# A Test of the Planned Behavior Theory: The Impact on Behavior in the Implementation of Central Bank Digital Currency in Indonesia

Review of Integrative Business & Economics Research

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**ABSTRACT**

This research aims to examine the theory of planned behavior (TPB) and its impact on behavior in the implementation of Central Bank Digital Currency (CBDC) in Indonesia. CBDC refers to a digital currency issued by the central bank that holds the same legal status as physical cash. The primary objective of CBDC as an alternative legal tender is to coexist harmoniously with physical currency, offering individuals the choice of CBDC as a legal tender for those who prefer digital currencies. Given the increasing reliance on technology in our daily lives, the acceptance of digital currency to facilitate transactions has become crucial for society. Therefore, understanding the factors influencing an individual's intention to adopt electronic money is of paramount importance. The research design employed in this study is quantitative with a descriptive approach. The research was conducted in Makassar City, South Sulawesi, Indonesia. The sample size was determined using Slovin's formula, with a 10% margin of error, resulting in a sample size of 99.9 samples. However, due to fractional subject numbers, it was rounded up to 100 samples. The data analysis technique used is multiple regression. To strengthen the research findings, the control variables gender, education, and age were used. The research findings indicate the following: (1) Attitude significantly and positively impacts the implementation of CBDC; (2) subjective norms have a significant negative impact on the implementation of CBDC; (3) perceived behavioral control (PBC) significantly impacts the implementation of CBDC; (4) the control variables gender, education, and age are correlated with the three TPB variables.

Keywords: Planned behavior theory, Central Bank Digital Currency.

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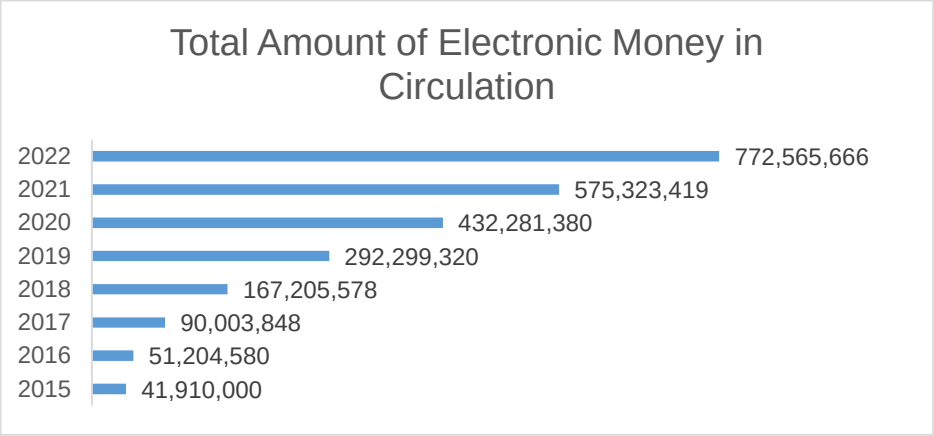
## 1. INTRODUCTION

Money holds a pivotal role in the realm of economics, serving as an indispensable economic tool. Virtually all economic undertakings are intricately intertwined with the concept of money. It functions not only as a sanctioned mode of payment within a defined geographical scope but also operates as an intermediary for the exchange of vital goods and services. As technology continues to advance, the nature and functionality of money have evolved into more streamlined manifestations.

In the contemporary digital age, a plethora of emerging fintech enterprises have introduced digital financial products, such as electronic money (e-money). This innovation empowers individuals to conduct financial transactions without the necessity for physical currency.

**Figure 1: Amount of Circulating Electronic Money.**




*Source: Bank Indonesia, 2022*

The challenges faced by the banking sector in the future are increasing, diverse, and dynamic. Banking customers moving to online banking is an inevitable trend and branch-closing has become a strategic plan of many banks (Pham et al. 2022). Recognizing these challenges, the Financial Services Authority (OJK) deems it necessary to formulate direction of banking in the future that aligns with the dynamics of the national economy and banking sector, as outlined in the Indonesian Banking Development Roadmap 2020-2025 (OJK, 2021). One alternative that can be pursued by the central bank is to promote the reform of financial transactions in Indonesia by implementing Central Bank Digital Currency (CBDC) (OJK, 2021).

