

The Impact of Using Digital Banks on Gen Z Financial's

Yohannes Kurniawan

Information System Department,
School Of Information System
Bina Nusantara University
Jakarta, Indonesia 11480
ykurniawan@binus.edu

Farid Amory

Information System,
School of Information System
Bina Nusantara University
Jakarta, Indonesia 11480
farid.amory@binus.ac.id

Erwin Halim

Information System,
School of Information System
Bina Nusantara University
Jakarta, Indonesia 11480
erwinhalim@binus.ac.id

Charles Bernando

Information System,
School of Information System
Bina Nusantara University
Jakarta, Indonesia 11480
charles.bernando@binus.ac.id

Abstract

Digital banks make it easier for a society to grow financial inclusion. The lack of digital literacy makes people still skeptical about the security of new technologies. This study aims to examine the impact of digital banking on gen z in Indonesia. The method used in this research is a literature review from various digital libraries and databases (IEEE Explore, ScienceDirect, ResearchGate, Google Scholar, and Scopus). The subject areas of study are limited to "Digital Bank", "Gen Z" and "Technology". The impact of the implementation of digital banks in Indonesia is very significant for the economy but is hampered by public skepticism about data security and privacy. Thus, it is necessary to increase digital literacy along with advances in technology

Keywords

digital bank, financial, gen z, technology, Indonesia

1. Introduction

Technological advances have had a significant impact on the development of the banking industry. The transformation that occurs is the development of digital banks in the form of bank services that go directly into the hands of customers. The factors that support this transformation are the adoption of smartphones and the massive

internet penetration in Indonesia. The emergence of digital banks is also influenced by factors to meet demand as e-commerce financial inclusion and is driven by the process of industrial digitization (Rachman et al. 2011)

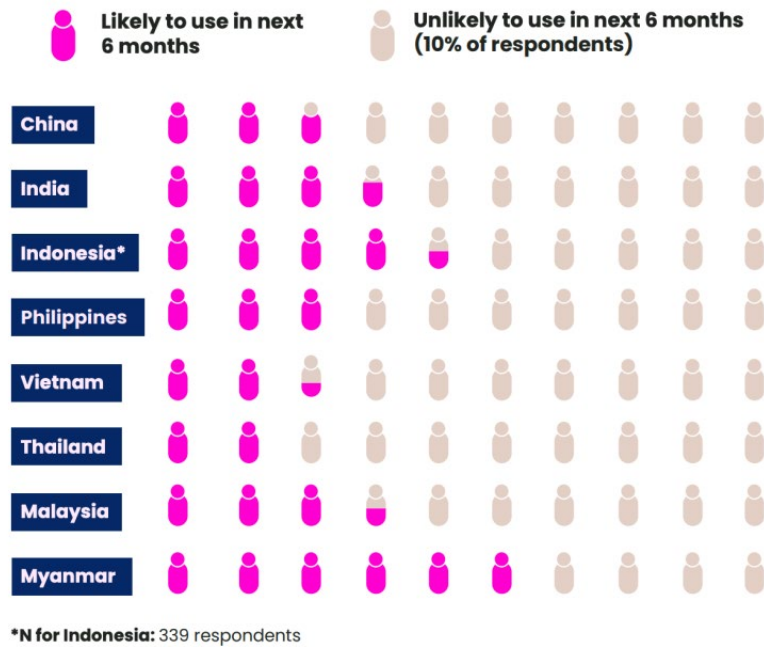


Figure 1. Propensity to use digital banking in next months

In the adoption of digital customers according to research from McKinsey in 2019, Indonesia is one of the fastest in digital banking adoption, showing better results than China. for Indonesians is higher customer loyalty than for other Asian countries (Kusumawati and Puspita, 2019)

To attract customers, digital banks now provide a variety of services. Open banking, daily spending analysis, and savings separation are the main features that differentiate digital banks from traditional banks. Although some of the features provided are still relatively new, technological development has been extremely rapid. As a result of the ease with which transactions can be completed in the palm of their hands, many young people, particularly millennials, have adopted digital banks to serve as secondary banks.

According to a report by Google, Temasek, and Bain, Indonesia's digital economy is expected to grow from \$44 billion in 2020 to \$124 billion in 2025. It is the region's most valuable internet economy. Almost all digital bank players have reported an increase in operating expenses in recent months, particularly beginning in June 2021. This demonstrates their efforts to be competitive.

