THE DEVELOPMENT OF THE BANKING INDUSTRY IN THE DIGITAL ERA IN INDONESIA

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ABSTRACT

The banking industry has experienced an increase in the services that customers can provide due to the emergence of the industrial revolution 4.0, so it has become more innovative. Using this information technology provides innovation in the form of digitizing the banking sector from various sides. This research aims to see how developments occur in the Indonesian banking industry, which has begun to be digitized. This research will be carried out using a qualitative approach and literature study methods. The data obtained came from various research results that discussed the digitalization of the banking sector that occurred in Indonesia. This study found that industries that want to survive need to adopt new technologies to stay ahead or stick with existing conventional systems and then slowly disappear.

Keywords : Service; Digital Bank; Industrial Revolution 4.0; Bank, Technology

INTRODUCTION

The industrialized world is approaching a new age known as the Fourth Industrial Revolution. The term Industrial Revolution 4.0 was coined in Germany during the 2011 Hannover Fair. The Industrial Revolution 4.0 is a phenomenon that combines cyber and automation technologies. The Fourth Industrial Revolution is often referred to as the "cyber-physical system" (David et al., 2022). The notion of its application is concentrated on automating the application process with the aid of information technology so that human labor can be decreased. Consequently, the efficacy and efficiency of a workplace will grow automatically (Kokina & Blanchette, 2019).

As a result of the shift in industrial growth towards digital, a variety of operations began to adapt to new innovations. In addition to penetrating the financial sector, technological improvements that improve the quality of life have also permeated this sector. One of the areas leading to a shift in the industrial era 4.0 occurs in the banking sector (Rahmawati et al., 2021). Banking has become a service industry that contributes to national income and serves as an intermediary institution to accommodate

public funds and route them back to productive economic activity, so contributing to the economic progress of Indonesia (Setiawan, 2019).

By releasing OJK Regulation No.12/POJK.03/2018 on the implementation of Digital Banking Services by Commercial Banks, the Financial Services Authority (OJK) promotes the digitalization of banking. This regulation issued by OJK states, "digital banking services are electronic banking services developed by optimizing the use of customer data to serve customers more quickly, easily and according to customer experience and can be carried out completely independently by customers by taking into account aspects security". With this regulation from the OJK, it is hoped that banks can optimize the use of technology to meet consumer needs (Mutiara et al., 2019).

The banking industry's digital revolution extends beyond the provision of online and mobile banking services. Combining digital technology with customer engagement requires innovation in the financial banking industry; in this situation, the results of these new technologies must make it easier and more convenient for customers to obtain banking services (Chanias et al., 2019).

Many banks have begun to develop their digital banking capabilities. In addition to the provision of transactional applications and websites, Indonesian banks branch offices also conduct banking digitalization. Currently, some banks offer applications for reserving queue numbers to print savings transactions, and machines can be used to change passbooks (Ananda et al., 2020). Even opening an account can now be done by self-service by customers, without having to come to the branch office again. The presence of digital banking is a solution to pretty time-consuming banking problems. By digitizing, the banking industry has made long-term investments for the future (Grassi et al., 2022).

Through the brief explanation above, the researcher then intends to look at the development of the banking sector in the digital era in Indonesia.

LITERATURE REVIEW

Bank

The bank is one of the financial institutions that play an essential role in a country's economy, including Indonesia. Chapter 1 Article 1 and paragraph 2 of Law No. 10 of 1998 regarding amendments to Law No. 7 of 1992 concerning banking defines a bank as a business entity that collects funds from the public in the form of

savings and distributes them to the public in the form of credit and/or other forms to improve the standard of living of the people (Supriyono & Herdhayinta, 2019).

Another meaning of bank may be found in the Fockema Andrea legal phrase dictionary, which states that a bank is an entity or individual that manages a business that receives and gives money to third parties (Namasudra et al., 2021).

Kholis argues that the main business of banks is to collect funds in the form of deposits which are the bank's source of funds. Likewise, regarding the disbursement of funds, the bank should obtain the maximum profit for the owner, and its activities should also be directed at improving the community's standard of living (Auer et al., 2022).

