

CBDC ADOPTION: ALIGNING MODEL TECHNOSTRESS INHIBITORS AND PERCEIVED VALUE AMONG INDONESIAN GENERATION Z

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Abstract

In recent years, central banks have been left scrambling to respond to the increase in Cryptocurrency transactions by establishing legitimate digital currencies called Central Bank Digital Currency (CBDC). The success of CBDC programmes will be closely tied to the public interest in adopting CBDC. Given the emerging influence of those born into what is commonly known as Generation Z, this research involved 329 Indonesians identifying as Generation Z to determine factors affecting the adoption of Indonesian CBDC. All data were analysed using Structural Equation Modelling Partial Least Square (SEM-PLS). The results show that the main determinants driving Generation Z's interest in adopting CBDC are perceived value (epistemic, monetary, and convenience value) and general trust. Technostress inhibitors (facilitation of literacy and engagement facilitation) tended to influence Generation Z's trust. General trust in this study also shows a partial moderating effect in the relationship between perceived value and intention to use CBDC and a full moderation effect on the relationship between technostress inhibitors and intention to use CBDC. The findings of this study provide advice to Bank Indonesia on how to increase the usefulness of CBDC related to monetary value and the value derived from the ease of use of CBDC to maintain public trust and increase public interest.

Keywords: *Central Bank Digital Currency (CBDC), Indonesian Generation Z, behavioural intention, technostress inhibitors*

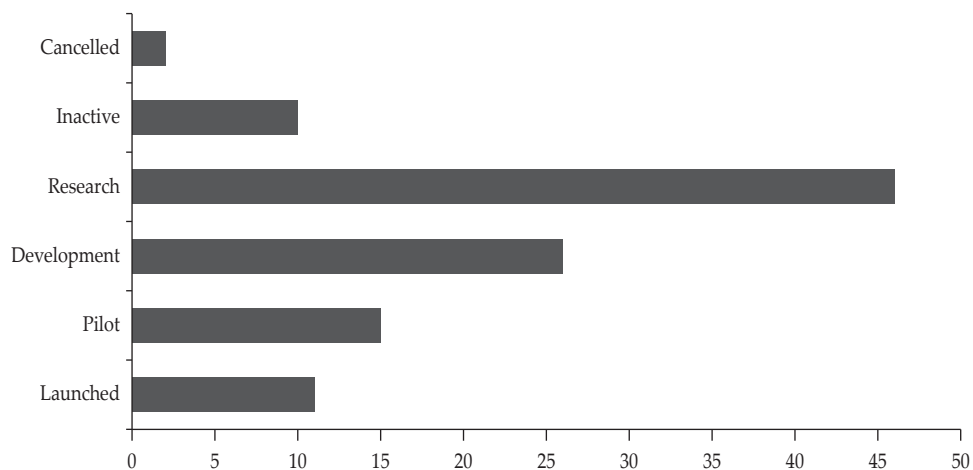
I. INTRODUCTION

The development of the digital economy has encouraged the birth of digital money, known as Central Bank Digital Currency (CBDC). Central banks worldwide are developing CBDC to replace or complement fiat currency. The attention of a number of countries is based on cryptocurrency volatility, which can impact the monetary balance.¹ CBDC can also increase financial inclusivity

¹ Paraskevi Katsiampa, Shaen Corbet, and Brian Lucey, "High Frequency Volatility Co-Movements in Cryptocurrency Markets," *Journal of International Financial Markets, Institutions and Money* 62 (September 2019): 35–52, <https://doi.org/10.1016/j.intfin.2019.05.003>.

and reduce the cost of cash circulation.² Realising this fact, as of 2023, 60 countries had released CBDC or were in the research and trial stages of CBDC, and 20 countries had fully launched CBDC. A number of countries that have released CBDC include the Bahamas, Jamaica, Anguilla, Nigeria and Grenada. In addition, most European and Asian countries, including Australia, China, India, and Indonesia, are in the development stage. CBDC development is presented in Graph 1.

Graph 1. Data on CBDC Development Stages in the World



Source: Atlantic Council (2022)³

In Indonesia, interest in digital finance use has shown significant growth. Total crypto transactions in Indonesia reached IDR 296.66 trillion.⁴ In addition, Temasek projections in the 2023 SEA E-Conomy Report reveal that in 2030, the intensity of digital financial transactions in the ASEAN region will be dominated by Indonesia.⁵ This fact prompted the Indonesian government

² CNBC, “IMF Boss Says Cash Will Be Replaced Because It’s Expensive,” CNBC Indonesia, 2023, <https://www.cnbcindonesia.com/tech/20231116072451-37-489461/bos-imf-bilang-uang-tunai-bakal-diganti-because-expensive>.

³ Atlantic Council, “Central Bank Digital Currency Tracker,” 2022, <https://www.atlanticcouncil.org/cbdctracker/>.

⁴ Ministry of Trade, “Crypto Asset Literacy Month 2023, Minister of Trade Zulkifli Hasan: People Must Understand Crypto Asset Trading More and More,” Ministry of Trade of the Republic of Indonesia, 2023, <https://www.kemendag.go.id/berita/siaran-pers/crypto-asset-literacy-month-2023-minister-of-trade-zulkifli-hasan-society-must-understand-more-crypto-asset-trading>.

⁵ Temasek, “E-Conomy SEA 2023 Report: Southeast Asia’s Digital Economy Is Set to Hit \$100 Billion in Revenue. Businesses Now Focusing on Boosting Profitability; Widening Digital Participation Remains Critical,” Temasek, 2023, <https://www.temasek.com.sg/en/news-and-resources/newsroom/news/2023/e-Conomy-SEA-2023-report>.

to introduce CBDC as an official currency to overcome monetary volatility regarding the use of crypto assets and aim to increase financial inclusiveness in Indonesia. Bank Indonesia released a conceptual CBDC model in a White Paper in 2022. Moreover, in 2024, Bank Indonesia explored the concept of CBDC in the immediate state phase and reported by proof-of-concept rupiah digital.

Previously, exploration into CBDC had become a topic of discussion as a form of digital payment innovation that the central bank officially managed. Some exploration has focused on CBDC and financial inclusion, CBDC function and purpose, CBDC design, CBDC and banking sector competition, CBDC and economic stability, and CBDC adoption.⁶ The discussion surrounding CBDC has also become more interesting with the debate on the actualisation of CBDC. CBDC critics have argued that CBDC implementation wouldn't be as successful as promoted. They believe an irrelevant CBDC design would impact banking sector competition, CBDC distribution, and public interest in using CBDC.⁷ Conversely, CBDC supporters still believe that implementing CBDC will increase overall economic inclusiveness. The benefits offered by CBDC are much higher for society.⁸

In line with this debate, European Central Bank survey results show that people focus on privacy and security. They also support transactions with complete anonymity to avoid privacy risks in the use of CBDCs⁹. Similar results were also shown by other developed countries in a survey of CBDC implementation in Hong Kong, England and Denmark¹⁰. Meanwhile, survey results in the African region show that privacy and security factors are barriers to CBDC adoption in several African states. In developing countries, such as Thailand and Indonesia, the usefulness aspect of CBDC is also a consideration for using CBDC¹¹. Similar findings are also described in Bank Indonesia's

⁶ Peterson K. Ozili, "Central Bank Digital Currency Research around the World: A Review of Literature," *Journal of Money Laundering Control* 26, no. 2 (March 2, 2023): 215–26, <https://doi.org/10.1108/JMLC-11-2021-0126>.

⁷ Tammaro Terracino and Luciano Somoza, "Central Bank Digital Currency: The Devil Is in the Details," *LSE*, 2020, <https://blogs.lse.ac.uk/businessreview/2020/05/26/central-bank-digital-currency-the-devil-is-in-the-details/>.

⁸ Samuele Bibi and Rosa Canelli, "The Interpretation of CBDC within an Endogenous Money Framework," *Research in International Business and Finance* 65 (April 2023): 101970, <https://doi.org/10.1016/j.ribaf.2023.101970>.

