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Analysis of Factors Influencing Adoption to Digital Financial Services in Gen Z: An Empirical Study on Digital Bank Users in Indonesia

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Developing digital technology is changing activities in various fields, including finance. New financial services have emerged such as digital banks, peer-to-peer lending, e-wallets, fintech, and so on. At the time this research was conducted, there was a gap between the level of awareness and ownership between one digital financial platform and another. One of them is the number of monthly active digital bank users which is still relatively small in Indonesia, where currently more customer accounts are low usage or even inactive. Digital banks are a new banking business model, without branch offices and all activities are carried out online. This research analyzes the factors that influence the adoption of digital financial services in digital banks as the key to increasing the number of customer usage of digital banks. UTAUT is the theoretical basis used in this research. This research method is quantitative, where data is obtained from an online questionnaire of 220 respondents and processed using the Structural Equation Model (SEM) analysis technique with the help of the SmartPLS 4.0 application. The findings from this research show that digital literacy has a negative effect on perceived risk which then also has a negative effect on attitude towards digital financial services. On the other hand, direct interpersonal communication between bank staff and customers also increases perceived usefulness and perceived trust. Even though digital banks do not have physical offices, communication with bank staff is still necessary. Apart from that, the influence of colleagues and the surrounding environment also influences a person's level of selfefficacy in adopting digital banking.

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## 1. Introduction

The world is entering the digital era where currently change is something that is certain and inevitable. Many activities that could be done in person but can now be done through digital media or online. This can happen because of technological advances and the internet that makes it possible to connect all humans through electronic devices as an intermediary. (Ministry of Communication and Information, 2022).

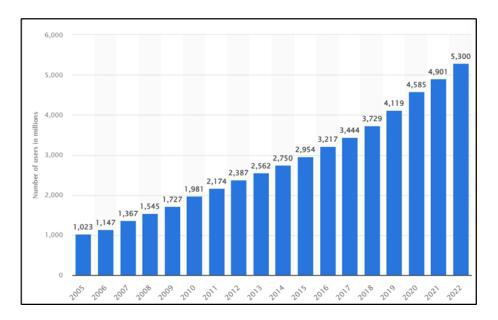


Figure 1. Number of Internet Users in the World (2005 – 2022)

Source: Statistia (2023)

The figure above shows the growth of data on the increase in internet users in the world every year. Based on Figure 1, it can be seen that in 2022 the number of internet users in the world reached 5.3 billion people, 8.1% higher than the previous year, which was 4.9 billion people in 2021.

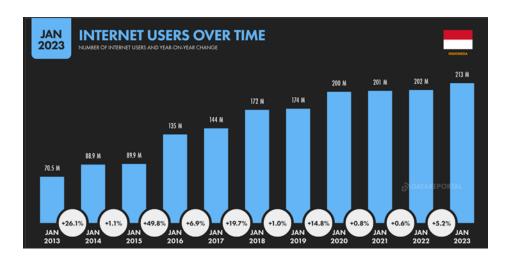


Figure 2. Internet Users in Indonesia

Source: Datareportal (2023)

This is comparable to growth Based on Figure 2, quoted from Datareportal (2023) on Internet Users in Indonesia, it can be seen that there were 213 million internet users in January 2023. This shows that the internet penetration rate in Indonesia reaches 77% of the total population in Indonesia. Statistics indicate an increase in the number of internet users in Indonesia by 10 million people or by 5.2% between 2022 and 2023.

Advances in technology and the internet have had a huge impact on almost all aspects of human life, including the financial industry. Digital transformation presents new business models and players, as well as changing consumer behavior and the economic-financial landscape. A new business model that prioritizes convenience is quickly accepted by the public and accompanied by the emergence of new players who are beginning to change the face of the financial industry (Bank Indonesia, 2020). The rapidly developing digital technology has also fundamentally changed activities in various fields. These changes include the production process in the industrial era 4.0, retail trade through e-commerce, to services in the health, education, and various other segments. From the financial sector, digital innovation has given rise to new business models, such as fintech companies that offer a variety of financial services ranging from payments, crowd-funding, peer-to-peer lending, insurance, wealth management, and so on. Digitalization also encourages new patterns of collaboration between economic actors through the sharing economy which disrupts the role of conventional financial institutions (Bank Indonesia, 2020).

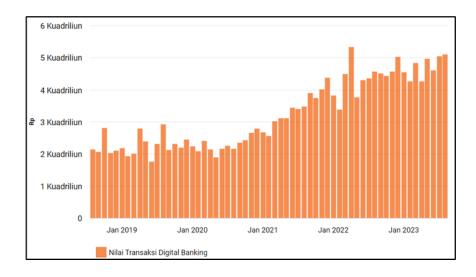


Figure 3. Value of Digital Banking Transactions in Indonesia (2018 – 2023)

Source: Databoks (2023)

Based on the data in Figure 3, throughout August 2023, the value of digital banking transactions nationally reached IDR 5,098.6 trillion or around IDR 5.1 quadrillion. This value increased by 1.3% compared to July 2023 (month-on-month), and grew by 11.9% compared to the previous year (year-on-year). This value includes various digital banking transactions or digital banking according to the classification of the Financial Services Authority (OJK), namely internet banking, SMS/mobile banking, and phone banking. This shows that the penetration of digital financial services in Indonesia continues to increase every year. According to the Regulation of Members of the Board of Governors of Bank Indonesia Number 24/7/PADG/2022, digital financial services are payment and financial system service activities carried out by Payment Service Providers that carry out activities to administer funds in the form of issuing electronic money through collaboration with third parties and using mobile-based technology facilities and devices or other digital devices for the digital economy and inclusive finance.

