Investigating Drivers of Insurtech Adoption Intentions: An Extended UTAUT Approach in The Indonesian Market

Ricky, Sfenrianto

Information System Management Department, BINUS Graduate Program – Master of Information System Management, Bina Nusantara University, Jakarta, Indonesia 11480

Abstract. While Insurtech innovation promises enhanced efficiency and customer value in insurance services, adoption in Indonesia remains low. This study surveyed 400 Greater Jakarta residents who have used Insurtech platforms to model key drivers of sustained usage intentions utilizing an extended Unified Theory of Acceptance and Use of Technology (UTAUT2) framework. Performance expectancy, price value, social need, self-efficacy, and perceived regulatory support displayed significant positive effects on behavioral intentions to continue using Insurtech. Findings imply ease of use may be secondary to functional benefits and peer influence in driving acceptance. As confidence strengthens, specialized financial regulations and partnerships could unlock Insurtech's mass market potential.

Keywords: UTAUT2, Insurtech, Insurtech Acceptance

1. Introduction

Amidst the rising demand for insurance during the pandemic, Insurtech has emerged as a prominent Fintech sector, aiming to tackle issues prevalent in traditional insurance systems. These problems include costly premiums, cumbersome claim processes, and restricted and intricate access to insurance products (DailySocial, 2021). Insurtech's primary objective is to enhance services and optimize the insurance industry's operations within the context of the present technological advancements and industrial revolution (Cappiello, 2018; Shamsuddin et al., 2023).

Insurtech, which stands for Insurance Technology, is revolutionizing the insurance industry in a highly beneficial manner through innovative digital technology. The proficient utilization of advanced technologies such as Big Data, Artificial Intelligence (AI), and Blockchain constitutes a pivotal element contributing to the success of Insurtech (DailySocial, 2021), Embedded Insurance, and Cloud (Spit, 2022). By leveraging these technological advancements, Insurtech aims to enhance efficiency and cost savings in various aspects such as underwriting, risk pooling, and claims management, all of which were challenging to address using the traditional insurance model (Cortis et al., 2019). Through this approach, Insurtech is resolving long-standing issues that persisted for years in the insurance industry.

Insurtech brings forth several benefits, including the utilization of Big Data to develop novel insurance products targeted at previously untapped and underserved market segments. It enables the provision of more personalized insurance offerings at competitive prices, ensuring affordability for consumers. Additionally, Insurtech optimizes the distribution of insurance products by identifying the right timing and channels, thereby reducing customer acquisition costs. The implementation of automated claims processing addresses issues related to inconsistencies and varying data formats, leading to enhanced efficiency and accuracy while minimizing manual labor (DailySocial, 2021).

Despite the numerous advantages offered to consumers, the adoption of Insurtech has remained relatively low. Among the nine Fintech categories in Indonesia, Insurtech ranks sixth, with an awareness level of 28.8%. Moreover, the intention and actual usage of Insurtech stand at a mere 10.7% (DailySocial, 2021). This figure is significantly lower compared to other Fintech categories. Additionally, it is known that Insurtech's premium contribution only reach 2% in 2022, lagging face-to-face (88%) and tele marketing channels (10%) (Ardianto, 2023). Considering this situation, a preliminary research study was conducted, involving 122 respondents, to explore the perceptions and obstacles hindering the acceptance of Insurtech in Indonesia.

To begin with, a significant portion of the respondents prefer the traditional approach of seeking information and purchasing insurance through agents. (Nasrin, 2022) argues that the frequency of using Insurtech is influenced by personal characteristics. This presents a challenge for the growth of Insurtech, as people continue to find comfort in completing insurance transactions through conventional methods, thus perceiving no need to embrace technology. Additionally, Insurtech lacks dedicated agents to directly interact with customers, unlike the traditional insurance context. Secondly, most respondents possess moderate to high levels of knowledge regarding insurance matters but still feel the need for assistance from agents when selecting insurance products. This hesitancy in making independent choices and purchases, despite having sufficient knowledge, could impede transactions from taking place. Lastly, respondents' express discomfort in conducting transactions through Insurtech due to perceived inadequacies in related Insurtech regulations in Indonesia. The existing regulations do not comprehensively cover all aspects of Insurtech, leading to apprehension among users.

This research is motivated by the challenges faced in Insurtech and the limited knowledge regarding its acceptance, particularly in developing countries (Shamsuddin et al., 2023). This study seeks to underscore the predictive significance of these factors in shaping consumer behavior within the Insurtech industry and address a gap in the literature by providing empirical evidence. This contributes to the formulation of strategies conducive to fostering its adoption and enhancing the overall efficiency of insurance services in the Indonesian context. To achieve this objective, the authors intend to employ the UTAUT2 model, a well-established and widely utilized theory for examining the adoption of

Fintech/Insurtech services (Pham et al., 2022). The author will adapt the UTAUT2 model by excluding the Social Influence and Hedonic Motivation variables, as they were deemed unimportant in the context of Insurtech (Ku & Lee, 2023). Simultaneously, this study will integrate variables beyond the UTAUT framework, identified through preliminary research, to construct a more comprehensive model for predicting Insurtech acceptance. Specifically focusing on the relationships between Perceived Risk, Social Need, Self-Efficacy, and Perceived Regulatory Support in influencing Insurtech acceptance in Indonesia market.

2. Literature Review

In this research, the authors expand upon the conventional UTAUT2 model by integrating additional factors, namely Perceived Risk, Social Need, Self-Efficacy, and Perceived Regulatory Support. This section offers a comprehensive explanation of each variable employed in the research hypotheses and the extended UTAUT2 model, which elucidates the interconnectedness between these variables.

2.1. UTAUT2 Model
UTAUT2, an advanced version of the UTAUT model, not only incorporates the primary relationships present in UTAUT but also introduces new constructs and relationships to extend its applicability to the consumer context. In UTAUT2, three key variables are added: Hedonic Motivation, Price Value, and Habit. Additionally, the moderating variable of Voluntariness is removed since most consumer behavior is inherently voluntary. UTAUT2 demonstrates a 74% explanatory power for behavioral intention and 52% for the use of technology (Venkatesh et al., 2012). As the focus of this research revolves around consumers' intent to use, the UTAUT2 model will function as the fundamental framework to clarify the factors that impact the adoption of Insurtech in the Greater Jakarta region.

2.2. Performance Expectancy
Performance Expectancy defined as the degree to which consumers believe that using a technology will be advantageous in executing task (Venkatesh et al., 2012). The notable efficiency of internet insurance platforms, allowing unrestricted access and simultaneous comparison of insurance products, significantly enhances the perceived benefits and efficiency associated with the adoption of Insurtech (Ku & Lee, 2023). Concurrently, heightened perceptions of productivity and effectiveness in online transactions lead to increased motivation for purchasing online life insurance (Jiang et al., 2019). Moreover, The swiftness and convenience introduced by mobile wallet services align with the broader concept of technology's influence on consumer behavior (Madan & Yadav, 2016). Furthermore, the motivation of users to adopt novel technology is underscored by its proven advantages in daily tasks (Khatun & Tamanna, 2021). In this research, performance expectancy will be employed to gauge consumers' perception of how Insurtech can be useful, beneficial, and efficient.