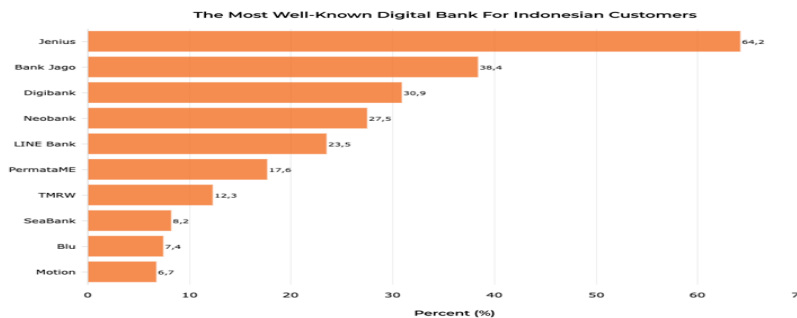


Figure 2. The most well-known digital bank for Indonesian customers (December 2021)

According to Figure 2, Jenius lead the competition of the most well-known digital bank for Indonesian customers. The massive marketing is one of many cause Jenius lead this competition (Pahlevi, 2022). Although the adoption of digital banks in Indonesia shows a significant number of people are still too early the adoption of digital banks. People like to use it only for secondary banks and only put not much money in digital banks. Customers are still not sure about the security issues provided by digital banks. This is reinforced by the fact that digital banks themselves do not have offices that stand like other conventional banks.

Millennials are the most likely to use digital banks. This is because young people are more concerned with money. The digital bank includes a daily expense analysis feature that millennials will appreciate. Banks have access to valuable data about customer demographics, product usage, and credit behavior through digital channels, but this information is only useful if the bank has advanced analytical capabilities to extract insights and value from it. Many people are concerned about data privacy, and digital banks offer this feature to determine a person's credit score.

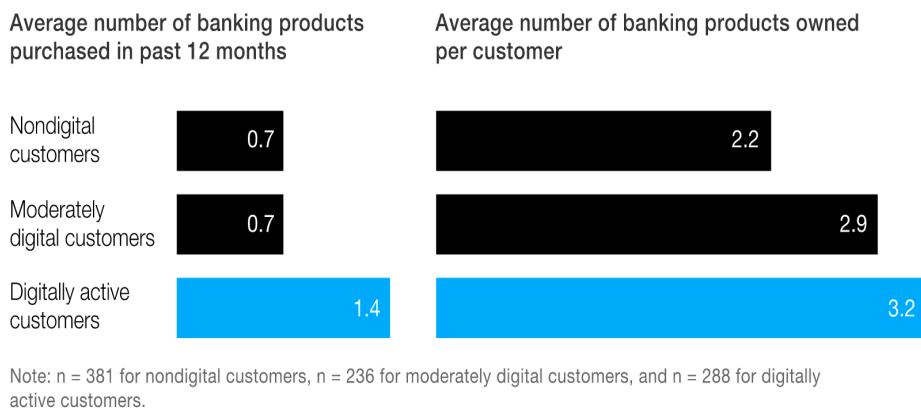


Figure 3. Digitally active customers in Indonesia

According to Figure 3, customers in Indonesia purchase more banking products than other customers. The increasing digital payment transactions reflect the Indonesian population's evolving digital financial literacy. Kaur (2022) mentions that as a branchless financial institution, a digital bank has a great opportunity to increase the penetration of a bankable society in Indonesia. The approach of modern digital applications enables them to blend in with the acceleration of digital services on multiple fronts. Several digital bank applications that have been launched have received relatively positive community acceptance based on the achieved traction. Furthermore, Barquin et al. (2019) mention that some players are beginning to integrate with consumer applications with a large user base.

2. Literature Review

2.1. Digital Bank

Digital banking means providing digital banking products and services available through different digital devices in a user-friendly way. According to Mohana (2018), the bank provides various digital services for its customers. This includes mobile banking, internet banking, SMS banking, and other forms of electronic banking. However, technological advances have enabled several Indonesian banks to establish what is known as digital or virtual banks. In this context, a digital bank operates on the same principles as a traditional bank but does not have a physical branch or office. The bank's operations (such as opening an account, saving money, and so on) are carried out entirely through a digital platform, which is a mobile application. It is further defined as the electronic delivery of banking products and services to customers (Kusumawati and Puspita, 2019). Digital banking, also known as Electronic Banking, Cyber Banking, Home Banking, or Virtual Banking, encompasses a wide range of banking activities that can be carried out from any place. All types of online/Internet transactions for various purposes are included in digital banking. They may include purchasing movie tickets online, shopping online, using e-commerce websites to conduct transactions, and using Internet banking services to make payments via transfers such as NEFT transfers, among other things (Pajan et al. 2018). So internet banking is the use of a bank's online services, such as

transfers from one account to another. While digital banking is the use of widely available and widely distributed services via any online channel (Mohana, 2018).