⁹ European Central Bank, "ECB Publishes the Results of the Public Consultation on a Digital Euro," (Frankfurt am Main, 2021), <https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210414~ca3013c852.en.html>.

¹⁰ Herve Tourpe, Ashley Lannquist, and Gabriel Soderberg, "A Guide to Central Bank Digital Currency Product Development 5P Methodology and Research and Development" (Washington DC, 2023).

¹¹ Tourpe, Lannquist, and Soderberg, "A Guide to Central Bank Digital Currency."

consultation paper results. Overall, people think that the accessibility of CBDC and the ability of authorities to reduce the risks of using CBDC are important considerations. Apart from that, Erwanti and Prasetyani's exploration also revealed that people tend to consider aspects of usability, ease of use, and trust in CBDC in their interest in using CBDC.

Academics and governments have widely explored research on CBDC acceptance.¹² However, there has been little research regarding interest in the adoption of CBDC broken out by generation. Each generation has different interests and behaviours in the new technological era. For example, Generation Z or the generation known as digital natives tends to adopt new technology more efficiently than previous generations.¹³ In line with this, this study intends to explore the interest in using CBDC by members of Generation Z in Indonesia. This research considers privacy risk, perceived value, technostress inhibitors, and general trust to determine the main factors influencing Generation Z's interest in CBDC. From a unique perspective, this research also presents a path analysis regarding changes in Generation Z behaviour after considering the risks and benefits of CBDC relating to trust and ultimately fostering greater interest. Furthermore, the results of these findings are a practical consideration for the relevant authorities to pay attention to factors in the acceptance of CBDC by Generation Z, as the premature introduction of CBDC design capacity poses certain risks.¹⁴

In the second part of this research, a literature review identifies the existing body of research into CBDC and hypothesis development. The third part of this research discusses research methods, participants and sampling techniques. The fourth section discusses the research results and discussions related to the empirical findings. Finally, in the fifth section, the conclusions of this research and recommendations to related parties are presented.

II. LITERATURE REVIEW AND DEVELOPMENT HYPOTHESIS

II.A. Central Bank Digital Currency

CBDC is a form of digital currency that is issued and regulated by central banks.¹⁵ The difference between CBDC and other digital currencies like cryptocurrencies and electronic money lies in the underlying legal

¹² Ozili, "Central Bank Digital Currency Research."

¹³ Rohan Bhalla, Pinaz Tiwari, and Nimit Chowdhary, "Digital Natives Leading the World: Paragons and Values of Generation Z," *Generation Z Marketing and Management in Tourism and Hospitality* (Cham: Springer International Publishing, 2021), 3–23, https://doi.org/10.1007/978-3-030-70695-1_1.

¹⁴ Tourpe, Lannquist, and Soderberg, "A Guide to Central Bank Digital Currency."

¹⁵ Chien-Chiang Lee et al., "The Impact of Central Bank Digital Currency Variation on Firm's Implied Volatility," *Research in International Business and Finance* 64 (January 2023): 101878, <https://doi.org/10.1016/j.ribaf.2023.101878>.

jurisdiction.¹⁶ The legal status of CBDC, for example, would be more assertive in meeting people's digital currency needs. The CBDC concept departs from the success of cryptocurrency as an asset in attracting investor interest. The limited quantity of cryptocurrency has resulted in investors' speculation about cryptocurrency.¹⁷ Given the volatility and traceability of decentralised cryptocurrencies, a number of countries have been attempting to maintain their monetary stability by banning cryptocurrencies and creating CBDCs managed by competent monetary authorities as an alternative for digital transactions.¹⁸ Some experts also argue that cryptocurrencies do not qualify as money because cryptocurrency cannot act as a means of payment, account unit and store of wealth.¹⁹ Therefore, cryptocurrency is often reclassified as an asset.

Although the legality of cryptocurrencies in a number of countries tends to vary, some countries, including Sweden, China, Turkey, and Egypt, have leaned towards rejecting the adoption of cryptocurrencies as currencies and have instead explored CBDC as their official digital currency.²⁰ Meanwhile, in Indonesia, cryptocurrencies are considered commodities regulated by the government on par with other speculative investments. Despite this limited acceptance, cryptocurrency is not recognised as a legal form of payment, and the government, through Bank Indonesia, is pursuing CBDC. CBDC is considered a financial instrument that encompasses the role of money as a store of value, a means of payment, and a unit of account. Additionally, CBDC also plays a role in converting the ratio of digital currency to existing currency to maintain its value stability.²¹ The International Monetary Fund (IMF) stated that stablecoins can provide monetary stability by backing fiat currencies or other assets. However, stablecoins differ from CBDCs because a central bank does not back them.²² Thus, legal status is the main basis for CBDC as the exclusive legitimate currency in digital currency transactions. Developing a CBDC program will impact monetary policy, regulations, security issues, consumer protection, and technological issues.²³

¹⁶ Heng Wang, "How to Understand China's Approach to Central Bank Digital Currency?," *Computer Law & Security Review* 50 (September 2023): 105788, <https://doi.org/10.1016/j.clsr.2022.105788>.

¹⁷ Katsiampa, Corbet, and Lucey, "High Frequency Volatility Co-Movements in Cryptocurrency Markets."

¹⁸ Ozili, "Central Bank Digital Currency Research."

¹⁹ Bibi and Canelli, "The Interpretation of CBDC."

²⁰ Ozili, "Central Bank Digital Currency Research."

²¹ See also Bibi and Canelli, "The Interpretation of CBDC within an Endogenous Money Framework."

²² Tobias Adrian and Tommaso Mancini Griffoli, *The Rise of Digital Money*, International Monetary Fund (Washington DC: International Monetary Fund, 2019).

²³ Chenqi Mou et al., "Game-Theoretic Analysis on CBDC Adoption," 2021, 294–305, https://doi.org/10.1007/978-981-16-1160-5_23.

The IMF has advised every country to develop CBDC. As far back as 2014, the Bank of England began exploring real-time gross settlement (RTGS) designs and concluded that CBDC would be superior to money from commercial banks to mitigate credit risk.²⁴ The development of CBDC in Nigeria has also shown improved monetary policy transmission while providing efficient and inclusive payments. However, there is a risk of cyberattacks and data theft, as CBDC development is imperfect.²⁵ In China, the motivation for issuing CBDC was to overcome the rise of Bitcoin, which has negatively impacted monetary stability.²⁶ Similar results were also shown in New Zealand, Australia, and India. In line with this, Bank Indonesia, as the authority that implements monetary policy in Indonesia, has also launched a CBDC project entitled the Garuda Project (*Proyek Garuda*) or the Digital Rupiah.²⁷

The development of CBDC in Indonesia is based on Bank Indonesia's encouragement of a national digital transformation, especially in end-to-end digital economic and financial aspects. However, existing government regulations have not classified the CBDC model in Indonesia. According to the Garuda Project white paper released by Bank Indonesia, the design of CBDC in Indonesia will be divided into Retail Digital Rupiah (r-Digital Rupiah) and Wholesale Digital Rupiah (w-Digital Rupiah). The first allocation will focus on w-Digital Rupiah, distributed to wholesalers and non-wholesaler financial institutions. The w-Digital Rupiah will later function in monetary operations, forex market transactions and money market transactions.²⁸ Previously, a number of developing countries have generally implemented retail CBDC (r-CBDC) as their CBDC design and developed countries have rolled out wholesale CBDC (w-CBDC) as their designs. Meanwhile, Indonesia eventually chose to implement w-CBDC and r-CBDC in combination.²⁹ However, the issuance of r-Rupiah Digital has proven to be much more complex, as it will be related to the use of CBDC in the broader community. Accordingly, the concerns over security, trust, monetary stability, effectiveness, and usability of CBDC must be addressed to smooth public adoption.

²⁴ Mou et al., "Game-Theoretic Analysis."

²⁵ Peterson K. Ozili, "Central Bank Digital Currency in Nigeria: Opportunities and Risks," 2022, 125–33, <https://doi.org/10.1108/S1569-37592022000109A008>.

