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Examining Initial Trust in Adoption of Digital Banking Platform: A Personal Innovativeness and Security Perspective

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Abstract. Security concerns have become a significant challenge for users and the banking industry, particularly in digital banking and the prevalent use of the Internet. This study investigates the influence of trust, security, and personal innovativeness on user acceptance of digital banking platforms. A sample of 598 digital banking users completed an online survey via Google Forms. The collected data were analyzed using Partial Least Squares (PLS) with smart-pls version 4 software. Among the 11 hypotheses examined, all were found to be supported, indicating that trust, security, and personal innovativeness play a crucial role in enhancing the key constructs of Technology Acceptance Model (TAM), including Perceived Ease of Use (EUDB), Perceived Usefulness (UDB), and Intention to Use (INDB). Notably, personal innovativeness was found to significantly impact the perceived ease and benefits of digital banking, warranting considerable attention. Trust emerged as a secondary priority, but still essential for shaping user perceptions of the benefits of digital banking. Therefore, the banking industry should focus on system enhancements aligned with user needs, particularly regarding features that simplify banking operations. The results of this study provide robust support for TAM by highlighting the importance of personal innovativeness, trust, and security in driving user acceptance of digital banking platforms.

Keywords: Digital banking, personal innovativeness, security, trust, technology adoption.

1. Introduction

Since COVID-19, the business climate has changed drastically, forcing every organization to adapt to technology (Wolor et al., 2023). Technology has developed rapidly to the point that it has become a habit for organizations to rely on technology, including in the financial industry. The level of use of financial technology is increasing rapidly to the point where it threatens the banking industry. Moreover, the process of monitoring banking activities is quite costly. So it needs technological assistance to minimize these risks (Hidayah et al., 2019; Mukhibad et al., 2023). One of the efforts is to construct information technology infrastructure by increasing the use of technology such as digital banking. Digital banking can do banking activities flexibly (Musyaffi, Johari, et al., 2022). So that users can carry out all banking activities anytime and anywhere through the Internet network, including opening online accounts, bank transfers, financial transactions, digital payments, e-wallet top-ups, and others. However, even though there are so many benefits, people still do not take advantage of digital banking services because they need various types of assistance in real-time, such as the need for technical assistance when problems occur (Khan, 2022). Based on a survey from Harb et al. (2022), 6 out of 7 consumers use digital banking at least one time a month, and 38 percent use it every day or once a week. Then based on the most considerable factor motivating them to use digital banking is that it is guaranteed security and can be used comfortably. At the same time, in terms of convenience, it is 65%, and in terms of time-saving, it is 66% (Brusnahan, 2019).

Currently, most users have used mobile and internet banking, respectively, at 34% and 22.8%. However, there are still many users who conduct banking transactions through branch offices (21%) and automatic teller machines (ATM) (19.5%) (Strohm, 2021). While users who still use non-digital payments such as ATMs are still quite large, 51.1%, and use conventional accounts, 38.1% (Pahlevi, 2022). The data shows that users still need to fully trust online transactions, especially using digital banking in every banking transaction. Data published by PWC states that 75% of users still rely on branch offices when making transactions, whose value is 50% (Databoks, 2017). Therefore, banks need adjustments to focus on digital banking services to meet user needs. The problem faced by implementing digital banking is not only from its use but also from security issues. Compared to digital banking, transactions through branch offices require higher costs and time. Based on Khan (2022), users in China and Pakistan want a fast transaction process without the hassle of making transactions at a physical banking office. This follows the characteristics of digital banking, which can carry out banking activities via smartphones. Therefore, users are interested in banking digitalization because of its convenience and usability (Gurendrawati et al., 2023; Ho et al., 2020; Jebarajakirthy & Shankar, 2021; Musyaffi, Johari, et al., 2022).

Indonesia's most prominent Islamic banks have experienced a cyber-attack, causing material and non-material losses, by stealing 1.5 terabytes of internal databases, including data on 15 million customers such as names, account balances, addresses, and transaction history (Janti, 2023). As a result, there was limited access to banking for three days, and it took much work for customers to access online banking. This results in a decrease in user trust. So this creates a snowball effect that can influence banking customers to carry out economic transactions in banking. Cyber-attacks exist due to a lack of attention and grave concern for system security (Johri & Kumar, 2023). So that awareness regarding cybersecurity has become a crucial measure to protect any banking digitalization, including digital banking (Johri & Kumar, 2023; Musyaffi, Johari, et al., 2022). Ege Oruç and Tatar (2017) explained that the criteria for Internet banking to run smoothly depend on government support and user acceptance. Previous researchers revealed that the ease and functionality of the system that is useful for users are vital in increasing the adoption of a technology (Abu-Taieh et al., 2022; Ali et al., 2021; Baabdullah et al., 2019; Musyaffi, Johari, et al., 2022).