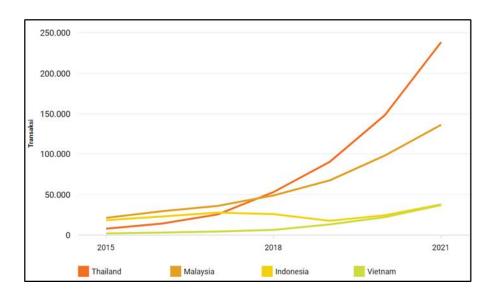


Figure 4. Frequency of Internet Banking and Mobile Banking Transactions per 1,000 Residents in ASEAN Countries

Source : Databoks (2022)

Based on the graph in Figure 4, the trend of internet banking and mobile banking transactions in Thailand has grown rapidly in the last seven years, and has beaten neighboring countries such as Malaysia, Indonesia, and Vietnam. In 2015, the volume of internet/mobile banking transactions in Thailand only amounted to 7,786 transactions per 1,000 residents. However, in 2021 the volume has risen to 238,245 transactions per 1,000 residents. Cumulatively, the volume of internet/mobile banking transactions per 1,000 residents in Thailand grew by around 2,959% during the period 2015-2021. The rapid growth trend is also seen in Malaysia and Vietnam. During the 2015-2021 period, the volume of internet/mobile banking transactions per 1,000 population in Malaysia grew by 539%, and in Vietnam it grew by 1,754%. When compared to Indonesia, the growth rate was only 106% in the same period. As a result, the frequency of internet/mobile banking transactions per 1,000 residents in Indonesia in 2021 is lower than that of Malaysia and Thailand, and is almost overtaken by Vietnam as seen in the chart. This trend shows that the digital financial sector has very promising potential. For this reason, the presence of various digital financial platforms as domestic players is expected to support the acceleration of economic growth and recovery (Ministry of Communication and Information, 2022).

Meanwhile, to encourage inclusion, the government is collaborating with Bank Indonesia in optimizing the implementation of digital payments and increasing financial inclusion. In addition to cooperation between institutions and the private sector, to develop a digital

financial economy, the government also needs public support and readiness in accelerating digital transformation. This is to minimize the impact of disruption and how every community must be able to optimize the opportunities and benefits of digital technology developments (Bank Indonesia, 2023). Financial inclusion is the availability of access to various formal financial institutions, products, and services in accordance with the needs and capabilities of the community in order to improve people's welfare (Financial Services Authority, 2016).

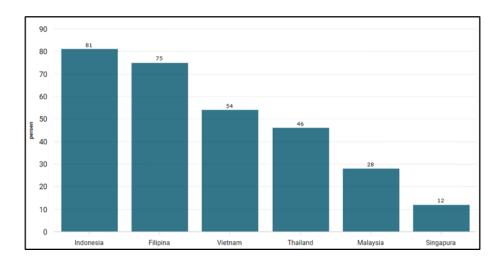


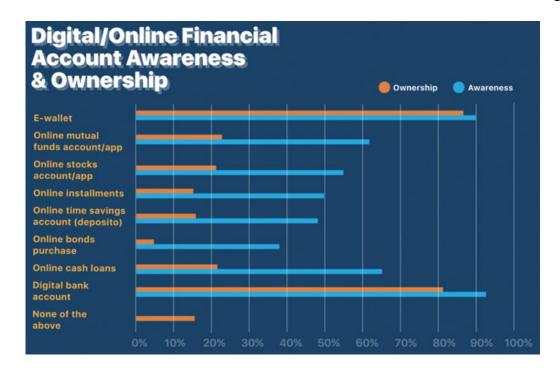
Figure 5. Percentage of People in Southeast Asia Untouched by Banking Services Source: Databoks (2022)

Based on Figure 5. quoted from research by Google, Temasek, Bain & Company (2019) there are 81% of Indonesia's bankable population who have not been served by financial services. Bankable is an individual who is of sufficient age and meets the requirements to access financial products provided by banks. Bankables are usually people who have literacy and financial skills in using financial products ranging from savings, loans, or investments (Anggini, 2022). The number of Indonesia's population classified as unbanked is relatively large, at 81% or a total of 97.7 million people, which is a great potential through a technological approach (Bank Indonesia, 2023). Unbanked is a term for individuals who are of legal age and do not have a bank account. Unbanked or can also be called unbankable is usually and or prefers to conduct financial transactions in cash (Anggini, 2022).

According to Sukiwan, Chief Business Officer of Superbank (2023), there are many underbanked customers who already know the concept of banking, but still do not fully understand how it works or have not been able to get overall banking access. For example, many customers have accounts, but are unable to apply, have loans or take advantage of the overall banking features. The potential profit could reach \$16 billion and could increase if the

underbank and underserved groups can be further empowered. (Risalah & Noor, 2023). Sukiwan (2023) assesses that there are several main challenges faced by the underbanked. Some of them are difficulties in managing their finances, difficulty in getting access to loans due to some of the limitations they have, such as uncertain income, and the impression that banks are not friendly. In addition, the way banks work, which is considered complicated, also makes the general public lose interest in the features and overall accessibility offered by banks. (Risalah & Noor, 2023).