Previous research consistently indicates that a higher degree of performance expectancy correlates with an augmented interest in adopting Insurtech (Jiang et al., 2019; Ku & Lee, 2023; Le Hoang Mong Nga & Nguyen Quoc Nghi, 2022; Milanović et al., 2020). Hence, the hypothesis is formulated as follows:

H1: Performance Expectancy has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

2.3. Effort Expectancy
Effort Expectancy pertains to the perceived ease with which consumers can utilize technology (Venkatesh et al., 2012). The favorable consumer sentiment towards the convenience and user-friendly nature of online insurance platforms suggests that simplicity and the absence of complex options contribute to a positive perception, potentially facilitating ease of use (Ku & Lee, 2023). Likewise, a perceived lack of difficulty and minimal effort positively influences online insurance purchase intention (Jiang et al., 2019). Furthermore, users perceiving FinTech applications in the insurance and takaful

industries as simple, easy to grasp, and requiring minimal effort reinforces the significance of Effort Expectancy in motivating consumer adoption with Insurtech (Ali et al., 2023). In this research, Effort Expectancy specifically relates to users' perceived ease when utilizing Insurtech. This ease encompasses aspects like accessing the Insurtech platform, understanding its functionalities, and interacting with its user interface.

Prior research has established that Effort Expectancy plays a substantial role in influencing users' inclination to use Insurtech (Ali et al., 2023; Jiang et al., 2019; Ku & Lee, 2023). Hence, the hypothesis is formulated as follows:

H2: Effort Expectancy has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

2.4. Facilitating Condition

Facilitating Conditions pertain to how consumers perceive the availability of resources and support necessary to engage in a particular behavior (Venkatesh et al., 2012). The growing affordability of mobile devices and the increasing popularity of online trading environments have contributed to consumers' inclination to utilize insurance online platforms. The simplicity of online insurance products, coupled with widespread education, fosters the adoption of internet insurance platforms (Ku & Lee, 2023). Additionally, essential resources such as knowledge, smartphone accessibility, and network speed significantly influence consumer acceptance of mobile wallet services, while the absence of these resources and unfavorable environmental conditions may deter consumers from adopting mobile shopping services (Madan & Yadav, 2016, 2018). In this research, facilitating conditions are described as the users' belief in possessing adequate resources and knowledge to utilize Insurtech, along with the assurance of receiving support when facing challenges or needing assistance with its usage.

Previous studies have demonstrated the significant impact of Facilitating Conditions on the intention to adopt Insurtech (Ku & Lee, 2023; Madan & Yadav, 2016, 2018; Milanović et al., 2020). Hence, the hypothesis is formulated as follows:

H3: Facilitating Condition has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

H9: Facilitating Condition has a substantial impact on the use behavior to adopt Insurtech in the Greater Jakarta area.

2.5. Price Value

Price Value is described as the monetary cost borne by consumers for using technology. The cost structure and pricing strategy may significantly impact consumer technology usage (Venkatesh et al., 2012). Consumers' intentions to use an internet insurance platform increase when they can obtain discounted premiums and perceive a favorable price per performance ratio when purchasing insurance online (Ku & Lee, 2023). In this study, Price Value is described as the extent of the cost that users must bear when using the Insurtech platform or purchasing insurance products within the Insurtech platform.

Prior study on consumer behavior have shown that cost is a crucial factor in explaining consumer behavior, and consumers are responsible for the expenses related to purchasing system devices and services (Ku & Lee, 2023). Hence, the hypothesis is formulated as follows:

H4: Price Value has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

2.6. Perceived Risk

Perceived Risk refers to how consumers perceive the possibility of negative outcomes resulting from their decisions, leading to potential loss or harm (Ku & Lee, 2023). Consumers tend to exercise more caution regarding disconnection issues and their likelihood, as well as concerns related to third-party involvement, electronic piracy, and cybercrimes. These factors contribute to their hesitancy in embracing online channels (Nafaa, 2019). Furthermore, higher trust in online life insurance diminishes

perceived risk, increasing consumers' inclination to purchase life insurance through the internet (Jiang et al., 2019). In this research, Perceived Risk pertains to the potential unfavorable consequences that may arise from using Insurtech, such as intentional or unintentional leaks of personal data, the dissemination of fake insurance policies through the Insurtech platform, fraudulent activities, and a lack of timely assistance when needed.

Prior studies have highlighted that perceived risk plays a critical role in reducing consumers' willingness to adopt Insurtech (Ali et al., 2023; Jiang et al., 2019; Ku & Lee, 2023). Hence, the hypothesis is formulated as follows:

H5: Perceived Risk has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

2.7. Social Need

Social Need is a fundamental human necessity that holds significant importance and involves a sense of belonging (Bruggencate et al., 2019; McLeod, 2018). Individuals with strong social needs have a desire to develop and maintain interactions with others (Nasrin & Dahana, 2022). The need for interpersonal relationships serves as a motivation for behavior. In the Indonesian insurance landscape, the role of agents as intermediaries between insurance companies and customers has been traditionally significant (Ferezagia, 2021; Nasrin & Dahana, 2022). However, to address inefficiencies, Insurtech transforms this role by replacing agents with applications, thereby eliminating the direct interaction element in the search and purchase of insurance, as the traditional method is perceived as inefficient.

Previous studies underscore that individuals with high social needs tend to prefer purchasing insurance through agents due to the intense interactions allowing for communication and self-disclosure (Nasrin & Dahana, 2022). Hence, the hypothesis is formulated as follows:

H6: Social Need has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

2.8. Self-Efficacy

Self-efficacy refers to an individual's assessment of their ability to organize and execute actions (Resnick, 2018). It's influence on consumers' decisions to adopt online insurance products, particularly within the realm of electronic insurance, which operates as a self-service technology, requiring customers to independently conduct transactions. High levels of self-efficacy positively impact consumer decisions to adopt online insurance products, as individuals with such confidence demonstrate the ability to overcome challenges associated with tasks like policy development and claim settlement through online platforms (Nasrin & Dahana, 2022). In this research, Self-efficacy pertains to users' perception of their own capabilities in utilizing Insurtech, evaluating insurance products, and making insurance purchases. The Self-efficacy variable is assessed through indicators like Self-Ability, Ability to Use System, and Confidence in Using System.

Previous studies have similarly found that Self-efficacy significantly influences the intention to use Insurtech (Nafaa, 2019). Hence, the hypothesis is formulated as follows:

H7: Self-Efficacy has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

2.9. Perceived Regulatory Support

Perceived Regulatory Support refers to the extent to which consumers believe in the ability of existing regulatory frameworks to protect their interests in the event of any disputes that may arise during usage (Madan & Yadav, 2016). The existence of a formal regulatory framework is crucial in bolstering consumer confidence in any emerging technology or system (Madan & Yadav, 2018). Additionally, as financial industries are intrinsically linked to highly regulated businesses, government policies regarding regulatory services are a primary consideration for consumers when adopting FinTech (Kurniasari et al., 2023). In terms of Insurtech, Perceived Regulatory Support refers to the degree in

which consumers trust the regulations in place to safeguard their interests in case of potential disputes between policyholders and insurance companies within the Insurtech platform. Perceived Regulatory Support is measured using several indicators, namely, Security, Protection, Clarity, Accountability, and Coverage.

