

Examining the Adoption of Digital Banking: Extending the UTAUT2 Model with Perceived Security and Promotion

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Abstract. Digital banking, is a financial service model that leverages digital technology and electronic channels to provide a wide range of banking and financial services to individuals, businesses, and institutions. It allows customers to access, manage, and conduct various financial transactions through online platforms, mobile applications, and other digital interfaces, eliminating the need for in-person visits to physical bank branches. Nowadays the numbers of digital banking in Jakarta have significantly increase but when it comes to selecting and adopting digital banking customers naturally have their own preferences and these preferences are certainly influenced by many factors. Therefore this study analyzed factors influencing the adoption of digital banking in Jakarta using an extended UTAUT2 model with perceived security and promotion as additional constructs. A questionnaire survey of 400 digital banking users in Jakarta was conducted. PLS-SEM analysis revealed performance expectancy, effort expectancy, hedonic motivation, perceived security, and promotion had significant positive effects on usage intention. However, facilitating condition, social influence, and habit showed non-significant effects. The moderating role of gender was supported but age and experience did not moderate any relationship. The findings provide valuable insights for banks to focus on enhancing performance, ease of use, security assurances, and promotional strategies to drive digital banking adoption.

Keywords: Digital Banking, modified UTAUT2, Private Banks, Promotion, Perceived Security

1. Introduction

The evolution of digital banking can be attributed to various factors, notably the rapid progress of technologies such as the internet, smartphones, and tablets within a decade. Moreover, there has been a shift in user expectations; contemporary users are inclined towards alterations in existing products and services as technology continues to evolve (Dasho et al., 2016).

Through digital banking, customers no longer need to visit physical branch offices for account opening and banking transactions. All these processes can be seamlessly conducted through the mobile application. Additionally, the utilization of digital banking isn't constrained by a customer's geographical location, allowing for time-saving transactions without the necessity of visiting a bank (Anbumalar et al., 2020). Making transactions through branch offices is also believed to take a long time because they have to queue for hours (Maity & Sahu, 2023).

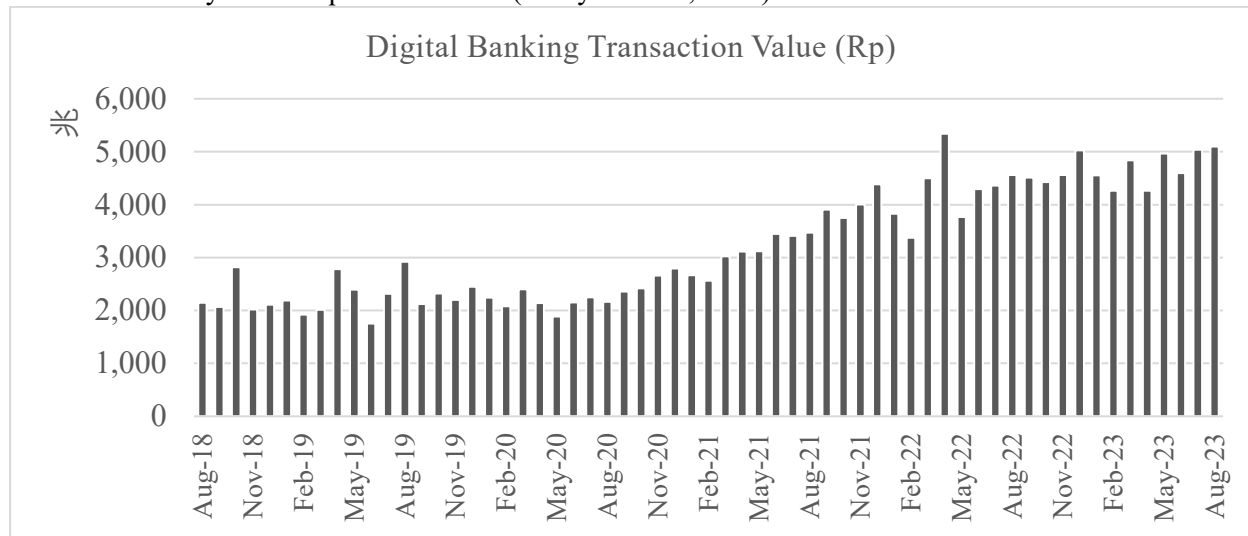


Fig 1. Digital Banking Transaction Value in Indonesia. (Ahdiat, 2023)

As of 2023, Bank Indonesia (BI) recorded that throughout the month of August 2023, the value of national digital banking transactions in Indonesia reached Rp5,098.6 trillion, or approximately Rp5.1 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)(Ahdiat, 2023). This is also attributed to the fact that digital banking provides appealing benefits when compared to traditional banks, according to (Windasari et al., 2022) digital banks offer more benefit compare to traditional banks, such as free transfer fee to other banks, no account fees, free transaction fee for withdrawal using any ATM, and offers high-interest for deposits.

While it is acknowledged that digital banking transactions in Indonesia have seen a significant increase. The information behind users' adoption of digital banking in Jakarta remain relatively limited. Previous research found that promotion have significant effect to increase transaction numbers in e-commerce (Firdausy & Fernanda, 2021), another research also found that perceived security have significant impact in adopting digital wallets (Yuliani & Amin, 2022), however these variables have not been discussed in digital banking research.