²⁶ Gihong Kim, "Why Is China Going to Issue CBDC (Central Bank Digital Currency)?" *The Journal of Internet Electronic Commerce Research* 20, no. 4 (August 31, 2020): 161–77, <https://doi.org/10.37272/JIECR.2020.08.20.4.161>.

²⁷ Bank Indonesia, *Cbdc Role In Strengthening Implementation Of Central Bank Mandate* (Jakarta: Bank Indonesia, 2022), https://www.bi.go.id/en/publikasi/ruang-media/news-release/Pages/sp_2417722.aspx.

²⁸ Bank Indonesia, *CBDC Role In Strengthening Implementation*.

²⁹ Novi Maryaningsih et al., "Central Bank Digital Currency: What Factors Determine its Adoption?," *Bulletin of Monetary Economics and Banking* 25, no. 1 (June 20, 2022): 1–24, <https://doi.org/10.21098/bemp.v25i1.1979>.

II.B. Previous Studies

Experts have already explored CBDC development, function and purpose of CBDC, CBDC design, CBDC effects on welfare, the role of CBDCs for economic stability, CBDCs and banking competition, and CBDC adoption and development.³⁰ Specifically, regarding CBDC adoption, Ozili's research revealed that 78 per cent of African states showed no interest in adopting CBDC.³¹ Fear of privacy risks, security threats, and delays in economic inclusion in Africa were the main reasons for the low interest in CBDC adoption. Similar findings are also explained by low interest in India in the Digital Rupee. Perceived risks (such as security, regulatory, financial, privacy, and operational risks) have negatively affected trust and interest in adopting the Digital Rupee. Apart from that, perceived usefulness has also been shown to play a role in growing people's confidence and interest in adopting the Digital Rupee.³²

In developed countries such as the Netherlands, public interest in adopting CBDC has been influenced by their knowledge regarding CBDC, trust in the central bank, and security and privacy concerns.³³ In line with this, the benefits of regarding existing payment solutions will influence individuals' attitudes towards the Digital Euro.³⁴ Nonetheless, the relative advantages of CBDC and perceived security are unlikely to influence the Chinese public's interest in adopting CBDC (the e-CNY). They tend to consider switching costs, technology used, government support, and privacy.³⁵

Meanwhile, in Indonesia, Erwanti & Prasetyani's research revealed that perceived usability has the most significant effect on interest in adopting CBDC.³⁶ This research uses a theoretical approach in the Technology Acceptance Model (TAM) to explore this further. This research also explores the interest in CBDC usage among Generation Z in Indonesia by considering

³⁰ Ozili, "Central Bank Digital Currency Research

³¹ Peterson K. Ozili, "A Survey of Central Bank Digital Currency Adoption in African Countries," 2023, 273–89, https://doi.org/10.1007/978-3-031-28686-5_14.

³² Somya Gupta et al., "Do Perceived Risks and Benefits Impact Trust and Willingness to Adopt CBDCs?," *Research in International Business and Finance* 66 (October 2023): 101993, <https://doi.org/10.1016/j.ribaf.2023.101993>.

³³ Michiel Bijlsma et al., "What Triggers Consumer Adoption of CBDC?," DNB Working Paper (Amsterdam, 2021).

³⁴ Frédéric Tronnier, David Harborth, and Patrick Biker, "Applying the Extended Attitude Formation Theory to Central Bank Digital Currencies," *Electronic Markets* 33, no. 1 (December 27, 2023): 13, <https://doi.org/10.1007/s12525-023-00638-3>.

³⁵ Huosong Xia, Yangmei Gao, and Justin Zuopeng Zhang, "Understanding the Adoption Context of China's Digital Currency Electronic Payment," *Financial Innovation* 9, no. 1 (March 2, 2023): 63, <https://doi.org/10.1186/s40854-023-00467-5>.

³⁶ Nindita Erwanti and Henny Prasetyani, "Investigating Intention to Use Central Bank Digital Currency in Indonesia," *Journal of Information Systems and Informatics* 5, no. 4 (December 3, 2023): 1461–71, <https://doi.org/10.51519/journalisi.v5i4.598>.

technostress inhibitors, risk perception, perceived usefulness, and general trust in CBDC.

II.C. Hypothesis Development

Technostress inhibitors. Technological changes force technical changes in the social sphere. The complexity of technology implementation has led to the emergence of the technostress phenomenon.³⁷ Adopting new technology encourages investment of more resources to support acceptance of that technology. To reduce technostress, Tarafdar explained the role of organisations in mitigating the negative impacts of new technology, namely decreased productivity, dissatisfaction with performance, and innovation, collectively referred to as technostress inhibitors.³⁸ The research emphasises the role of technical literacy programmes, user participation, commitment to the organisation, commitment to sustainability, job satisfaction, and stakeholder engagement in reducing technostress.³⁹ In the context of this research, the dimensions of literacy programmes and end-user participation have been chosen to measure the construct of technostress inhibitors.

Literacy programmes relate to activities that can encourage an increased understanding of technology. An increased understanding of CBDC will drive individual acceptance of CBDC. Empirical findings by Bijlsma et al. have also revealed that individual knowledge about CBDC increases interest in adopting CBDC.⁴⁰ As such, increasing individual understanding of new technology can reduce the perceived risks of using that technology. In line with this, end-user engagement programmes also measure the extent of encouragement to use new technology, appreciation for the use of new technology, and involvement in implementing information system changes. The role of end-user expertise in using new technology is vital in reducing individual anxiety driven by training. Thus, user trust will also increase as their understanding of CBDC increases. Therefore, the hypothesis proposed is:

H1: Technostress inhibitors (facilitating literacy and user participation) positively and significantly affect general trust.

H2: Technostress inhibitors (facilitating literacy and user participation) positively and significantly affect the intention to use CBDC.

³⁷ Monideepa Tarafdar et al., “Crossing to the Dark Side,” *Communications of the ACM* 54, no. 9 (September 2011): 113–20, <https://doi.org/10.1145/1995376.1995403>.

³⁸ TS Ragu-Nathan et al., “The Consequences of Technostress for End Users in Organizations: Conceptual Development and Empirical Validation,” *Information Systems Research* 19, no. 4 (December 2008): 417–33, <https://doi.org/10.1287/isre.1070.0165>.

³⁹ *Ibid.*

⁴⁰ Bijlsma et al., “What Triggers Consumer Adoption?”

Privacy risks. In technology adoption, the risk aspect is one of the main concerns of individuals. The extensive use of technology services has increased people's worries regarding safety and privacy. Technological advances that provide services and convenience also require the identification of individual personal data. It stands to reason that maintaining the security of personal data against all forms of digital crime is paramount.⁴¹ Basically, risks arise when expectations regarding the usefulness of the technology are not met. This disappointment has a negative effect on the perception of a technology product. Within the digital financial world, intrinsic losses such as fraud, data breaches, and scams may cause user losses.

Previous literature has shown that perceived privacy risks impact the intention to adopt CBDC.⁴² This provides an understanding that security aspects and risk mitigation are primary consideration factors in adopting CBDC. Accordingly, the security of individual data and funds is a crucial factor that must be considered to enhance trust in and increase the intent to adopt CBDC. Along with this, referring to the consultative paper released by Bank Indonesia, several respondents stated that the risk aspect remains the main consideration in adopting the Digital Rupiah. Thus, the lower the risk of using CBDC, the higher people's trust and interest in adopting CBDC.⁴³ Thus, the hypothesis proposed is:

H3: Privacy risk negatively affects general trust.

H4: Privacy risk negatively affects intention to use CBDC.

Perceived value. Individual adoption of a product is based on the perceived utility of the product. Thus, this usage behaviour represents the perceived usefulness value. Measuring the value perceived by customers is important because remembering the diversity of customer segments allows for new products and modifications to existing products.⁴⁴ The value perceived by consumers of technology products is based on assessments of monetary value, convenience value, and epistemic value. The perceived monetary value refers to an individual's economic considerations regarding the technology products. In the context of CBDC adoption, the monetary value is related to the tax costs of using the CBDC and other transaction values that can be channelled

⁴¹ Paulo Silva et al., "Privacy Risk Assessment and Privacy-Preserving Data Monitoring," *Expert Systems with Applications* 200 (August 2022): 116867, <https://doi.org/10.1016/j.eswa.2022.116867>.