Research on digital banking adoption is fundamental because it is one of the crucial technologies that also impact other industries. Digital banking technology can help banks identify physical and geographical barriers that allow financial services to be carried out in various regions (Bueno et al.,

2023). Digital banking can also be a concern regarding topics that must be resolved immediately in the sustainability aspect, for example, green banking technology (Bouteraa et al., 2022; Bukhari et al., 2022), greenhouse emission (Özen & Yıldırım, 2023), and sustainability reporting (Amidjaya & Widagdo, 2019). In addition, based on previous research, several studies require space for further exploration. Research by Rafferty & Fajar (2022) shows that the security factor is weak in influencing the behavior intention of digital payment users. While research specifically states that perceived usefulness is not the biggest determining factor for someone adopting technology. Meanwhile, usefulness factors such as increased productivity for using the system are views not seen by users, so they cannot affect the intention to use (Abebe & Lessa, 2020; Jiang et al., 2021; Yan et al., 2021). Several important problems still need to be solved today. Non-digital banking platform such as ATMs, are still dominant for banking transactions. Meanwhile, transactions with large nominal amounts are still dominated by branch offices. Another factor besides the intensity of use is the occurrence of a bank security breach at one of the largest banks which resulted in the theft of user data. So the question arises, what factors can influence the adoption of digital banking users, especially based on security, trust, and personal innovativeness? Based on the discussion and disclosure of these problems, this study aims to explore the factors of trust, security, and innovativeness in increasing the adoption of digital banking technology using the TAM extension model so that both users and banks can identify the factors that strengthen the adoption of digital banking in a sustainable manner.

2. Literature Review

2.1. Digital Banking

Digital banking provides benefits for users in carrying out banking activities, such as reduced transaction costs, speed of information output in real-time, online account opening, and almost all other products (Alnemer, 2022). So that all activities can occur without having to come to a branch office or go through an ATM. Digital banking can benefit users by delivering better and faster financial products to save costs and improve overall services (Alnemer, 2022; Dash et al., 2011). Digital banking can enable users to handle financial activities from anywhere because it utilizes an integrated automation process and a robust Application Programming Interface (API) system to make products and complete transactions quickly (Oktavia et al., 2023). Based on previous literature (Bueno et al., 2023; Chauhan et al., 2022), digital banking has various advantages for users, namely 1) convenience, digital banking can be accessed anytime and anywhere for 24 hours without having to go to a physical bank. 2) lower fees due to the reduced burden of financing physical banks, so digital banking can have lower fees and offer more attractive interest on deposits and loans. 3) improve security and enhance digital security with two-factor authentication and biometrics to avoid crime or theft. 4) personalized service, digital banking can map consumer data through artificial intelligence features to provide financial advice according to needs.

2.2. Perceived ease of use (EUDB)

EUDB refers to the level of technology use that users can quickly learn (Davis, 1989; Musyaffi, Johari, et al., 2022). EUDB in this study refers to the ease of use in conducting banking transactions through digital banking. Good technology is a technology that its users can accept. Therefore, one of the characteristics of acceptable technology is that it can be used easily (Ali et al., 2021; Alnemer, 2022; Musyaffi, Johari, et al., 2022). indications that someone can easily use technology through features and understanding of technology that can be quickly learned and according to the user. The existence of the perception of ease that users have owned makes this technology finally be felt by its benefits. The higher the perceived convenience, the greater the user's perception of the benefits of this technology (Mohr & Kühl, 2021). To make users believe that the technology used is safe and as needed, Tan et al. (Tan et al., 2014) say that EUDB is a substantial factor in establishing principles for accepting and using technology consistently. Previous research also proves that the more manageable the technology is to

use, the more likely it is to use technology continuously (Franque et al., 2021; Gokmenoglu & Hesami, 2020; Kaur & Malik, 2019; Mohr & Kühl, 2021; Musyaffi, Johari, et al., 2022). Based on this explanation, the researchers formulated a positive relationship between EUDB and INDB, UDB and TS through the following hypotheses 1, 2, and 3:
H_1: The more positive EUDB, the more favorable it will affect the INDB of digital banking.
H_2: The more positive EUDB, the more favorable it will have on the UDB of digital banking.
H_3: The more positive EUDB, the more favorable it will affect the TS of digital banking.

2.3. Perceived Security (PS)

PS is defined as a measure users receive regarding their trust in ensuring the certainty of technology security in both financial and non-financial aspects. In digital banking, PS is a guarantee from digital banking in ensuring that every data owned, including financial and non-financial data, is guaranteed confidentiality and security. So that security is very crucial both from the aspect of the user and the company. Shim et al. (2020) revealed that security also substantially influences a person's technology adoption, so companies must pay serious attention to it. Shabrina & Sfenrianto (2023) reveal a strong impact between cloud-based point-of-sale security and continuous system use. Security is also a factor that directly and naturally impacts conducting digital transactions (Widyanto et al., 2021). PS is a substantial construct in determining whether someone rejects or accepts technology (Abdulla & Al-Hassani, 2022; Alexandrou & Chen, 2019; Musyaffi, Gurendrawati, et al., 2022; Singh & Srivastava, 2018). Security and privacy are also issues of more significant concern, especially in the transaction process via mobile devices because customers always provide personal data indirectly (Chong, 2013; Xie et al., 2021). Based on this explanation, the researchers formulated a positive relationship between PS and INDB, and UDB through the following hypotheses 4 and 5:
H_4: The more positive PS, the more favorable it will influence the INDB of digital banking.
H_5: The more positive PS, the more favorable it will positively affect the UDB of digital banking.

