THE CENTRAL BANK DIGITAL CURRENCY: INTEGRATED MODEL IN BANKING SYSTEM

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ABSTRACT: *This study aims to propose a model for the integration of Central Bank Digital Currency into the banking system, as well as to explore the possibility of adopting this system in Indonesian society. The Partial Least Square Structural Equation Model (PLS SEM) was used based on the Unified Theory of Acceptance and Use of Technology (UTAUT), with moderating variables of age, gender, education, and experience of digital transactions using electronic money, mobile banking, and internet banking. The sample was selected based on the simple random sampling method of 300 respondents, consisting of various generations, education levels, and experiences with digital electronic money transactions. The results of the study concluded that the expectation of ease of transaction, service facilities, and behaviour towards technology influence willingness to adopt Central Bank Digital Currency. Age, gender, and experience in transacting using electronic money were found to be the most influential factors. The millennial generation is more adaptive to the implementation of Central Bank Digital Currency than Baby Boomers or Generation X. Men are also more adaptive to the use of new Central Bank Digital Currency technology, and the experience of transacting with electronic money has a significant effect on Central Bank Digital Currency adoption in Indonesian society.*

Keyword: *Digital Currency, Banking System, PLS-SEM, UTAUT*

I. INTRODUCTION

We live in an era where there is an evolution of money from gold and silver to paper money, and now it has turned into digital money issued by the central bank called Central Bank Digital Currency (CBDC). The emergence of CBDC as one of the Central Bank's efforts to control the development of cryptocurrencies that can disrupt financial system stability due to decentralized transactions and high volatility [1]. The development of cryptocurrencies puts pressure on policymakers because cryptocurrencies transactions have a negative impact on financial system stability [2]. This challenge prompted the central bank to consider issuing a CBDC [1]. This has begun to be studied by the Central Banks of Canada, China, Norway, Sweden and several other countries[1]. The Central Bank Digital Currency is electronic money issued by the central bank, which can be widely used by all economic agents in the process of buying and selling goods and services [3]. The Central Bank Digital Currency is a new type of fiat money as a result of the central bank's digital development [4]. The central bank can use the CBDC interest rate as a second monetary policy tool to influence economic liquidity and regulate monetary policy transmission [5]. Currently, several central banks are still analyzing issues related to Central Bank Digital Currency (CBDC) [3].The main thing that makes CBDC a trusted currency is its ability to ensure its value in credit authorities. In addition, electronic databases and systematic record-keeping systems assist regulators and governments in monitoring individual financial transactions, preventing fraud and ensuring the security of public transactions. CBDC assists the central bank in implementing optimal monetary policy, identifying potential problem areas, encouraging macroprudential policies to stabilize prices and the financial system [1]. The use of digital currencies in the form of CBDCs reduces central bank costs of printing money, assisting domestic and international transactions with minimum risk and low[1].The Central Bank Digital Currency (CBDC) has potential benefits [3]. Increased welfare can be achieved if the cost of using CBDC is 0.25% less than the issuance of paper money. In studies conducted in the USA and Canada, the implementation of CBDC will increase consumption by 0.12-0.21% in the USA and 0.04% - 0.07% in Canada [3]. CBDC has social value because of its ability to combine cash and deposits, among others, protect customers from the use of personal transaction data, enhance technology development. CBDC also opens up opportunities for Central Banks to monopolizeli access personal transaction data. Use of CBDC reduces transaction costs [4]. CBDCs are available 24 hours in the country's currency and can have interest rates [6]. CBDC implementation may differ in each country depending on the goals and needs of each country and the technological approach used [7]. CBDC can be done in a centralized or decentralized technology with a separation in the authorization of transaction data. CBDC provides several advantageous opportunities in maintaining monetary and financial stability. CBDC protects consumers of personal transaction data for credit assessment, is likely to evolve as technology advances. CBDC is an electronic form of money that can be used by households and businesses as medium of payment [8]. Although currently being reviewed by the Central Banks of Canada, China, Norway, and Sweden and several other countries, the adoption of CBDC in various countries is different. Emerging countries are more motivated to adopt retail CBDCs as a substitute for cash to encourage financial inclusion and the informal economy [9]. Meanwhile, developed countries prefer wholesale CBDC development to develop payment system services to the financial sector. Because the higher the financial development of a country, the higher the financial transactions so that it requires payment system innovation [10]. Retail payment systems have a complex hierarchy, including involving payment system service technology providers, which makes it difficult for the central bank to supervise [11]. Currently, there are 2 types of CBDC based on users, namely wholesale CBDC which is used in transactions between the central bank and financial institutions or financial institutions or between financial institutions. Retail CBDC is central bank electronic money that