⁴² Gupta et al., "Do Perceived Risks and Benefits?"

⁴³ Bank Indonesia, *Garuda Project: Wholesale Rupiah Digital Cash Ledger* (Jakarta: Bank Indonesia, 2023).

⁴⁴ Inger Roos, Anders Gustafsson, and Bo Edvardsson, "The Role of Customer Clubs in Recent Telecom Relationships," *International Journal of Service Industry Management* 16, no. 5 (December 1, 2005): 436–54, <https://doi.org/10.1108/09564230510625750>.

for the general welfare.⁴⁵ Convenience value refers to an individual's ease of use of a digital product.⁴⁶ This aspect assesses the convenience, service, and time efficiency of using CBDC. Finally, the epistemic value is related to an individual's curiosity and interest in using CBDC.⁴⁷

All of these dimensions should be considered for individuals to evaluate the usefulness of digital products. The findings of Gupta et al. illustrate that perceived value is an important predictor of trust and interest in adopting the Digital Rupee.⁴⁸ These findings show that individuals tend to pay attention to CBDC's benefits. Fulfilling these aspects of individual perception has implications for increasing trust and ultimately encouraging interest in using CBDC. The results of the Bank Indonesia consultative paper also explain that the usefulness of CBDC is the main trigger for individuals' interest in adopting CBDC.⁴⁹ Thus, the hypothesis proposed is:

H5: Perceived value (monetary, convenience, and epistemic value) positively significantly affects general trust.

H6: Perceived value (monetary, convenience, and epistemic value) positively affects intention to use CBDC.

General trust. The trust factor remains a significant predictor of digital product acceptance. Trust refers to the psychological state of vulnerability that involves an individual's intention to accept positive expectations.⁵⁰ Therefore, individual trust in a product forms the foundation for growing interest in and usage behaviour towards a product. A number of digital finance publications have commonly used this predictor to determine individual confidence in adopting financial technology services and products. The tendency to use the product begins with the growth of their trust in the product or service.⁵¹ In

⁴⁵ Seyed Mohammadreza Davoodalhosseini, "Central Bank Digital Currency and Monetary Policy," *Journal of Economic Dynamics and Control* 142 (September 2022): 104150, <https://doi.org/10.1016/j.jedc.2021.104150>.

⁴⁶ Fred D. Davis, "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," *MIS Quarterly* 13, no. 3 (September 1989): 319, <https://doi.org/10.2307/249008>.

⁴⁷ Minna Pura, "Linking Perceived Value and Loyalty in Location-Based Mobile Services," *Managing Service Quality* 15, no. 6 (2005): 509–38, <https://doi.org/10.1108/09604520510634005>.

⁴⁸ Gupta et al., "Do Perceived Risks and Benefits?"

⁴⁹ Bank Indonesia, *Garuda Project: Wholesale Rupiah Digital Cash Ledger*.

⁵⁰ Anthony M. Evans and Joachim I. Krueger, "The Psychology (and Economics) of Trust," *Social and Personality Psychology Compass* 3, no. 6 (December 27, 2009): 1003–17, <https://doi.org/10.1111/j.1751-9004.2009.00232.x>.

⁵¹ Muhammad Khalid Anser et al., "Toward the E-Loyalty of Digital Library Users: Investigating the Role of e-Service Quality and e-Trust in the Digital Economy," *Library Hi Tech* 41, no. 4 (August 25, 2023): 1006–21, <https://doi.org/10.1108/LHT-07-2020-0165>.

general, overall trust can be divided into disposition trust, technology trust, and institution trust.⁵² Thus, the level of trust refers not only to individual perceptions of products and services offered but also to institutional and dispositional aspects.

These determinants have also been proven significant in individuals' interest in adopting CBDC. Individuals' trust in CBDC is a form of assessment of the benefits they feel versus the risks they perceive. If individuals judge that the benefits of adopting CBDC outweigh the risks, they tend to trust CBDC. This belief encourages positive behaviour in adopting CBDC.⁵³ In line with this, Erwanti & Prasetyani's findings show that their beliefs heavily influence Indonesian people's acceptance of CBDC.⁵⁴ Their trust in CBDC will determine their interest in using CBDC in the future. Trust related to the security, credibility, liquidity, and functionality of CBDCs is a consideration for growing interest in using CBDCs. Thus, the hypothesis proposed is:

H7: General trust positively affects the intention to use CBDC.

Mediation variables. In addition to testing the immediate relationship between general trust and intention to use CBDC, this research uses general trust as a mediating variable. The main consideration for using this variable is based on Jacob's theoretical approach, which states that individual behaviour does not immediately follow the corresponding stimulus. Still rather, an internal evaluation process initially gives rise to individual perceptions.⁵⁵ For example, after receiving an advertisement, a customer does not immediately purchase a product but instead tends to evaluate the advertisement they receive. Initially, this increases their trust in the featured product.⁵⁶ From a similar perspective, in accepting CBDC, individuals also evaluate their trust in CBDC, and as trust grows, so does their interest in using CBDC. A similar opinion has been strengthened by the empirical findings of Gupta et al. that this trust

⁵² Komlan Gbongli et al., "Evaluation and Classification of Mobile Financial Services Sustainability Using Structural Equation Modeling and Multiple Criteria Decision-Making Methods," *Sustainability* 12, no. 4 (February 11, 2020): 1288, <https://doi.org/10.3390/su12041288>.

⁵³ Gupta et al., "Do Perceived Risks and Benefits Impact Trust?"

⁵⁴ Erwanti and Prasetyani, "Investigating Intention."

⁵⁵ Jacob Jacoby, "Stimulus - Organism - Response Reconsidered: An Evolutionary Step in Modeling (Consumer) Behavior," *Journal of Consumer Psychology* 12, no. 1 (January 25, 2002): 51–57, https://doi.org/10.1207/S15327663JCP1201_05.

⁵⁶ Arjun Chaudhuri and Morris B. Holbrook, "The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty," *Journal of Marketing* 65, no. 2 (April 2001): 81–93, <https://doi.org/10.1509/jmkg.65.2.81.18255>.

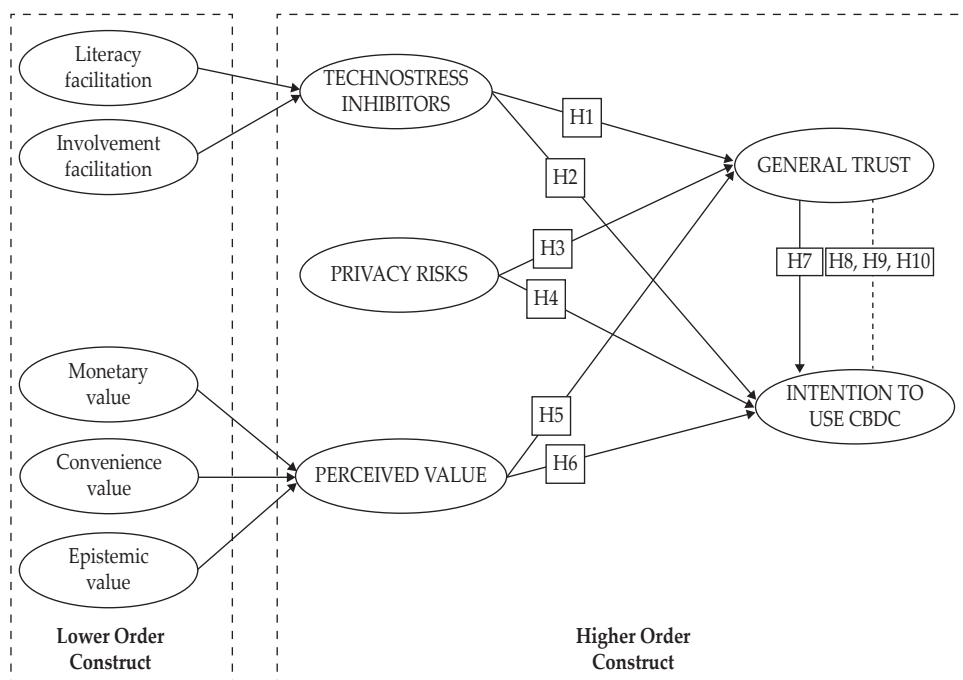
may mediate the relationship between perceived risk and perceived benefit.⁵⁷ Therefore, the proposed hypothesis is:

H8: General trust mediates the effects of technostress inhibitors on the intention to use CBDC.