Based on above statement, there are some gaps regarding the factors influencing users in adopting digital banking in Jakarta, hence this research aims to examine:

- What factors influence customers in the adoption of digital banking?
- Is promotion and perceived security also impact customers in the adoption of digital banking in Jakarta?

This study conducted using The Unified Theory of Acceptance and Use of Technology 2 model which introduced by (Venkatesh et al., 2012). According to him the UTAUT2 model has several key

constructs: performance expectancy, effort expectancy, social influence, facilitating condition, Hedonic Motivation, Price Value, and Habit (Venkatesh et al., 2012). However this study will also use additional variables from previous research such as perceived security (Darmiasih & Setiawan, 2020), and promotion (Yuliani & Amin, 2022) to see if these two variables have significant impact on adopting digital banking in Jakarta area.

Therefore, this research aims to examining the adoption of digital banking by extending UTAUT2 model with perceived security and promotion.

2. Literature Review

2.1. Digital Banking

According to (Mufarih et al., 2020) Digital banking is a development of the mobile banking (M-Banking) feature which was previously widely used, where in mobile banking is connected via a sim card, digital banking can be directly installed on mobile phones. With digital banking, all activities can be carried out through applications anytime and anywhere (Nurahmasari et al., 2023). Digital banking aims to improve the quality of service to customers more effectively and efficiently on an daily basis (Abbas, 2020), with digital banking users do not need to visit branch offices to make transactions, and banks do not need to meet with users to process transactions such as document signatures and so on. (Nguyen, 2020).

Activities like maintaining account records, savings deposits, and credit applications can all be completed digitally. Furthermore, digital banks provide inclusive and efficient 24-hour financial services. They also entail lower administrative costs compared to conventional banks and operate within an integrated ecosystem alongside other digital enterprises (Firmansyah, 2021). As a digital platform, digital banking provides several security technology that can protect the customer from cyber-attack, for the example one of the biggest bank in Asia DBS has implemented advanced security technology such as biometric verification for account opening and soft token for transaction (DBS, 2022).

In 2022, there were at least 103 banks registered with the Financial Services Authority in Indonesia. This number is divided into 68 State-owned Commercial Banks, 27 Regional Development Banks, and 8 Foreign Banks. Out of the total 103 banks registered with the OJK, some of them have become digital banks. These banks include Bank BTPN, Bank UOB, Bank DBS, Bank Bukopin, KEB Hana Bank, BRI Agro, Bank Capital, Bank Permata, Bank QNB Indonesia, Bank MNC, Bank Neo Commerce, Bank BCA Digital, Bank BHI, Bank Jago, Bank Seabank Indonesia, and Bank Aladin (Abdi, 2022).

According to a survey involving 1,000 respondents in Indonesia, the data reveals that 10 digital banks are extensively utilized by the Indonesian population. These banks include Jago Bank, Neo Bank, Jenius, SeaBank, Blu, Line Bank, TMRW, Digibank, PermataMobile X, and Allo Bank (Pahlevi, 2022). Therefore the research will be mainly focusing on these 10 digital banking.

2.2. UTAUT

The Unified Theory of Acceptance and Use of Technology, known as UTAUT, is a theory developed by (Venkatesh et al., 2003). Combined eight distinct theories related to technology acceptance. UTAUT comprises four principal constructs that directly influence user acceptance and behavior. These four constructs include performance expectancy, effort expectancy, social influence, and facilitating conditions. UTAUT combines the features that are considered the most Successful from eight leading

pre-existing.

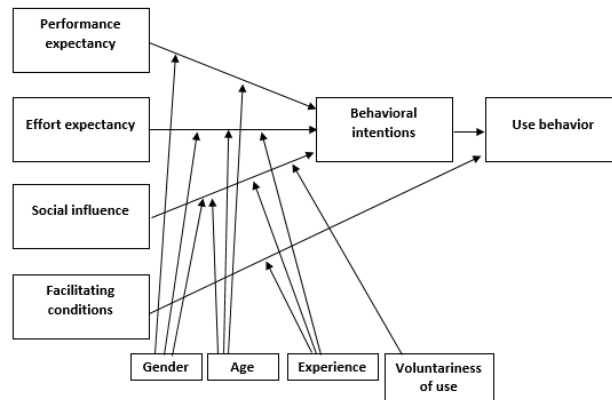


Fig 2. UTAUT Frame work (Venkatesh et al., 2003)

Theories of technology acceptance and then combines them into one. The UTAUT model is subject to the influence of various moderator variables, specifically Gender, Age, experience, and the voluntary nature of use. These moderator variables possess the capability to moderate the impact of independent variables on Behavioral Intention and Use of Behavior when adopting new technology.

Performance Expectancy

Performance expectancy is defined as the degree to which a person believes that the use of a system will help users improve work performance (Venkatesh et al., 2003). Digital banking exists to offer greater convenience, accessibility and efficiency in managing financial activities, therefore understanding how users assess the performance and anticipated benefits of digital banking services as a crucial aspect of their decision to adopt digital banking. The Performance Expectancy variable is also used to reflect the increased efficiency and convenience of payments when using digital banking, resulting in intention to use digital banking. (Widayani, 2022)

Research conducted by (Mailoa & Tjhin, 2023), which examined digital banking found performance expectancy have significant effect on behavioural intention. In addition, research conducted by (Farzin et al., 2021) with the context of mobile banking also found the same result.