can be accessed and used for public transactions [12]. Based on a survey conducted in 169 countries, no country has implemented CBDC in total [13]. Data shows most countries are still in the early stages of CBDC adoption. Only 10% of countries have carried out pilot projects for the widespread use of CBDCs [14]. The limitations of the wholesale payment system technology, RTGS, in terms of operational time encourage the central bank to use CBDC. Distribution Ledger Technology (DLT) in wholesale CBDC has an advantage over RTGS because this system synchronizes transactions automatically, makes it easier to trace and does not require third parties to verify, thereby speeding up the transaction process[14]. DLT also requires financial institutions to have access to information networks thereby reducing asymmetric information[15]. The main risk that must be considered from the implementation of a CBDC is that it can disrupt the intermediation system mechanism by crowding out bank deposits and increasing credit interest rates which in turn will affect the real sector contraction due to commercial bank credit[4]. CBDC may increase the role of the central bank in the allocation of economic resources, so that it can cause an economic deficit if the central bank is less efficient in allocating resources compared to the private sector [16]. Issuance of CBDC by the central bank will disrupt the money creation process by commercial banks. Sources of bank financing will be reduced due to the public's ability to reimburse deposits to CBDCs, leading to a decline in credit [4]. The type of CBDC that will be developed in Indonesia is Rupiah Digital CBDC Cash Like. The Cash Like CBDC model is a CBDC that replaces currency as a medium of exchange but does not replace it as a store of value so that physical money will still be used. Some people consider this model the most suitable for Indonesia because it can increase financial inclusion and reduce shadow banking which tends to be a challenge in developing countries. Digitization of the payment system has changed the landscape of the monetary and financial system. The Covid 19 pandemic has accelerated the growth of digital transactions [17]. However, innovations in payment systems provide new challenges for policymakers. The increase in digital transactions causes the demand for money to decrease, affect the effectiveness of monetary policy and the independence of the central bank [18]. In addition, CBDC also has the potential as a financial inclusion tools. [19] by providing easy access to the financial system. In addition, CBDCs can provide real-time data on economic activity, shifting the informal economy to a formal one and increasing the amount of tax revenue [20]. Although central banks understand the feasibility of CBDC adoption, CBDC adoption varies from country to country. There is a question what factors influence the adoption of CBDC. This study analyzes the factors that influence the adoption of CBDC in Indonesia based on internet banking and mobile banking transactions. Previous studies related to CBDC are still very descriptive [12]. This research is focused on the adoption of Central Bank Digital Currency in Indonesian society. This research uses The Unified Theory of Acceptance and Use of Technology (UTAUT) method which was designed by [21]. The construct variables used are Performance Expectancy, Effort Expectancy, Attitude Towards Technology, Self Efficacy, Facilitating Condition, Social Influence and Anxiety on Behavioral Intention and Usage. With moderating variables of age, gender, education level and intensity of use of digital banking transactions. It is hoped that this research will contribute to digital financial regulators and practitioners regarding the adoption of new Central Bank Digital Currency technology in Indonesia.

II. Research Objective

This study aims to propose a model for the integration of Central Bank Digital Currency into the banking system and the possibility of adopting the system in Indonesian society. In this study, the Partial Least Square Structured Equation Model (PLS SEM) based on the Unified Theory of Acceptance and Use Technology (UTAUT) is used with moderating variables of age, gender, and experience of electronic money transactions using mobile banking and internet banking.

III. Model Integration of CBDC in Banking System

The biggest motivation for issuing CBDCs and designing CBDCs is so that the public can use central bank digital money. In addition, the issuance of CBDC will reduce seigniorage [22]. In this case, the central bank issues a CBDC to cope with the reduced use of bank notes and paper money due to the development of payment systems in the economy [22]. Thus, the issuance of CBDCs is a response to the public's need for central bank digital money [23].