Digital financial services (DFS) will be the next big thing, combining the number of existing mobile phone users and the country's increasing focus on the digital economy, plus the millions of Indonesians who are unbanked into the financial system. (Nisaputra, 2022) Digital financial services not only promise to accelerate economic growth in Indonesia, but will also result in significant changes in business practices and replace traditional financing methods. Digital financial services are likely to expand their reach beyond major urban centers and into rural areas, where the vast majority of unbanked and unbanked consumers are located. (Deloitte, 2015). Digital financial services are financial services that can be accessed via mobile phones (Deloitte, 2015). Digital financial services can be accessed from various digital-based financial platforms such as digital banks, e-wallets (digital wallets), banking e-channels, fintech lending, crowdfunding, payment gateways, and paylater applications (Amartha, 2022). Some types of digital financial services that are often used include: non-cash payments, savings services, loan services, investments, inter-country remittances, insurance, electricity and water bill payments, and the purchase of credit and phone data packages (Ahdiat, 2022).



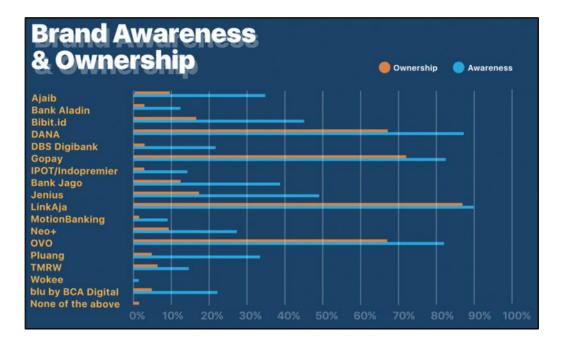
Gambar 6. Digital Financial Account Awareness & Ownership

Source : Snapcart (2022)

Based on the graph shown in Figure 6. Quoted from a survey conducted by Snapcart (2022) of 150 respondents, digital banks are the most popular with 92% of respondents feeling aware of the presence of digital banks and 82% having digital bank accounts. Followed by e-wallets with 90% of respondents feeling aware of the presence of e-wallets and 86% of respondents having e-wallet accounts. Meanwhile, online bond buying platforms are the least with 38% feeling aware and only 5% have an account on online bond platforms. With a high level of awareness of digital banks, 67% of respondents answered that they only use digital banks 2 to 3 times a week. 11% of respondents answered that they only use digital banks only once a month. This is in line with the reason why people open digital bank accounts, 58% of respondents answered because of attractive promotional offers such as free interbank transfer fees and free e-wallet top up fees. For the unbanked, digital banks can be a solution because 33% of unbanked respondents answered that the distance to the branch office was the reason for not opening a bank account.

Of the various digital banks in Indonesia, PT Bank Seabank Indonesia is listed as the digital bank with the most jumbo assets in Indonesia, far behind the others. The bank, which is controlled by Shopee's parent, Sea Limited through PT Danadipa Artha Indonesia, reported assets worth IDR 33.27 trillion as of February 2024. In the same period, the second position

was filled by Jenius with assets worth IDR 24.7 trillion. Followed by PT Bank Jago Tbk. (ARTO) with assets of IDR 21.48 trillion. Then PT Bank Neo Commerce Tbk. followed with an asset capital of IDR 18.34 trillion. Positions five, six, and seven were filled by PT Bank Digital BCA, PT Bank Raya Indonesia Tbk. (AGRO), and PT Allo Bank Indonesia Tbk. (BBHI). The assets of these three banks are IDR 13.56 trillion, IDR 12.38 trillion, and IDR 12.36 trillion, respectively. (Gaddafi, 2024).



Gambar 7. Digital Financial Brand Awareness & Ownership

Source: Snapcart (2022)

Figure 7. shows brand awareness and ownership of various digital financial platforms in Indonesia. DANA is still the platform with the most customer registration with 87% awareness and 67% ownership. One example of a digital bank, Blu by BCA, is still far below other digital financial platform brands with only 22% awareness and 5% ownership (Snapcart, 2022). It was noted that of the 947,000 Blu by BCA account holders in October 2022, only 40% were Monthly Active Users (MAUs) or active users of the digital bank itself and the rest were passive users or users who were no longer active using digital banks, because the promotions offered were starting to be limited (Hutauruk, 2022). Meanwhile, PT Bank Neo Commerce Tbk (BNC) is recorded to have nearly 20 million customers as of September 2022. Tjandra Gunawan, President Director of PT Bank Neo Commerce Tbk, revealed that monthly active users have consistently reached an average of 2.5 million to 3

million in the last three months. This means that the bank's monthly active users are only around 10%-15% (Hutauruk, 2022).

Economist at the Institute for Development of Economics and Finance (INDEF) Abdul Manap Pulungan suspects that the emergence of passive users in digital banks is due to the gradual reduction in discounts and discounts offered by the bank. After users take advantage of the promos given, people return to conventional banks that also have mobile banking features to make transactions. (Jatmiko, 2022). Meanwhile, Senior Faculty of the Indonesian Banking Development Institute (LPPI) Amin Nurdin argued that the unequal number of digital bank downloaders and users was due to public euphoria towards the digital banking industry. People are busy downloading digital bank applications to simply try out the transaction experience in the application or just to see the digital bank screen display, not for daily use. On the other hand, the digital bank ecosystem is also not too large, which makes people use mobile banking owned by conventional banks (Jatmiko, 2022).