CBDC is a digital currency issued by the central bank to serve as a legitimate alternative payment instrument, similar to physical cash (Kochergin et al., 2019). The purpose of CBDC as an alt ernative legal tender is for it to coexist with the existence and use of physical cash, making CBDC a legal tender option for individuals who require it. Considering the increasing dependence on technology in our lives, it is important for society to be able to use digital currency to facilitate transactions (Bank of England, 2020). As digital currency already have a vast impact on payment systems and modes of payment, the CBDC, an imperative of today and not the matter of the future (Jagrič et al, 2022). Some criticisms are that CBDC may not prioritise financial inclusion, a high price to purchase digital devices for holding a CBDC, non-interest-bearing CBDCs, the strong preference for cash over digital currency, the burdensome identification and regulatory requirements, and the imposition of transaction costs (Ozili, P.K. (2022a). Some identified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risks include digital illiteracy, increased propensity for cyber-attacks, data theft and the changing role of banks in a full-fledged CBDC economy. (Ozili, P.K. (2022b)

Considering this phenomenon, it is important to understand the factors that influence an individual's intention to use electronic money. This research utilizes the theory of planned behavior (TPB) model, which explains the most dominant factors that influence the intention to use electronic money.

The TPB consists of three main determinants: attitude, subjective norms, and perceived behavioral control (PBC). According to the TPB theory, individuals' behavior can be predicted based on their intention, which, in turn, can be predicted based on their attitude the behavior, subjective norms, and PBC (Ajzen, 1991). This provides insights into the reasons behind the behavior of individuals using electronic money, enabling policymakers, electronic money issuers, and merchants to develop strategies to enhance the usage of electronic money. This theory is applied to study the behavior of using electronic money by individuals, also referred to as electronic money consumers. The theory has been widely used to predict consumer behavior in various contexts, such as Soomro, B.A., et al (2022); Muchran, 2015; Chun-Lung Chen & Wen-Hsiang Lai (2023); Hoque, M.E., et al (2023); Tenkasi, R.(.V. and Zhang, L. (2018); Falwadiya, H. and Dhingra, S. (2022); Radic, A., Quan, at al (2022) Kim, J. J., et al (2023). Zamzami, A. H. (2020). Dinh, H. T. L., & Dinh, T. C. (2022); Bai, X. (2020); and others.

The aim of this research is to test the TPB that influences behavior in implementation of CBDC in an Indonesian city, Makassar, which is the Province of South Sulawesi. Indonesia. The city serves as a central hub in the Eastern Indonesia region, playing roles as a center for trade and services, an industrial hub, a governmental center, a transportation hub for both goods and passengers by land, sea, and air, and a center for education and healthcare services. With Makassar being a hub, the people of the city should be able to seize opportunities to harness their potential for income generation through various activities, especially in trade. Therefore, this research aims to examine the behavior of the Makassar community in response to the current developments in digital financial transactions, particularly in relation to government policies implementing CBDC in Indonesia.

## 2. LITERATUR REVIEW AND HYPOTHESIS

### 2.1 Theory of Planned Behavior (TPB)

This theory was initially called the Theory of Reasoned Action (TRA) and was developed in 1967. It has since been revised and expanded by Icek Ajzen and Martin Fishbein. From the 1980s on, the theory was used to study human behavior and develop more effective interventions. In 1988, additional elements were added to the existing TRA, resulting in the TPB, to address limitations identified by Ajzen and Fishbein through their research using TRA.