CBDC Design

Based on the types, the design of the CBDC considers three things, including: heterogeneous preferences, network effects, interest rates that apply to the CBDC [14]. Due to the absence of multilateral cross-border payments solutions, correspondent banks currently have to build banking networks and arrangements. When serving with different economic systems in different countries, correspondent banks have to work with multiple time zones and different hours of operation [14]. This increases operational complexity.

Previous research

CBDC is a popular theme that becomes an important issue in the financial system in the face of massive technological developments. Research on CBDC implementation is still widely open because in various countries CBDC implementation is still at the research stage and piloting project. However, several previous studies discussing CBDC have been carried out. [19] based on the Delphi approach ANP seeks the most acceptable strategy in issuing CBDCs in Indonesia in general related to the smooth running of the payment system. This relates to the efficiency and effectiveness of the payment system, security, risk, opportunity and cost. For Indonesia, Cash Like CBDC is the most relevant model. Cash like CBDCs have the same characteristics as traditional currencies. Apart from Cash Like CBDC also token Based CBDC, no interest bearing. According to [19]the second best model for Indonesia is direct interest bearing CBDC. CBDC minimizes shadow banking and reduces the cost of printing banknotes. The CBDC model in Indonesia is similar to the CBDC model developed by the PBOC (Peoples Bank of China) in 2020. [24] examined whether CBDC has an influence on the monopolistic system of the banking sector by using the government debt model and the bank monopoly model. CBDC has no negative effect on

bank lending activity. Competition pressures drive high deposit rates which reduce profits but expand financing for financial inclusion. A well-designed CBDC does not adversely affect financial system stability. [25] research Digital transactions are increasing due to the pandemic. Analyzing the effect of CBDC on Macroeconomics by using the New Keynesian type model. Using 4 sectors and 5 agents. Agent: household, financial investors, union, banks and consolidated government. By using friction: wages, prices, consumer habit persistence, investment adjustment costs and transaction costs for purchasing goods. [26] Design of CBDC with blockchain scheme How to design CBDC with Blockchain scheme Blockchain based CBDC schemes for central bank Bitcoin based CBDC Multiblockchan based CBDC architecture (MBDC) Legal blockchain system is more suitable for CBDC than illegal blockchain system. Legal blockchain systems are more suitable for CBDC than illegal blockchain systems. Blockchain based CBDC design chemen that is auditable and immuntability. Blockchain based CBDC design chemen that is auditable and immuntability including performance, scalability, cross chain interoperability and usage. [27] using Payment portfolio model to analyze the potential crowding out effect of CBDC. Maximum marginal utility between cash, deposits and CBDC. Economic actors choose between cash, deposits and CBDC to maximize utility and meet all needs. At a time when households choose a payment system when digital payments dominate, demand for CBDCs increases, reducing cash on hand and deposits. In times of economic panic, the issuance of CBDCs resulted in the withdrawal of funds from commercial banks. CBDC always gives a marginal utility value rather than deposits. The cash like CBDC and deposit like CBDC models provide different conclusions for different types of CBDC. This framework can be used in different cultures and economies. Or use the general equilibrium model to analyze the interaction between different economic sectors to introduce CBDC. CBDC issuance replaces physical cash and increases the efficiency of the payment system.

IV. Data and Methodology

A. Dataset

Population and Sample

In this study the population is determined based on the use of electronic transactions. 300 respondents were selected as the sample selected based on the Simple Random Sampling method. If the observation exceeds 200 respondents, it is assumed that the normal distribution has been met [28].

Data

300 respondents were used as data on the level of age, gender, education, duration of cell phone use and experience of transacting using e-money on mobile banking and internet banking.

Technique Data Collection

The data collection technique was carried out through a survey of respondents by distributing questionnaires using google form. The questionnaire distributed in the study was divided into 2 parts. The first is demographic questions regarding gender, age, education, use of digital platforms. In the second part of the questionnaire, questions were measured using a Likert scale to measure the Unified Theory of Acceptance and Use Technology (UTAUT) Model Questions in the construct using a Likert scale. The Likert scale is commonly used to measure perceptions and attitudes (Sekaran & Bougie, 2016). Likert scale points used in the study are as follows: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 Strongly Agree.

B. Methodology

Partial Least Square - Structural Equation Model

In this study used quantitative methods. The quantitative research is research that proves the hypothesis of the relationship between variables [29]. This research propose a Central Bank Digital Currency integration model to the banking system and the possibility of adopting the system in Indonesian society. In this study, the Partial Least Square Structured Equation Model (PLS SEM) based on the Unified Theory of Acceptance and Use Technology (UTAUT) developed by [30] with moderating variables of age, gender, and experience of digital transactions using mobile banking and internet banking electronic money.