Based on the CPAS (Consumer Payment Attutudes Study) survey in 2022, VISA found that traditional banks are still the leading choice of banks for security reasons and credit assessments, among others, 46% are afraid of their accounts being hacked, 39% are worried about unauthorized transactions or fraud, and 35% are worried about unstable networks. Meanwhile, popular reasons for sticking to traditional banks as primary banks include, 24% of credit assessments using alternative financial data, 23% feel their money is safe to store in traditional banks, and 21% feel they get good customer service, and loans can be processed and disbursed faster. (VISA, 2022). In terms of services offered, conventional banks and digital banks are not much different. Both have money withdrawal services, money transfers, credit management, deposit and investment funds, account opening, check management and transaction/financial reports. The most easily identifiable difference is that conventional banks in their operations still rely on physical offices, such as head offices and many branch offices. Meanwhile, digital banks simply have one head office, because all work can be done online (Murwani, 2023).

According to research conducted by Morgan Stanley as cited by Murwani (2023), the largest market segment of digital banks in the future will be Millennials and Gen Z. Millennials are the biggest supporters of new loan demand and will continue to occupy this position for decades to come. Meanwhile, Gen Z, who are currently children and teenagers, will also be included in the productive age group, (17-29 years old), who are ready to support the future of banking. According to Morgan Stanley, banks and financial institutions can attract more customers from this age group if banks don't just offer products. Banks must shift their focus to offering

personalized experiences, entertainment, and interactions. Banks must also be able to build emotional connections. Millennials and Gen Z have shown a desire to build deeper emotional connections.

Gen Z is a generation that has its own uniqueness. This generation was mostly born during a period of change towards digitalization, and some were born at a time when technology began to develop rapidly, so this generation has a tech-savvy character. When they use technology, they like to post whatever activity they do on social media as if they don't have any privacy or data concerns. This is what makes it interesting to further understand the character of Gen Z in the field of technology and try to answer whether they have concerns about data privacy and security in the context of digital banking (Rithmaya, Ardianto, & Sistiyarini, 2024).

Therefore, through this study, the researcher wants to analyze more deeply what factors affect users in choosing a digital bank platform in running digital financial services, so that in the future it can help digital banks to be able to increase the number of users (Ministry of Communication and Information, 2022). In conducting this study, researchers will use TPB (Theory of Planned Behavior) and TAM (Theory of Acceptance Model) as the basic theories of the research, because according to Haldar & Goel (2019) these theories are theories that can be used to understand the acceptance side of a new technology from user intentions and behaviors. The functions of the TPB (Theory of Planned Behavior) and TAM (Theory of Acceptance Model) theories are in line with the purpose of this study, which is to analyze the adoption to digital financial services.

This study aims to examine various factors that affect the adoption of digital financial services. Specific objectives include: understanding the influence of face-to-face communication on perceived usefulness and perceived trust, as well as the influence of brand awareness on perceived usefulness and perceived trust. In addition, this study wants to find out the impact of digital literacy on perceived risk, the influence of peer influence on self-efficacy, and how perceived usefulness, perceived trust, perceived risk, and self-efficacy affect attitudes towards digital financial services. This study will also examine the influence of attitudes towards digital financial services on the adoption of these services, as well as the mediating role of perceived usefulness, perceived trust, perceived risk, and self-efficacy in this relationship.

The benefits of this research are divided into two, namely academic and practical. Academically, this research aims to enrich knowledge about the factors that affect customer behavior towards digital financial services and their adoption. Practically, this research is expected to be a reference for digital finance companies to understand the factors that affect

customers' desire to use their services, help in the development of digital financial services, and become a performance evaluation tool to design the right company strategy in the future.

# 2. Method

This research uses a quantitative research method because the researcher conducts research based on existing measurements and uses an analytical approach. In addition, the type of research chosen by the researcher is causal research because the researcher wants to describe the relationship of independent variables (face-to-face communication, brand awareness, digital literacy, peer influence) to mediation variables (perceived usefulness, perceived trust, perceived risk, self-efficacy, attitude towards digital financial services), as well as the influence of mediation variables on dependent variables (adoption to digital financial services).

In this study, the researcher used primary data sources, namely data collected by the authors themselves through surveys to respondents who were included in the target population and secondary data, namely all supporting data from journals, articles, websites, and books. From the results of supporting data from journals, articles, websites, and books, the author then writes a questionnaire that will be shared.

The object of this study is the desire of users to use digital financial services provided by certain digital banks. Meanwhile, the subjects in this study are customers or users of digital banks in their daily lives. The data in this study was collected through the dissemination of questionnaires that the researcher had compiled through google forms and shared online through social media such as WhatsApp and Instagram. Researchers also went directly to the field to meet respondents who met the research criteria.

In this study, the target population is men and women who use digital financial services at digital banks in their daily lives with low usage frequency. The sample criteria in this study are as follows:

- 1. Men and women, using digital financial services in their daily digital banks
- 2. Age 17 to 29 years old (Age of Gen Z at the time of the study)
- 3. The duration of use is more than 6 (six) months
- 4. Frequency of use at least 4 (four) times in one month
- 5. Use at least 1 of the 5 digital banks with the largest market share in Indonesia (Jenius, Bank Jago, Seabank, Bank Neo Commerce, Blu by BCA)

In this study, the researcher used n x 5 observations, where the number of indicators for this study was 47 pieces, so it can be determined that the minimum number of samples to be taken in this study is as follows:  $47 \times 5 = \text{minimum } 235 \text{ respondents}$ .