Prior research has demonstrated that perceived regulatory support has a substantial impact on the intention to use Fintech and Mobile Wallet services (Kurniasari et al., 2023; Madan & Yadav, 2016). Hence, the hypothesis is formulated as follows:

H9: Perceived Regulatory Support has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

2.10. Behavioral Intention

Behavioral Intention refers to an individual's subjective probability that the individual will carry out a behavior (Ajzen & Fishbein, 1994). In this research, the indicators used to measure the Behavioral Intention variable are based on research from (Milanović et al., 2020), including future use, familiarity, and affordability. Then also added indicators from research findings, namely intentions driven by familiarity.

Previous research conducted by (Ku & Lee, 2023) revealed that Behavioral Intention has a substantial impact on Use Behavior.

H10: Behavioral Intention has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

2.11. Moderating Role of Age

During this study, authors used 1 moderating variable that was considered to influence behavioral intentions to use systems and technology. The factors used may differ based on age. Age are also one of the drivers of moderation proposed in the UTAUT and UTAUT2 model (Venkatesh et al., 2003, 2012). Furthermore, according to (Krupa & Buszko, 2023), individuals below the age of 30 are more inclined to adopt fintech compared to those aged 30 and above. (Meilasari-Sugiana et al., 2022) also noted that the utilization of fintech is impacted by demographic factors such as age, with each fintech tool catering to specific societal groups based on their requirements and resources. Particularly in the case of Insurtech, baby boomers seem to utilize it more regularly than younger generations.

Previous research has revealed that different age groups have varying intentions to use Fintech (Khatun & Tamanna, 2021; Patrick Acheampong et al., 2018).

H11-1: Age moderates the association between Performance Expectancy and Behavioral Intention.

H11-2: Age moderates the association between Effort Expectancy and Behavioral Intention.

H11-3: Age moderates the association between Facilitating Condition and Behavioral Intention.

3. Research Methodology

Specifically, this research focuses on consumer perspectives, excluding Insurtech platforms that are not commonly used by consumers. The five most widely used Insurtech platforms in Indonesia are JagaDiri, LifePal, PasarPolis, Qoala, and RajaPremi (DailySocial, 2021). The target respondents for this study are individuals in the Greater Jakarta area who have previously used one of the mentioned applications. Respondent age limitations are categorized based on generations: Gen X (18 - 22 years), Gen Y (23 - 38 years), Gen Z (39 - 54 years), and Baby Boomers (>= 55 years).

The questionnaire was created using Google Form, consisting of 36 questions to address the constructed variables. These questions were referenced from previous research and existing theories, as depicted in Figure 2. The questionnaire in this study will be assessed using the Likert Scale, a commonly used measurement scale for questionnaire-based research. The scale ranges from 1 to 5, where 1 represents strongly disagree, 3 is neutral, and 5 is strongly agree. A careful selection of 40 respondents was made to validate the questionnaire, and the results were satisfactory. After this validation phase, the questionnaire

was distributed online using Non-Probability Sampling techniques, utilizing Snowball Sampling and Self-Selection Sampling. This method was chosen due to the absence of a sampling frame that could be used (Saunders et al., 2019), preventing the researcher from knowing the proportion or number of individuals meeting the criteria for this study. The population used was the population in the Greater Jakarta area, reported by the Central Statistics Agency in 2021 as 23,526,609 inhabitants (BPS, 2021). Sample determination was done using the Slovin technique, resulting in a minimum total of 399.99 respondents rounded up to 400. User responses were then stored and processed in Google Spreadsheet.

The data from the questionnaire were processed and analyzed using Structural Equation Model (SEM) for this research. SEM was chosen for its ability to evaluate measurement and structural models simultaneously. Data analysis will be conducted using SmartPLS version 3.2.9, involving stages such as convergent validity test, discriminant validity test, reliability test, and hypothesis test. In the Convergent Validity stage, Outer Loading and Average Variance Extracted were used to measure how much a measure correlates positively with alternative measures of the same construct. Outer Loading values for all indicators should be above 0.708 to be considered valid, while AVE values for all constructs should be above 0.5 to be considered valid (Hair et al., 2017). Discriminant Validity is measured using Cross Loading to ensure that specific constructs are unique and cover phenomena not represented by other constructs in the model. In the Cross Loading evaluation, the outer loading value of a construct should be greater than the outer loading value of other constructs in the same row (Hair et al., 2019). Reliability is measured to determine how many indicators measuring the same construct are related to each other. Reliability is measured using Composite Reliability and Cronbach's Alpha, where the reliability values should be above 0.6 and not exceed 0.95 (Hair et al., 2019). Finally, significance testing is conducted using a 0.05 confidence interval with t-values of 1.960.

3.1. Research Model

The research uses the modified UTAUT method as a measurement of the success of the system. This study still maintains the basic variables contained in the original UTAUT model such as performance expectancy, effort expectancy, facilitating conditions, and price value contained in the model developed by (Venkatesh et al., 2012). The extended variables that are added to UTAUT model in this study are perceived risk, Social Need, Self- Efficacy, and Perceived Regulatory Support.
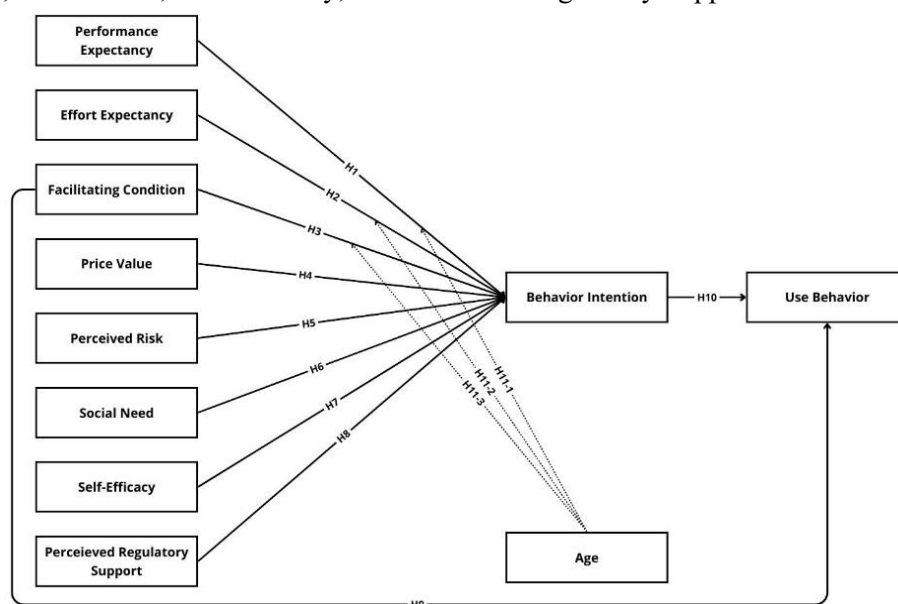

Fig.1. Research Model

The following table is the research variable and indicators to analyze factors that influence the acceptance of Insurtech in Greater Jakarta.