Effort Expectancy

Effort expectancy is defined as the level of ease of use of the system, if the system used is easy to use then users will tend to want to use it (Bansal et al., 2022). With the emergence of digital banking, it is essential for digital banking services to be user-friendly and understandable. With that way users will continue to use it consistently. Hence, effort expectancy plays a role in the intention to use digital banking.

Research conducted by (Haroun et al., 2022), which examined internet banking found effort expectancy has significant effect on intention to use of internet banking in Sudan. In the context of digital banking, (T. T. Nguyen et al., 2020), found effort expectancy has significant effect on intention to use of digital banking in Vietnam.

Social Influence

Social influence refers to the process by which individuals or groups impact the thoughts, feelings, attitudes, and behaviors of others. It involves the way people are affected by the presence or actions of others, leading them to conform, change opinions, or adopt certain behaviors (Smith et al., 2011). The social influence of digital banking refers to the impact that social factors and interactions have on individuals' decisions and behaviors related to using digital banking services. According to (T. T. Nguyen et al., 2020) found social influences was found to have a significant impact on acceptance of

the use of digital banking in Vietnam.

Facilitating Condition

Facilitating Condition are defined as factors that determine the presence or absence of compatibility-related impediments, which may impact the use of the system (Thilina & Bandara, 2021). In the context of digital banking, banks need to ensure that users have access to necessary resources, technical support, education, and a secure and compatible infrastructure to enhance their overall acceptance and use of digital banking services.

To help user with guidance and the support, chatbots are available to assist customers in case of difficulties or questions in digital banking because chatbots are designed to replicate human language (Mulyono, 2022). Research conducted by (Augustrezcky & Damayanti, 2021), found facilitating condition has significant effect on behaviour intention among generation Z in Indonesia.

2.3. UTAUT2

UTAUT2 Incorporates three construct into UTAUT, hedonic motivation, price value and habit. Result showed that compared to UTAUT, the extension proposed in UTAUT2 produced a substantial improvement in the variance explained in behavioral intention and technology use (Chang, 2012).

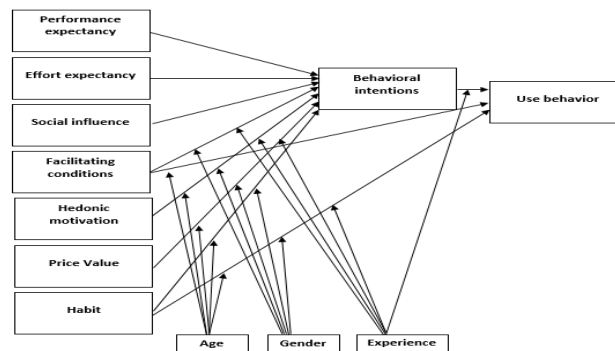


Fig 3. UTAUT 2 Framework (Venkatesh et al., 2012).

Hedonic Motivation

Hedonic Motivation is pleasure derived from the use of technology and has been shown to play an important role in determining the acceptance and use of technology (Venkatesh et al., 2012). The hedonic motivation of digital banking refers to the pleasure and enjoyment users experience when interacting with digital banking. According to (Sharif & Raza, 2019) hedonic motivation was found to have significant effect on Internet banking adoption. This result is also supported by (Suma vally & Shankar, 2020) which found hedonic motivation affect behavior intention in Hyderabad city.

Habit

Habit according to (Susilowati. Aniek, 2021) is defined as the extent to which a person performs a certain behavior automatically and repeatedly based on experience and knowledge gained over time. In the context of digital banking the concept of habit refers to the extent to which users develop routine and automatic behaviors associated with using digital banking services. According to (Septiani et al., 2020) Habits can have a direct influence on mobile banking adoption even without going through mediator variable. However, this result is also supported by (T. T. Nguyen et al., 2020) which found habit affect behavior intention in Vietnam.

2.4. UTAUT Modification

This research using modified UTAUT model which integrates perceived security and promotion as two new variables. These two variables are important factor that can influence people's interest in using digital wallets (Yuliani & Amin, 2022).

Perceived Security

Perceived security is defined as the degree of safety that users experience during using the systems (Yenisey et al., 2005). The use of security protection enabled system to maintain the security of user data that will increase trust in online transactions (Darmiasih & Setiawan, 2020). Nowadays online technology is highly vulnerable to cyber security threats such as Unencrypted Data, Malware, Spoofing, Phishing, and others (Sekhar & Kumar, 2023). Therefore to avoid user getting security attack Bank has implemented several security technology such as biometric verification for account opening and soft token for transaction (DBS, 2022). According to (Alkhowaiter, 2020) found Perceived security have significant effect on adoption of digital banking.

Promotion

Promotion refers to a form of marketing communication with the objective of disseminating information, exerting influence or persuasion, and broadening the reach of a company and its products within the market. This is done to encourage potential customers to embrace, buy, and maintain loyalty to the company's offerings (Tjiptono, 2002). With the use of Promotion, it can attract the attention of new customers as well as loyal customers to use the product.(Yuliani & Amin, 2022). The research conducted by (Yuliani & Amin, 2022) which examine digital wallets found promotion have significant effect on behavior intention. However studies examining the effect of promotion on digital banking usage in Jakarta are still very limited.