2.4. Perceived usefulness (UDB)

UDB indicates that a person's performance can increase when using specific systems or technologies (Balaman & Baş, 2021; Gurendrawati et al., 2023). UDB in this research is the perception users feel in using digital banking, which can significantly improve performance. In developing the TAM, the UDB construct has become one of the most influential in adopting technology use (Ananda et al., 2020; Kampa, 2023). The great benefits that technology can offer can increase the continuous use of technology because it can increase productivity (Franque et al., 2021; Morosan, 2011). Users who have experienced the benefits of technology will tend to believe in its credibility. However, on the contrary, when the desired features are not under user expectations, users tend to distrust that this technology can improve their performance increasingly. Previous research has also revealed findings regarding UDB having a significant impact on INDB (Alnemer, 2022; Na et al., 2022) and TS (Indriasari & Jayadi, 2021; Santhanamery & Ramayah, 2018; Ventre & Kolbe, 2020). So based on the explanation, the hypotheses 6 and 7 are:
H_6: The more positive UDB, the more favorable it will affect the INDB of digital banking.
H_7: The more positive UDB, the more favorable it will affect the TS of digital banking.

2.5. Perceived Innovativeness (PIB)

PIB shows a person's tendency to try new things, including new technology that can support work (Klöckner, 2013; Musyaffi et al., 2021). Without unique characteristics such as innovativeness, users will be in a comfort zone, especially in using certain products, including technology (Zhong et al., 2021). So that the characteristics of users who are always looking for novelty will tend to have a positive perspective on new technologies, so they tend to try new experiences from these technologies (Domina et al., 2012). PIB is also one of the most significant predictors in developing technology adoption theory (Tamilmani et al., 2021). Kim & Forsythe (J. Kim & Forsythe, 2010) revealed a close relationship between PIB and EUDAB, and UDB related to product technology innovation. The existence of a

primary intention for someone to be interested in trying technology can increase the perceived convenience and benefits of users so that the innovation factor can become an essential element in strengthening technology adoption. In addition, based on research results from Fagan et al. (Fagan et al., 2012) regarding virtual reality technology, it was revealed that there is a strong influence between PIB and EUDB, UDB, and INDB. The findings of previous researchers are confirmed by the results of other research, which reveal the high innovativeness factor for EUDB and UDB (Mohr & Kühl, 2021; Yuen et al., 2021) and INDB (Fagan et al., 2012; Kourouthanassis et al., 2015; Pfeiffer et al., 2016; Zhong et al., 2021). So based on this explanation, the researcher concludes that there is a relationship between PIB and other constructs, namely INDB, EUDB, and UDB, as shown by hypotheses 8, 9, and 10 below:

H_8: The more positive PIB, the more favorable it will influence the INDB of digital banking.
H_9: The more positive PIB, the more favorable it will affect the EUDB of digital banking.
H_{10}: The more positive PIB, the more favorable it will positively affect the UDB of digital banking.

2.6. Trust (TS)

Trust is essential for organizations to maintain organizational credibility and competitive advantage. So, trust must be prioritized continuously. In addition, user trust can also provide confidence to use technology (Akthar et al., 2023; Ashrafi & Easmin, 2023; Cai et al., 2023). Thus, making a person's trust increase. Trust is the most significant factor in making someone accept or reject technology (Ge et al., 2023; Zhu et al., 2017). Trust in mobile payments will increase because it minimizes contact and does not require much effort compared to traditional methods (Marinković et al., 2020; Zhao & Bacao, 2021). Previous literature has proved a close relationship between trust and the desire to use technology continuously (Asante & Baafi, 2022; Malchenko, 2020; Park & Han, 2023; Stojanović et al., 2023). So, the 11th hypothesis in this study is:

H_{11}: The more positive the TS construct is in digital banking, the more favorable it will affect the INDB of digital banking.