Table 1. Variables and Indicators

Variables	Indicator	Source
Performance Expectancy (PE)	Usefulness (PE1 Efficiency (PE2) Benefits (PE3) Reliability (PE4)	(Ku & Lee, 2023)
Effort Expectancy (EE)	Easy to Learn (EE1) Easy to Comprehend (EE2) Easy to Access (EE3) User Interface (EE4)	(Ku & Lee, 2023)
Facilitating Condition (FC)	Resources (FC1) Knowledge (FC2) Expert Support (FC3)	(Ku & Lee, 2023)
Price Value (PV)	Promotions (PV1) Price Value Ratio (PV2) Affordable (PV3)	(Ku & Lee, 2023)
Perceived Risk (PR)	Data Leak (PR1) Fake Policy (PR2) Fraud (PR3) On-Time Assistance (PR4)	(Ku & Lee, 2023)
Social Need (SN)	Online Interaction (SN1) Indirect Interaction (SN2) Individualism (SN3) Agent Existence (SN4)	(Nasrin & Dahana, 2022)
Self-Efficacy (SE)	Self-Ability (SE1) Ability to Use System (SE2) Confidence in Using System (SE3)	(Nafaa, 2019; Nasrin & Dahana, 2022)
Perceived Regulatory Support (PRS)	Security (PRS1) Protection (PRS2) Clarity (PRS3) Accountability (PRS4) Coverage (PRS5)	(Kurniasari et al., 2023)
Behavior Intention (BI)	Future Use (BI1) Familiarity (BI2) Affordability (BI3)	(Ku & Lee, 2023)
Use Behavior (UB)	Use (UB1) Frequent Use (UB2) Continuous Usage (UB3)	(Ku & Lee, 2023)

3.2. Data Gathering

In this study, a total of 400 respondents were obtained. Based on Table 3, most respondents reside in Jakarta, comprising 229 individuals, followed by 47 respondents from Bekasi, 46 from Tangerang, 41 from Bogor, and 37 from Depok.

The ratio between male and female respondents is quite balanced, with 207 male respondents and 193 female respondents, which helps minimize bias in data analysis.

In terms of age groups, 286 respondents belong to Generation Y, with an age range between 23 and 38 years, 68 respondents belong to Generation X, aged between 39 and 54 years old. Additionally, 44 respondents fall into the Generation Z category, aged between 18 and 22 years old, and 2 respondents

are classified as Baby Boomers, aged 55 years or older.

In terms of Insurtech platforms used, most respondents chose to use LifePal. 161 respondents reported using LifePal, followed by 115 respondents using Qoala, 110 respondents using JagaDiri, 109 respondents using PasarPolis, and only 29 respondents using RajaPremi.

Table 2. Respondents Demographics

Demographic	Description	Frequency	Percentage
Domicile	Jakarta	229	57.25%
	Bogor	41	10.25%
	Depok	37	9.25%
	Tangerang	46	11.50%
	Bekasi	47	11.75%
Gender	Male	207	51.75%
	Female	193	48.25%
Age Group	Gen Z (18 – 22 Years Old)	44	11.00%
	Gen Y (23 – 38 Years Old)	286	71.50%
	Gen X (38 – 54 Years Old)	68	17.00%
	Baby Boomers (>= 55 Years Old)	2	0.50%
Insurtech Used	JagaDiri	110	20.99%
	LifePal	161	30.73%
	PasarPolis	109	20.80%
	Qoala	115	21.95%
	RajaPremi	29	5.53%

4. Results and Analysis

The analysis process is continued by evaluating the Measurement Model. There are three criteria that will be used in this study to determine the validity and reliability of each indicator: Convergent Validity, Discriminant Validity, and Internal Consistency Reliability. A good and accurate measurement theory is required to obtain useful results from each PLS-SEM analysis; as a result, all items and constructs must be valid and reliable to proceed to the Structural Model Evaluation stage. Structural model evaluation is used to test research hypotheses.

4.1. Validity and Reliability Test

The objective of conducting validity and reliability tests is to assess the stability and consistency of respondents' responses to the questionnaire's inquiries. Convergent validity is ascertained by evaluating each indicator's outer loading and the average variance extracted (AVE) for all items within the construct. An indicator is deemed valid if it exhibits an outer loading value exceeding 0.708 and an AVE value surpassing 0.5 (Hair et al., 2017). Discriminant validity was determined using Cross Loading, a construct was considered acceptable if its Outer Loading Value exceeded that of other constructs (Hair et al., 2017). To evaluate Internal Consistency Reliability, Composite Reliability and Cronbach's Alpha values are examined, and a construct is considered reliable if both values exceed 0.6 but must be lower than 0.95(Hair et al., 2019).

Based on the results of the validity and reliability calculations, one indicator, PR2, does not pass the convergent validity test because it has an outer loading value less than 0.708, so it will be removed. The other 35 indicators can then be declared valid and reliable because they passed the Measurement Model evaluation and can move on to the Structural Model calculations.

Table 3. Measurement Model Results

Variables	Code	Loading Factor	AVE	CR	Cronbach's Alpha	Status
		(> 0.708)	(> 0.5)	(> 0.6 & < 0.95)		
Performance Expectancy	PE1	0.837	0.710	0.907	0.864	Valid & Reliable
	PE2	0.872				
	PE3	0.824				
	PE4	0.838				
Effort Expectancy	EE1	0.775	0.645	0.879	0.816	Valid & Reliable
	EE2	0.855				
	EE3	0.810				
	EE4	0.769				
Facilitating Condition	FC1	0.723	0.655	0.850	0.739	Valid & Reliable
	FC2	0.853				
	FC3	0.846				
Price Value	PV1	0.872	0.768	0.909	0.849	Valid & Reliable
	PV2	0.896				
	PV3	0.861				
Perceived Risk	PR1	0.886	0.785	0.916	0.890	Valid & Reliable
	PR2	0.802				
	PR3	0.963				
Social Need	SN1	0.879	0.722	0.912	0.872	Valid & Reliable
	SN2	0.849				
	SN3	0.834				
	SN4	0.835				
Self-Efficacy	SE1	0.859	0.729	0.890	0.815	Valid & Reliable
	SE2	0.874				
	SE3	0.828				
Perceived Regulatory Support	PRS1	0.818	0.746	0.936	0.915	Valid & Reliable
	PRS2	0.871				
	PRS3	0.874				
	PRS4	0.878				
	PRS5	0.875				
Behavioral Intention	BI1	0.896	0.803	0.924	0.877	Valid & Reliable
	BI2	0.919				
	BI3	0.872				
Use Behavior	UB1	0.865	0.785	0.917	0.863	Valid & Reliable
	UB2	0.908				
	UB3	0.885				

4.2. Hypothesis Testing

The assessment of hypotheses was conducted through SEM-PLS utilizing the Bootstrapping procedure in SmartPLS, incorporating 5000 subsamples. This method is employed to examine the significance of relationships outlined in the model. The outcomes of the structural model are depicted in Figure 2.
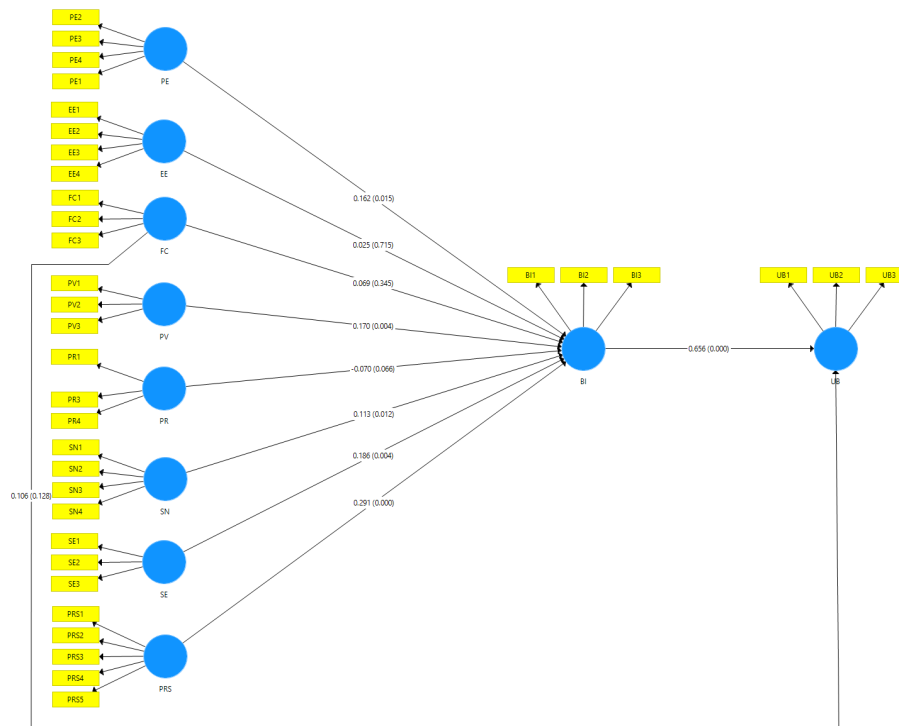
Fig.2. Structural Model