# 3. Result and Discussion

#### Result

Table 1. Hypothesis Test Results

No	Hipotesis	Std.	p-values	t-values	Result
		Koefisien	(≤0,05)	(≥ 1,96)	Kesuit
1	H1: Face-to-face	0.265	0.000	4.298	Diterima
	communication has a				
	positive effect on				
	perceived usefulness				
2	H2: Face-to-face	0.364	0.000	6.318	Diterima
	communication has a				
	positive effect on				
	perceived trust				
3	H3: Brand awareness has				
	a positive effect on	0.299	0.000	4.697	Diterima
	perceived usefulness				
4	H4: Brand awareness has				
	a positive effect on	0.326	0.000	4.991	Diterima
	perceived trust				
5	H5: Digital literacy				
	negatively affects	0.228	0.004	2.868	Diterima
	perceived risk				
6	H6: Peers influence has a				
	positive effect on the	0.392	0.000	6.163	Diterima
	level of self-efficacy				

No	Hinotosis	Std.	p-values	t-values	Result
INO	Hipotesis	Koefisien	(≤0,05)	(≥ 1,96)	Result
7	H7: Perceived usefulness	0.197	0.002	3.066	Accepted
	has a positive effect on				
	attitude towards digital				
	financial services				
8	H8: Perceived trust has a	0.204	0.000	3.740	Accepted
	positive effect on attitude				
	towards digital financial				
	services				
	H9: Perceived risk		0.000	3.840	Accepted
9	negatively affect attitude	0.254			
	towards digital financial	0.254			
	services				
	H10: Self-efficacy has a	0.181	0.003	2.993	Accepted
10	positive effect on attitude				
10	towards digital financial				
	services				
	H11: Attitude towards				
	digital financial services				
11	positively influencing the	0.298	0.000	5.070	Accepted
	adoption of digital				
	financial services				
	H12: Face-to-face				
	communication				
12	positively influencing the	0.235	0.000	3.261	Accepted
	adoption of digital				
	financial services				
13	H13: Perceived usefulness	-0.116	0.209	1.255	Rejected
	has a mediating influence				
	on attitude towards				
	digital financial services				
	in adoption to digital				
	financial services				

No	Hipotesis	Std.	p-values	t-values	Result
		Koefisien	(≤0,05)	(≥ 1,96)	Kesuit
14	H14: Perceived trust does	0.038	0.665	0.433	Rejected
	not have a mediating				
	effect on attitude				
	towards digital financial				
	services in adoption to				
	digital financial services				
15	H15: Perceived risk has a	0.101	0.176	1.353	Rejected
	mediating influence on				
	attitude towards digital				
	financial services in				
	adoption to digital				
	financial services				
16	H16: Self-efficacy has a	0.064	0.373	0.891	Rejected
	mediating influence on				
	attitude towards digital				
	financial services in				
	adoption to digital				
	financial services				

Source: Researcher Data Processing (2024)

- 1. The value of the influence of the Face-to-face communication variable on perceived usefulness was 0.265 with a p-value of 0.000 (<0.05). Thus, H1 is accepted, namely Face-to-face communication has a positive effect on perceived usefulness.
- 2. The value of the influence of the Face-to-face communication variable on perceived trust was 0.364 with a p-value of 0.000 (<0.05). Thus H2 is accepted, namely Face-to-face communication has a positive effect on perceived trust.
- 3. The value of the influence of the Brand Awareness variable on perceived usefulness was 0.299 with a p-value of 0.000 (<0.05). Thus H3 is accepted, namely Brand awareness has a positive effect on perceived usefulness.
- 4. The value of the influence of the Brand Awareness variable on perceived trust is 0.326 with a p-value of 0.000 (<0.05). Thus H4 is accepted, namely Brand awareness has a positive effect on perceived trust.

- 5. The value of the influence of the Digital literacy variable on perceived risk was 0.228 with a p-value of 0.004 (<0.05). Thus, H5 is accepted, namely digital literacy has a negative effect on perceived risk.
- 6. The value of the influence of the Peers influence variable on the level of self efficacy was 0.392 with a p-value of 0.000 (<0.05). Thus H6 is accepted, namely Peers influence has a positive effect on the level of self-efficacy.
- 7. The value of the influence of the variable Perceived usefulness on attitude towards digital financial services was 0.197 with a p-value of 0.002 (<0.05). Thus, H7 is accepted, namely Perceived usefulness has a positive effect on attitude towards digital financial services.
- 8. The value of the influence of the Perceived trust variable on attitude towards digital financial services is 0.204 with a p-value of 0.000 (<0.05). Thus, H8 is accepted, namely Perceived trust has a positive effect on attitude towards digital financial services.
- 9. The value of the influence of the Perceived risk variable on attitude towards digital financial services is 0.254 with a p-value of 0.000 (<0.05). Thus, H9 is accepted, namely Perceived risk has a negative effect on attitude towards digital financial services.
- 10. The value of the influence of the Self-effivacy variable on attitude towards digital financial services is 0.181 with a p-value of 0.003 (<0.05). Thus, H10 is accepted, namely Self-effivacy has a positive effect on attitude towards digital financial services.
- 11. The value of the influence of the variable Attitude towards digital financial services on adoption to digital financial services is 0.298 with a p-value of 0.000 (<0.05). Thus, H11 is accepted, namely Attitude towards digital financial services has a positive effect on the adoption of digital financial services.
- 12. The value of the influence of the face-to-face communication variable mediation on attitude towards digital financial services in measuring adoption to digital financial services is 0.235 with a p-value of 0.000 (<0.05). Thus, H12 is accepted, namely Face-to-face communication has a positive effect on the adoption of digital financial services.
- 13. The value of the influence of the perceived usefulness variable on adoption to digital financial services was -0.116 with a p-value of 0.209 (<0.05). Thus, H13 is rejected, i.e. perceived usefulness does not have a mediating effect on attitude towards digital financial services in adoption to digital financial services

- 14. The value of the influence of the perceived trust variable on adoption to digital financial services was 0.038 with a p-value of 0.665 (<0.05). Thus, H14 is accepted, namely perceived trust does not have a mediating effect on attitude towards digital financial services in adoption to digital financial services
- 15. The value of the influence of the perceived risk variable on the adoption of digital financial services was 0.101 with a p-value of 0.176 (<0.05). Thus, H15 is rejected, i.e. perceived risk does not have a mediating effect on attitude towards digital financial services in the adoption of digital financial services
- 16. The value of the influence of the perceived trust variable on adoption to digital financial services was 0.038 with a p-value of 0.665 (<0.05). Thus, H16 is rejected, i.e. perceived trust does not have a mediating influence on attitude towards digital financial services in adoption to digital financial services.