2.2. Mobile Banking

Mobile banking, also known as M-banking, is a smartphone application linked to the internet and registered by phone number. It is equipped with several security procedures released by each bank and allows you to perform banking functions at any time and from any location. However, its roots can be traced back to branchless banking. Before everything fits on your smartphone, banks have several options for providing banking services to a broader range of users (Chawla and Joshi, 2021).

2.3. The Importance of Digital Bank

Continual 24-hour service Not only does it make day-to-day banking operations easier, but it also improves life quality. Mobile banking provides access to banking services such as loans, installments, and investments to countries with limited infrastructure and education, ultimately improving the country's economy. While mobile banking apps vary by bank, some standard features, such as checking account balances and sending money, are always available in modern mobile banking apps. However, different banks' apps have different features and details. Banks frequently advertise these differences as their strengths in the hopes of attracting new customers, particularly young consumers who are generally tech-savvy. It also aligns with the largest demographic of mobile banking users, consumers aged 26-35, as opposed to people over 46, who are the least likely to use mobile banking technology (Chawla and Joshi, 2021).

2.4. Data Privacy and Security

The appropriate use of data submitted to organizations for agreed-upon reasons is referred to as data privacy. Data acquired by customers to satisfy their business requirements and needs should be sufficient; it should be acknowledged by customers and give customers comprehensive disclosure information. Data privacy and data security are intertwined, with the former remaining an asset for banks and the latter serving as a way of securing it to achieve the intended outcome for data acquired (Mahalle et al. 2018).

3. Method

This study uses a qualitative method. Searching from secondary data, journals, and other complementary data. Has the aim of knowing the impact of digital banking. First of all, the initial step starts by determining the research question represented by the paper's statement of purpose as stated in the introduction. Then, collect material from various digital libraries and databases (IEEE Explore, ScienceDirect, ResearchGate, Google Scholar, and Scopus). The subject areas of study are limited to "Digital Bank", "Gen Z" and "Technology".

4. Discussion

The following literature addresses the characteristics and scope of digital banks. Many reasons contribute to the continued growth of digital banking use in Indonesia, particularly among Generation Z. Many elements of a digital bank application make life easier for customers. The functions of the bank (such as establishing an account, saving money, and so on) are done out through a digital platform, which is a smartphone application.

Along with the development of technology, digital banking has begun to color every customer's financial activity. The convenience provided makes customers feel benefited. But unfortunately, there are still some Indonesians who enjoy this digital banking service. Based on data from world financial institutions, it is stated that only 54% of the Indonesian people are touched by banking services. Millennials now think that ATM, mobile banking, internet banking, SMS banking, and others are commonplace, or mainstream. Now people are thinking, about how people want to open accounts, save, and apply for credit or loans and other banking services, without having to physically present themselves or come directly to the bank concerned. This is what is captured as a potential opportunity by the bank, to increase the interest of prospective customers by providing services that customers want so that they are loyal to the bank (Mawarni and Fasa, 2021).

The increasing interest of the customer in digital banking brings a significant impact of digitization on banking. First, is the growth in the number of transactions conducted via digital channels. The second significant consequence is the advent of new generation banks that solely serve through digital means. The third big consequence will be the alteration of traditional distribution methods, such as branches. Branches will increasingly use technology such as

self-service, and artificial intelligence will make more use of guide robots. However, Various people have different ideas about how the branches will alter or transform in the future. Some think that branches will disappear and that digital channels will take over. Others say that branches will continue to satisfy consumers' requirements by embracing technological advancements. The key reason for the continuation of the branches will be the complicated items that require in-person consultation by banking employees (Balkan, 2022).

According to the literature on digital banks, digital banks and traditional banks share numerous similarities. A notable distinction is that digital banks may be operated on an application to access the many functions offered. This is more about bringing business to customers and making it easier for them to use digital banking services. This has the potential to cross several frontiers, particularly in regional areas that have yet to obtain financial service coverage. Although digital banking has several benefits and impacts, people also have to educate themselves about digitalization literacy because when an error happens in case of human error digital banking has limited access to prevent that mistake.

Non-financial dangers are far more prevalent in remote banking services than in regular services. Software and human factors are the sources of risks. It is feasible to dedicate hostile Internet assaults to remote service channels. The key factors limiting banking expansion include the majority of the population's skepticism of Internet services. Phishing and pharming are current Internet banking cybercrimes, two of the most organized crimes of the twenty-first century, manifesting themselves in a variety of ways. that hackers try to manipulate users over the Internet.