H9: General trust mediates the effects of privacy risk on the intention to use CBDC.

H10: General trust mediates the effects of perceived value on intention to use CBDC.

Figure 1. Conceptual Model



III. METHODOLOGY

III.A. Participants and Sampling Technique

This research uses quantitative concepts to achieve research objectives. Overall, this research sampled participants from the younger generation in Indonesia or those in the age range of 17-30 years old. This generation is considered a digital native generation that tends to be more digitally literate than previous

⁵⁷ Gupta et al., "Do Perceived Risks and Benefits?"

generations and uses electronic payments more frequently.⁵⁸ In recognition of this generation's embrace of technology, this research provided a survey using questions distributed via online media (including WhatsApp and Email). In determining the sampling method, this research adopted a convenient method to allow accessibility and availability of time between researchers and respondents.⁵⁹ The total sample size was 356 individual responses. However, 27 responses needed to be eliminated because they followed certain patterns, and their responses can be considered outliers.⁶⁰ So, the total sample analysed in this research was 329 responses, classified by gender, age, income level, education level, experience using electronic payments, frequency of electronic payments, and domicile. Table 1 shows detailed demographic information of respondents.

Table 1.
Characteristics Respondent

Demographics	Characteristics	Count.	%
Gender	Man	140	42.6%
	Woman	189	57.4%
Age	17 - 20 Years	76	23.1%
	21 - 25 Years	173	52.6%
	26 - 30 Years	80	24.3%
Personal income	IDR < 2 million	215	65.3%
	IDR 2-4 million	114	34.7%
Frequency of transactions using e-payment	Every Day	64	19.5%
	Every Week	182	55.3%
	Every Month	83	25.2%
Experience in using e-payment	< 1 Year	117	35.6%
	1-3 Years	171	52.0%
	> 3 Years	41	12.5%
Domicile	Yogyakarta	116	35.3%
	Jakarta	25	7.6%
	West Java	51	15.5%
	Central Java	70	21.3%
	East Java	67	20.4%

⁵⁸ Ellen Johanna Helsper and Rebecca Eynon, "Digital Natives: Where Is the Evidence?," *British Educational Research Journal* 36, no. 3 (June 2, 2010): 503–20, <https://doi.org/10.1080/01411920902989227>.

⁵⁹ Uma Sekaran and Roger Bougie, *Research Methods for Business: A Skill-Building Approach*, 7th ed. (West Sussex: Wiley, 2016).

⁶⁰ Marko Sarstedt et al., "Progress in Partial Least Squares Structural Equation Modeling Use in Marketing Research in the Last Decade," *Psychology & Marketing* 39, no. 5 (May 27, 2022): 1035–64, <https://doi.org/10.1002/mar.21640>.

III.B. Measurements

The measurements in this study adopted a five-point Likert scale (1: strongly disagree to 5: strongly agree). This research also applied 38 statement elements adopted from previous research and adjusted to suit the research objectives. The questions included the constructs of general trust (ten questions) and privacy risk (three questions) adopted from Gbongli et al.,⁶¹ intention to use (three questions) adopted from Söilen & Benhayoun,⁶² involvement facilitation (three questions), monetary value (three questions) adopted from Auer & Böhme,⁶³ convenience value (three questions), and epistemic value (three questions) adopted from Pura.⁶⁴

Furthermore, the Hierarchical Component Model (HCM) using Lower Order Constructs (LOC) to measure Higher Order Constructs (HOC) is used.⁶⁵ This model reduces the number of path model links and clarifies the relationships among multiple independent and dependent constructs in the path model.⁶⁶ In this research, the construct of perceived value as HOC is measured using the constructs of convenience value, monetary value, and epistemic value as LOC. Apart from that, the technostress inhibitors construct, such as HOC, is measured using the constructs of facilitation of involvement and facilitation of literacy, such as LOC.

III.C. Data Analysis Approach

This study uses the Structural Equation Modelling Partial Least Squares (SEM-PLS) technique to analyse the data. Utilising SmartPLS 3.0., SEM-PLS allows testing complex models with small sample sizes.⁶⁷ The complexity referred to in this research combines reflective and formative and uses the HCM model.⁶⁸ In the HCM construct, the repeated indicator approach is used. This approach uses all the common factors in the LOC. This method is the most

⁶¹ Gbongli et al., "Evaluation and Classification."

⁶² Klaus Solberg Söilen and Lamiae Benhayoun, "Household Acceptance of Central Bank Digital Currency: The Role of Institutional Trust," *International Journal of Bank Marketing* 40, no. 1 (February 1, 2022): 172–96, <https://doi.org/10.1108/IJBM-04-2021-0156>.

⁶³ Raphael Auer and Rainer Böhme, "The Technology of Retail Central Bank Digital Currency," *BIS Quarterly Review*, 2020.

⁶⁴ Pura, "Linking Perceived Value."

⁶⁵ Allard CR van Riel et al., "Estimating Hierarchical Constructs Using Consistent Partial Least Squares," *Industrial Management & Data Systems* 117, no. 3 (April 10, 2017): 459–77, <https://doi.org/10.1108/IMDS-07-2016-0286>.

⁶⁶ JF Hair et al., *Advanced Issues in Partial Least Squares Structural Equation Modeling* (Thousand Oaks, CA: Sage, 2018).

⁶⁷ Joseph F Hair et al., *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*, Classroom Companion: Business (Cham: Springer International Publishing, 2021), <https://doi.org/10.1007/978-3-030-80519-7>.

⁶⁸ Hair et al., *Advanced Issues*.

common method for estimating hierarchical models in PLS.⁶⁹ Thus, the SEM-PLS technique is relevant for use in this study. Furthermore, this research uses importance-performance map analysis (IPMA) to provide understanding regarding practical decision-making. This method allows managers to provide suggestions and input to assess and prioritise user perceptions and attitudes.⁷⁰ IPMA results will provide practical advice by identifying the differential effects of certain structural measures in a phenomenon.⁷¹ Thus, this approach was adopted in this study to strengthen the empirical findings and provide practical insight to the relevant authorities for performance improvement priorities.

IV. RESULTS AND DISCUSSION

IV.A. Data Screening

Before conducting SEM-PLS testing, all data must be screened to identify common method variance (CMV) and non-response bias problems. CMV problems arise when dependent and independent constructs elicit the same responses. This has implications for damage to the validity. This study used Harman's single-factor test to test the presence of CMV.⁷² The test results show that the construct has a five-factor structure (eigenvalue greater than 1), with a maximum variance of a factor of 45.45%, and each factor contributes less than 50 per cent of the variable's covariance.

At the same time, a check for non-response bias is performed by comparing the average of the initial and final responses. Overall, there was no difference in the average initial and final responses.⁷³ It can be concluded that the overall data is free from CMV problems and non-response bias. In testing sample adequacy, this study used power analysis using G*power 3.1 software based on two-tailed significance effect parameters with an effect size of 0.1, a significance of 0.05, and a number of factors prediction of 5.⁷⁴ The power analysis results

⁶⁹ van Riel et al., "Estimating Hierarchical Constructs"

⁷⁰ Javier Abalo, Jesús Varela, and Vicente Manzano, "Importance Values for Importance-Performance Analysis: A Formula for Spreading out Values Derived from Preference Rankings," *Journal of Business Research* 60, no. 2 (February 2007): 115–21, <https://doi.org/10.1016/j.jbusres.2006.10.009>.

