Disruptive Finance: Facing Challenges and Finding Opportunities in a New Era

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Abstract

Technological developments often open up new possibilities for society. These new opportunities that arise often create benefits and advantages for society. But sometimes, the emergence of new technology makes changes that disrupt the existing conditions, where things that were previously there are replaced by something new. In this case, technology in the financial sector significantly impacts the people's economy. This research will be carried out to examine how financial technology development raises new problems and opportunities. The method used in this research is descriptive qualitative research. Some of the data used in this study were obtained from the results of literature studies on previous studies. The results of this study then found that technological innovations in the financial industry can have a positive impact. This can be seen through the growth of related business sectors and the overall financial system efficiency increase. But of course, there are challenges, both in the formation of new regulations and adaptation to existing infrastructure. In facing challenges and taking advantage of existing opportunities, governments, financial institutions, and industry players must adopt a proactive approach.

Keywords: Financial Industry, Disruptive Technology, Challenges, Opportunities, Economy.

1. Introduction

Stability of the financial system is a condition in which the economic mechanisms of pricing, fund allocation, and risk management support economic expansion. To comprehend the meaning of financial system stability, one must investigate the factors that can lead to financial sector instability. Numerous causes and disruptions are capable of causing financial system instability. This is typically the result of a combination of structural and behavioral market failures (Su et al., 2021). Failure on the market may be external (international) or internal (domestic). Credit, liquidity, market, and operational risks are hazards that frequently accompany financial system activities. The function of the financial system in the economy is crucial. However, along with the development of technology, such as VUCA and the Era of Disruption, an more practical and efficient innovation has emerged (Chupradit et al., 2021).

According to Christensen, Disruptive Innovation is a theory of how challengers can offer a disruptive technology or an innovation that can beat old concepts. The technology offered is more complete in performance or features but cheaper or more accessible than service products in mainstream markets (Andersen et al., 2023). Because innovation attracts customers who all need convenience in living their lives. Disruptive innovation can be called the "Disruptive" Era, the era of disruption cannot be separated from the rapid development of technology, where this technology provides color and updates that are enough to shake civilization in various parts of the world (Cueto et al., 2022).

Disruptive innovation typically targets market segments that market authorities deem less desirable or less significant, but the innovation is a breakthrough and has the potential to redefine existing systems or markets. If the business world fails to foresee the emergence of disruptive innovation, it can result in a company's demise (Albors-Garrigos & Hervas-Oliver, 2019). Technology gives rise to various innovations, brings newness and leaves different conventional systems. Conventional taxis are starting to be abandoned, and the base ojeks are getting rid of them, along with the emergence of application-based transportation facilities such as Go-Jek and Grab. Newspapers abandoned turning to online news (Pancarelli, 2020).

Various innovations in this technology also cause side effects in market map changes, such as in Singapore. In mid-2016, several media reported that starting in 2014, there had been signs that Singapore's Orchard Road was no longer a shopping paradise due to a decline in shopping interest along with the economic slowdown followed by the closure of most shops, making it increasingly quiet and

unattractive (Kauffman & Naldi, 2020). The disruption era has impacted all sectors, especially in the field of public services. The financial or financial sector plays a significant role in the economy and continues to develop in response to the demands of the community. Carney stated that innovation in the financial sector would alter the foundation of the central bank and revolutionize all users of financial services. This innovation in the financial sector is known as Financial Technology (Fintech) (Priya et al., 2021).

In general, and broadly, FinTech refers to using technology to provide financial solutions. According to Fintech Weekly, FinTech is a line of business based on using software to provide financial services. Financial technology companies are generally start-ups created to disrupt the financial systems of companies and companies that rely less on software (Zhang-Zhang et al., 2020). Fintech exists in developed nations and is expanding swiftly in developing nations such as Indonesia. Fintech can facilitate a more efficient and secure financial transaction process. This transaction comprises payments, borrowing, transferring, purchasing, and selling shares (Utami & Ekaputra, 2021).