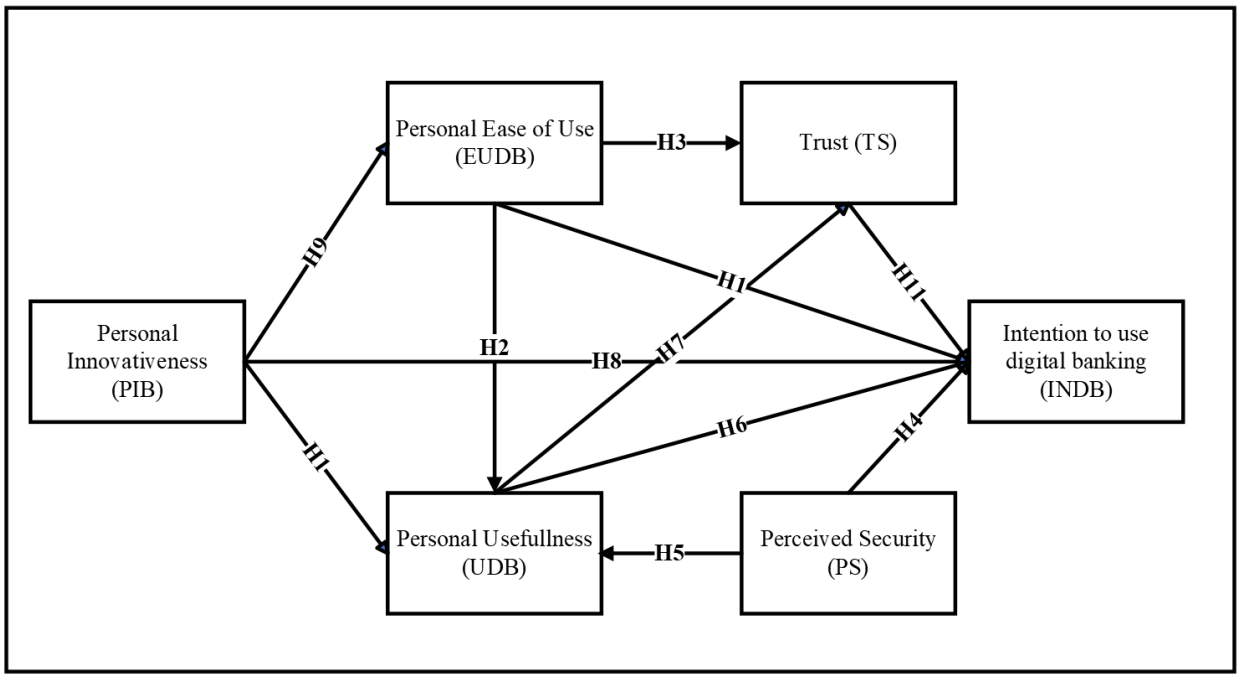

Fig. 1: Research Model

3. Method

3.1. Research Design

This study uses a quantitative method using an online questionnaire to answer research problems. Researchers distributed questionnaires to digital banking users in Indonesia randomly. During 1-2 months of research, 646 respondents were found who were willing to fill out. However, after the initial check, 7.7% still needed to be completed, so the number of respondents who had been selected was 596. Table 1 below shows the characteristics of the respondents who completed the research questionnaire. Most respondents who filled out research questionnaires regarding digital banking were female, as much as 55.7%, and male, 44.3%.

Regarding education level, the majority were undergraduates, at 44.46%. Then those with the second largest education were at the graduate level of 36.91%. Respondents with postgraduate and high school education, respectively, only have the number of respondents as much as 12.75% and 5.87%. Then, the characteristics of the respondents are based on the age of the user; the majority have an age range of 18-30 years (53.02%). As many as 31.54% of users have an age range of 31-40 years. In the 41 – 50 years range, the number of users is 12.75%. Furthermore, 2.68% of respondents are over 51 years old. Then based on the frequency of use, almost all respondents use digital banking once every 1-2 weeks, namely 44.97%. Followed by use for one week several times at 32.21%. Then the respondents who use digital banking every day were 10.91%. And only 5.37% and 7.55% use digital banking for one month once and more than one month.

Table 1. Respondent Characteristics

		Amount	%
Gender	Male	264	44.30%
	Female	332	55.70%
Age	18 – 30 years	316	53.02%
	31 – 40 years	188	31.54%
	41 – 50 years	76	12.75%
	51 years or older	16	2.68%
Education	High School	35	5.87%
	Undergraduate	265	44.46%
	Graduate	220	36.91%
	Postgraduate	76	12.75%
Frequency of using digital banking	Everyday	65	10.91%
	One week several times	186	31.21%
	1-2 weeks	268	44.97%
	One month once	32	5.37%
	More than one month	45	7.55%

3.2. Measurement

This study uses a Likert scale with details of the answers "strongly disagree" worth 1 to "strongly agree" worth 5. This research consists of 6 constructs and 24 question items. Each construct has 4 question items. Then each questionnaire item that was compiled was adopted based on previous research who are experts in their field.