3. Research Methodology

3.1. Methodology and Hypothesis

This study conducted using UTAUT2 by (Venkatesh et al., 2012) and adding 2 more variable construct which is promotion and perceived security. The respondent of this study focused on the following characteristics:

- Digital banking users in Jakarta area (Central Jakarta, South Jakarta, East Jakarta, West Jakarta);
- User who use 10 following digital banking (Jago Bank, Neo Bank, Jenius, SeaBank, Blu, Line Bank, TMRW, Digibank, Permatamobile X, and Allo Bank);
- Age 18-50 Years old;
- Newly user to digital banking until user who have used for over 1 year.

The model used for this research is as follows:

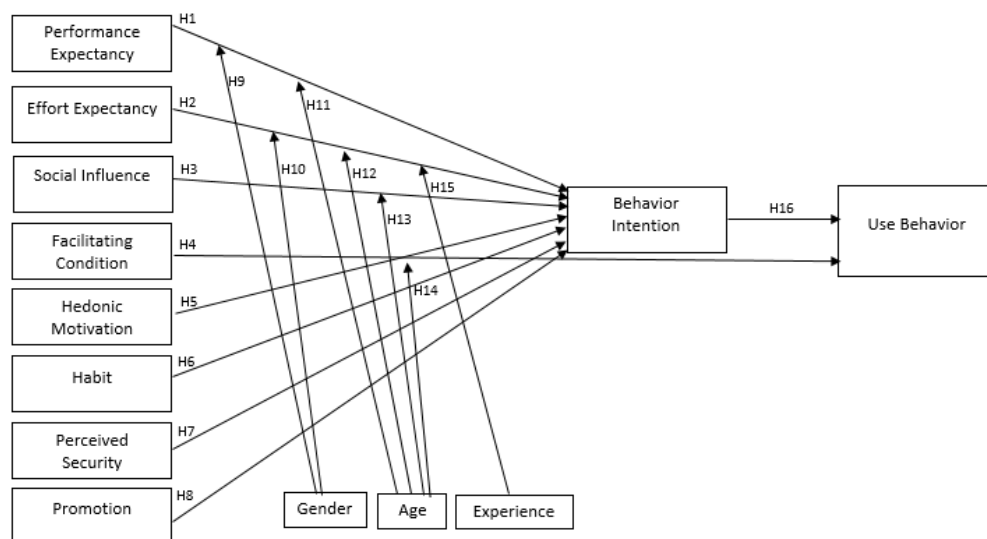


Fig 4. Research Model.

The hypothesis in this study designed as follows:

- H1: Performance Expectancy affects Behavior Intention
H2: Effort Expectancy affects Behavior Intention
H3: Social Influence Affects Behavior Intention
H4: Facilitating Condition Affects Use Behavior
H5: Hedonic Motivation Affects Behavior Intention
H6: Habit Affects Behavior Intention
H7: Perceived Security Affects Behavior Intention
H8: Promotions affect Behavior Intention
H9: Gender moderates the effect of Performance Expectancy on Behavior Intention
H10: Gender moderates the effect of Effort Expectancy on Behavior Intention
H11: Age moderates the effect of Performance Expectancy on Behavior Intention
H12: Age moderates the effect of Effort Expectancy on Behavior Intention
H13: Age moderates the influence of Social Influence on Behavior Intention
H14: Age moderates the effect of Facilitating Condition on Behavior Intention
H15: Experience moderates Effort Expectancy to Behavior Intention
H16: Behavior Intention Affects Use Behavior

3.2. Research Instrument

A questionnaire is a set of questions posed to numerous individuals, utilized to acquire essential information related to the research topic (Roopa & Rani, 2012). In this study, measurements will be conducted using a Likert scale where users can choose one out of five options, 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree) and 5 (strongly agree).

Data will be collected through a questionnaire survey by using Google Forms. The distribution will be facilitated through various channels, including messaging applications such as WhatsApp, Instagram and Email. This study comprises 10 variables and 30 indicators. The following table are the indicators and references used in the research questionnaire:

Table 1: Variables and Indicators used in the research

Variable	Indicators	Code	References
Performance Expectancy	Improve effectiveness	PE1	(Venkatesh & Davis, 2003)
	Enhance productivity	PE2	
	Simplify tasks	PE3	
Effort Expectancy	Easy to understand	EE1	(T. T. Nguyen et al., 2020; Venkatesh et al., 2003)
	Easy to be an expert	EE2	
	User friendly	EE3	
Social Influence	Influenced by social media	SI1	(T. T. Nguyen et al., 2020; Venkatesh et al., 2003)
	Influenced by surrounding environment	SI2	
	Influence by important people	SI3	
Facilitating Condition	There is a guide to use the system	FC1	(Salimon et al., 2017; Venkatesh et al., 2003)
	Individuals or group that can assist with difficulties	FC2	
	Adequate software and hardware to use the system	FC3	
Hedonic Motivation	Enjoyable	HM1	(Venkatesh, Thong, & Xu, 2012)
	Entertaining	HM2	
	Enjoyable and Entertaining	HM3	