⁷¹ Christian M. Ringle and Marko Sarstedt, "Gain More Insight from Your PLS-SEM Results," *Industrial Management & Data Systems* 116, no. 9 (October 17, 2016): 1865–86, <https://doi.org/10.1108/IMDS-10-2015-0449>.

⁷² Philip M. Podsakoff et al., "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies," *Journal of Applied Psychology* 88, no. 5 (2003): 879–903, <https://doi.org/10.1037/0021-9010.88.5.879>.

⁷³ J. Scott Armstrong and Terry S. Overton, "Estimating Nonresponse Bias in Mail Surveys," *Journal of Marketing Research* 14, no. 3 (August 1977): 396–402, <https://doi.org/10.1177/002224377701400320>.

⁷⁴ Franz Faul et al., "Statistical Power Analyzes Using G*Power 3.1: Tests for Correlation and Regression Analyses," *Behavior Research Methods* 41, no. 4 (November 2009): 1149–60, <https://doi.org/10.3758/BRM.41.4.1149>.

showed that the minimum sample size was 132. Thus, the sample in this study is sufficient and represents the population.⁷⁵

IV.B. Measurement Model Assessment

Outer model testing is accomplished in two testing stages. The first stage is executed by testing the reliability and validity of the reflective construct. Reliability testing uses composite reliability (CR) and Cronbach's alpha (α) values. The test results show that the α value is in the range 0.798 to 0.909, and the CR value is in the range 0.865 to 0.925. These results indicate that the reflective construct is reliable (α and CR > 0.70).⁷⁶ Validity testing is carried out by testing convergent validity using Average Variance Extracted (AVE) and outer loadings values. In contrast, discriminant validity testing uses Heterotrait-Monotrait (HTMT) values and the Fornell Larcker Criterion. The test results show that the loading factor value is in the range of 0.663 to 0.923 (> 0.60), and the AVE value is in the range of 0.552 to 0.804 (> 0.50). In discriminant validity, the overall HTMT value is below the threshold of 0.90, and the root of the correlation value between constructs is also below the root value of AVE.⁷⁷ Thus, the reflective construct of this study is valid. The test results are shown in Tables 2, 3, and 4.

The second test is carried out by testing the formative construct between LOC and the HOC construct using outer weight and its significance. Overall, the outer weights value is significant (p -value < 0.001 and t -value > 1.96). The loading factor value is also in the range of 0.851 to 0.967 (> 0.60).⁷⁸ Furthermore, the Variance Inflation Factor (VIF) value is applied to see symptoms of multicollinearity in formative indicators. The VIF value in this study is at the threshold of 2.222 to 4.635 (< 5) and indicates that the relationship between formative construct indicators does not contain symptoms of multicollinearity.⁷⁹ Apart from that, the overall reflective construct also strongly influences the formative construct, such as the strong influence of involvement facilitation and literacy facilitation on technostress inhibitors and convenience value, monetary value, and epistemic value on perceived value. The test results are presented in Table 5.

⁷⁵ Hair et al., *Partial Least Squares Structural Equation Modeling*.

⁷⁶ Hair et al., *Partial Least Squares Structural Equation Modeling*.

⁷⁷ Hair et al., *Partial Least Squares Structural Equation Modeling*.

⁷⁸ Joseph F Hair, G. Tomas M Hult, and Marko Sarstedt, *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd ed., 2017.

⁷⁹ Marko Sarstedt, Christian M. Ringle, and Joseph F. Hair, "Partial Least Squares Structural Equation Modeling," in *Handbook of Market Research* (Cham: Springer International Publishing, 2017), 1–40, https://doi.org/10.1007/978-3-319-05542-8_15-1.

Table 2.
Outer Loadings, α , CR, and AVE Results

Constructs	Item	Loadings	α	CR	AVE
Privacy risk	PR1	0.915	0.798	0.865	0.683
	PR2	0.820			
	PR3	0.734			
General trust	TR1	0.771	0.909	0.925	0.552
	TR2	0.739			
	TR3	0.666			
	TR4	0.663			
	TR5	0.783			
	TR6	0.824			
	TR7	0.777			
	TR8	0.742			
	TR9	0.726			
	TR10	0.720			
Intention to Use	IU1	0.888	0.878	0.925	0.804
	IU2	0.923			
	IU3	0.878			

Table 3.
Hetrotrait-Monotrait Results

Constructs	1	2	3
General trust	1,000		
Intention to use	0.715	1,000	
Privacy risk	0.221	0.165	1,000

Table 4.
Fornell-Larcker Criterion Results

Constructs	1	2	3	4	5
Intention to use	0.897				
Privacy risk	0.168	0.826			
Perceived value	0.716	0.297	1,000		
Technostress inhibitors	0.501	0.312	0.751	1,000	
General trust	0.641	0.227	0.751	0.661	0.743

Table 5.
Formative Measurement Results

Constructs	Indicators	Loadings	Weights	VIF	<i>t</i> -value	<i>p</i> -value
Technostress inhibitors	Literacy facilitation	0.946	0.129	4.507	34.947	0.001
	Involvement facilitation	0.967	0.122	4.299	50.400	0.002
Perceived value	Monetary value	0.909	0.129	2.605	37.452	0.003
	Convenience value	0.862	0.126	2.585	26.810	0.004
	Epistemic value	0.912	0.129	2.222	41.002	0.005

IV.C. Structural Model Assessment

In testing the level of robustness of this model, standardised root mean residual (SRMR) testing was applied, and the SRMR value in this study is expected, namely 0.063 (< 0.80)⁸⁰. The VIF value also shows below the 5 (< 5)⁸¹ threshold. This output shows that there are no multicollinearity problems in the inner model. Next, testing will enter hypothesis testing. This study assessed the significance level using a bootstrap approach of 5,000 (resampling) with a p -value for two-tailed significance.

In direct testing, four hypotheses are accepted, and three are rejected. The four hypotheses accepted include a positive relationship between perceived value and intention to use ($\beta = 0.630$, p -value < 0.01), a positive relationship between perceived value and general trust ($\beta = 0.586$, p -value < 0.01), a positive relationship between technostress inhibitors on general trust ($\beta = 0.226$, p -value < 0.01), positive relationship between general trust and intention to use ($\beta = 0.266$, p -value < 0.05). Meanwhile, three hypotheses were rejected, including the relationship between privacy risk on intention to use and general trust (p -value > 0.01) and the negative influence of technostress inhibitors on intention to use ($\beta = -0.137$, p -value < 0.05). Furthermore, two hypotheses were accepted in testing the indirect relationship, and one was rejected. The accepted hypotheses include the mediating effect of general trust in the relationship between perceived value and intention to use ($\beta = 0.156$, p -value < 0.05) and the mediating effect of general trust in the relationship between technostress inhibitors and intention to use ($\beta = 0.060$, p -value < 0.05). The mediating effect of trust was not shown in the relationship between privacy risk and intention to use (p -value > 0.01).

The coefficient determination (R^2) test was applied to determine the effect of the independent construct on the dependent construct of intention to use. The R^2 value for the intention to use construct in this study is 0.542, so 54.2% of the intention to use construct is influenced by variations in the independent construct in the model. However, the R^2 value only represents the strength of the relationship from the sample used and does not predict out-of-sample performance.⁸² Accordingly, PLSpredict, focusing on intention to use, is also applied in this research. The PLSpredict output shows that the PLS model's Root Mean Square Error (RMSE) and Mean Absolute Error (MAE) values are lower than the naive linear model. This indicates that this research model

⁸⁰ Jörg Henseler et al., "Common Beliefs and Reality About PLS," *Organizational Research Methods* 17, no. 2 (April 10, 2014): 182–209, <https://doi.org/10.1177/1094428114526928>.

⁸¹ Sarstedt, Ringle, and Hair, "Partial Least Squares."