Totok and Nuritomo, more specifically banks, can function as:

a) Agent of Trust

The essential foundation for banking activity is faith in the solicitation and distribution of capital. People deposit their money in the bank because they have faith in it. People trust that the bank will not mismanage the funds and will not misappropriate them. If trust is there, the bank will place or distribute funds to debtors or the general public. The bank thinks that the debtor will not misuse the loan, will handle the loan funds in accordance with their intended purpose, and has the intent to return the loan and other obligations when they are due (Viuela et al., 2020).

b) Agent of Development

The monetary and actual economic sectors of a community cannot be separated. The two industries interact and influence one another continuously. If the financial industry does not perform well, the real sector will not be able to perform properly. For the smooth operation of economic operations in the real sector, the collection and distribution of funds by banks are important. These bank activities enable the public to engage in investment, distribution, and consumption of goods and services, given that investment, distribution, and consumption cannot exist without money. The role of banks as agents of development is increasingly felt in state banks, which, apart from carrying out a commercial role, also help carry out the government's mission to support the smooth running of strategic development programs (Pan & Yue, 2022).

c) Agent of Service

There is a close relationship between the services given by banks and broad economic activities. These services include, among others, money transfer, storage of valuables, bank guarantee providing, and bill payment (Shahid et al., 2022).

Digitization

The Digitalization Era was established with a variety of characteristics and advantages. Incorporating digitalization into an individual's everyday life as well as an organization's or company's activities can result in a number of advantages. According to Sukmana, digitization transfers media from print, audio, and video to digital forms. Digitization is performed to generate digital document archives, for photocopying purposes, and to establish digital library collections. Computers, scanners, source media operators, and accompanying software are required for digitization (Rodrguez-Abitia & Bribiesca-Correa, 2021).

According to Lasa, digitization is managing printed documents into electronic ones. Digitization can also be defined as converting information into a digital (e.g., computer-readable) format, where information is organized into bits. Brennen & Kreiss define digitization as the rising availability of digital data made possible by breakthroughs in creating, transferring, storing, and analyzing digital data; it has the capacity to structure, shape, and impact the modern world (Noardo et al., 2022).

Industrial Revolution 4.0

The term Industry 4.0 was born from the idea of the fourth industrial revolution. Davies said that the industrial revolution occurred four times, namely:

a) The first industrial revolution occurred in England in 1784, when the invention of the steam engine and mechanization began to replace human work.

b) The second revolution occurred at the end of the 19th century, in which production machines powered by electricity were used for mass production activities.

c) The use of computer technology for manufacturing automation in 1970 marked the third industrial revolution.

d) The rapid development of sensor technology, interconnection, and data analysis has given rise to integrating all these technologies into various industrial fields. This idea is predicted to be the next industrial revolution, namely the Industrial Revolution 4.0.

The number four in the term Industry 4.0 refers to the fourth revolution (Murdiana & Hajaoui, 2020).

Schwab states that we are at the beginning of a revolution that will drastically alter how we live, work, and interact. The rate at which the changes occur is exponential. Compared to the preceding industrial revolution, this represents a significant shift. Industry 4.0 is also known as the digital revolution and the generation of technological disruption. Because of the spread of computers and the automation of records in various disciplines, this period has been dubbed the digital revolution. Industry 4.0 is claimed to be the era of technology disruption since automation and connectivity in a given industry will non-linearly shift the industrial world and work rivalry (Rapanyane & Sethole, 2020).

Utilization of artificial intelligence is one of the distinguishing features of industry 4.0. One application is replacing human labor with robot labor, which is less expensive, more effective, and more efficient (Mithas et al., 2022).

In theory, the IR 4.0 era will empower the digitization of production and supply networks through the integration of data from multiple sources and places. Utilization of digital information is utilized to drive manufacturing and distribution of physical goods. The integration between information technology and operating technology is marked by the shift from physical to digital to physical roles (Tseng et al., 2021).

Zezulka, Marcon, Vesely, and Sajdl apply the terminology of Industry 4.0 to three interconnected factors: I digitalization and integration of simple technical-economic relationships with complex technicalities-complex economic networks; (ii) digitizing product and service offerings; and (iii) new market models. These human activities are interconnected with numerous communication networks of the present day (Verma et al., 2022).

Based on Cyber-Physical-Systems, the most popular technologies are the Internet of Things (IoT), Internet of Service (IoS), and Internet of People (IoP). This technology enables communication organizations (in an Industry 4.0 environment) to link and utilize data from manufacturers throughout the system's life cycle, unrestricted by business or national boundaries. As a basis for planning, managing, and evaluating a firm, all relevant stakeholders can acquire pertinent information and data at any time in order to track advances in supply, processing, and transport. Not only between humans

(Customer to Customer), but also between humans and machines (Customer to Machine) and between machines (Machine to Machine), has the pattern of communication evolved (Yao et al., 2019).

Digital Banking

Digital banking services are an advanced era of the era of electronic banking (E-Banking). In the age of electronic banking, people have been given the convenience of transacting using various channels. Digital banking services are independently performed banking services or activities that utilize electronic or digital facilities owned by banks or digital media belonging to potential clients and bank customers. This enables prospective customers and bank customers to obtain information, communicate, register, open accounts, conduct banking transactions, and close accounts, as well as obtain information and conduct transactions outside the realm of banking products, such as financial advice, investment, electronic-based trading system transactions (e-commerce), and various customer needs (Chaimaa et al., 2021).