Habit	Becoming Familiar	HB1	(T. T. Nguyen et al., 2020; Windasari et al., 2022)
	Engaging in routines activities	HB2	
	Becomes necessity	HB3	
Perceived Security	Security influence users to use the system	PS1	(Darmiasih & Setiawan, 2020; Siagian et al., 2022; Yuliani & Amin, 2022)
	Security is crucial for transaction	PS2	
	Security is important	PS3	
Promotion	Promotion influence users to use the system	PR1	(Yuliani & Amin, 2022)
	Promotion enhance the branding	PR2	
	Promotion attract new users	PR3	
Behavior Intention	Will continue for daily use	BI1	(T. T. Nguyen et al., 2020; Venkatesh et al., 2003)
	Will use when possible	BI2	
	Will recommend to others	BI3	
Use of behavior	Tasks can be easily performed	UB1	(Umami & Irawan, 2022)
	Improve performance	UB2	

3.3. Population

Population used in this study are users of digital banking applications of private banks in Jakarta. Based on the number of downloads obtained from google play, the total number of downloads of Digital Banking applications in Indonesia from the Jenius, Neobank, Digibank By DBS, TMRW, Seabank, Jago, Blu, Line Bank, Allobank, Permata Mobile X applications reached 27 million downloads. Given a total population reaching 27 million downloads and considering this figure is above 100,000 and the margin error of the sample size is 5% (95% confidence level) hence the samples size to be taken is 400 samples (Israel, 1992)

3.4. Sample

Given total sample size using in this study is 400 samples, then the proportion of sample size needed from each digital banking is calculated as follows:

Table 2: Proportion of Sample

Digital Banking	Number of Downloads from Play Store	Calculation	Sample
Jenius	5.000.000	$5.000.000/27.000.000 \times 400$	74 users
Neobank	10.000.000	$10.000.000/27.000.000 \times 400$	147 users
Digibank By DBS	1.000.000	$1.000.000/27.000.000 \times 400$	15 users
TMRW	1.000.000	$1.000.000/27.000.000 \times 400$	15 users
Seabank	1.000.000	$1.000.000/27.000.000 \times 400$	15 users
Jago	5.000.000	$5.000.000/27.000.000 \times 400$	74 users
Blu	1.000.000	$1.000.000/27.000.000 \times 400$	15 users
Line bank	1.000.000	$1.000.000/27.000.000 \times 400$	15 users
Allobank	1.000.000	$1.000.000/27.000.000 \times 400$	15 users
PermataMobile X	1.000.000	$1.000.000/27.000.000 \times 400$	15 users

3.5. Data Analysis Method

The data analysis technique in this study will use *Partial Least Square* (PLS). PLS is a predictive technique that can handle many independent variables (Ramzan & Khan, 2010). According to (Ghozali & Latan, 2014) Partial Least Squares (PLS) is an analytical approach as soft modeling due to its lack of assumption regarding the specific scale measurement of the data. This characteristic allows for the inclusion of a relatively small number of samples. For data processing, the research use SmartPLS3 application tools.

3.6. Validity and Reliability

According to (Khalid & M., 2012) validity test is used to measure whether a data has a valid value or not. The validation assessment will be considered successful if the questionnaire results align with the predefined criteria for the variables examined in the study. The standard loading factor value is above 0.7, which is better than 0.5 (Gefen et al., 2000). The AVE will be considered as accepted if the value result is greater than 0.5 (Fornell & Larcker, 1981).

Reliability testing is carried out using Cronbach alpha, where according to (Nazaruddin, Ietje and Tri Basuki, 2015) a research instrument indicates that it has sufficient reliability if the Cronbach alpha coefficient is greater than or equal to 0.70. Reliability tests are also performed with Composite Reliability (CR), these tests are integrated the same as Cronbach alpha. The Composite Reliability value can be accepted if it has a value of 0.6 to 0.7, while a value of 0.7 to 0.9 is considered a satisfactory value (Hair et al., 2017).

Furthermore, reliability testing also uses R square, which shows how much the independent variable affects the dependent variable, the number on R squared has a range of 0-1. Where values of 0-0.09 are considered low, 0.1-0.5 is considered moderate, and values of 0.51-0.99 are considered strong (Ozili, 2023).

3.7. Hypothesis Analysis

Hypothesis analysis in this study will use path coefficients which will be useful to show the direction of the relationship to variables. The value of the path coefficients is in the range of -1 to +1. A value of +1 indicates that the hypothesis has a positive relationship, while a value of -1 indicates that the hypothesis has a negative relationship (F. Hair Jr et al., 2014). This calculation is to obtain the value of T-Statistic and P-Values, which will be considered significant if the T-Statistic is above 1.96 and P-Values below 5% or 0.05 (Rick & Jasny, 2018).

4. Result and Discussion

Researcher gathered 441 respondents from digital banking across Jakarta area. However, since this study required 400 samples, then the remaining 41 respondents are not utilized. Table 1 shows the demographical result from the 400 respondents, the characteristics of the respondents are divided based on gender, age, location, and respondents' experience.

4.1. Demographical Result

Table 3: Respondent Demography

Category	Frequency	Percentage
Male	158	39%
Female	242	61%
Total	400	100%
20-25 years old	113	28%
26-35 years old	179	45%

36-45 years old	108	27%
Total	400	100%
< 3 Months	60	15%
4-8 Months	44	11%
9-12 Months	56	14%
> 1 Years	240	62%
Total	400	100%
Central Jakarta	85	21%
East Jakarta	82	21%
West Jakarta	68	17%
South Jakarta	94	24%
North Jakarta	68	17%
Total	400	100%

4.2. Validity and Reliability

The Validity Testing process is carried out by testing 400 respondent data to see whether all indicators used are valid. Validity testing is done by comparing the value of loading factors or outer loading and coefficients. The existing data will be obtained using application software called SMART PLS. If the value of loading factors is below 0.7 coefficient then the question is considered invalid while loading factors above 0.7 coefficient will be considered valid. In the table below it can be seen that all Factor Loading values have valid results.

