jung, D., Dorner, V., Glaser, F., & Morana, S. (2018). Robo-advisory: digitalization and automation of financial advisory. *Business and Information Systems Engineering*, 60(1), 81–86. <https://doi.org/10.1007/S12599-018-0521-9/METRICS>
- Kiwanuka, A., & Sibindi, A. B. (2023). Insurance Literacy: Significance of Its Dimensions for Insurance Inclusion in Uganda. *Economies*, 11(2), 33. <https://doi.org/10.3390/economies11020033>
- KPMG. (2025). *Pulse of Fintech H1 2025 Global analysis of fintech funding*.
- Krupa, D., & Buszko, M. (2023). Age-dependent differences in using FinTech products and services—Young customers versus other adults. *PLOS ONE*, 18(10), e0293470. <https://doi.org/10.1371/journal.pone.0293470>
- Lee, H. S., & Kuang, K. S. (2025). From anxiety to action: understanding financial worries and strategies to boost insurance take-up. *International Journal of Management, Finance and Accounting*, 6(2), 341–374. <https://doi.org/10.33093/ijomfa.2025.6.2.12>
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
- M. Anwarul Islam, K., & Saifuddin Khan, M. (2024). The role of financial literacy, digital literacy, and financial self-efficacy in FinTech adoption. *Investment Management and Financial Innovations*, 21(2), 370–380. [https://doi.org/10.21511/imfi.21\(2\).2024.30](https://doi.org/10.21511/imfi.21(2).2024.30)
- Marcevičiūtė, G., Taujanskaitė, K., & Perret, J. K. (2025). Determinants of FinTech payment services adoption—an empirical study of lithuanian businesses. *FinTech*, 4(3), 44. <https://doi.org/10.3390/fintech4030044>

- Padma Kiran, K., & Vedala, N. S. (2025). Exploring behavioral intentions of consumers towards different digital payment services through the interplay of perceived risks and adoption factors. *Humanities and Social Sciences Communications*, 12(1), 1141. <https://doi.org/10.1057/s41599-025-05468-6>
- Sinulingga, N. A. B., Ginting, P., Sembiring, B. K. F., & Silalahi, A. S. (2024). *Impact of Information Quality and Customer Interaction on Fintech Adoption: A Conceptual Framework* (pp. 727–736). https://doi.org/10.1007/978-3-031-67531-7_58
- Stolper, O. A., & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. *Journal of Business Economics*, 87, 581–643. <https://doi.org/10.1007/s11573-017-0853-9>
- Sumartini, A. R., Suprapti, N. W. S., Piartrini, P. S., & Sukaatmadja, I. P. G. (2024). Digital financial literacy and self-efficacy in increasing intention to use a digital bank with the technology acceptance model theory approach. *International Research Journal of Management, IT and Social Sciences*, 11(6), 252–263. <https://doi.org/10.21744/irjmis.v11n6.2474>
- Tereszkiewicz, P., & Cichowicz, E. (2024). Findings from the Polish InsurTech market as a roadmap for regulators. *Computer Law & Security Review*, 52, 105948.
- TNGlobal. (2024). *Touch 'n Go eWallet establishes one-stop insurance hub GOprotect - TNGlobal*. <https://technode.global/2023/04/14/touch-n-go-ewallet-establishes-goprotect-a-one-stop-insurance-hub/>
- UOB. (2022). *Shifting consumer habits drive Malaysia FinTech growth | UOB Tech Start-up Ecosystem*. <https://www.uobgroup.com/techecosystem/news-insights-consumer-research-malaysia.html>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly: Management Information Systems*, 27(3), 425–478. <https://doi.org/10.2307/30036540>

- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly: Management Information Systems*, 36(1), 157–178. <https://doi.org/10.2307/41410412>
- Xie, J., Ye, L., Huang, W., & Ye, M. (2021). Understanding fintech platform adoption: impacts of perceived value and perceived risk. *Journal of Theoretical and Applied Electronic Commerce Research* 2021, Vol. 16, Pages 1893-1911, 16(5), 1893–1911. <https://doi.org/10.3390/JTAER16050106>
- Xue, L., Rashid, A. M., & Ouyang, S. (2024). The Unified Theory of Acceptance and Use of Technology (UTAUT) in Higher Education: A Systematic Review. *SAGE Open*, 14(1). https://doi.org/10.1177/21582440241229570/ASSET/IMAGES/LARGE/10.1177_21582440241229570-FIG10.JPEG
- Zhang, W., Siyal, S., Riaz, S., Ahmad, R., Hilmi, M. F., & Li, Z. (2023). Data security, customer trust and intention for adoption of fintech services: an empirical analysis from commercial bank users in Pakistan. *Sage Open*, 13(3). <https://doi.org/10.1177/21582440231181388>

Appendix A

Questionnaire constructs and sources

Construct	Measures (Questionnaire Items)	Source(s)
Performance Expectancy (PE)	PE1: Using InsurTech apps is useful in my daily life. PE2: Using InsurTech apps increases my productivity. PE3: Using InsurTech apps helps me accomplish tasks more quickly. PE4: Using InsurTech apps makes it easier to manage my insurance.	Venkatesh et al. (2003)
Effort Expectancy (EE)	EE1: Learning how to use InsurTech apps is easy for me. EE2: My interaction with InsurTech apps is clear and understandable. EE3: It is easy for me to become skillful at using InsurTech apps. EE4: I find InsurTech apps easy to use.	Venkatesh et al. (2003)
Social Influence (SI)	SI1: People who are important to me think I should use InsurTech apps. SI2: People who influence my behavior think I should use InsurTech apps. SI3: People whose opinions I value prefer that I use InsurTech apps. SI4: Using InsurTech apps is considered a status symbol among my peers.	Venkatesh et al. (2003); Xue et al. (2024)
Insurance Literacy (IL)	IL1: I understand how insurance risk pooling works. IL2: I am confident in my ability to understand insurance policy terms. IL3: I can explain the difference between various types of insurance policies. IL4: I know how to calculate or evaluate insurance premiums and coverage.	Stolper & Walter (2017)
Trust (TR)	TR1: I believe that InsurTech app providers are honest. TR2: I trust that InsurTech apps will fulfill their obligations to me. TR3: I feel confident that InsurTech apps are reliable platforms. TR4: I trust the security measures implemented by InsurTech providers.	Alalwan et al. (2017)
Perceived Risk (PR)	PR1: I am worried about the security of my personal data on InsurTech apps. PR2: I fear financial loss resulting from using digital insurance platforms.	Xie et al. (2021)

Construct	Measures (Questionnaire Items)	Source(s)
	PR3: I am concerned about the possibility of digital fraud or scams. PR4: I feel that digital insurance transactions are risky compared to traditional ones.	
Information Quality (IQ)	IQ1: The information provided by InsurTech apps is accurate. IQ2: The information on InsurTech apps is comprehensive and complete. IQ3: InsurTech apps provide up-to-date and timely information. IQ4: The information on InsurTech apps is easy for me to understand.	DeLone & McLean (2003)
Behavioral Intention (BI)	BI1: I intend to use InsurTech apps in the future. BI2: I will always try to use InsurTech apps to manage my insurance. BI3: I plan to use InsurTech apps frequently in the coming months. BI4: I would recommend using InsurTech apps to my family and friends.	Venkatesh et al. (2003)