The findings of this study are that digital banks do not have branch offices and all their activities are carried out online, direct communication between bank staff and customers is still needed because it can increase the sense of usefulness, trust and desire to use the digital bank. The role of a relationship officer in a digital bank is still necessary, especially for customers who place larger funds in digital banks

The findings of this study also show that brand awareness has an important role in increasing customer usability and trust. Digital banks need to increase promotions and carry out the commitments that have been promised so that customers are more aware of the presence of the brand of the digital bank. Digital banks can also provide education to their customers through social media, this is in line with the findings of this study that digital literacy has a role in perceived customer risk. The higher a person's digital literacy level, the lower the risk felt and customers will not be afraid to make transactions at digital banks. The role of family and friends can also affect a person's level of confidence in adopting new technology, in this case a digital bank.

Regarding the intention to use digital financial services in digital banks, the researcher found that the intention was influenced by the attitude of customers in adopting digital banks. Perceived usefulness, perceived trust, perceived risk and self-efficacy affect customer attitudes in adopting digital banks. To make customers feel useful, feel trust, minimize risk and increase self-efficacy, a digital bank can pay attention to the communication that occurs between bank staff and customers such as holding a relationship officer at a digital bank, then

by providing educational content to improve customer education as well as increase brand awareness of the digital bank. The amount of information available and easily accessible can convince customers to continue using digital banks.

#### Discussion

#### 1. The influence of face-to-face communication on perceived usefulness

Based on the test results in the table above, researchers can conclude that face-to-face communication has a positive and significant effect on perceived usefulness. This is reflected in the standard value of the coefficient of 0.265 with a p-value of 0.000. Therefore, the first hypothesis proposed in this study is accepted.

This is in line with research conducted by Huong Thi Thanh Trans James Corner (2016), which states that face-to-face communication has a significant positive influence on perceived usefulness. This study verifies that direct communication from the bank to the customer not only helps in adopting mobile banking as in the previous study, but also when adopting new technology, namely digital banking.

#### 2. The influence of face-to-face communication on perceived trust

Based on the results of the test in the table above, the researcher can conclude that face-to-face communication has a positive and significant effect on perceived trust. This is reflected in the standard value of the coefficient of 0.364 with a p-value of 0.000. Therefore, the second hypothesis proposed in this study is accepted.

This is in line with research conducted by Huong Thi Thanh Trans James Corner (2016), which states that face-to-face communication has a significant positive influence on perceived trust. This verifies that the more relevant information about banking services that customers receive from interpersonal communication, the greater the consumer trust in the banking service.

#### 3. The effect of brand awareness on perceived usefulness

Based on the results of the tests in the table above, researchers can conclude that brand awareness has a positive and significant effect on perceived usefulness. This is reflected in the standard value of the coefficient of 0.299 with a p-value of 0.000. Therefore, the third hypothesis proposed in this study is accepted

This is not in line with research conducted by Samer Elhajjar (2020) which states that brand

awareness does not have a significant impact on perceived usefulness. This happens because currently people need to know more information about a digital bank and the usefulness offered by a brand. There are promotions and collaborations carried out by a digital bank brand to present discounts for customers to increase the usability felt by customers

#### 4. The effect of brand awareness on perceived trust

Based on the results of the tests in the table above, researchers can conclude that brand awareness has a positive and significant effect on perceived trust. This is reflected in the standard value of the coefficient of 0.326 with a p-value of 0.000. Therefore, the third hypothesis proposed in this study is accepted.

This is in line with research conducted by Devon Johnson & Kent Grayson (2005) which states that buyers' assessment of a company can increase the level of consumer trust in the company. This verifies that in the digital bank sector, the level of customer awareness of a digital bank brand also increases customer trust. Digital banks need to maintain their reputation in order to continue to increase customer trust.

#### 5. The effect of digital literacy on perceived risk

Based on the results of the test in the table above, researchers can conclude that digital literacy has a negative and significant effect on perceived risk. This is reflected in the standard value of the coefficient of 0.228 with a p-value of 0.004. Therefore, the fifth hypothesis proposed in this study is accepted.

This is not in line with research conducted by Amia Luthfia et al (2021) which states that the higher a person's level of digital literacy, the more a person is aware of the risks that can occur. This happens because digital literacy carried out by digital banks and other financial institutions aims to convince the public that online transactions can be carried out with the name of a person. Digital banks can also continue to educate their customers so that they do not share confidential information such as passwords, PIN (personal identification number), CVV (card verification code) number to others.