Table 4: Validity Test Result

Construct Variable		Outer Loading	Value Limit	Result
Performance	PE1	0.924	0.700	Valid
	PE2	0.920	0.700	Valid
	PE3	0.948	0.700	Valid
Effort Expectancy (EE)	EE1	0.962	0.700	Valid
	EE2	0.979	0.700	Valid
	EE3	0.973	0.700	Valid
Social Influence (SI)	SI1	0.751	0.700	Valid
	SI2	0.836	0.700	Valid
	SI3	0.847	0.700	Valid
Facilitating Condition (FC)	FC1	0.948	0.700	Valid
	FC3	0.963	0.700	Valid
Hedonic Motivation (HM)	HM1	0.836	0.700	Valid
	HM2	0.841	0.700	Valid
	HM3	0.853	0.700	Valid
Habit (HB)	HB1	0.857	0.700	Valid
	HB2	0.896	0.700	Valid
	HB3	0.882	0.700	Valid
Perceived Security (PS)	PS1	0.916	0.700	Valid

	PS2	0.948	0.700	Valid
	PS3	0.948	0.700	Valid
Promotion (PR)	PR1	0.921	0.700	Valid
	PR2	0.931	0.700	Valid
	PR3	0.927	0.700	Valid
Behavior Intention (BI)	BI1	0.888	0.700	Valid
	BI2	0.902	0.700	Valid
	BI3	0.893	0.700	Valid
Use of Behavior (UB)	UB1	0.919	0.700	Valid
	UB2	0.914	0.700	Valid
	PE*Age	1.003	0.700	Valid
	EE*Age	1.005	0.700	Valid
	SI*Age	1.008	0.700	Valid
	FC*Age	1.005	0.700	Valid
	EE*Gender	1.001	0.700	Valid
	PE*Gender	1.005	0.700	Valid
	EE*Experience	0.998	0.700	Valid

Next is the measurement of the Average Variance Extracted (AVE) value which is used to measure the level of variance obtained by a construct then compared with the measurement error rate, values above 0.7 are declared very good while values of 0.5 are considered acceptable. It can be seen in the table below that the validity test results on AVE state valid results.

Table 5: Average Variance Extracted (AVE) Result

Variable	AVE	Limit Value	Result
Performance Expectancy	0.866	0.500	Valid
Effort Expectancy	0.943	0.500	Valid
Social Influence	0.660	0.500	Valid
Facilitating Condition	0.913	0.500	Valid
Hedonic Motivation	0.711	0.500	Valid
Habit	0.772	0.500	Valid
Perceived Security	0.879	0.500	Valid
Promotion	0.858	0.500	Valid
Behavior Intention	0.800	0.500	Valid
Use of Behavior	0.840	0.500	Valid
PE *Age	1.000	0.500	Valid
EE*Age	1.000	0.500	Valid
SI*Age	1.000	0.500	Valid
FC*Age	1.000	0.500	Valid
EE*Gender	1.000	0.500	Valid
PE*Gender	1.000	0.500	Valid
EE*Experience	1.000	0.500	Valid

The reliability testing process is carried out by looking at the value of Cronbach's Alpha, a variable that has a value of >0.70 then the variable is declared reliable. A Composite Reliability value is acceptable if it has a value of >0.6. In this study, it was seen that Composite Reliability and Cronbach's Alpha had results above 0.6.

Table 6: Reliability Result

Variable	Composite Reliability	Cronbach's Alpha	Result
Performance Expectancy	0.951	0.923	Reliable
Effort Expectancy	0.980	0.970	Reliable
Social Influence	0.853	0.741	Reliable
Facilitating Condition	0.954	0.905	Reliable
Hedonic Motivation	0.881	0.797	Reliable
Habit	0.910	0.852	Reliable
Perceived Security	0.956	0.931	Reliable
Promotion	0.948	0.917	Reliable
Behavior Intention	0.923	0.875	Reliable
Use of Behavior	0.913	0.810	Reliable
PE*Age	1.000	1.000	Reliable
EE*Age	1.000	1.000	Reliable
SI*Age	1.000	1.000	Reliable
FC*Age	1.000	1.000	Reliable
EE*Gender	1.000	1.000	Reliable
PE*Gender	1.000	1.000	Reliable
EE*Experience	1.000	1.000	Reliable

Above is the result of Path analysis in Smart PLS which is in accordance with the research hypothesis between the variables used.