Hypothesis testing entails scrutinizing t-statistic values and p-values. A hypothesis is considered accepted when the t-statistic value surpasses 1.960, and the p-values fall below the 0.05 confidence interval. Conversely, the hypothesis is rejected if the t-statistic value is below 1.960, and the p-value exceeds 0.05. The findings indicate that factors such as performance expectancy, price value, social need, self-efficacy, and perceived regulatory support play a role in influencing the behavioral intentions of users in the Insurtech domain. On the contrary, effort expectancy, facilitating condition, and perceived risk do not contribute in encouraging users to adopt Insurtech. Additionally, while behavioral intentions have an impact on the use behavior of Insurtech, facilitating condition does not exhibit the same influence.

Table 4. Hypothesis Testing Results

Hypothesis	Value			Results
	T-value	P-value	β	
H1	2.422	0.015	0.162	Significant
H2	0.365	0.715	0.025	Not Significant
H3	0.944	0.345	0.069	Not Significant
H4	2.871	0.004	0.170	Significant
H5	1.839	0.066	-0.070	Not Significant
H6	2.521	0.012	0.113	Significant
H7	2.891	0.004	0.186	Significant
H8	5.910	0.000	0.291	Significant
H9	1.522	0.128	0.106	Not Significant
H10	11.366	0.000	0.656	Significant

The moderation hypothesis was assessed by categorizing respondents into their respective age groups, followed by a reevaluation using the bootstrapping technique in SEM-PLS with 5000 subsamples. The findings of the moderation testing are presented in Table 5 within this journal article. The investigation focused on determining the significance of the relationship, as indicated by the t-values and p-values. The acceptance of the hypothesis hinges on the t-statistic value surpassing 1.960, accompanied by p-values falling below the 0.05 confidence interval. The outcomes suggest that age serves as a moderator solely for Performance Expectancy, notably in the case of Generations X and Y. In contrast, Effort Expectancy and Facilitating Condition are not subject to moderation by age.

Table 5. Moderation Testing Results

Hypothesis	Age Group	Total Respondents	Value			Status
			T-value	P-value	β	
H11-1	Gen Z	44	0.758	0.448	0.158	Not Significant
	Gen Y	286	2.114	0.035	0.134	Significant
	Gen X	68	2.121	0.034	0.334	Significant
	Baby Boomers	2	N/A	N/A	N/A	N/A
H11-2	Gen Z	44	0.869	0.385	0.161	Not Significant
	Gen Y	286	0.207	0.836	0.017	Not Significant
	Gen X	68	0.795	0.427	0.140	Not Significant
	Baby Boomers	2	N/A	N/A	N/A	N/A
H11-3	Gen Z	44	0.248	0.804	-0.055	Not Significant
	Gen Y	286	1.820	0.069	0.125	Not Significant
	Gen X	68	0.473	0.636	-0.074	Not Significant
	Baby Boomers	2	N/A	N/A	N/A	N/A

4.3. Result of Research Hypothesis

H1: Performance Expectancy has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

The statistical analysis supported the hypothesis, revealing t-values exceeding 1.960 (t = 2.422) and p-values below the 0.05 confidence interval (p = 0.015). This suggests that H1 is accepted, providing robust evidence that Performance Expectancy significantly influences Behavioral Intention to use Insurtech. The positive path coefficient (path coefficient = 0.162) further underscores the practical importance of these findings, indicating that individuals perceiving greater performance, efficiency, and benefits from Insurtech are more likely to express intention toward its adoption.

H2: Effort Expectancy has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

The statistical analysis indicates that the t-values (t = 0.365) are below the threshold of 1.960, and the p-values (p = 0.715) exceed the 0.05 confidence interval. Additionally, the path coefficient (path coefficient = 0.025) is positively small. Consequently, H2 is rejected, suggesting that Effort Expectancy does not significantly affect Behavioral Intention in the context of Insurtech adoption in the Greater Jakarta area.

H3: Facilitating Condition has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

The statistical analysis results indicate that the t-values (t = 0.944) are below the threshold of 1.960, and the p-values (p = 0.345) exceed the 0.05 confidence interval. Additionally, the path coefficient (path coefficient = 0.069) is positively small. Consequently, H3 is rejected, suggesting that Facilitating Condition does not exert a statistically significant influence on Behavioral Intention in the context of Insurtech adoption in the Greater Jakarta area.

H4: Price Value has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

The statistical analysis results indicate that the t-values (t = 2.871) surpass the threshold of 1.960, and the p-values (p = 0.004) fall below the 0.05 confidence interval. Additionally, the path coefficient (path coefficient = 0.170) is positively small. Therefore, H4 is accepted, providing robust evidence that Price Value significantly influences Behavioral Intention in the context of Insurtech adoption in the Greater Jakarta area. This finding underscores the practical importance of considering price-related perceptions when designing and implementing Insurtech strategies, as individuals who perceive higher value for the price are more likely to express intention toward Insurtech adoption.

H5: Perceived Risk has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

The statistical analysis results indicate that the t-values (t = 1.839) are below the threshold of 1.960, and the p-values (p = 0.066) exceed the 0.05 confidence interval. Additionally, the path coefficient (path coefficient = -0.070) suggests a small negative effect. Consequently, H5 is rejected, implying that Perceived Risk does not exert a statistically significant influence on Behavioral Intention in the context of Insurtech adoption in the Greater Jakarta area.

H6: Social Need has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

The statistical analysis results for H6 indicate that the t-values (t = 2.521) exceed the threshold of 1.960, and the p-values (p = 0.012) fall below the 0.05 confidence interval. Additionally, the path coefficient (path coefficient = 0.113) is positively small. Therefore, H6 is accepted, providing strong evidence that Social Need significantly influences Behavioral Intention in the context of Insurtech adoption in the Greater Jakarta area. This finding underscores the significance of social considerations in shaping users' intentions toward Insurtech adoption. Individuals who perceive a social need for Insurtech solutions are more likely to express intention toward their adoption.