Outer Model

In data analysis techniques using Partial Least Square Structured Equation Model (PLS SEM) test the outer model with validity and reliability tests. The validity test was carried out to measure the accuracy of research instruments in building concepts [29]. There are two types of validity tests carried out, including convergent validity and discriminant validity [31]. Convergent Validity indicates several indicators that represent the same construct, and describes unidimensional validity[31]. The average variance extracted (AVE) was used as a standard convergent validity value [32] . The convergent validity formula uses the average variance extracted as follows:

$$\text{AVE} = \frac{\sum_{i=1}^{n} \text{Li}^2}{n}$$

According to [31] the minimum AVE value to be recognized as having sufficient convergent validity is 0.5. Meanwhile, Discriminant Validity is a measure where two similar concepts are distinguished [33]. According to [31] cross loading is a measure that determines the value of Discriminant Validity. The latent variable has good Discriminant Validity, if the cross loading value of each indicator in one variable is greater than the cross loading value of the other latent variables [31].

Reliability

Reliability is the level of consistency of a variable in measuring what it measures [33]. According to Henseler, Ringle, & Sinkovics (2009), the main thing that was tested was internal consistency. Traditionally the standard measure of internal consistency is the cronbach alpha value, with a minimum value of 0.7 [31].

$$\text{c} = \frac{\left(\sum_{i=1}^{n} \text{Li}\right)^2}{\left(\sum_{i=1}^{n} \text{Li}\right)^2 + \left(\sum_{i=1}^{n} \text{var}\,(\text{ei})\right)^2}$$

Inner Model

The second process that must be done after testing the suitability of the outer model is testing the inner model. The inner model test carried out is goodness of fit and hypothesis testing. Goodness of fit represents the suitability of the model and a measure of whether or not the hypothesis measures the data studied [34].

Coefficient of Determinant (R-Square)

In conducting structural model analysis, the determinant coefficient (R2) is the most frequently used measure [31]. In the endogenous latent variable, the R2 value of 0.67 is high, 0.33 is moderate and 0.19 is weak [35]. To increase the accuracy of the model, in this study, a modified adjusted coefficient determinant was used.

$$R2adj = 1 - (1 - R2). \frac{n-1}{n-k-1}$$

Predictive Relevance (Q-Square)

Furthermore, to evaluate the magnitude of the R2 value as a criterion for accuracy in predicting, the Stone-Geisser's Q2 value was measured as the relevant prediction criterion. The value of Q2 must be > 0 for some endogenous latent variables which indicate the PLS model path has relevant predictions [36].

Path Coefficient

Path coefficient explains how strong the effect of one variable to another through the bootstrapping [31]. Path Coefficient estimation is evaluated based on the value of t-statistics. With the provisions, if the t-test value is above 1.96 with a significance level of 5% alpha (<0.05) then there is a positive relationship between variables. This means that the significant hypothesis is accepted [31].

In theory, there are 4 things that significantly affect user acceptance and usage behavior, including: performance expectancy, effort expectacy, social influence, and facilitating conditions. directly influence the decision to use new technology. In this study, there are 4 moderating indicators, including: gender, age, education and experiences.

Hypothesis Development

Performance expectancy

Performance expectancy is defined as the individual's level of belief that using a new technology system will help him improve performance [37]. Theoretically, there is a reason that performance expectancy will be moderated by gender and age. Research related to gender, states that men are more performance-oriented [39]. In this study, it is suspected that performance expectancy is influenced by gender and age (age) will affect the behavior of Indonesian people in accepting CBDC as a means of payment for online transactions.

H1: Performance Expectancy (PE) has a positive effect on Behavioral Intention (BI) using CBDC digital currency

H1a: Performance Expectancy (PE) has a positive effect on Behavioral Intention (BI) the use of CBDC digital currency moderated by gender

H1b: Performance Expectancy (PE) has a positive effect on Behavioral Intention (BI) the use of CBDC digital currency moderated by age

H1c: Performance Expectancy (PE) has a positive effect on Behavioral Intention (BI) of using CBDC digital currency moderated by experience of being more ready to accept the use of CBDC digital currency.