4.3. Hypothesis Analysis

Below is the result of hypothesis analysis, the hypothesis result considered accepted if T-statistics value is greater than 1.96 and P-Values less than 5% or 0.05. The hypothesis analysis result is as follows:

Table 7: Hypothesis Analysis

Variable	T-statistics (O/STDEV)	P Values	Hypothesis Results
PE -> BI	3.011	0.003	H1 Accepted
EE -> BI	2.183	0.030	H2 Accepted
SI -> BI	1.340	0.181	H3 Rejected
FC -> UB	1.822	0.069	H4 Rejected
HM -> BI	3.018	0.003	H5 Accepted
Habit -> BI	0.868	0.386	H6 Rejected
PS -> BI	2.532	0.012	H7 Accepted
PR -> BI	6.011	0.000	H8 Accepted
Gender * PE ->BI	2.219	0.027	H9 Accepted
Gender * EE -> BI	2.250	0.025	H10 Accepted
Age * PE -> BI	1.539	0.125	H11 Rejected
Age * EE ->BI	1.572	0.117	H12 Rejected
Age * SI -> BI	0.733	0.464	H13 Rejected
Age * FC -> UB	0.541	0.588	H14 Rejected
E * EE -> BI	0.548	0.584	H15 Rejected
BI -> UB	32.964	0.000	H16 Accepted

H1: Performance Expectancy has significant effect on Behavior Intention

The result of H1 shows that digital banking affects the effectiveness and ease in conducting the transactions, user feels that using digital banking can enhance the productivity of its users. Hence performance expectancy has significant effect on behavior intention. This result is relevant to previous study conducted by (T. T. Nguyen et al., 2020) where performance expectancy has significant effect on behavior intention, because using digital banking help user to accomplish task more easily and faster. However the study result is inconsistent with previous study, according to (Anggraeni et al., 2021) performance expectancy does not have significant result on digital banking adoption.

H2: Effort Expectancy has significant effect on Behavior Intention

The result of H2 shows that the relationship between effort expectancy and behavior intention has significant effect. This is because digital banking is easy to use, and customers can quickly understand the digital banking application. The result in line with the research conducted by (Adenia et al., 2022; T. T. Nguyen et al., 2020) where effort expectancy affects the behavior intention of using digital banking. However according to (Augustrezcky & Damayanti, 2021) effort expectancy has no effect in adopting digital banking.

H3: Social Influence has no significant effect on Behavior Intention

The result of H3 shows that the relationship between social influence and behavior intention has no significant result. This result is in line with the research of (Augustrezcky & Damayanti, 2021) where social influence does not affects behavior intention towards the use of digital banking. In his research (Augustrezcky & Damayanti, 2021) explains that user does not follow others in terms of using digital banking, and using digital banking does not alter their social status. However, this research is not in line with the research conducted by (Anggraeni et al., 2021) where social influence does not affect behavior intention towards the use of digital banking.

H4: Facilitating conditions has no significant effect on Use of behavior

The result of H4 shows that the relationship between facilitating conditions and use of behavior has no significant result. This is in line with the research conducted (Augustrezcky & Damayanti, 2021; T. T. Nguyen et al., 2020) where facilitating conditions has no significant effect on behavior intention towards adopting digital banking. In his research (Augustrezcky & Damayanti, 2021) explain that users tends to need compatible gadget to access digital banking.

H5: Hedonic motivation has significant effect on Behavior Intention

The result of H5 shows that the relationship between hedonic motivation and behavior intention has significant result. This is in line with the research of (Suma vally & Shankar, 2020) which shows that hedonic motivation affects behavior intention towards the use of digital banking. However, this result is not in line with the research conducted by (Augustrezcky & Damayanti, 2021) where Hedonic Motivation does not affect behavior intention in the use of digital banking. In his research (Augustrezcky & Damayanti, 2021) explain that when experience increase, the impact of novelty on hedonic motivation decreases, leading customers to use new technology mainly for practical purposes, setting aside hedonic motivation.

H6: Habit has no significant effect on Behavior Intention

The result of H6 shows that the relationship between habit and behavior intention has no significant result. However this result is not in line with some research conducted by (Anggraeni et al., 2021; Nepal, 2023; T. T. Nguyen et al., 2020) where habit have significant effect on behavior intention towards the use of digital banking.

H7: Perceived Security has significant effect on Behavior Intention

The result of H7 shows that the relationship between perceived security and behavior intention has significant result. This indicates that users are interested in using digital banking because of the security provided by the bank. The presence of adequate security ensures user safety during transactions. This is in line with the research of (Darmiasih & Setiawan, 2020; Yuliani & Amin, 2022) where perceived security affects behavior intention in the context of digital wallet.

H8: Promotion has significant effect on Behavior Intention

The result of H8 shows that the relationship between promotion and behavior intention has significant result. This indicates that users' interest in digital banking is also due to the availability of attractive promotions provided by the bank. Engaging promotions can enhance branding and attract new users. This is in line with the research of (Firdausy & Fernanda, 2021; Hoang & Le, 2020; Yuliani & Amin, 2022) where promotion effects behavior intention.

H9: Gender moderating Performance Expectancy has significant effect on Behavior Intention

The result of H9 shows that the relationship between genders moderating performance expectancy on behavior intention has significant result.

H10: Gender moderating Effort Expectancy has significant effect on Behavior Intention

The result of H10 shows that the relationship between genders moderating effort expectancy on behavior intention has significant result.

H11: Age moderating Performance Expectancy has no significant effect on Behavior Intention

The result of H11 shows that the relationship between age moderating performance expectancy to behavior intention has no significant result.

H12: Age moderating Effort Expectancy has no significant effect on Behavior Intention

The result of H12 shows that the relationship between age moderating effort expectancy on behavior intention has no significant result.