H7: Self-Efficacy has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

The statistical analysis results indicate that the t-values (t = 2.891) surpass the threshold of 1.960, and the p-values (p = 0.004) fall below the 0.05 confidence interval. Additionally, the path coefficient (path coefficient = 0.186) is positively small. Therefore, H7 is accepted, providing robust evidence that Self-Efficacy significantly influences Behavioral Intention in the context of Insurtech adoption in the Greater Jakarta area. This finding underscores the practical importance of individuals' perceived ability to effectively use Insurtech solutions in shaping their intentions to adopt. Users with higher self-efficacy are more likely to express intention toward Insurtech adoption.

H8: Perceived Regulatory Support has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

The statistical analysis results indicate that the t-values (t = 5.910) far exceed the threshold of 1.960, and the p-values (p = 0.000) are substantially below the 0.05 confidence interval. Additionally, the path coefficient (path coefficient = 0.291) is positively moderate. Therefore, H8 is accepted, providing robust evidence that Perceived Regulatory Support significantly influences Behavioral Intention. This finding underscores the pivotal role of perceived support from regulatory entities in shaping users' intentions

toward Insurtech adoption. Individuals who perceive strong regulatory backing are more likely to express intention toward Insurtech adoption.

H9: Facilitating Condition has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

The statistical analysis indicates that the t-values (t = 1.522) fall below the threshold of 1.960, and the p-values (p = 0.128) exceed the 0.05 confidence interval. Additionally, the path coefficient (path coefficient = 0.106) suggests a relatively small effect. Consequently, H9 is rejected, implying that Facilitating Condition does not exert a statistically significant influence on Use Behavior in the context of Insurtech adoption in the Greater Jakarta area.

H10: Behavioral Intention has a substantial impact on the behavioral intention to use Insurtech in the Greater Jakarta area.

The statistical analysis results indicate that the t-value (t = 11.366) surpasses the threshold of 1.960, and the p-value (p = 0.000) is significantly below the 0.05 confidence interval. Moreover, the substantial path coefficient (path coefficient = 0.656) indicates a large effect size. Consequently, H10 is accepted, indicating that Behavioral Intention significantly influences Use Behavior in the context of Insurtech adoption in the Greater Jakarta area. This finding underscores the pivotal role of users' intentions in shaping their actual use behavior regarding Insurtech. Individuals with stronger behavioral intentions are more likely to translate those intentions into concrete usage actions.

H11-1: Age moderates the association between Performance Expectancy and Behavioral Intention.

The statistical analysis results indicate that the t-values for both Gen Y (t = 2.114) and Gen X (t = 2.121) exceed the threshold of 1.960, and the p-values for both groups (Gen Y: p = 0.035, Gen X: p = 0.034) are below the 0.05 confidence interval. Additionally, the path coefficients indicate that the association between Performance Expectancy and Behavioral Intention varies across age groups, with Gen Z (path coefficient = 0.158), Gen Y (path coefficient = 0.134), and Gen X (path coefficient = 0.334). Consequently, H11-1 is accepted, indicating that age moderates the relationship between Performance Expectancy and Behavioral Intention in both Gen Y and Gen X. These findings highlight the importance of considering age differences in understanding the association between performance expectations and intentions to use Insurtech. Age-related factors may influence how individuals perceive and respond to performance expectations, ultimately shaping their behavioral intentions.

H11-2: Age moderates the association between Effort Expectancy and Behavioral Intention.

The statistical analysis results indicate that the t-values for each age group, Gen Z (t = 0.869), Gen Y (t = 0.207), and Gen X (t = 0.795) all fall below the critical threshold of 1.960, and the p-values for each group, Gen Z (p = 0.385), Gen Y (p = 0.836), and Gen X (p = 0.427) exceed the 0.05 confidence interval. Furthermore, the path coefficients for Gen Z (Path Coefficient = 0.161), Gen Y (Path Coefficient = 0.017), and Gen X (Path Coefficient = 0.140) indicate consistent and relatively small effects across age groups. Consequently, H11-2 is rejected, indicating that age does not exert a moderating effect on the relationship between Effort Expectancy and Behavioral Intention among Gen Z, Gen Y, and Gen X in the context of Insurtech adoption in the Greater Jakarta area. These findings suggest that the influence of effort expectations on behavioral intentions remains consistent across different age groups in the context of Insurtech adoption in the Greater Jakarta area.

H11-3: Age moderates the association between Facilitating Condition and Behavioral Intention.

The statistical analysis results indicate that the t-values for each age group (Gen Z: t = 0.248, Gen Y: t = 1.820, Gen X: t = 0.473) are all below the threshold of 1.960, and the p-values for each group (Gen Z: p = 0.804, Gen Y: p = 0.069, Gen X: p = 0.636) exceed the 0.05 confidence interval. Additionally, the path coefficients for Gen Z (Path Coefficient = -0.055), Gen Y (Path Coefficient = 0.125), and Gen X (Path Coefficient = -0.074) suggest varied and relatively small effects across age groups. Consequently, H11-3 is rejected, indicating that age does not have a moderating effect on the relationship between Facilitating Condition and Behavioral Intention among Gen Z, Gen Y, and Gen X in the context of Insurtech adoption in the Greater Jakarta area.

4.4. Research Implications

Based on the outcomes of statistical computations and analyses conducted, numerous factors influence the behavioral intention towards Insurtech in Greater Jakarta. Drawing on the research by (Jiang et al., 2019; Ku & Lee, 2023; Kurniasari et al., 2023), Performance Expectancy emerges as a key factor influencing behavioral intention in the utilization of Fintech and Internet Insurance Platforms. These findings align with previous research, emphasizing the notable advantages of Internet Insurance Platforms, including high efficiency, unrestricted access in terms of time and location, and the capability to compare and explore insurance products (Ku & Lee, 2023). This study suggests that individuals who perceive Insurtech as advantageous, efficient, and beneficial in conducting insurance-related activities are more likely to embrace it. Consequently, it is crucial for Insurtech providers to enhance application performance, focusing on responsiveness, processing speed, information display, and bug resolution. This improvement will ease users' experience with Insurtech, making the application a more dependable tool for online information retrieval and insurance product comparisons, ultimately fostering increased Insurtech adoption.

In the meantime, prior studies by (Dewi & Wulansari, 2020; Ku & Lee, 2023) have also discovered that Price Value influences behavioral intention in fintech services such as mobile payments and insurance-related platforms. This aligns with the current study, suggesting that Price Value plays a crucial role in increasing the intention to use Insurtech. This discovery underscores the significance of attractive discounts and promotions, which can render premium prices more accessible and provide an added value perceived by users on the Insurtech platform. Additionally, if individuals perceive that Insurtech offers insurance products and services whose value exceeds the associated costs, it can further enhance the intention to use Insurtech. Consequently, Insurtech providers can enhance the availability of promotions, discounts, cashback, and redeemable rewards by presenting users with appealing and diverse offers, motivating them to utilize the services and purchase insurance products through Insurtech. This, in turn, improves the Price to Value Ratio, ensuring that the prices of insurance products become more budget friendly. Ultimately, these strategies stimulate the adoption of Insurtech.

Social Need also plays an important role in encouraging intentions to use Insurtech in Greater Jakarta. The results of this research are also in line with research conducted by (Nasrin & Dahana, 2022). This finding indicates that, although interactions are conducted online, social needs still drive the intention to use Insurtech. This discovery can also be associated with the traditional insurance transaction habits that are always mediated by interactions with agents, suggesting that insurance transactions are closely linked to social activities. Moreover, Insurance agents are still needed as an intermediary between customers and the insurance industry due to the competencies of insurance agents who possess knowledge of law/regulation and product knowledge (Ferezagia, 2021). This expertise can assist individuals in completing transactions within Insurtech. Therefore, regardless of individuals possess low or high social needs, Insurtech service providers can offer live chat or live video call with agents to facilitate social needs and help address questions related to Insurtech and the products it contains.