Fintech developments continue to increase in this digital era. The market valuation of public Fintech companies has quadrupled since the global financial crisis, far more than any other sector. Meanwhile, in Indonesia, Fintech began to experience an increase in 2014 – 2016, with notable digital development trends. Fintech actors in Indonesia are still dominant in the fields of Payment, Lending, Aggregators and Crowdfunding (Albarrak & Alokley, 2021). Meanwhile, the value of Fintech transactions in Indonesia reached US\$ 15.022 billion in 2017. With the valuation of this number and rapid digital development, there are several problems and opportunities for financial inclusion in Indonesia. According to DBS Asian Insight Research, Fintech can influence banking without regulation and convergence between Fintech and Banking. Fintech can disrupt banking stability due to easy access by users (Dawood et al., 2019).

Through the brief explanation above, the researcher then intends to look at how technological developments, in this case, Fintech, affect economic conditions in Indonesia.

2. Literature Review

Disruptive Innovation

Disruptive innovation was introduced in 1995 in the Harvard Business Review and published in the book The Innovator's Dilemma two years later, a widespread discussion of this theory has only emerged recently. In his book, Christensen emphasizes that products with disruptive technology are generally cheaper, simpler, smaller, and often more convenient to use. Disruptive innovation is a theory of how a challenger can offer a disruptive technology or an innovation that can defeat the old concept (Si & Chen, 2020). The technology provided is more complete in performance or features but cheaper or more accessible than service products in mainstream markets. Fukuyama interprets disruption according to the word's lexical meaning. Disruption is disruption or mayhem. According to him, a society shaped by the power of information tends to value democratic values such as freedom and equality (Klarin, 2019). Freedom of choice is elevated to the status of a right, while the regulatory power and coercive tendencies of all hierarchies (in religion, politics, government, business, etc.) are undermined. Fukuyama acknowledges the advantages or benefits of technological advancements, resulting in the emergence of a "information society" (De Filippi et al., 2020).

Christensen understands disruption from different perspectives, namely industry, business and finance. Christensen's view or theory of disruption became very popular in line with the development of information technology applications (Muller, 2020). Disruption means profitable innovation because the company has highly regulated procedures, but rather because of deception or neglect of what is taken for granted. A large and successful company or industry tends to have an organized system with work procedures that guarantee product quality (Midgley & Lindhult, 2021).

Christensen revealed that there are two types of disruptive innovation, namely low-end and new markets.

a. Low-End Disruption

Low-End disruption is when a company uses a business model and offers a lower-priced product with acceptable performance, potentially claiming a market segment or acquiring a competitor's customers. In this concept, generally established companies will continue to try to achieve the highest profit and demand by improving the quality of products and services so that they pay less attention to customers with low orders. This will open opportunities for disruptive innovation to become good enough in the low-end market and slowly become superior in the future (Gielens et al., 2021).

b. New Market Disruption

Next is this disruption, when a company creates a new segment in an existing market with a lowcost version. In this concept, companies will look for ways to attract new consumers. An example of this concept can be seen in the Xerox copier machine. At first, Xerox provided photocopiers for large companies, but over time many small market segments also needed photocopiers (Olabode et al., 2023).

Scott Anthony expressed almost the same opinion, and he revealed that an issue currently on the rise is regarding innovation, because innovation can change the order of the company and the market. To be clearer, below are several examples of disruptive innovation, including:

- a. Print encyclopedia, market disrupted by Wikipedia innovation
- b. Telegraph interrupted by Telephone
- c. Floppy Disk was disrupted by CD and USB CD & DVD innovation (Eliakis et al., 2020).

Information Technology and Digital Economy Concept

According to Bambang Warsita, information technology is the infrastructure and systems for efficiently and effectively obtaining, transmitting, processing, interpreting, storing, and utilizing data. Information technology, as defined by Lantip & Rianto, is the knowledge of computer-based information, and its development is extremely rapid (Kumar et al., 2021). According to Hamzah B. Uno and Nina Lamatenggo, information technology handles data. Processing includes processing, obtaining, compiling, preserving, and manipulating data in a variety of ways in order to produce quality information, specifically relevant, accurate, and timely information. The Solow economic growth model is intended to demonstrate how growth in capital stock, growth in the labor force, and technological advancements influence the output of goods and services in a country (Guo et al., 2020).