Table 2. Questioner

Variable	Item	Question	Sources
Ease of Use of digital banking (EUDB)	EUDB1	When using digital banking, I can do banking transactions anytime and anywhere.	(Acikgoz & Vega, 2022; Musyaffi, Johari, et al., 2022)

	EUDB2	I can understand the use of digital banking clearly and quickly.	
	EUDB3	Digital banking can be used easily when doing banking transactions.	
	EUDB4	I can understand more quickly and become skillful when using digital banking.	
The usefulness of Digital Banking (UDB)	UDB1	The use of digital banking has better advantages compared to banking transactions at branch offices.	(Acikgoz & Vega, 2022; Musyaffi, Johari, et al., 2022)
	UDB2	Digital banking can produce fast input and output transactions.	
	UDB3	I am comfortable using digital banking because of its attractive features and appearance.	
	UDB4	The use of digital banking is beneficial to help my work more quickly.	
Personal innovativeness (PIB)	PIB1	If I know there is an update regarding new technology, I will try to experiment with the technology.	(An et al., 2023; Chiu et al., 2005; Ha & Im, 2014; Zhong et al., 2021)
	PIB2	I am a person who wants to try new technology compared to my friends or colleagues.	
	PIB3	I feel happy when I try new technology.	
	PIB4	I do not hesitate to try new information technologies.	
Perceived Security (PS)	PS1	Transactions using digital banking, in my opinion, are very safe	(D. J. Kim et al., 2008)
	PS2	Digital banking has adequate security functions to protect user data	
	PS3	I feel secure when using digital banking.	
	PS4	I believe digital banking is well protected.	
Trust (TS)	TS1	Digital banking can be trusted	(Acikgoz & Vega, 2022; D. J. Kim et al., 2008)
	TS2	Digital banking provides a secure way to carry out banking transactions.	
	TS3	Digital banking is competent in handling personal information.	
	TS4	The use of digital banking can be relied upon for business transactions.	
Intention to use digital banking (INDB)	INDB1	I want to use digital banking because it is more useful to support my work	(Musyaffi, Johari, et al., 2022; Zhong et al., 2021)
	INDB2	I always prioritize digital banking when making transactions.	
	INDB3	Overall, I will use digital banking when I want to make transactions.	
	INDB4	I recommend using digital banking to others.	

3.3. Data Analysis

This study uses a quantitative PLS approach to test 11 hypotheses proposed in the model framework according to the research problems. The author uses PLS because the PLS method can predict the research model so that the level of suitability of the model that the author has built can be seen. The first stage in PLS is to test the measurement model through validity and reliability testing. AVE and outer loading do data validity. While data reliability with CR and CA. After that, discriminant validity testing was carried out to ensure no collinearity. The trick is to evaluate several test methods, such as HTMT, Fornell Larker, and cross-loading. The second is a structural model to test the suitability of the model framework through testing R2, Q2, and model fit. Lastly, the t-statistic and p-value to evaluate the 11 hypotheses proposed by the researcher.

4. Result

4.1. Measurement Model

Data validity was tested using outer loading and AVE, with values recommended by Hair and Alamer, (2022) being 0.7 for outer loading and 0.5 for AVE. Based on the output of smart-pls 4, all outer loading values are above 0.7. The enormous outer loading value is 0.883 in the TS2 construct. So, based on the evaluation of the outer loading, all the constructs in this research are valid. Besides outer loading, another way is through AVE. The AVE value in this study ranged from 0.634 - 0.713, where the value was above 0.5, so it can be ascertained that each item in this study has validity according to the recommendations of Hair & Alamer (2022). After all the constructs are valid, the next step is to test the reliability of the data by evaluating CA and CR, as shown in Table 3. The most considerable CA value is in the trust construct, equal to 0.865. In comparison, the smallest CA value is 0.808 in the UDB construct. Then the CR aspect has a value ranging from 0.874 to 0.908. Based on this explanation, the CA and CR values are above 0.7, meaning all the study's constructs are reliable.

Table 3. Validity and reliability

Construct	CA	CR	AVE	Item	Outer loading	VIF
Ease of Use of digital banking (EUDB)	0.814	0.877	0.642	EUDB1	0.806	1.746
				EUDB2	0.814	1.733
				EUDB3	0.809	1.681
				EUDB4	0.775	1.565
The usefulness of Digital Banking (UDB)	0.808	0.874	0.634	UDB1	0.770	1.794
				UDB2	0.818	1.976
				UDB3	0.816	1.724
				UDB4	0.781	1.586
Personal innovativeness (PIB)	0.809	0.875	0.636	PIB1	0.791	1.675
				PIB2	0.823	1.874
				PIB3	0.755	1.562
				PIB4	0.819	1.741
Perceived Security (PS)	0.849	0.898	0.688	PS1	0.799	1.828
				PS2	0.864	2.205
				PS3	0.813	1.761
				PS4	0.840	1.955
Trust (TS)	0.865	0.908	0.713	TS1	0.820	2.008
				TS2	0.883	2.643
				TS3	0.878	2.393
				TS4	0.793	1.677