Customers can obtain information, register, open accounts, conduct transactions, and close accounts independently without involving bank officers. Furthermore, customers can obtain information and conduct transactions outside of banking products such as financial advisory services, investment information, e-commerce transactions, and various other needs of the customer in question by utilizing only one channel through electronic or digital banking (Shen & Hou, 2021).

Digital banking is considered a new way of doing banking transactions because of its potential to save costs. Banks should see that this is not just digitizing existing products but changing mindsets and solutions to become digital according to the behavior and needs of the community (Cunha et al., 2021).

METHOD

The method is a way that must be done in conducting research. This method aims to direct and seek and find detailed scientific truths that can be justified scientifically and do not deviate from the formulation of the problem. The type of research methodology used is descriptive qualitative. This study describes the phenomenon of technological development that is developing quite rapidly in Indonesia. This study describes the development of financial technology for banking services that have been running their operations conventionally.

The data used in the research is in the form of literature on what is happening in financial technology, which is growing rapidly, considering the regulations imposed by the regulator, namely Bank Indonesia and the Financial Services Authority.

RESULT AND DISCUSSION

Development of Digital Banking in Indonesia

Rapid technological developments have directed banks to improve services by establishing digital banking. This is intended so that banks can maximize customer service and improve the quality of their operations. So it is hoped that banks can develop their digital banking. Entering the digital era, the banking industry is increasingly aggressively developing digital banking technology (digital banking). This attracts new potential customers, especially millennials or the modern (tech-savvy) generation.

Based on the Jenius Financial Study: Indonesia Digital Savvy Behavior survey in collaboration with Nielsen, the number of saving customers in 2014 grew from 23% to 36% in 2018. The number of saving customers, internet, and mobile banking users also increased from 28% in 2014 to 30% in 2018. The survey shows that digitalization impacts all sectors, including the banking industry.

Smartphone Usage Penetration

Judging from the generation group, starting from the baby boomers generation or respondents aged 54-68 years to generation X (age 39-53 years), they still use smartphones a lot for chatting, social media, online transportation, video streaming, and shopping. From the survey results, financial applications are in the sixth to the eighth position regarding the number of users in that category. The baby boomers even placed it in the fifth position with 23 percent of its users.

The younger a generation also shows, the more positive their assessment of technological innovation, including financial applications. As many as 72 to 80 percent of ages X, Y, or Z consider a financial application positive in terms of its ease of opening an account, checking financial transactions, and transacting securely.

Despite the high need for this digital savvy for financial applications, they pay attention to several criteria before choosing a financial application. They highlighted the importance of low pricing from online banking, especially the absence of monthly

administration fees or cash withdrawal fees. In addition, they also pay attention to the safety and innovation of these products.

A survey of internet usage in 2017 conducted by the Association of Indonesian Internet Service Providers (APJII) stated that the highest use of the internet in the economic field was to find and compare the prices of goods and services, whose portion reached 45.14%. The rest, helping jobs at 41.04% and information buying at 37.82%. The use of the internet to access banking services is only 7.39%.

The Association of Indonesian Internet Service Providers (APJII) stated that the low use of the internet in the banking sector is due to the large number of financial institutions that use hardware in their business activities.

For this reason, to increase the penetration of internet use in financial institutions, APJII recommends that financial institutions reduce infrastructure investment that is still hardware (hardware), such as ATMs, by changing it to the latest applications using internet technology.

Digital disruption will be a driving factor for considering digital channels as part of the banking strategy in Indonesia. Thus, it is essential for bankers, digital technology enthusiasts, and fintech businesses, which are just a few examples, to know the current state of digital banking and the risks and challenges faced by this industry.

International consulting service Pricewaterhouse Coopers Indonesia (PwC Indonesia) noted that digital transactions in the banking sector continue to develop. PwC Indonesia revealed that in 2018 digital technology was the main factor that significantly influenced the national banking industry. For this reason, digitalization in the banking sector is necessary to remain able to adapt. Digitization does not mean competing to close branch offices and allocating funds for developing digital systems. But the banking challenge lies in integrating every existing touchpoint to provide excellent customer service. Both in the physical form and the form of digital applications.

From time to time, information technology undergoes rapid changes and developments, and now it has become a societal demand. The primary objective of the development of information technology is to improve, simplify, cheapen, quicken, and secure the future of human life. Many important changes in human existence have

resulted from the development of information technology, especially the provision of numerous conveniences and the facilitation of human labor.