The TRA was developed to examine the relationship between attitudes and behavior (Fishbein, Ajzen, 1975; Ajzen, 1988; Werner, 2004). The main concepts in the TRA are "compatibility principles" and the concept of "behavioral intention" (Fishbein, Ajzen, 1975; Ajzen, 1988). According to principles order to predict a specific behavior directed toward a specific target in a specific context and time, specific attitudes relevant to the time, target, and context need to be assessed (Fishbein, Ajzen, 1975; Ajzen, 1988). The concept of behavioral intention suggests that the motivational desire to engage in a behavior, as defined by attitudes, influences behavior (Fishbein, Ajzen, 1975). Behavioral intention indicates how much effort an individual is willing to expend to engage in a


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behavior, with higher commitment indicating a greater likelihood of the behavior being performed. Behavioral intention is determined by attitudes and subjective norms (Fishbein, Ajzen, 1975; Ajzen, 1988). Attitude refers to an individual's perception of a specific behavior as favorable or unfavorable (Werner, 2004). Subjective norms refert to an individual's subjective judgment of the preferences and support of others regarding the behavior (Werner, 2004).

The TRA has been criticized for neglecting the importance of social factors that can be influential determinants of individual behavior in real life (Werner, 2004). Social factors encompass all environmental influences (such as individual norms) that can affect individual behavior (Ajzen, 1991). To address this limitation, Ajzen (1991) proposed an addition to the determination of individual behavior in the Theory of Planned Behavior, which is perceived behavioral control (PBC). PBC refers to an individual's perception of how easy or difficult it is to engage in a particular behavior (Ajzen, 1991). PBC indirectly influences behavior. A brief explanation of the Theory of Planned Behavior can be used to predict whether an individual will engage in a behavior or not.

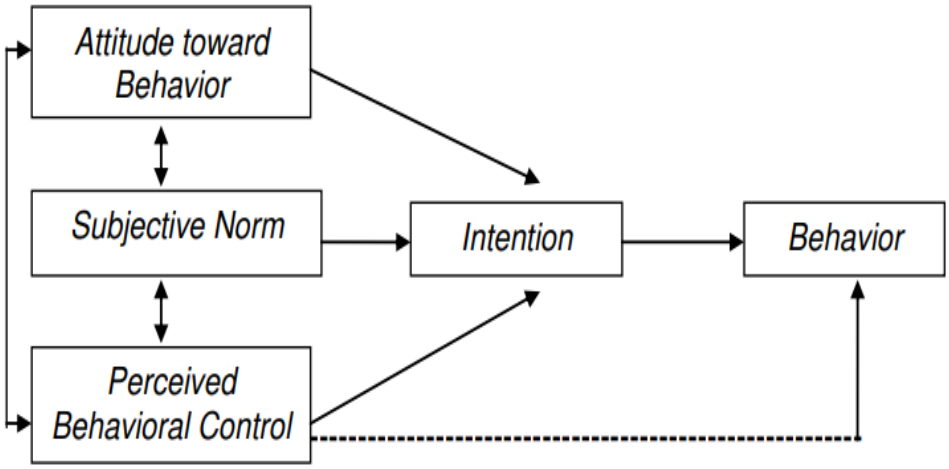


Figure 2. Theory of Planned Behavior (TPB) Framework

## 2.2 Central Bank Digital Currency (CBDC)

CBDC is a form of electronic currency issued by a central bank that can be used by the public for digital payments and storing value. The three main elements of CBDC are that it is a digital currency, issued by a central bank, and universally accessible. The emergence of CBDC may be in response to the high popularity of cryptocurrencies, where many people around the world see cryptos as the currencies of the future. However, the main issue with cryptocurrencies is their highly unstable value. This is a problem that CBDC aims to address.

Essentially, cryptocurrencies are not supported by any central authority, as they are not controllable and are decentralized. They serve as a benchmark for finance without relying on third parties, with authority residing in the cryptocurrency holders. On the other hand, governments still want to maintain their role as controllers, leading them to compete with cryptocurrencies by launching CBDCs. Similar to crypto, a CBDC also utilizes distributed ledger technology (DLT). While cryptocurrencies are not recognized as legal tender, governments acknowledge that CBDC is a legal payment