#### 6. Peer influence effect on self-efficacy

Based on the results of the test in the table above, researchers can conclude that digital literacy has a positive and significant effect on perceived risk. This is reflected in the standard value of the coefficient of 0.228 with a p-value of 0.004. Therefore, the sixth hypothesis proposed in

#### this study is accepted

This is in line with research conducted by Johana Nyman et al (2018) which stated that interaction with peers plays an important role in the process of forming a person's self-efficacy. In the context of accepting new technology, in this case digital banks, the level of customer confidence in the use of digital banks can be influenced by the surrounding environment. Therefore, word of mouth also plays an important role in increasing a person's confidence to be able to use a digital bank.

#### 7. The influence of perceived usefulness on attitudes towards digital financial services

Based on the results of the test in the table above, the researcher can conclude that perceived usefulness has a positive and significant effect on the attitude towards digital financial services. This is reflected in the standard value of the coefficient of 0.197 with a p-value of 0.002. Therefore, the seventh hypothesis proposed in this study is accepted.

This is in line with research conducted by Meisya Nurahmasari et al (2023), which found that perceived usefulness has a positive effect on behavioral intention to adopt digital banking services. Digital banks need to pay attention to customer needs such as easier transactions, benefits obtained by customers, and ease of paying customer bills in order to increase acceptance of digital banks compared to other channels.

#### 8. The influence of perceived trust on attitudes towards digital financial services

Based on the results of the test in the table above, the researcher can conclude that perceived trust has a positive and significant effect on attitude towards digital financial services. This is reflected in the standard value of the coefficient of 0.204 with a p-value of 0.000. Therefore, the eighth hypothesis proposed in this study is accepted.

This is in line with research conducted by Thangaraj Ravikumar et al (2022), who stated that perceived trust has a significant positive impact on attitudes towards digital financial services. Digital banks need to carry out what kind of commitments have been promised to customers so that customers can trust and can increase acceptance of digital banks.

#### 9. The influence of perceived risk on attitude towards digital financial services

Based on the results of the test in the table above, the researcher can conclude that perceived risk has a negative and significant effect on the attitude towards digital financial services. This is reflected in the standard value of the coefficient of 0.254 with a p-value of 0.000. Therefore,

the ninth hypothesis proposed in this study is accepted.

This is in line with research conducted by Nguyen (2020), who stated that perceived risk has a significant negative impact on attitudes towards digital financial services. This can happen because digital banks that design security in transactions can make customers more accepting in adopting digital banks. The use of alphanumeric passwords and biometric application logins is one of the ways digital banks maintain the risks that occur. In addition, requesting an OTP code every time a customer is going to register an online debit card or credit card serves to reduce risk.

#### 10. The influence of self-efficacy on attitude towards digital financial services

Based on the results of the test in the table above, the researcher can conclude that self-efficacy has a positive and significant effect on attitude towards digital financial services. This is reflected in the standard value of the coefficient of 0.181 with a p-value of 0.003. Therefore, the tenth hypothesis proposed in this study is accepted

This is in line with research conducted by Meisya Nurahmasari et al (2023), which stated that self-efficacy has a positive effect on attude towards digital banking services. This can happen because when customers are more confident in being able to use new technology, customers are more likely to accept the presence of digital banks. Digital banks need to convince customers of the presence of new technology that can facilitate daily transactions.

11. The influence of attitude towards digital financial services on adoption of digital financial services

Based on the test results in the table above, the researcher can conclude that attitude towards digital financial services has a positive and significant effect on the adoption of digital financial services. This is reflected in the standard value of the coefficient of 0.298 with a p-value of 0.000. Therefore, the eleventh hypothesis proposed in this study is accepted.

This is in line with research conducted by Nguyen (2020), which states that attitude towards digital financial services has a positive and significant effect on the adoption of digital financial services. This can happen because customers who can accept the adoption of new technology tend to use the new technology. Digital banks certainly need to be retained so that customers can continue to use digital banks by paying attention to factors that affect a person's acceptance rate as discussed in this study.

12. The influence of face-to-face communication on adoption of digital financial services

Based on the test results in the table above, the researcher can conclude that face-to-face communication has a positive and significant effect on the adoption of digital financial services. This is reflected in the standard value of the coefficient of 0.235 with a p-value of 0.000. Therefore, the twelfth hypothesis proposed in this study is accepted

This is in line with research conducted by Huong Thi Thanh Trans James Corner (2016), which states that face-to-face communication has a significant positive influence on the intention to use mobile banking. In the context of digital banks, it can be seen that a human touch in the banking world is still needed because customers will feel more cared for, especially for customers who have more funds that can help customers' transaction and investment needs.

13. The influence of perceived usefulness on attitude towards digital financial services in adoption to digital financial services

Based on the test results in the table above, the researcher can conclude that perceived usefulness does not have a mediating effect on attitude towards digital financial services in the adoption of digital financial services. This is reflected in the standard value of the coefficient of -0.116 with a p-value of 0.209. Therefore, the thirteenth hypothesis proposed in this study is rejected.

These results are not in line with research conducted by Thangaraj Ravikumar et al (2022) which stated that the usefulness of technology perceived by customers affects the attitude towards digital financial services in measuring the level of adoption of digital financial services. This happens because there are other factors that can cause customers to continue to adopt digital financial services at digital banks.

14. The influence of perceived trust on attitude towards digital financial services in adoption to digital financial services

Based on the results of the test in the table above, the researcher can conclude that perceived trust does not have a mediating effect on the attitude towards digital financial services in the adoption of digital financial services. This is reflected in the standard value of the coefficient of 0.038 with a p-value of 0.665. Therefore, the fourteenth hypothesis proposed in this study is accepted.