In the financial sector, technology-based products have emerged, known as financial technology (fintech). Digital innovations in finance and banking have created new products that threaten the presence of conventional banking. Banks are required to adapt to technology so as not to lose in the competition.

A new phenomenon is occurring in the banking industry; developments, especially digital technology, drive this phenomenon. The rapid development of digital technology has made banks switch to developing banking services with a digital touch. Gradually, banking services will be transformed into digital banking. The existence of digital banking services will replace the old ways of doing banking activities. Customers no longer need to come to the branch office to open an account or make financial transactions, but everything can be done with a finger on the smartphone screen.

Along with the rapid development of information technology and behavior changes, customer needs continue to increase, thus encouraging banks to meet their customers' needs. Currently, banks are improving their services so that customers can obtain various banking services independently (self-service) without having to visit the bank office. Independent banking services include registration, transactions (cash, transfers, payments), and other services to closing accounts, also known as digital banking services (digital banking).

The development of digital banking services quoted from www.ojk.go.id is driven by the following:

a) There is a rapid development of information technology;
b) Changes in people's lifestyles according to the development of information technology;
c) There is a public need for banking services that are effective, efficient, accessible from anywhere and anytime, comprehensively, and easily;
d) Competition in the banking industry to provide services following the needs of the community;
e) Banking needs efficient and integrated operations.

As an illustration of digital banking services in Indonesia, you can now see two examples of products that Bank BRI Indonesia has launched. BRI developed a system called BRIAPI (BRI Application Programming Interface). This system allows third parties (E-commerce, fintech, digital startups, etc.) to collaborate and integrate banking services and products from Bank BRI easily and quickly to create new services that are more customer-centric.

In addition, Bank BRI also officially launched a virtual assistant chat service called SABRINA (Smart BRI New Assistant). SABRINA is presented as a breakthrough to meet customer needs through fast, accurate, safe, and convenient services. In the past, customers needed to wait in line to get service. Now, it's easier for customers to chat with SABRINA. Customers do not need to go to the BRI office or call CallBRI, SABRINA is ready to provide services directly.

Most recently, PT Bank Negara Indonesia Tbk launched two new digital banking services. The two banking services are Digital Savings Opening and BNI New Mobile Banking. BNI prepares this Digital Savings Opening Service to make it easier for people to have BNI savings anywhere and anytime without the need to queue at the Branch Office.

For businesses that provide financial services, customer satisfaction is the most important consideration. Customer satisfaction is a strategic factor in gaining a competitive advantage and preserving the company's reputation in the larger community; therefore, exceptional customer service is crucial.

Challenges in the Digital Banking Age

The era of digital banking 4.0 offers an opportunity for banks in the country to provide clients with more creative services. These developments are necessary to combat competition and the rapid expansion of financial technology (fintech). However, on the other hand, the digital banking 4.0 era also presents several challenges, therefore, banks must be more adaptive to the development of the digital banking 4.0 era.

The rapid evolution of digital banking technology presents a novel obstacle. The banking business, as a burgeoning service industry capable of fueling Indonesia's economic growth, faces two options: adopting digital technology in order to "live" or remaining conventional but gradually "dying out."

The banking industry needs to continue to improve customer service through digital transformation. However, the transformation must also be appropriate according to market needs. For example, banks should focus on developing and equipping various features for mobile banking to individual customers rather than internet banking.

This is because, in addition to the growth of smartphone users in Indonesia, which is increasing rapidly every year, the character of the community, especially the millennial community today, tends to prefer banking services that provide convenience and speed of transactions anytime and anywhere.

General Chairperson of the National Bank Association Kartika Wirjoatmodjo believes that there are two critical challenges that all banking business players must answer. The first challenge is from the internal side, and banks tend to have an organizational structure with very strict standard operating procedures and risk management. The presence of information and communication technology allows economic activities to be carried out more flexibly. However, the digital economy remains a challenge due to its complex nature, especially from a security perspective.

The second external barrier comes from the perspective of the customer. The reason for this is that consumers of financial services favor providers who offer speed and convenience. The provision of digital banking services is hoped to expand and facilitate public access to financial services. Its use can be maximized without knowing the limitations of time and place.

CONCLUSION

The rapid development of technology and the internet should not be used as a threat and an obstacle but as a challenge and a driving force to be creative and produce something that will help human work to be more organized and directed. The challenges in the digital world are growing in the banking industry, and the progress that will occur in the coming years is unstoppable. This is because banks do not only compete with other banks, but in this digital economy era, banks also have to compete with other financial technology companies that offer security and convenience for their users. The public needs to be educated about digital banking services. As a technology-savvy society, we don't need to shy away from technological advances but ensure that we don't become victims of technological advances.

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