⁸² Galit Shmueli et al., "Predictive Model Assessment in PLS-SEM: Guidelines for Using PLSpredict," *European Journal of Marketing* 53, no. 11 (November 11, 2019): 2322–47, <https://doi.org/10.1108/EJM-02-2019-0189>.

has high predictive power.⁸³ In looking at the effect size, this study applies the Cohen f^2 value. An f^2 value of 0.02 would indicate a small effect size, 0.15 a medium effect size, and 0.35 a large effect size.⁸⁴ In this study, the f^2 value was in the 0.001 to 0.358 and within the medium effect standard. Testing the relevance of predictions is accommodated using Stone-Geisser's Q^2 value. The value in this study is above the threshold of 0 and indicates that the model built has predictive relevance.⁸⁵ The test results are shown in Tables 6 to 9.

Table 6.
VIF, f^2 , Q^2 , R^2 , and SRMR Results

PLS-Path	VIF	f^2	R^2	Q^2	SRMR
Privacy risk -> intention to use	1,120	0.003	0.542	0.429	0.063
Perceived value -> intention to use	3,142	0.279			
Technostress inhibitors -> intention to use	2,460	0.017			
General trust -> intention to use	2,413	0.065			
Perceived value -> General trust	2,313	0.358	0.582	0.318	
Technostress inhibitors -> General trust	2,337	0.053			
Privacy risk -> General trust	1,119	0.001			

Table 7.
Direct Effects Results

PLS Path	β	<i>t</i> -value	<i>p</i> -value	Conclusion
Privacy risk -> intention to use	-0.037	0.866	0.387	Rejected
Privacy risk -> General trust	-0.018	0.459	0.647	Rejected
Perceived value -> intention to use	0.630	7,669	0,000	Accepted
Perceived value -> General trust	0.586	10,971	0,000	Accepted
Technostress inhibitors -> intention to use	-0.137	1,981	0.048	Rejected
Technostress inhibitors -> General trust	0.226	4,179	0,000	Accepted
General trust -> intention to use	0.266	3,464	0.001	Accepted

Table 8.
Indirect Effects Results

PLS-path	β	<i>t</i> -value	<i>p</i> -value	Conclusion
Privacy risk -> General trust -> intention to use	-0.005	0.428	0.669	Rejected
Perceived value -> General trust -> intention to use	0.156	3,078	0.002	Accepted
Technostress inhibitors -> General trust -> intention to use	0.060	2,674	0.008	Accepted

⁸³ See also Shmueli et al.; Hair et al., *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*.

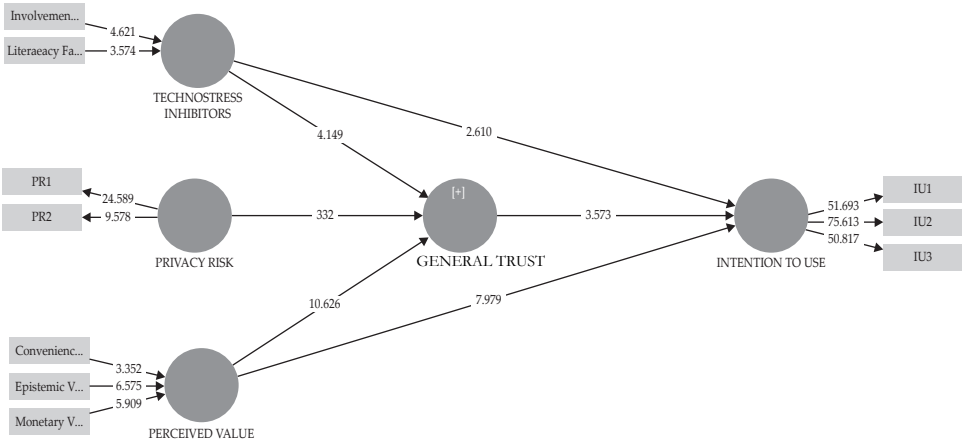
⁸⁴ Jacob Cohen, *Statistical Power Analysis for the Behavioral Sciences* (Routledge, 2013), <https://doi.org/10.4324/9780203771587>.

⁸⁵ Joseph F. Hair et al., "When to Use and How to Report the Results of PLS-SEM," *European Business Review* 31, no. 1 (January 14, 2019): 2–24, <https://doi.org/10.1108/EBR-11-2018-0203>.

Table 9.
PLSpredict Results

Items	PLS		L.M	
	RMSE	MAE	RMSE	MAE
IU1	0.701	0.537	0.686	0.517
IU2	0.676	0.521	0.673	0.507
IU3	0.684	0.532	0.696	0.534

Figure 2. Evaluation Model



IV.D. Importance Performance Map Analysis (IPMA)

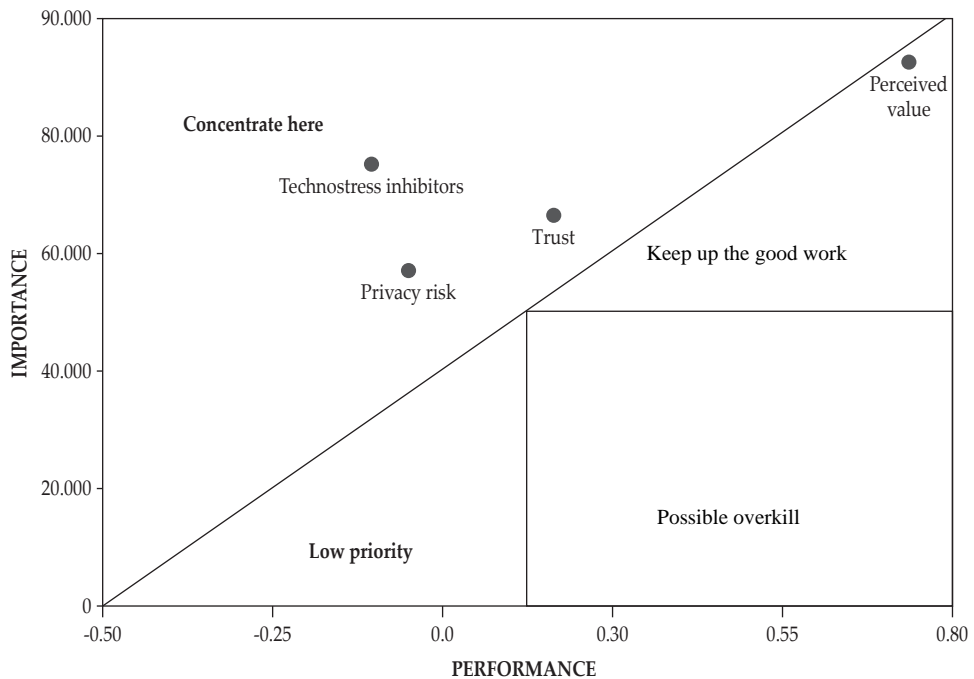
This research addresses the complementary SEM-PLS analysis using IPMA. This test allows the process of identifying the target key concepts by comparing the sum of strong impacts. Still, it has low effectiveness, making it necessary to improve strategic decisions in the concept.⁸⁶ The depiction of IPMA in this research adopts Abalo et al. diagram⁸⁷ by enlarging the concentrated area to enable increased improvement on important underperforming constructs. In this research, the construct focuses on the intention to use CBDC; the results show that privacy risk, technostress inhibitors, and trust are important aspects but still perform poorly. Meanwhile, the elements of perceived value also play an essential role, and their performance needs to be maintained. The overall results are presented in Table 10 and Figure 3.

⁸⁶ Ringle and Sarstedt, “Gain More Insight.”
⁸⁷ Abalo, Varela, and Manzano, “Importance Values.”

Table 10.
Outcomes of IPMA

Construct	Performance	Importance	Conclusion
Privacy risk	59.856	-0.042	Concentrate here
Perceived value	68.683	0.786	Keep up the good work
Technostress inhibitors	76.704	-0.077	Concentrate here
General trust	65.121	0.266	Concentrate here

Figure 3. Importance of Performance Map Analysis



IV.E. Discussion

This research explores Generation Z's interest in using CBDC in Indonesia. The study results show that technostress inhibitors positively affect self-confidence, and hypothesis 1 was supported in this study. The effects of technostress can be inhibited by facilitating literacy and end-user participation. These findings make it clear that the effects of social change, such as reduced innovation and performance dissatisfaction resulting from CBDC adoption, can be mitigated by facilitating end-user literacy and participation. However, technostress inhibitors' effect negatively influences interest in using CBDC and rejects hypothesis 2. This explains that literacy will be essential in building individual interest in the final use of new technology. Theoretically, Tarafdar et al. believe that the success of end-use in preventing the effects of technostress

needs to be achieved by increasing literacy related to the technology.⁸⁸ In this study, therefore, the negative effect on interest in using CBDC may be caused by the low literacy received by Generation Z. In general, their understanding of CBDC only fosters their confidence. Therefore, encouraging literacy is key to changing perceptions and increasing interest in using CBDC.