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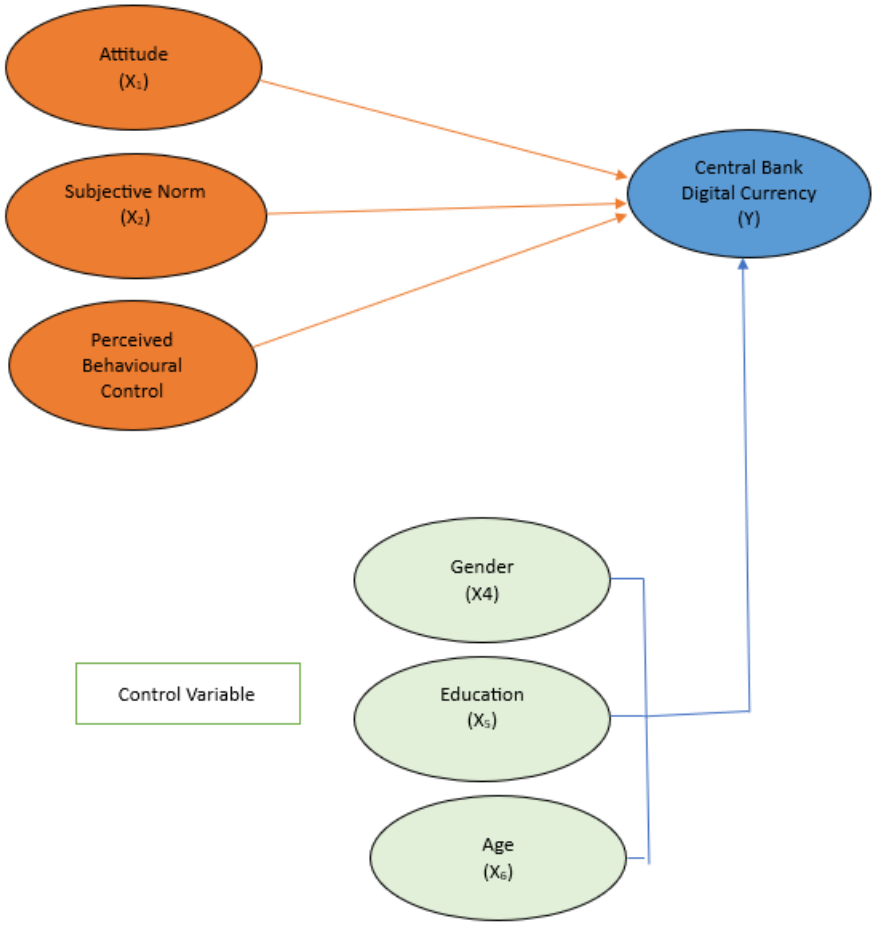
instrument within the jurisdiction of the central bank. However, the question then arises: Why should governments issue a CBDC when fiat currencies still exist?

If a country issues or creates CBDC, the government will consider the electronic currency as legal tender, just like fiat currency. In other words, CBDC and cash (fiat) are legally recognized as methods of payment and can be claimed at the central bank or government (Invesnesia.com, 2021).

Figure 3. Framework




### 2.3 Hypothesis Development

H1: Attitude, as one of the determinants of TPB, has a positive influence on the adoption of Central Bank Digital Currency.

H2: Subjective norms, as one of the determinants of TPB, has a positive influence on the adoption of Central Bank Digital Currency.

H3: Perceived behavioral control, as one of the determinants of TPB, has a positive influence on the adoption of Central Bank Digital Currency.

## 3. RESEARCH METHODOLOGY

The type of research used in this study is quantitative research with a descriptive approach. The research location where the data were obtained was Makassar City, South Sulawesi.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The sample in this study comprises people of the productive-age (15-60 years old) in the city. The sample size was determined using Slovin's formula, resulting in a sample size of 100.

The data collection technique used in the study is through a questionnaire. In this research, control variables such as gender, age, and education were also used. The equation for multiple linear regression is as follows:

$$\text{Model } Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

where:
Y = *Central Bank Digital Currency* (CBDC)
$X_1$ = Attitude
$X_2$ = Subjective Norms
$X_3$ = Perceived Behavioral Control
a = Constang
e = error (5%)

## 4. RESULTS

### Hypothesis Testing

a. First Hypothesis Testing
   Given the Sig. value for the influence of X1 on Y is 0.006 < 0.05, it can be concluded that H1 Attitude (X1) has a significant influence on the adoption of Central Bank Digital Currency (Y).
b. Second Hypothesis Testing
   Given the Sig. value for the influence of X2 on Y is 0.198 > 0.05, it can be concluded that H2 Subjective Norm (X2) does not have a significant influence on the adoption of Central Bank Digital Currency (Y).
c. Third Hypothesis Testing
   The Sig. value for the influence of X3 on Y is 0.000 < 0.05, it can be concluded that H3 Perceived Behavioral Control (X3) has a significant influence on the implementation of Central Bank Digital Currency (Y).