This result is in line with research conducted by Nguyen (2020), which found that perceived

trust does not have a significant impact on attitude towards service in adopting digital financial services. When banks gain customer trust in digital banking services, they no longer feel insecure in using the service, and conversely, if customer trust decreases due to information or perception of insecurity or poor service quality, then banks will tend to increase customer trust levels.

15. The influence of perceived risk on attitude towards digital financial services in adoption to digital financial services

Based on the results of the test in the table above, the researcher can conclude that perceived risk does not have a mediating effect on attitude towards digital financial services in adoption to digital financial services. This is reflected in the standard value of the coefficient of 0.101 with a p-value of 0.176. Therefore, the fifteenth hypothesis proposed in this study is rejected.

This is not in line with research conducted by Ravikumar et al (2022), which stated that perceived risk significantly and positively affects changes in individual mindsets and attitudes, rather than negatively impacting during the pandemic. Customers from digital banks need to be assured of the security of transactions through digital banks. Low security risks will increase user confidence to adopt digital financial services (Kurniasari, 2021). When users feel safe, it will encourage them to use a system, in this case digital bank services. In this study, security perceptions include a sense of security in transactions and data privacy protection from hackers.

16. The influence of self-efficacy on attitude towards digital financial services in adoption to digital financial services

Based on the test results in the table above, the researcher can conclude that self-efficacy does not have a mediating effect on attitude towards digital financial services in adoption to digital financial services. This is reflected in the standard value of the coefficient of 0.064 with a p-value of 0.373. Therefore, the sixteenth hypothesis proposed in this study is rejected.

This is not in line with research conducted by Meisya Nurahmasari et al (2023), which found that self-efficacy has an indirect effect on attitude towards digital financial services in the adoption of digital financial services. When clients have a positive experience in making their first purchase using digital financial services, they are likely to adopt new digital payment methods in the future (Kurniasari, 2021).

# 4. Conclusion

Based on the results of data processing on 220 respondents' answers to the research questionnaire, it was found that 15 hypotheses were accepted and 3 hypotheses were rejected. From the analysis, it was concluded that face-to-face communication had a positive and significant influence on perceived usefulness with a standard value of 0.265 coefficient and a p-value of 0.000. This shows that customers feel helped by direct information from bank staff about the latest products, complaint handling, and transaction assistance. In addition, face-to-face communication also has a positive and significant influence on perceived trust, with a standard value of 0.364 coefficient and a p-value of 0.000, because customers are more confident in the advice given directly.

Furthermore, brand awareness also showed a positive and significant influence on perceived usefulness and perceived trust, with standard coefficient values of 0.299 and 0.326, respectively, and p-values of 0.000. This is because the reputation and awareness of digital bank brands affect trust and perception of benefits by customers. In addition, digital literacy has a negative and significant influence on perceived risk with a standard value of 0.228 coefficient and a p-value of 0.004, because good literacy about digital banks makes people more careful in sharing personal information. Peer influence also has a positive and significant effect on self-efficacy with a standard value of 0.392 coefficient and a p-value of 0.000, because people tend to be influenced by the surrounding environment in adopting something new.

Finally, perceived usefulness, perceived trust, perceived risk, and self-efficacy showed a significant influence on attitudes towards digital financial services. Perceived usefulness and perceived trust have standard coefficient values of 0.197 and 0.204, as well as p-values of 0.002 and 0.000, respectively. Perceived risk has a negative and significant influence with a standard value of 0.254 coefficient and a p-value of 0.000, while self-efficacy has a positive influence with a standard value of 0.181 and a p-value of 0.003. Attitude towards digital financial services has a positive influence on the adoption of digital financial services with a standard value of 0.298 coefficient and a p-value of 0.000. However, perceived usefulness, perceived trust, perceived risk, and self-efficacy do not have a mediating effect on the attitude towards digital financial services in the adoption of these services, indicating that there are other factors that affect this relationship.

Based on the findings of the study, the researcher provides several recommendations for the next study. First, the results of the determination coefficient (R<sup>2</sup>) test for the digital financial services adoption variable showed a value of 20.4%, indicating that 79.6% of the adoption

factors were influenced by other variables. Therefore, further research is recommended to consider factors such as discount offers, perceived costs, and marketing activities on social media. Second, the study focuses on the adoption rate of digital financial services among Gen Z people aged 17-29 years. It is suggested that future research also examine the level of usage intent among older generations, such as millennials and Gen X. Third, this study focuses on digital banks, so future research should compare the adoption of digital financial services on other platforms such as e-wallets and e-channels owned by conventional banks. Finally, the researcher recommends that future research consider moderation variables such as age, education level, and domicile to gain more comprehensive insights.

Based on the findings of the study, the researcher provides several recommendations for digital bank companies. First, face-to-face communication has been proven to have a positive and significant influence on perceived usefulness, perceived trust, and the adoption of digital financial services. Although digital banks do not have physical branch offices, they can recruit employees in the role of relationship officers to maintain customers, especially those with large funds. Second, digital banks must continue to publish and educate customers and prospective customers through various channels they have, to increase brand awareness and educate customers about the benefits of digital banks. Third, digital banks must ensure that the applications used by customers are easy to use and understood by many people, by continuing to improve the user interface and user experience through continuous research, so that applications become convenient but remain stable. Fourth, digital banks can innovate by presenting new online-based features such as instant top-up, paylater, or cash withdrawals at cardless ATMs to help customer transactions. Finally, to increase the customer base and usage level, digital banks can target specific communities and collaborate to provide appropriate banking ecosystem solutions, such as student communities at universities, gamers communities, and other online communities.

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