Intention to use digital banking (INDB)s	0.859	0.905	0.704	INDB1	0.867	2.450
				INDB2	0.851	2.180
				INDB3	0.858	2.302
				INDB4	0.778	1.565

The author carried out discriminant validity testing to ensure that no collinearity occurred. The Fornell Larcker evaluation is carried out through a comparison of values between constructs (for example, INDB and INDB of 0.839) with the primary construct with other constructs such as INDB and EUDB (0.546), PS (0.593), UDB (0.583), PIB (0.562), TS (0.552). The EUDB construct with EUDB has a value of 0.801, more incredible than the EUDB construct with other constructs such as PS (0.566), UDB (0.637), PIB (0.653), and TS (0.349). Then the PS construct with PS has a value of 0.829, more excellent than PS with other constructs such as UDB (0.513), PIB (0.551), and TS (0.532). The UDB construct with UDB has a value of 0.796, more excellent than other constructs such as PIB (0.609) and TS (0.464). Then the PIB construct with PIB has a value of 0.797 which is greater than the PIB construct with a TS of 0.374, so the Fornell Larcker evaluation met the established criteria.

Table 4. Discriminant validity (Fornell Larcker)

	INDB	EUDB	PS	UDB	PIB	TS
INDB	**0.839**					
EUDB	0.546	**0.801**				
PS	0.593	0.566	**0.829**			
UDB	0.583	0.637	0.513	**0.796**		
PIB	0.562	0.653	0.551	0.609	**0.797**	
TS	0.552	0.349	0.532	0.464	0.374	**0.844**

After calculating and evaluating validity and reliability, the next step is ensuring that no collinearity occurs. One of them is by calculating HTMT. The HTMT value for each construct must be below 0.9 to avoid collinearity problems (Henseler et al., 2015). The most considerable HTMT value is 0.839, below 0.9, so it can be ascertained that no collinearity occurs. In addition, the certainty that collinearity does not occur is also by looking at the VIF, where the numbers should not exceed five, and it is recommended to be below 3 (Hair & Alamer, 2022).

Table 5. Discriminant validity (HTMT)

	INDB	EUDB	PS	UDB	PIB
INDB					
EUDB	0.651				
PS	0.689	0.681			
UDB	0.693	0.776	0.612		
PIB	0.671	0.803	0.662	0.743	
TS	0.638	0.412	0.619	0.555	0.442

Table 6. Discriminant validity (Cross loading)

	INDB	EUDB	PS	UDB	PIB	TS
EUDB1	0.423	**0.806**	0.476	0.476	0.505	0.281
EUDB2	0.435	**0.814**	0.464	0.511	0.552	0.325
EUDB3	0.464	**0.809**	0.442	0.549	0.509	0.302
EUDB4	0.427	**0.775**	0.432	0.502	0.527	0.205
INDB1	**0.867**	0.455	0.497	0.479	0.459	0.457
INDB2	**0.851**	0.425	0.492	0.476	0.455	0.443

INDB3	**0.858**	0.474	0.499	0.474	0.460	0.494
INDB4	**0.778**	0.474	0.499	0.525	0.506	0.456
PIB1	0.481	0.514	0.446	0.507	**0.791**	0.358
PIB2	0.419	0.493	0.447	0.509	**0.823**	0.271
PIB3	0.424	0.482	0.405	0.416	**0.755**	0.252
PIB4	0.464	0.588	0.458	0.504	**0.819**	0.307
PS1	0.406	0.459	**0.799**	0.377	0.411	0.409
PS2	0.519	0.510	**0.864**	0.441	0.477	0.444
PS3	0.502	0.428	**0.813**	0.427	0.476	0.486
PS4	0.527	0.480	**0.840**	0.449	0.460	0.425
TS1	0.427	0.246	0.403	0.344	0.255	**0.820**
TS2	0.459	0.290	0.455	0.378	0.335	**0.883**
TS3	0.508	0.320	0.461	0.448	0.359	**0.878**
TS4	0.463	0.315	0.473	0.388	0.304	**0.793**
UDB1	0.382	0.417	0.340	**0.770**	0.382	0.393
UDB2	0.423	0.486	0.444	**0.818**	0.481	0.408
UDB3	0.504	0.614	0.445	**0.816**	0.554	0.346
UDB4	0.534	0.493	0.396	**0.781**	0.504	0.341

4.2. Structural Model

The R2 value for INDB is 0.552, meaning that the construct is affected together with the PS, EUDB, UDB, TS, and PIB constructs. Then the PIB construct's R square value shows a combined effect with EUDB of 0.426 or 42.6%. Then the PS, PIB, and EUDB constructs collectively impact UDB by 0.481 or 48.1%. At the same time, the EUDB and UDB constructs have a joint construct of TS of 21.8%. The predictive relevance (Q2) value which functions to predict the level of fit of the model with the Q2 value, must exceed zero (Hair & Alamer, 2022). The Q2 value for the INDB construct is 0.406 or 40.6%, which means a full model fit of 40.6%. Meanwhile, if viewed based on the model size that leads to UDB, PS, PIB, and EUDB have a model fit rate of 40.2%. While the TS model with EUDB and UDB only has a model fit rate of 16.8%.