**Table 1. Normalitay Table**
**Tests of Normality**

| | Kolmogorov-Smirnov | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| X1 | .228 | 100 | .000 | .833 | 100 | .000 |
| X2 | .150 | 100 | .000 | .908 | 100 | .000 |
| X3 | .214 | 100 | .000 | .855 | 100 | .000 |
| Gender | .392 | 100 | .000 | .622 | 100 | .000 |
| Educ | .312 | 100 | .000 | .778 | 100 | .000 |
| Age | .243 | 100 | .000 | .830 | 100 | .000 |
| Y | .260 | 100 | .000 | .812 | 100 | .000 |

Lilliefors Significance Correction


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**Table 2. Correlation Testing**

**Correlations**

| Control Variables | | | X1 | X2 | X3 | Y | Gender | Educ | Age |
|---|---|---|---|---|---|---|---|---|---|
| -none-[a] | X1 | Correlation | 1.000 | .510 | .306 | .453 | -.010 | .019 | -.004 |
| | | Significance (2-tailed) | . | .000 | .002 | .000 | .918 | .854 | .965 |
| | | df | 0 | 98 | 98 | 98 | 98 | 98 | 98 |
| | X2 | Correlation | .510 | 1.000 | .317 | .390 | -.091 | -.162 | -.103 |
| | | Significance (2-tailed) | .000 | . | .001 | .000 | .369 | .108 | .309 |
| | | df | 98 | 0 | 98 | 98 | 98 | 98 | 98 |
| | X3 | Correlation | .306 | .317 | 1.000 | .546 | .038 | -.035 | -.064 |
| | | Significance (2-tailed) | .002 | .001 | . | .000 | .709 | .727 | .529 |
| | | df | 98 | 98 | 0 | 98 | 98 | 98 | 98 |
| | Y | Correlation | .453 | .390 | .546 | 1.000 | .019 | -.063 | -.109 |
| | | Significance (2-tailed) | .000 | .000 | .000 | . | .849 | .536 | .281 |
| | | df | 98 | 98 | 98 | 0 | 98 | 98 | 98 |
| | Gender | Correlation | -.010 | -.091 | .038 | .019 | 1.000 | -.251 | -.260 |
| | | Significance (2-tailed) | .918 | .369 | .709 | .849 | . | .012 | .009 |
| | | df | 98 | 98 | 98 | 98 | 0 | 98 | 98 |
| | Educ | Correlation | .019 | -.162 | -.035 | -.063 | -.251 | 1.000 | .777 |
| | | Significance (2-tailed) | .854 | .108 | .727 | .536 | .012 | . | .000 |
| | | df | 98 | 98 | 98 | 98 | 98 | 0 | 98 |
| | Age | Correlation | -.004 | -.103 | -.064 | -.109 | -.260 | .777 | 1.000 |
| | | Significance (2-tailed) | .965 | .309 | .529 | .281 | .009 | .000 | . |
| | | df | 98 | 98 | 98 | 98 | 98 | 98 | 0 |
| Gender & Educ & Age | X1 | Correlation | 1.000 | .525 | .306 | .455 | | | |
| | | Significance (2-tailed) | . | .000 | .002 | .000 | | | |
| | | df | 0 | 95 | 95 | 95 | | | |
| | X2 | Correlation | .525 | 1.000 | .325 | .394 | | | |
| | | Significance (2-tailed) | .000 | . | .001 | .000 | | | |
| | | df | 95 | 0 | 95 | 95 | | | |
| | X3 | Correlation | .306 | .325 | 1.000 | .543 | | | |
| | | Significance (2-tailed) | .002 | .001 | . | .000 | | | |
| | | df | 95 | 95 | 0 | 95 | | | |
| | Y | Correlation | .455 | .394 | .543 | 1.000 | | | |
| | | Significance (2-tailed) | .000 | .000 | .000 | . | | | |
| | | df | 95 | 95 | 95 | 0 | | | |

a. Cells contain zero-order (Pearson) correlations.