In addition, as a generation categorised as a digital native generation, their behaviour towards technology products tends to be different. This generation tends to think that risk has become part of the benefits offered by digital. In this study, privacy risk did not influence general trust and interest in using CBDC. Thus, hypotheses 3 and 4 are rejected in this study. These results tend to be different based on empirical results showing that privacy risks negatively influence the intention to use CBDC.⁸⁹ These findings make it clear that this generation's assessment focus on CBDCs will be influenced by the information that will shape their understanding. Although the impact of risk is unlikely to influence confidence and interest in using CBDC, minimising personal risk remains an important factor to consider. Because this risk factor is closely related to their personal data and funds, it is still necessary to increase CBDC security by the relevant authorities and increase caution by individuals.

The results further show that Generation Z's assessment of CBDC is influenced by the perceived value of the benefits offered by CBDC. Perceived value positively influences general trust, and hypothesis 4 is supported. This finding also supports the finding that the perceived value of CBDC will influence individual trust.⁹⁰ These findings explain that monetary economic value, ease of use, and epistemic value are considerations for Generation Z, especially in growing their trust. Apart from that, the influence of perceived value on intention to use CBDC also shows a positive impact, so these findings support hypothesis 2. In line with this, Generation Z will consider the tax costs of using CBDCs, CBDC design and services, and their interest in learning about CBDCs. Bank Indonesia's main role in increasing the useful value of CBDC is to focus on improving services and design and estimating the costs of using CBDC. These factors impact Generation Z's interest in continuing to use CBDC and foster positive values towards individuals. Apart from that, these empirical findings also provide an understanding that, in general, Generation Z believes in and intends to use CBDC, considering its benefits.

⁸⁸ Monideepa Tarafdar, Ellen Bolman Pullins, and TS Ragu-Nathan, "Examining the Impacts of Technostress on the Professional Salesperson's Behavioral Performance," *Journal of Personal Selling & Sales Management* 34, no. 1 (January 2, 2014): 51–69, <https://doi.org/10.1080/08853134.2013.870184>.

⁸⁹ Bijlsma et al., "What Triggers Consumer Adoption of CBDC?"

⁹⁰ Gupta et al., "Do Perceived Risks and Benefits?"

Considering Generation Z's beliefs is the first step to increasing interest in CBDC adoption among this generation. General trust shows a significant positive result on intention to use CBDC and supports hypothesis 7. Generation Z's trust in CBDC indicates that, in general, they need CBDC. Similar results were also shown by Erwanti & Setyani, that Indonesian people's interest in CBDC tends to grow after they trust CBDC.⁹¹ Trust in CBDC can be increased by considering the value of the usefulness of CBDC and technostress inhibitors. These two factors play an important role in growing individual trust. Apart from that, the IPMA results also show that general trust needs to be maintained in line with the beneficial value of CBDC. This explains that, in general, Generation Z in Indonesia considers CBDC to offer benefits and tends to trust it. However, technostress inhibitors and privacy risk factors also concern them. As far as they understand, CBDC may not be able to meet their expectations regarding the risks and knowledge of using CBDC.

Finally, this research explores the mediating effect of general trust on the relationship among perceived value, privacy risk, and technostress inhibitors on CBDC usage intention. The test results showed a partial mediation effect in the relationship between perceived value and technostress inhibitors on CBDC usage intention. These findings validate that individual evaluations tend to foster trust before turning into usage interest and other positive behaviour.⁹² Generation Z tends to believe in CBDC after they feel that CBDC offers benefits and assess that the technostress effect of CBDC can be reduced, before they are interested in using CBDC. However, the consistency of the risk effect which tends not to influence intention to use is also shown by general trust not being able to mediate the relationship between the two. Even though this generation thinks that risk has become part of adopting technology products, considering improvements and reducing existing risks still need to be considered.

V. CONCLUDING REMARKS

V.A. Conclusion

The objective of this research is to explore Generation Z's intention to use CBDC by examining their utility factors, privacy risks, technostress inhibitors, and general trust. Empirically, the results of this research show that technostress inhibitors (literacy facilitation and involvement facilitation) and perceived value (epistemic value, convenience value, and monetary value) are important factors in increasing the trust of Indonesia's Generation Z in CBDC. Furthermore,

⁹¹ Erwanti and Prasetyani, "Investigating Intention."

⁹² SJacoby, "Stimulus - Organism - Response Reconsidered."

these two factors can also influence Generation Z's interest in adopting CBDC. Generation Z's level of trust in CBDC also encourages them to use CBDC. The trust that grows in them is also their initial response to the value of CBDC benefits, CBDC-related knowledge, and CBDC facilities that they receive before their interest in using CBDB grows. These findings can be seen in the moderating influence of general trust in the relationship between perceived value and technostress inhibitors to intention to use CBDC. This research also shows that personal risk factors are unlikely to influence Generation Z's interest in adopting CBDC.

Based on these findings, this research provides both practical and theoretical contributions. The practical contributions are aimed at the government and relevant authorities (such as Bank Indonesia) to consider the factors that influence Generation Z's interest in using CBDC. In the CBDC design preparation stage, correct classification of CBDC designs and facilities are necessary, as the benefits of CBDC are the main assessment for Generation Z. Although this generation tends to view risk as something that is closely related to technology products, minimizing the risks associated with the use of CBDCs must also be considered by the governments. Other factors such as literacy and education related to CBDC also need to be carried out to provide a deeper understanding regarding the use of CBDC. Furthermore, this research has provided a theoretical explanation that all forms of information received by individuals (input) can be evaluated within them and foster certain feelings or perceptions within them, before ultimately turning into usage behaviour or usage interest. Thus, the model in this research can be a reference for analysing changes in individual behaviour regarding interest in using CBDC in the context of observations from other generations (such as Generation X or the Millennial Generation).

V.B. Policy Recommendations

The results of this research can also form the basis for strategies employed by several institutions involved in the implementation of CBDC, including:

1. For Bank Indonesia, as the relevant authority responsible for the Digital Rupiah program, a focus on CBDC infrastructure and regulations is necessary. The focus on infrastructure can be done by conducting studies related to CBDC design and the use value of CBDC. CBDC design will ultimately play a role in building general public interest in using CBDC. Consideration of Internet accessibility in Indonesia must also be taken into account to ensure the smooth adoption of CBDC, including in disadvantaged, frontier and outermost (3T) areas by cooperating with the Ministry of Social Affairs and the National Development Planning Agency. On the other hand, cooperation with the Financial Services Authority

and the National Consumer Protection Agency is important to create strong regulations to ensure the adoption of CBDC by the public. After establishing adequate designs and regulations, increasing understanding through education and literacy is also important. This education and literacy are not only limited to the community but also to other related institutions such as banks.

2. For the private sector, the development of CBDC as a national digital project requires that companies play an important role. Companies can contribute to investments related to CBDC development or collaborate with the government to provide CBDC infrastructure. This infrastructure includes the design, services and internet network availability. This collaboration can ultimately increase the use value of CBDC and increase public interest in using CBDC.
3. For universities, in developing CBDC, an empirical approach needs to be taken to capture the phenomena that exist in Indonesia and provide answers to the government theoretically. Universities play an important role in developing CBDC-related research. Research related to CBDC is not only limited to the economic perspective, but other scientific fields such as psychology and information technology can also play a role in the CBDC development. This enables effectiveness and efficiency in CBDC development. Additionally, universities also play a role in enhancing the knowledge of students and the broader community service programs related to CBDC.

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