Classified as external or internal depending on their sphere of effect or occurrence. External risks include dangers unrelated to the Bank's or a specific client's business, as well as political, economic, and other concerns. Internal risks are further subdivided into losses for the Bank's core and auxiliary businesses. The first type of hazard is the most common: credit, interest rate, currency, and market risks. The second category includes losses on deposit formation, risks associated with new sorts of activity, and risks associated with bank misuse (Litvishko et al. 2022).

Effective service delivery and also ensure that the mobile network providers craft innovative services that are tailor-made to the banks' customers. The banks should continuously upgrade their electronic banking technology so that they have an updated system in place for effective and efficient service delivery (Thabani, 2022).

Telecommunications must be enhanced for banks and other financial institutions, as well as other organizations, to have an easy data communication network. As a result, electronic tellers and electronic money transfer services will be vastly enhanced. Customers must be informed on how to use their cards effectively and the need of maintaining the secrecy of their personal identifying numbers (PIN). However, the introduction of electronic automation via computer networks brought with it a unique challenge that had hitherto solely been associated with the manual approach. These are most commonly manifested as software fraud (Ibrahim and Daniel, 2022).

The analysis of the diversification of world banks shows that in practice a set of strategies and methods of risk management should be applied to achieve sustainable development of the financial system. Studying the customers of banks and their needs in modern society requires constant international communication and the development of partnerships to create the conditions necessary for the provision of safe financial services and sustainable growth of banks (Aguayo and Ślusarczyk, 2020).

5. Conclusion

Based on the analysis described, it can be concluded that the progress of the financial industry, especially digital banks, has brought a lot of progress, especially in the younger generation who can be more financially literate. Based on data research by Google, Indonesia will be expected to reach \$124 billion in 2025 in the digital economy. The expectation is seen to be reached because many players in banking create their digital banking. The acceleration is also supported by the domination of amount young people in Indonesia. Indonesia is one of the fastest in digital banking adoption, showing better results than China, considering of Indonesians is higher customer loyalty than other Asian countries. Digital banking has positively impacted the Indonesian people, especially in financial inclusion, in developing countries that make accelerated access to capital and many features for financial literacy.

Acknowledgment

This work is supported by Grant from Bina Nusantara University entitled “International Research Thematic Camp 2022” with contract number: 184/Proyek.Inisiatif/XII/2022 and contract date: 5 January 2022.

References

- Aguayo, F. Z. and Ślusarczyk, B. Risks of banking services’ digitalization: The practice of diversification and sustainable development goals. *Sustainability (Switzerland)*, 12(10). <https://doi.org/10.3390/SU12104040>. 2020.
- Barquin, S., De Gantès, G., Hv V., and Shrikhande, D. “Digital banking in Indonesia: Building loyalty and generating growth,” 2019. [Online]. Available: <https://www.mckinsey.com/~/media/McKinsey/Industries/Financial>
- Balkan, B. “Impacts of Digitalization on Banks and Banking,” ResearchGate, Apr. 2021. https://www.researchgate.net/publication/351112661_Impacts_of_Digitalization_on_Banks_and_Banking (accessed Jul. 24, 2022).
- Chawla, D., and Joshi, H. “Segmenting Mobile Banking Users Based on the Usage of Mobile Banking Services,” *Global Business Review*, vol. 22, no. 3, pp. 689–704, Jun. 2021, doi: 10.1177/0972150918811257.
- Ibrahim1, A.U. and Daniel, C.O. Impact of E-Banking on the Development of Banking Sector in Nigeria, *International Journal of Managerial Studies and Research*, vol. 7, no. 2, 2019, doi: 10.20431/2349-0349.0702004.
- Kaur, D., Here’s how digital banks in Indonesia will gain a foothold this year, *Tech Wire Asia*, May 10, 2021. <https://techwireasia.com/2021/05/heres-how-digital-banks-in-indonesia-will-gain-a-foothold-this-year/> (accessed Jul. 21, 2022).
- Kusumawati, N. and D. Puspita, D. Consumer Acceptance of Digital Bank in Indonesia: Technology Acceptance Model Digital Banking *International Journal of Management and Applied Science*, no. 5, pp. 2394–7926, 2019, doi: 10.13140/RG.2.2.14864.35843.
- Litvishko, O., Beketova, K., Akimova, B. and Islyam, G. Impact of the Digital Economy on the Banking Sector, ResearchGate, 2020. https://www.researchgate.net/publication/340122623_Impact_of_the_Digital_Economy_on_the_Banking_Sector (accessed Jul. 24, 2022).
- McKinsey & Company, Digital banking in Indonesia: Building loyalty and generating growth, McKinsey & Company, no. February, p. 6, 2019, [Online]. Available: <https://www.mckinsey.com/industries/financial-services/our-insights/digital-banking-in-indonesia-building-loyalty-and-generating-growth>
- Mahalle, A., Yong, J., Tao, X., and Shen, J. Data Privacy and System Security for Banking and Financial Services Industry based on Cloud Computing Infrastructure, 2018 IEEE 22nd International Conference on Computer Supported Cooperative Work in Design ((CSCWD)), May 2018, doi: 10.1109/cscwd.2018.8465318.
- Mawarni, R. and Fasa’, M.I., Penerapan Digital Banking Bank Syariah Sebagai Upaya Customer Retantion Pada Masa Covid-19. *Jurnal Pemikiran dan Penelitian Ekonomi Islam*. 2021.
- Mohana, S. “Digitalization in Banking Sector,” *International Journal of Research and Analytical Reviews*, vol. 5, no. 3, 2018, [Online]. Available: <https://www.ijrar.org/papers/IJRAR190A058.pdf>
- Pahlevi, R. “Jenius, Bank Digital Paling Dikenal Konsumen pada 2021,” *Katadata.co.id*, Jan. 05, 2022. <https://databoks.katadata.co.id/datapublish/2022/01/05/jenius-bank-digital-paling-dikenal-konsumen-pada-2021> (accessed Jul. 24, 2022).
- Rajan, A.P. and Saranya, G., Digital Banking Services: Customer Perspectives. Issue 12. *www.jetir.org (ISSN-2349-5162) JETIR1812945 Journal of Emerging Technologies and Innovative Research (JETIR) www. jetir,*” 2018. [Online]. Available: <https://www.researchgate.net/publication/332038540>
- Thabani, N. “The Impact of Digital Banking on the Performance of Commercial Banks in,” ResearchGate, Dec. 20, 2020. Jul. 24, 2022).