Self-Efficacy factors also play an important role in encouraging intentions to use Insurtech in Greater Jakarta. Prior research conducted by (Nafaa, 2019; Nasrin & Dahana, 2022) are also aligned with this study. These findings indicate that individuals with greater confidence are more likely to use Insurtech. These results suggest that individuals with higher confidence levels are more inclined to embrace Insurtech. This becomes particularly crucial given the nature of electronic insurance, characterized as one of the latest and innovative self-service technologies where customers are required to handle transactions independently without assistance from company staff (Nafaa, 2019). Therefore, providing tutorials in the form of step-by-step interactive usage guides or video tutorials upon initial download and use of the Insurtech platform is essential. This approach can aid in enhancing users' understanding of how the Insurtech application works, thereby boosting their self-confidence in utilizing the service and completing transactions within the Insurtech application. In addition to tutorials,

Frequently Asked Questions (FAQ) pages can be made available, allowing users to easily find answers to common questions that may arise when using the Insurtech application. By providing all the essential information, it can enhance users' self-efficacy and ultimately contribute to the intention to use Insurtech.

The outcomes of this study are consistent with findings from (Kurniasari et al., 2023; Madan & Yadav, 2016), indicating that Perceived Regulatory Support significantly influences the intention to use Fintech. These results suggest that individuals who perceive adequate support from regulatory services to safeguard all stakeholders in the Insurtech environment are more inclined to adopt Insurtech. Furthermore, the oversight and regulations established by institutions in the realm of Insurtech contribute to enhancing users' feelings of security and comfort. Hence, maintaining ongoing communication and collaboration between service providers and regulatory institutions, to formulate regulations and address areas not yet covered by regulations, is of utmost importance. This approach ensures that users feel safer and more at ease, knowing that there are clear regulations in place to protect both parties, and eventually foster the adoption of Insurtech.

The actual use of Insurtech is notably influenced by Behavioral Intention, as indicated by this study. This aligns with earlier research, including studies by (Ali et al., 2023; Khatun & Tamanna, 2021; Ku & Lee, 2023), all suggesting that Behavioral Intention significantly shapes the usage behavior of Insurtech. These findings imply that individuals with a stronger intention to use Insurtech are more prone to actual usage. Consequently, elevating the intention aligns with an increased likelihood of individuals engaging with and utilizing Insurtech.

Variables such as Effort Expectancy, Facilitating Condition, and Perceived Risk do not exert a substantial influence on shaping the Behavioral Intention to adopt Insurtech. Effort Expectancy does not significantly impact the intention to adopt Insurtech, a finding consistent with prior research conducted by (Madan & Yadav, 2016; Widodo et al., 2019). Individuals perceive insurance-related activities within Insurtech as challenging to learn and understand. Moreover, traditional insurance options are preferred in Indonesia due to their ease of use, facilitated by insurance agents who provide comprehensive information and facilitate transactions between insurers and prospective policyholders.

The impact of Facilitating Condition on influencing Behavioral Intention to adopt Insurtech is found to be not significant in this study. This contrasts with earlier research by (Ku & Lee, 2023; Milanović et al., 2020) that identified Facilitating Condition as a factor influencing Behavioral Intention. This discrepancy may be attributed to the limited understanding of insurance and Insurtech. Additionally, the absence of guidance or support within the application could lead users to opt for alternative methods when acquiring insurance.

Perceived Risk does not have an impact on the Behavioral Intention to adopt Insurtech. This is consistent to previous research by (Nafaa, 2019; Widodo et al., 2019) which similarly concludes that Perceived Risk does not influence Behavioral Intention. This situation may arise because all Insurtech applications are supervised and regulated by the Financial Services Organization, mitigating potential risks associated with using the application. Consequently, users do not perceive any risks when utilizing Insurtech.

Furthermore, Facilitating Condition does not exert a substantial impact on Use Behavior. This may be attributed to users' insufficient knowledge and the absence of necessary guidance and support in completing transactions within Insurtech.

Drawing parallels with findings in studies by (Khatun & Tamanna, 2021; Patrick Acheampong et al., 2018), which suggest age as a moderating factor for usage intentions in Fintech, age indeed plays a significant role in moderating the association between Performance Expectancy and Behavioral Intention in adopting Insurtech. Consequently, Insurtech providers should concentrate on incorporating features that cater to diverse insurance needs across age groups, such as consultations, simulations, age-specific recommendations for insurance products, and the provision of family insurance products. This approach aims to facilitate a gradual transition for all age groups from traditional insurance to Insurtech by emphasizing the greater benefits offered. In contrast, age does not act as a moderator in the

relationship between Effort Expectancy and Behavioral Intention. Users of various ages perceive both insurance in general and Insurtech as challenging and challenging to comprehend. Lastly, age does not moderate the relationship between Facilitating Condition and behavioral intention in encouraging individuals to use Insurtech. This phenomenon may stem from a lack of knowledge and minimal assistance within the Insurtech application, making transactions challenging for users across different age groups. In summary, the user's age plays a partial role in influencing the adoption of Insurtech.

While this study provides valuable empirical insights into the factors influencing the behavioral intention to use Insurtech, it is essential to acknowledge certain limitations. Firstly, the distribution of demographic data, particularly in the studied age groups, is uneven, with a predominant focus on Gen Y. This imbalance prevents a comprehensive understanding of the relationship between each age group and the tested variables. Additionally, the research centers solely on five widely used Insurtech platforms, overlooking the many other unique platforms operating in Indonesia. Moreover, the study's scope is confined to users in the Greater Jakarta area, thereby limiting its generalizability.

To enrich the understanding of Insurtech acceptance, the authors suggest that future research should broaden its scope by considering a more diverse range of Insurtech platforms and demographics of respondents. It is recommended to collect dispersed data across various age groups or concentrate on specific age groups to deepen insights into the relationship between age and its influence on behavioral intentions to use Insurtech.

5. Conclusion

This research yields significant empirical insights and practical implications for tapping into the adoption potential of Insurtech in Indonesia. While performance improvements play a crucial role in influencing intentions among early users, the integration of social dimensions and regulatory support holds the potential to facilitate broader market penetration. The enhancement of innovation, fostering accessibility and transparency, suggests that collaborations between insurers and technology providers could tailor offerings and pricing for a more extensive audience. However, there is potential value in expanding the study's scope, collecting dispersed data, or focusing on specific age groups to further enhance the knowledge of Insurtech Acceptance. Given the disruption of digital lifestyles amid economic uncertainty, ongoing customer-centric research and development are essential for Indonesia's Insurtech ecosystem to provide inclusive value.