Effort Expectancy (EE)

Effort Expectancy (EE) is defined as the level of ease of use of technology [40]. Gender differences in terms of ease of use of technology are influenced by cognitive levels [41]. Increasing age also affects the difficulty and concentration when using technology [42].

H2: Effort Expectancy (EE) has a positive effect on Behavioral Intention (BI) using CBDC digital currency

H2a: Effort Expectancy (EE) has a positive effect on Behavioral Intention (BI) the use of CBDC digital currency moderated by gender

H2b: Effort Expectancy (EE) has a positive effect on Behavioral Intention (BI) the use of CBDC digital currency moderated by age

H2c: Effort Expectancy (EE) has a positive effect on Behavioral Intention (BI) in the use of CBDC digital currency, moderated by the experience of being more ready to accept the use of CBDC digital currency.

Social Influence (SI)

Social Influence (SI) is defined as the degree to which individuals perceive the factors surrounding them to suggest using technology [40].

H3 : Social Influence (SI) has a positive effect on Behavioral Intention (BI) using CBDC digital currency

H3a: Social Influence (SI) has a positive effect on Behavioral Intention (BI) the use of CBDC digital currency moderated by gender

H3b: Social Influence (SI) has a positive effect on Behavioral Intention (BI) the use of CBDC digital currency moderated by age

H3c: Social Influence (SI) has a positive effect on Behavioral Intention (BI) of using CBDC digital currency, moderated by experience of being more ready to accept the use of CBDC digital currency.

Facilitating Condition (FC)

H4 : Facilitating Condition (FC) has a positive influence on Behavioral Intention (BI)

Attitude towards technology

H5 : Attitude towards technology has a positive influence on the usage of digital currency.

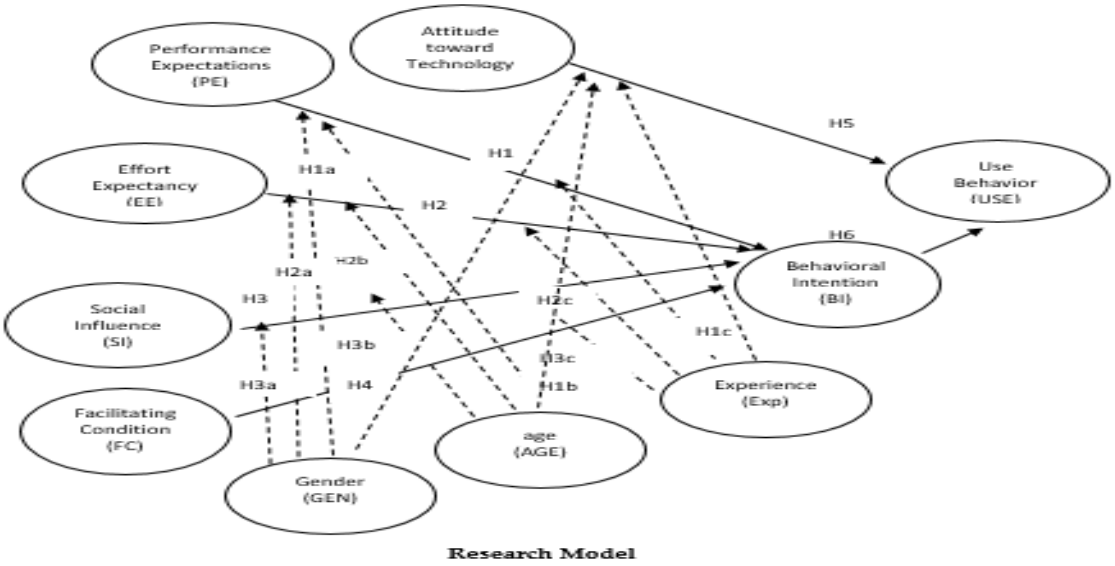
H5a: Attitude towards technology has a positive effect on Behavioral Intention (BI) using CBDC digital currency moderated by gender

H5b: Attitude towards technology has a positive effect on Behavioral Intention (BI) using CBDC digital currency, moderated by age

H5c: Attitude towards technology has a positive effect on Behavioral Intention (BI) in the use of CBDC digital currency, moderated by the experience of being more ready to accept the use of CBDC digital currency.

Behavioral Intention

H6: behavioral intention has a positive influence on the usage of digital currency.