Acknowledgment

This work is supported by Grant from Bina Nusantara University entitled “International Research Thematic Camp 2022” with contract number: 184/Proyek.Inisiatif/XII/2022 and contract date: 5 January 2022.

Biographies

Yohannes Kurniawan is an Associate Professor and Dean of the School of Information Systems at BINUS University. Having more than 10 years of experience in academics and industries, he has helped a lot of organizations

to accelerate their digital transformation. Yohannes' extensive expertise in Information System Development, Knowledge Management, Digital Business, Business Analytics, and User Experience makes him become the Subject Matter Expert for UX and Educational Technology at BINUS CREATES. His research interests vary from Implementing Human Information Behavior Concepts for Design, Knowledge Management Systems, and Analysis and Design of Information Systems. Apart from his work in digital transformation, Yohannes currently holds a strategic role as such co-founder and Vice Chair of Asosiasi Sistem Informasi Indonesia (ASII), and Chair of Indonesia ACM SIGCHI. His recent experiences also hold the role of Chair of the International HCI and UX Conference. He has contributed to various projects related to UI/UX such as Principle UX Consultant for a Start-Up Company in Indonesia.

Farid Amory is an undergraduate of Information System student at Bina Nusantara University. He participated as a team lead in ERPsim Internasional Competition. He also provided several insights based on UN-SDGs in ASEAN Data Science Explorer Competition. His research interests include Technology, Digitalization, and User Experience.

Erwin Halim is a Senior Lecturer at the School of Information Systems at Bina Nusantara University (BINUS University) since the year 2008. Graduated from the University of Indonesia, Pierre Mendes France University, and BINUS University. He has more than 27 years of experience in education and business by running Ergomatics Education Center and becoming a franchise consultant. He has a business consultation column and is also a consultant for franchise businesses in Kontan newspapers (Kompas Gramedia Group, Indonesia). He was Franchise Academician by Indonesia Franchise Association (AFI) and Franchise magazine in Indonesia. Previously Erwin worked as a Subject Content Specialist for developing Entrepreneurship and Digital Business courses, including Social Informatics, Digital New Media, Business Web Solutions, E-Business Design, E-Business Strategy, and Digital Marketing. His research interests included a broad area of Digital Business, Fintech, E-Healthcare, Digital Marketing Analysis, Human Behavior in Digital Business, Performance Analysis, and Digital Transformation. He is co-founder and Executive Director of Asosiasi Sistem Informasi Indonesia (ASII).

Charles Bernando currently works at the Information Systems Department of BINUS University as a faculty member. Charles does research in Solid State Physics. Their most recent publication is 'Kinematics of the Doped Quantum Vortices in Superfluid Helium Droplets'.