**Table 3. Regression Coefficients**

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| Model | B | Std. Error | Beta | t | Sig. |
| (Constant) | 2.004 | .873 | | 2.294 | .024 |
| X1 | .283 | .102 | .261 | 2.788 | .006 |
| X2 | .131 | .101 | .122 | 1.297 | .198 |
| X3 | .373 | .074 | .428 | 5.048 | .000 |

Dependent Variable: Y

## 5. DISCUSSION

In this research, the testing aimed to examine whether the three main determinants of the TPB have an influence on the implementation of CBDC. Based on the results of the hypothesis testing, it can be concluded that, in terms of partial testing, the independent variables Attitude (X1), Subjective Norms (X2), and Perceived Behavioral Control (X3)


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have an impact on the dependent variable, the implementation of Central Bank Digital Currency (Y), and the author also examined gender, age, and education as control variables.

**5.1 Attitude, as one of the determinants of the theory of planned behavior (TPB), has a positive influence on the implementation of Central Bank Digital Currency (CBDC).** Based on the analysis conducted, it was found that the attitude variable has a significant and positive partial effect on the implementation of CBDC because its significance value is smaller than the t-value, which is 0.006 < 0.05. This indicates that the better the individual's attitude towards CBDC implementation, the higher the likelihood of them adopting it.

In the TPB, attitude is one of the three main determinants of behavior. Attitude reflects an individual's evaluation of the behavior they are about to engage in. In the context of CBDC, a positive attitude reflects a favorable evaluation of using the CBDC. Factors such as financial literacy can influence this evaluation.

Individuals with higher levels of financial literacy are likely to be better at evaluating the benefits of CBDC and may feel more confident in using it. Conversely, individuals whose personality traits traits tend to be skeptical may have a more negative attitude towards CBDC, unless there are efforts made in terms of education or perception change. Therefore, a study that includes financial literacy and personality in the context of CBDC adoption could provide deeper insights into the factors influencing individuals' attitudes towards CBDC, which in turn can affect their intentions and behaviors related to CBDC adoption within the TPB framework.

In recent years, the global financial landscape has seen significant advancements and developments in CBDC initiatives by various countries. Several central banks have launched pilot projects or conducted extensive research on CBDC implementation. These ongoing efforts have resulted in new insights, regulatory changes, and technological advancements that could influence the relationship between attitude and CBDC adoption. Mendoza et al. (2023) emphasize the importance of financial literacy and certain personality traits.

Furthermore, control variables also contribute to the correlation in this research. According to the research data, gender, education, and age are capable of controlling the relationship between attitude and CBDC. The use of the control variables gender, education, and age in this research on the adoption of CBDC a crucial step in statistical analysis. These variables serve to control or minimize the potential influence of other factors that may affect the relationship between attitude and CBDC adoption.

Gender is a social and cultural factor that can influence financial behavior and technology adoption. Some studies have shown that men and women may have different attitudes and preferences regarding financial technology, including CBDC. By controlling for gender, this research can ensure that differences in CBDC adoption are not solely due to gender differences.

Education level can also affect individuals' understanding and financial literacy. Individuals with higher education may have better knowledge of CBDC and may be more prepared to adopt it. Education can also influence how individuals respond to information related to CBDC. By controlling for education, this research can understand whether CBDC adoption is more related to specific education levels.

Age can also influence attitudes and adoption of financial technology. Younger individuals may be more accustomed to digital technology and more open to innovations like CBDC. On the other hand, older individuals may have different preferences in how


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they interact with digital money. By controlling for age, this research can evaluate how age affects the relationship between attitude and CBDC adoption.