Research Model

V. Analysis

A. Statistical features of data

Table 1. Respondents' Profile

Profile of Respondents	Frequency	Percentage (%)
Gender		
Male	209	69.67
female	91	30.33
age		
Less than 20	7	2.33
20 – 29	59	19.67
30 – 39	60	20.00
40 – 49	122	40.67
Above 50	52	17.33
Generation Type		
1946 - 1964 (Baby Boomers)	11	3.67
1965 - 1980 (Generation X)	113	37.67
1981 – 1996 (Generation Y/Millennial)	138	46.00
1997 – 2012 (Generation Z)	38	12.67
Education Level		
Professor	1	0.33
Doctoral Degree	10	3.33
Master's Degree	66	22.00
Bachelor Degree	181	60.33
high school	42	14.00
Job Position/Designation		
Lecturer	24	8.00
University Student	40	13.33
Traders	3	1.00
Civil Servant	36	12.00
Private Employee	140	46.67
Student	2	0.67
Entrepreneur	37	12.33
Jobless	18	6.00
Income Level		
Less than IDR 5 Million	104	34.67
IDR 5 – 10 Million	94	31.33
IDR 11 – 15 Million	51	17.00
IDR 16 – 20 Million	15	5.00
More than IDR 20 Million	36	12.00
Monthly Spending		
Less than IDR 5 Million	115	38.33
IDR 5 – 10 Million	119	39.67
IDR 11 – 15 Million	32	10.67

IDR 16 – 20 Million	13	4.33
More than IDR 20 Million	21	7.00
Mobile Phone Usage		
never	0	0
Less	7	2.33
sometimes	56	18.67
often	92	30.67
very often	145	48.33
E-money Transaction		
never	13	4.33
Less	25	8.33
sometimes	78	26.00
often	85	28.33
very often	99	33.00

This study uses a sample of 300 respondents with demographics based on gender, age, generation type, designation, income level, monthly spending, mobile phone usa, and E-money transactions. Based on gender, the respondents consisted of 209 men and 91 women. With a portion of 69.67% men and 30.33% women. Age of respondents in the age range of 20 to more than 50 years. Respondents in this study were dominated by men with an age range of 40-49 years, namely generation Y/millennials. In this study, we divide into 4 generations, namely Baby Boomers, Generation X, Generation Y/Millennials, and Generation Z. The respondents studied in this study were at the level of High School education to Professor. Dominance at the level of bachelor's degree education, the intensity of using mobile phones is very frequent and the experience of e-money transactions is very frequent. Based on descriptive statistics, a normality test was performed on the data that all the latent variables studied were normally distributed as seen in the Skewness and Kurtosis values below +-2.5 (Coakes & Steed, 2003). Furthermore, a multicollinearity test was carried out. Based on the multicollinearity test, it was concluded that there was no multicollinearity because the VIF value was < 5 (Hair et al., 2006). Based on the reliability test, convergent validity and discriminant validity in table 4 all latent variables have high reliability because of the composite reliability value.Cronbach's Alpha> 0.7 and has good convergent validity where the AVE value is > 0.5. All good discriminant validity because the root of AVE > correlation between latent variable indicators.

Predictable test results

Table 2. Path Coefficient

	β	σ	T Statistics	P Values
Age -> Behavioral Intention	-0.033	0.034	0.975	0.330
Attitude Toward Technology -> Behavioral Intention	0.248	0.072	3,431	0.001
Attitude*Age -> Behavioral Intention	0.040	0.085	0.466	0.641
Attitude*Exp -> Behavioral Intention	-0.060	0.075	0.802	0.423
Attitude*Gender -> Behavioral Intention	-0.162	0.073	2,200	0.028
Behavioral Intention -> Use	0.771	0.030	25.582	0.000
EE*Age -> Behavioral Intention	-0.072	0.083	0.865	0.388
EE*Exp -> Behavioral Intention	0.220	0.089	2.466	0.014
EE*Gender -> Behavioral Intention	-0.002	0.101	0.025	0.980
Effort Expectancy -> Behavioral Intention	0.089	0.100	0.890	0.374
Experience -> Behavioral Intention	0.082	0.037	2.238	0.026
Facilitating Condition -> Behavioral Intention	0.097	0.087	1.117	0.264
Gender -> Behavioral Intention	0.003	0.031	0.106	0.916
PE*Age -> Behavioral Intention	0.060	0.098	0.612	0.541
PE*Exp -> Behavioral Intention	-0.041	0.080	0.512	0.609
PE*Gender -> Behavioral Intention	0.162	0.096	1,692	0.091
Performance Expectancy -> Behavioral Intention	0.232	0.086	2,712	0.007
SI*Age -> Behavioral Intention	-0.016	0.056	0.289	0.773
SI*Exp -> Behavioral Intention	-0.054	0.052	1.031	0.303