H13: Age moderating Social Influence has no significant effect on Behavior Intention

The result of H13 shows that the relationship between age moderating social influence on behavior intention has no significant result.

H14: Age moderating Facilitating Condition has no significant effect on Use of Behavior

The result of H14 shows that the relationship between age moderating facilitating condition on use of behavior has no significant result.

H15: Experience moderating Effort Expectancy has no significant effect on Behavior Intention

The result of H15 shows that the relationship between experiences moderating effort expectancy on behavior intention has no significant result.

H16: Behavior Intention has significant effect on Use of Behavior

The result of H16 shows that the relationship between behavior intentions to use of behavior has significant result. This is in line with previous study conducted by (Venkatesh et al., 2003, 2012) in the context of mobile banking research, conducted by (Rahmiati et al., 2022) shows that behavior intention effect use of behavior in using mobile banking. and another research in the context of digital banking research, conducted by (Mailoa & Tjhin, 2023) shows that digital banking have significant effect of user of behavior intention towards the usage of digital banking in Indonesia.

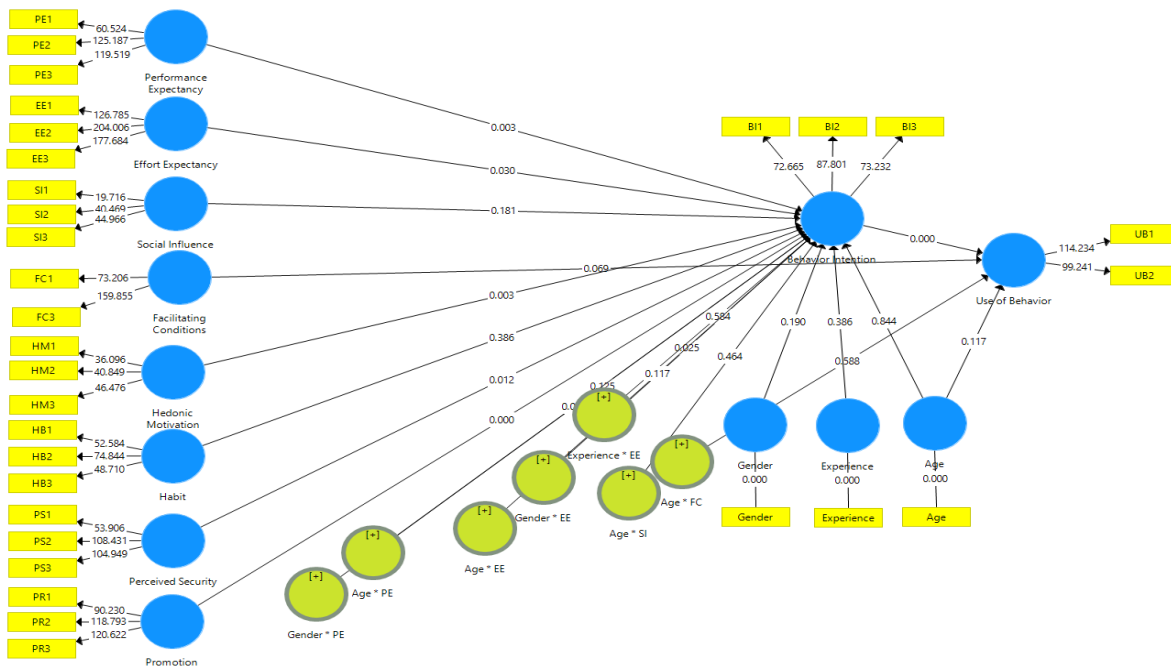


Fig 4: Path Analysis Result

5. Conclusions

This study provides empirical evidence on how performance expectancy, effort expectancy, hedonic motivation, perceived security, and promotions shape users adoption of digital banking in Jakarta. The results suggest that relevant digital banking can implement:

- Performance Expectancy has a significant influence on behavioral intention, indicating that users are inclined to use digital banking applications because they perceive them as more effective and convenient for their daily transactions. Therefore, the financial institution providing the digital banking application should continue to enhance its system to consistently facilitate user experience.
- Hedonic motivation has a significant influence on behavioral intention, indicating that the use of digital banking applications can entertain digital banking users. Therefore, it is expected that digital banking application providers continue to offer appealing applications, both in terms of user interface, to consistently enhance user enjoyment in using digital banking applications.
- Effort expectancy has a significant influence with behavioral intention, indicating that the use of digital banking applications is influenced by the ease of use and understanding of digital banking. Therefore, it is expected that digital banking continues to develop its application to consistently assist and simplify the experience for its customers.
- The intention to use digital banking is also influenced by the security of digital banking, which is a crucial factor in adopting such applications. Hence, it is hoped that banks providing digital banking applications continually uphold and enhance the existing security measures to consistently protect all user data.
- Promotions are also observed to influence users' intentions in using digital banking, as promotions can provide users with cost savings and benefits. Therefore, it is expected that banks offering digital banking applications continue to create attractive promotions in the future.

However, this research has several limitations. First, this study does not generalized to the whole digital banking population in Indonesia whereas digital banking users are widespread and distributed across various city in Indonesia. Second, this study exclusively addresses users of digital banking services offered by private banks, whereas it is known that state-owned banks in Indonesia also have their own digital banking platforms. Therefore, further research could address these gaps and covering

digital banking on a broader scale and incorporating state-owned banks in Indonesia to the study.

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