References

Ajzen, I., & Fishbein, M. (1994). Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. In *Academy of Management Journal* (Vol. 37, Issue 1, pp. 68–86). https://doi.org/10.5465/256770

Ali, W., Ullah, H., Zada, A., Muhammad, W., Ali, S., Shaheen, S., Alamgir, M. K., Ansar, M. Z., Khan, Z. U., & Bilal, H. (2023). Users' Fintech Services Acceptance: A Cross-Sectional Study on Malaysian Insurance & Takaful Industry. *Science of the Total Environment*, 141291. https://doi.org/10.1016/j.heliyon.2023.e21130

Ardianto, P. (2023). *Naik 112 Persen, Premi Asuransi Digital Tembus Rp 3,88 T*. https://www.beritasatu.com/ekonomi/1033474/naik-112-persen-premi-asuransi-digital-tembus-rp-388-t

BPS. (2021). *Jumlah Masyarakat JABODETABEK*. https://www.bps.go.id/id

Bruggencate, T. Ten, Luijkx, K. G., & Sturm, J. (2019). When your world gets smaller: How older people try to meet their social needs, including the role of social technology. *Ageing and Society*, *39*(8), 1826–1852. https://doi.org/10.1017/S0144686X18000260

Cappiello, A. (2018). Technology and Insurance. *Technology and the Insurance Industry*, 7–28. https://doi.org/10.1007/978-3-319-74712-5_2

Cortis, D., Debattista, J., Debono, J., & Farrell, M. (2019). InsurTech. *Disrupting Finance*, 71–84. https://doi.org/10.1007/978-3-030-02330-0

DailySocial. (2021). Fintech Report 2021 - The Convergence of (Digital) Financial Services. *DSResearch*, 57. https://dailysocial.id/research/fintech-report-2021

Dewi, D. S., & Wulansari, R. (2020). *Factors Influencing the Use of Fintech Payment Services in Indonesia : Literature Review*. *456*(Bicmst), 33–36. https://doi.org/10.2991/assehr.k.201021.008

Ferezagia, D. (2021). *Sales of Life Insurance Products in Indonesia: InsurTech and Traditional Insurance Agents*. *Icvhe 2019*, 59–63. https://doi.org/10.5220/0010029700002967

Hair, J. F., Black, Jr, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate Data Analysis. In *Pearson New International Edition*.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Thousand Oaks. *Sage*, 165.

Jiang, S. J., Liu, X., Liu, N., & Xiang, F. (2019). Online life insurance purchasing intention: Applying the unified theory of acceptance and use of technology. *Social Behavior and Personality*, *47*(7). https://doi.org/10.2224/sbp.8141

Khatun, N., & Tamanna, M. (2021). Factors Affecting the Adoption of Fintech: a Study Based on the Financial Institutions in Bangladesh. *Copernican Journal of Finance & Accounting*, *9*(4), 51. https://doi.org/10.12775/cjfa.2020.021

Krupa, D., & Buszko, M. (2023). Age-dependent differences in using FinTech products and services— Young customers versus other adults. *PLoS ONE*, *18*(10 October), 1–20. https://doi.org/10.1371/journal.pone.0293470

Ku, F. C., & Lee, C.-Y. (2023). An Empirical Study of Internet Insurance in Taiwan Adopting the Theoretical Framework of UTAUT2. *Bulletin of Applied Economics*, *13*(5), 1–28. https://doi.org/10.47260/jafb/1351

Kurniasari, F., Utomo, P., & Jimmy, S. Y. (2023). Determinant Factors of Fintech Adoption in Organization using UTAUT Theory Approach. *Journal of Business and Management Review*, *4*(2), 092–103. https://doi.org/10.47153/jbmr42.6032023

Le Hoang Mong Nga, & Nguyen Quoc Nghi. (2022). Factors impacting the intention to use digital social insurance application (VSSID) in Phan Thiet city, Binh Thuan province. *World Journal of Advanced Research and Reviews*, *16*(1), 806–811. https://doi.org/10.30574/wjarr.2022.16.1.1068

Madan, K., & Yadav, R. (2016). Behavioural intention to adopt mobile wallet: a developing country perspective. *Journal of Indian Business Research*, *8*(3), 227–244. https://doi.org/10.1108/JIBR-10-2015-0112

Madan, K., & Yadav, R. (2018). Understanding and predicting antecedents of mobile shopping adoption: a developing country perspective. *Management Decision*, *30*(1), 139–162. https://doi.org/10.1108/APJML-02-2017-0023%0A

McLeod, S. (2018). Maslow ' s Hierarchy of Needs Maslow ' s Hierarchy of Needs. *Business*, 3–5.

Meilasari-Sugiana, A., Negara, S. D., & Hui, Y.-F. (2022). Financial Technology Adoption in Greater Jakarta. In *Financial Technology Adoption in Greater Jakarta* (Issue 9). https://doi.org/10.1355/9789815011555

Milanović, N., Milosavljević, M., Benković, S., Starčević, D., & Spasenić, Ž. (2020). An acceptance approach for novel technologies in car insurance. *Sustainability (Switzerland)*, *12*(24), 1–15. https://doi.org/10.3390/su122410331

Nafaa, E. (2019). *Testing the Main Drivers of Intention to Use E-Insurance: An Empirical Study from the Jordanian Clients' Perspective*.

Nasrin, S. (2022). Factors influencing the adoption of online insurance products. *Personnel Review*, *38*(6), 655–673. https://doi.org/10.1108/00483480910992265

Nasrin, S., & Dahana, W. D. (2022). Influencing factors of the extent, timing, and pattern of online insurance adoption. *International Journal of Electronic Commerce Studies*, *13*(3), 119–146. https://doi.org/10.7903/ijecs.2078

Patrick Acheampong, Li Zhiwen, Kamal Kant Hiran, Obobisa Emma Serwaa, Frank Boateng, & Isaac Asare Bediako. (2018). Examining the Intervening Role of Age and Gender on mobile payment Acceptance in Ghana: UTAUT Model. *Canadian Journal of Applied Science and Technology*, *5*(2), 141–151.

Pham, Q. T., Nguyen, H. N. D., Misra, S., & Misra, A. (2022). Investigating factors for using insurance apps by customers: a study of a developing country. *Journal of Banking and Financial Technology*, *0123456789*. https://doi.org/10.1007/s42786-022-00046-9

Resnick, B. (2018). Theory of Self-Efficacy. In *Middle Range Theory for Nursing, Fourth Edition*. https://doi.org/10.1891/9780826159922.0002

Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). Research methods for business students. In *Pearson Education Limited: Vol. limi* (Issue 10).

Shamsuddin, J. N., Gan, C., & Anh, D. L. T. (2023). Bibliometric Analysis of InsurTech. *Journal of Advanced Research in Applied Sciences and Engineering Technology*, *30*(2), 103–132. https://doi.org/10.37934/araset.30.2.103132

Spit, M. (2022). *InsurTech Industry Trends - Insurers Tapping New Markets*. https://www.ey.com/en_us/insurance/insurtech-trends-and-investment-landscape?WT.mc_id=10818314&AA.tsrc=paidsearch&gad=1&gclid=CjwKCAjw-b-kBhB-EiwA4fvKrFC3UFTDI-cm_QnkQsM5nxNIaDEp3C_4_3oJsIo4re5iPh1BqNfkcBoC42IQAvD_BwE

Venkatesh, Morris, Davis, & Davis. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, *27*(3), 425. https://doi.org/10.2307/30036540

Venkatesh, Thong, & Xu. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, *36*(1), 157. https://doi.org/10.2307/41410412

Widodo, M., Irawan, M. I., & Sukmono, R. A. (2019). Extending UTAUT2 to explore digital wallet adoption in Indonesia. *2019 International Conference on Information and Communications Technology, ICOIACT 2019*, 878–883. https://doi.org/10.1109/ICOIACT46704.2019.8938415