Table 7. Structural model analysis with Q2 and R2

	Q^2	R Square
INDB	0.406	0.522
EUDB	0.423	0.426
UDB	0.402	0.481
TS	0.168	0.218

4.3. Hypotheses testing

This section describes the hypothesis testing, which was carried out based on the PLS output evaluation, as shown in Table 9. This study found that all eleven hypotheses had positive significance because they had a p-value below 0.05. The first hypothesis concerns UDB and INDB. Table 9 below shows the p-value in hypothesis 1 of 0.014 and has a path value of 0.114 or 11.4%. The first hypothesis is accepted with a magnitude of influence of 11.4%. Likewise, the second and third hypotheses regarding EUDB with UDB (p-value = 0.000) and TS (p-value = 0.040), which means the second and third hypotheses are accepted. Meanwhile, hypothesis 2 has a path value of 0.364 or 36.4% from the path value factor. That is a positive and significant relationship between EUDB and UDB of 36.4%. Then EUDB also significantly impacts the TS construct with an influence level of 8.9%.

The fourth and fifth hypotheses have a p-value of 0.000 and a path coefficient of 0.207 and 0.146,

respectively. This means that the fourth and fifth hypotheses can be accepted. Meanwhile, the impact between PS, INDB, and UDB was 20.7% and 14.6%, respectively. Then the sixth and seventh hypotheses regarding UDB on INDB and TS have a significant impact because they have a p-value below 0.05, which is 0.000. UDB has a positive influence of 0.187 or 18.7% on INDB. Meanwhile, UDB has a positive influence of 40.7% on the trust construct. While there is a PIB construct contained in hypotheses 8, 9, and 10 has a p-value below 0.05, so the results are also acceptable. The 8th hypothesis regarding UDB and TS has a significant positive relationship according to the path value in Table 8, namely 0.407 or 40.7%. At the same time, the path value in the 8th hypothesis regarding PIB and INDB has a value of 0.164 or 16.4%. The 10th hypothesis regarding PIB and UDB has the highest path value of 0.653 or 65.3%. Finally, the 11th hypothesis has an influence level of 0.254 or 25.4% with a p-value of 0.000. So, all the hypotheses that have been proposed have met the minimum criteria.

Table 8. Path model

	Path	P values	Decision
H1: EUDB -> INDB	0.114	0.014	H1 Significant
H2: EUDB -> UDB	0.364	0.000	H2 Significant
H3: EUDB -> TS	0.089	0.040	H3 Significant
H4: PS) -> INDB	0.207	0.000	H4 Significant
H5: PS -> UDB	0.146	0.000	H5 Significant
H6: UDB -> INDB	0.187	0.000	H6 Significant
H7: UDB -> TS	0.407	0.000	H7 Significant
H8: PIB -> INDB	0.164	0.000	H8 Significant
H9: PIB -> EUDB	0.653	0.000	H9 Significant
H10: PIB -> UDB	0.290	0.000	H10 Significant
H11: TS -> INDB	0.254	0.000	H11 Significant

5. Discussion

This research discusses the impact of trust, personal innovativeness, and security on constructs in TAM. Of the 11 hypotheses proposed, all hypotheses show a significant positive effect. The constructs that have the most extensive positive relationship are PIB and EUDB, with 65.3%. The greater the user's essential innovation ability, the easier it will be for them to learn technology. Most respondents in this study are happy and tend to try new technologies. The most crucial evidence regarding the innovativeness of users. This is because users always want to try new things, especially technology related to digital banking. Users also feel happy with the presence of digital banking technology that can answer user needs in terms of flexibility. Mohr & Kühl's research (Mohr & Kühl, 2021) found that high innovativeness can increase user ease and high perceived benefits. Previous research has shown a positive impact between the PIB constructs on INDB (Wang et al., 2020). A high level of PIB can affect users' knowledge about the technology to influence their perceptions of the convenience and usefulness of technology, which in turn increases technology adoption (Zhong et al., 2021). This is supported by previous researchers where there is a significant factor between PIB and EUDB, and UDB in the use of technology (An et al., 2023; Mohr & Kühl, 2021; Yuen et al., 2021) and causes a desire to continue using the technology (Gansser & Reich, 2021; Zhong et al., 2021).