These control variables have helped researchers refine their analysis and ensure that the factors og gender, education, and age can influence the relationship between individuals' attitudes towards CBDC and the likelihood of its adoption. Therefore, the research results will be more accurate and informative, providing a deeper understanding of the factors influencing CBDC adoption in various population groups.

**5.2 Subjective norms, as one of the determinants of the theory of planned behavior (TPB), have a positive influence on the implementation of Central Bank Digital Currency (CBDC).**

Based on the analysis conducted, it was found that the subjective norms variable does not have a partial and significant influence on the implementation of CBDC as the significance value is larger than the t-value, which is 0.198 > 0.05. This indicates that the opinions and views of important individuals around the respondents, referred to as social pressure regarding the use of digital currency, do not significantly influence individuals to adopt it.

In this study, subjective norms were measured as the opinions and views of important individuals surrounding the respondents, which can be considered to be social pressure influencing individuals' decisions regarding the use of digital currency. However, the analysis results indicate that the influence of subjective norms is not significant in driving CBDC adoption in the current conditions.

The lack of significance can be attributed to several factors. First, in the rapidly evolving context, society may have varied perceptions regarding the use of digital currency. Subjective norms only reflect the views of a limited number of important individuals around the respondents, and these views may not represent the opinions of the majority of the whole society. Second, other factors such as government regulations, security and privacy concerns, and the level of technological skills in society can also play a role in CBDC adoption. Uncertainties or concerns related to these factors may diminish the influence of subjective norms in individuals' decision-making regarding CBDC.

In this context, it is important to conduct further research to gain a deeper understanding of the factors influencing subjective norms regarding CBDC usage in the current conditions. The use of the control variables gender, education, and age in research on the relationship between subjective norms and the adoption of CBDC is an important strategy to gain a deeper understanding of the factors influencing subjective norms and how these factors correlate with CBDC adoption.

Gender can influence subjective norms in two main ways. First, subjective norms can be influenced by different social views and expectations related to gender. Second, gender can also affect social interactions and an individual's network. By controlling for gender variables, the research identifies that gender correlates with the relationship between subjective norms and CBDC.

Education level can impact subjective norms through two primary mechanisms. First, individuals with higher education may have better access to information and understanding of CBDC, which can influence their views and the views of significant others around them. Second, education level can also affect social networks and social influence. Higher education can open access to different networks and have implications for subjective norms. By controlling for education variables, this research identifies a correlation between education level and subjective norms related to CBDC.

Age can influence subjective norms because individuals' experiences, values, and perspectives may change with age. Younger individuals may be more open to technological


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innovations, and their views may be more influenced by the subjective norms of peers. Conversely, older individuals may have more conservative views. By controlling for age variables, the research identifies a correlation between age and the relationship between subjective norm and CBDC.

Through the use of these control variables, the research can more accurately measure the contribution of subjective norms to CBDC adoption and understand the role they play in individual decision-making. Furthermore, these control variables also help this research to gain deeper insights into how the factors of gender, education, and age can influence subjective norms regarding CBDC in diverse populations.

**5.3 Perceived behavioral control (PBC), as one of the determinants of the theory of planned behavior (TPB), has a positive influence on the implementation of Central Bank Digital Currency (CBDC).**

Based on the analysis conducted, it was found that the variable of PBC has a partial and significant influence on the implementation of CBDC as the significance value is smaller than the t-value, which is $0.001 < 0.05$. This indicates that in predicting behavioral intention, perceived control over behavior has a high level of accuracy.

The significant influence of PBC on the adoption of CBDC suggests that individuals' perception of their control over using electronic money plays a crucial role in their intention to adopt CBDC. When individuals perceive a higher level of control over their behavior related to electronic money usage, such as ease of use, security, and familiarity with the digital payment system, they are more likely to embrace CBDC.

This finding aligns with previous research on the TPB and the adoption of digital financial technologies. Studies have consistently shown that individuals' perceived control over their behavior strongly affects their intention to adopt new technologies. In the context of CBDC, individuals who believe they have control over their use of electronic money are more inclined to embrace CBDC as a trusted and efficient means of payment.