SI*Gender -> Behavioral Intention	0.018	0.057	0.323	0.747
Social Influence -> Behavioral Intention	0.225	0.051	4.371	0.000

The theoretical SRMR value if in the range of 0.5-0.8 is good, it means that the resulting model is good for analysis. The adjusted Rsquare value on behavioral intention is 75.5% and Use is 59.5%. scoreQ² (=1-SSE/SSO) > from zero. That is equal to 0.642 for Behavioral Intention and 0.408 for Use. Based on the results of hypothesis testing, it is concluded that gender significantly moderates the relationship between Behavioral Intention and Performance Expectancy. Experience significantly moderates the relationship between Behavioral Intention and Effort Expectancy. Social Infuence without moderation has a significant effect on Behavioral Intention. Gender significantly moderates the relationship between Behavioral Intention and Attitude towards technology. Behavioral Intention has a significant effect on the Use of technology. Based on the hypothesis testing that has been done, the researcher analyzes the development of electronic money transactions in Indonesia which is depicted in graph 1.

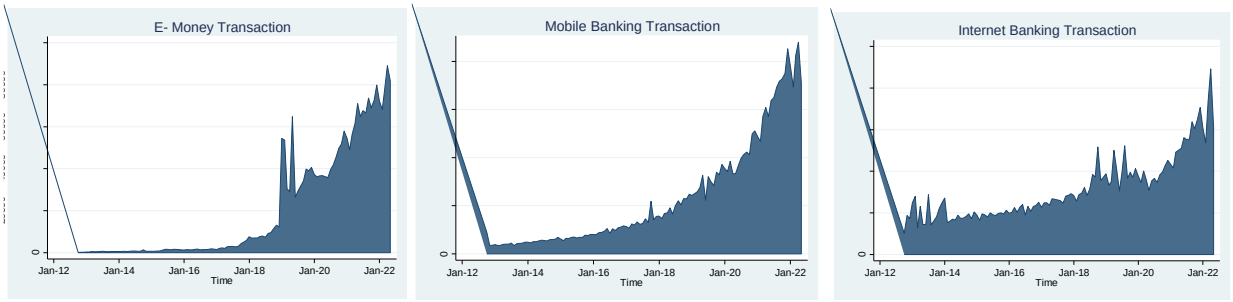


Figure 1. Electronic Money Transactions October 2012-May 2022
Source: Bank Indonesia

Payment System Statistics and Indonesian Financial System Infrastructure show the development of electronic money transactions through mobile banking and internet banking is increasing. This allows the implementation of a CBDC system that is integrated with the banking system due to the public's need for electronic money issued by the Central Bank. Issuance of electronic money by the Central Bank will control electronic transactions and maintain financial stability for the use of electronic money in the community.

VI. Conclusion and Recommendation

This study aims to propose an integration model of Central Bank Digital Currency to the banking system and the possibility of adopting the system in Indonesian society. Based on the Unified Theory of Acceptance and Use Technology (UTAUT) with moderating variables of age, gender, and experience of digital and electronic money transactions using mobile banking and internet banking, it is concluded that Gender significantly moderates the relationship between Behavioral Intention and Performance Expectancy. Experience significantly moderates the relationship between Behavioral Intention and Effort Expectancy. Social Influence has a significant effect on Behavioral Intention. Gender significantly moderates the relationship between Behavioral Intention and Attitude towards technology. Behavioral Intention has a significant effect on the Use of technology. The millennial generation is more adaptive to the implementation of CBDC than the Baby Boomers or Generation X. Men are more adaptive to the use of new CBDC technology and the experience of transacting with electronic money has a significant effect on CBDC adoption in Indonesian. In order for the implementation of CBDC to be adopted in Indonesia, we give recommendation for regulator to facilitate e-money transaction using CBDC model integrated with banking system.

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