When someone feels that the technology used is accessible and valuable, the adoption rate of the technology will be higher (Abdulla & Al-Hassani, 2022; Abu-Taieh et al., 2022; Alnemer, 2022; Musyaffi, Sulistyowati, et al., 2022; Yuen et al., 2021; Zhong et al., 2021). Therefore, convenience and usability can be improved to increase technology adoption (Shanmugavel & Micheal, 2022). This study also reveals the same thing as previous researchers, where convenience and features in digital banking make users comfortable and tend to use digital banking for every transaction in banking compared to

branch offices or tellers (Abu-Taieh et al., 2022; Gokmenoglu & Hesami, 2020; Gurendrawati et al., 2023; Hanif & Lallie, 2021; Musyaffi et al., 2021). The convenience aspect that digital banking users like the most are being able to carry out banking transaction activities flexibly, which can be done anytime. In addition, because the user interface is straightforward, it can be quickly learned. These factors make users trust and influence the use of digital banking compared to physical banks. This follows the opinion of previous research where flexibility and ease of learning are essential factors (Akinnuwesi et al., 2021; Alnemer, 2022; Al-Okaily et al., 2020; Musyaffi, Johari, et al., 2022).

Another factor with the most extraordinary relationship value is UDB and trust by 40.7%. The existence of valuable features for users will increase confidence in using digital banking. Digital banking provides a safe way to carry out banking transactions and is competent in handling personal information. Digital banking can also be relied on for business transactions, so users consistently transact through digital banking. A feature that users feel is the high flexibility so that it can be done anytime and anywhere. So that when the TS is higher, it will cause the behavior to adopt continuously increase. This is also supported by previous research where TS significantly impacts INDB (D. J. Kim et al., 2008; Todaro et al., 2023). Thus, service providers must maintain user trust to increase user adoption of digital banking. The results of this study are also evidence that in developing the TAM model, the trust construct is an important part of increasing technology adoption.

Digital banking can any transaction in banking, such as opening accounts, credit cards, mobile payments, transfers for transactions or transferring funds, paying bills, and other payments without the need to go to a branch office or go through an ATM so that it can be used flexibly and is suitable for today's users who need technology that is integrated quickly. There is support from other technologies that facilitate easy banking payments so that transactions can be done quickly. At the same time, the aspects of digital banking features that are most liked are because they look attractive. Digital banking also has better advantages than banking transactions in physical offices, such as having real-time input and output transactions. This will increase user usability and ease of use. So that it will generate user trust in digital banking technology. This study's results also follow previous research where UDB has a significant positive relationship with TS (Berakon et al., 2023; Martínez-Navalón et al., 2023; Santhanamery & Ramayah, 2018; Ventre & Kolbe, 2020).

Bank digitalization also impacts users, especially regarding security, privacy, and risk, so attention must be paid to increasing consistent use (Alkhowaiter, 2020; Windasari et al., 2022). Digital banking has two-factor authentication and biometrics to increase banking security. In addition, digital banking is considered competent in handling personal information because there is a guarantee of data protection by government regulations. Security guarantees can increase user perceptions of the features and benefits of digital banking and increase technology adoption continuously. This study is supported by previous research where there is a significant link between security and UDB (Hu et al., 2019; Putri et al., 2023; Türker et al., 2022) and INDB (Musyaffi et al., 2021; Türker et al., 2022). Thus, security also has an essential role in technology in general and in technology products such as digital banking. Features and ease of use are essential, but to grow greater levels of acceptance and adoption, of course, requires users' trust. The safer the digital banking that is used, especially the guarantee of security, the more trust in digital banking, in general, will increase. The results of this study also strengthen the security construct of the TAM model, which was also carried out by previous research (Alexandrou & Chen, 2019; Musyaffi et al., 2023; Patel & Patel, 2018, 2018). So that infrastructure strengthening, both physical and system, needs to be carried out continuously to foster trust and sustainable use from digital banking users.

6. Conclusion

This research proves that digital banking users can accept this technology well, especially regarding its features and functions that can be used flexibly. PIB is essential in increasing EUDB, in general, to increase technology adoption continuously. This means it is necessary to foster innovativeness from

users through literacy and dissemination of digital banking features and demonstrations so that users can have an attitude to try digital banking. Security is essential in increasing user perceptions, especially regarding the benefits of digital banking and the desire to use it continuously. This research also provides evidence that the constructs in TAM, namely EUDB, and UDB, significantly impact INDB. To strengthen the adoption of digital banking, convenience and usability can be improved to suit user needs. In contrast, PS has a significant impact on UDB and INDB. While EUDB and UDB significantly positively impact TS., trust becomes a link that can influence INDB.

This study contributes to developing TAM theories and models, especially in supporting the acceptance of digital banking technology in terms of trust, innovativeness, and security. The most significant factor is PIB with UDB, so service providers or banks need to increase their competitive advantage by providing trials or videos on digital banking usage so that when there is the latest update regarding digital banking, there is a desire from users to try digital banking. The functionality of digital banking is also one of the essential elements, so banks must improve innovative features and services to continue to be used. The limitation of this research is that the target respondents are only limited to general users. So that it may produce different research when it is carried out with specific respondents, for example, only from a banking or corporate perspective. In addition, research only discusses digital banking users, so different results may occur when using digital payments.

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