Furthermore, this finding emphasizes the importance of providing a user-friendly and secure environment for the adoption of CBDC. Policymakers and central banks need to focus on enhancing individuals' perceived control by addressing concerns related to privacy, security, and technical infrastructure. By addressing these factors, they can increase individuals' confidence and willingness to adopt CBDC, leading to its successful implementation.

In conclusion, this study highlights the significant influence of PBC on the adoption of CBDC. It emphasizes the need to focus on individuals' perceived control and address related concerns to facilitate the successful implementation of CBDC as a digital payment solution.

The use of the control variables gender, education, and age in research on the relationship between PBC and the adoption of CBDC is an important step in statistical analysis. These variables help in understanding how these factors can influence the relationship between PBC and individuals' intentions or tendencies to adopt CBDC.

Gender can play a role in understanding PBC related to CBDC. By controlling for gender variables, the research can assess whether there are significant differences in how PBC affects intentions related to CBDC adoption. This helps in devising strategies that are more tailored to the preferences of each gender in promoting CBDC.

Education level can influence individuals' perceptions of PBC. Individuals with higher education may have better knowledge and understanding of technology, making them feel more confident in controlling the use of CBDC. By controlling for the education variable, this research can identify the correlation between PBC and the intention to adopt CBDC.


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Age can also play a role in the influence of PBC on CBDC. Younger individuals may be more familiar with digital technology and feel more comfortable using it, so the control they perceive may have a stronger impact on the intention to adopt CBDC. By controlling for the age variable, researchers find a correlation between PBC and the intention to adopt CBDC across different age groups.

Through the use of these control variables, this resear

ch can provide deeper insights into how these factors (gender, education, and age) can influence the impact of PBC on CBDC adoption. This helps in designing more targeted strategies to encourage CBDC adoption in various population groups, taking into account the differences in these factors.

## 6. CONCLUSION

Based on the research findings and data analysis discussed regarding the influence of Attitude, Subjective Norms, and PBC on the adoption of Central Bank Digital Currency (CBDC), the following conclusions can be drawn:

The variable of attitude has a significant and positive impact on the adoption of CBDC. Individuals who hold positive attitudes towards CBDC are more likely to embrace and utilize it as a digital currency. This finding aligns with previous studies that have highlighted the role of attitude in shaping individuals' intention to adopt new technologies or currencies.

The research findings indicate that subjective norms have a significant negative impact on the adoption of CBDC. This implies that the opinions and perspectives of influential individuals surrounding the respondents, which can be considered to be social pressure, do not exert a significant influence on an individual's decision to use electronic money. In other words, the attitudes and behaviors of others in their social circle do not play a significant role in shaping an individual's acceptance and adoption of CBDC. This finding suggests that factors other than subjective norms, such as personal beliefs and perceptions, may have a stronger influence on individuals' decisions regarding the use of CBDC.

PBC has a significant influence on the adoption of CBDC. This can be associated with the fact that the higher the perceived control over behavioral aspects related to the use of electronic money, the greater the intention to use electronic money as a means of implementing CBDC.

Furthermore, control variables in this study can help in understanding how these factors can influence the relationship between independent variables and the dependent variable. Through the use of control variables, the research can identify significant correlations between the factors of gender, education, and age the independent variables that underlie CBDC adoption.

## 7. RECOMMENDATION FOR FURTHER RESEARCH

Therefore, it is recommended that future researchers and policymakers stay up-to-date with the latest developments and trends in CBDC implementation. This includes considering additional factors such as regulatory frameworks, user behaviors, technological advancements, and market dynamics, which may impact the relationship between attitude and CBDC adoption.


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Furthermore, further research that expands the scope of the study to include diverse geographical locations and respondent groups could provide a more comprehensive understanding of the influence of attitude on CBDC adoption. This could help capture diverse perspectives and identify potential variations in the impact of attitude within different contexts.

The government is encouraged to make breakthroughs in providing social assistance and other funds in non-cash forms. This is expected to serve as a means of introducing electronic money to the community, especially those who are economically disadvantaged and unbanked. By leveraging digital financial technology, the government would facilitate financial inclusion and expand the use of CBDC as a more efficient and inclusive payment instrument.

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