Andrianaivo & Kpodar explained that the initial study looked at the impact of information technology on economic growth, focusing on information technology equipment such as radio, television and fixed telephones. The role of cell phones was neglected because cell phone development was still in its infancy. Studying the economic impact of new cell phone developments has attracted attention since the dramatic surge in cell phone adoption since the late 1990s (Williams et al., 2022). However, the previously developed opinion, namely support for the positive impact of information technology development on economic growth, remains relevant for newer technologies such as cellular telephones. Therefore, this section will examine the implications of developing information technology for economic growth in a broader context and focus on aspects that touch mobile technology (Wang et al., 2022).

Information technology development is increasingly considered an engine for accelerating economic growth. Three characteristics of information technology explain this view: (1) information technology is ubiquitous in most business sectors; (2) information technology improves continuously and therefore reduces costs for users; and (3) information technology contributes to innovation and new product development (Klingenberg et al., 2022). Several works of literature identify the main channels through which information technology, including mobile telephony, can contribute to economic growth. ICTs stimulate economic growth by contributing directly and indirectly to spending growth and job creation, stimulating capital accumulation, increasing corporate productivity, generating economic networks and externalities, supporting better market functioning, lowering transaction costs, and, most importantly, encouraging financial deepening (Qu et al., 2019). The development of information technology can also trigger social and economic development, although there are some opportunity costs. Cellular telephone companies contribute directly to output growth and job creation through telecommunication service distribution activities. Growth in the mobile telephony sector has also positively affected output and employment growth in support sectors, especially manufacturers, administrators, network builders, systems managers, content providers and mobile service applications, and network retail (Thomson, 2021).

Fintech

Financial Technology (FinTech) is the result of a combination of financial services and technology which ultimately changes the business model from conventional to moderate; those who initially had to pay face-to-face and carry a certain amount of cash now can make remote transactions by making payments that can be made in seconds (Hamdaoui et al., 2021). Another definition of FinTech according to The National Digital Research Center (NDRC) in Dublin, Ireland, defines FinTech as "innovation in financial services" or innovation in financial services which is an innovation in the financial sector that gets a touch of modern technology (Aulia et al., 2020).

The Financial Services Authority (OJK) defines Fintech as an innovation in the financial services industry that utilizes technology. FinTech products are usually in the form of a system built to run a specific financial mechanism. Meanwhile, according Bank Indonesia circular letter No.18/22/DKSP concerning the Implementation of Digital Financial Services (LKD) explained that "digital financial service activities using mobile-based or web-based technology in payment and financial system service activities are carried out by working with third parties in the context of financial inclusion". From the several definitions described above, it can be concluded that FinTech is a digital service innovation that provides financial products and takes advantage of existing technological advances (Suryono et al., 2021).

The development of FinTech took place over three periods, the first period starting in 1866-1967, where this phase was the move from analog to digital financial systems. During this period, several forerunners emerged from the development of Fintech, where consumers could order various products by Telephone, then, in the 1950s, the people of the United States were introduced to credit cards (Alam et al., 2021). It was followed by the second period, 1967-2008, where this phase was a period of development of traditional digital finance, starting with the launch of the Automatic Teller Machine (ATM), where the rapid development of the internet supported this development. Then the third period took place from 2008 to the present, where technological and internet developments are increasingly modern, so various platforms that offer various online financial services are today's FinTech (Sreekala et al., 2023).

FinTech is an internet-based financial technology that shifts traditional finance to digital money. And the main goal of FinTech is to reduce the infrastructure costs of financial institutions and not need to have a network of branches or offices or a large number of employees to serve customers in all types of companies (Iwashita, 2022). In addition, Fintech also helps maximize the use of technology to change, sharpen or accelerate various aspects of digital-based financial services. Over time, FinTech has now turned into a technology that is in demand, especially in big cities from all walks of life, the innovations offered by FinTech function in various segments, be it B2B (Business to Business) to B2C (Business to Customer) (Omarova, 2020).

3. Method

This research will use a descriptive qualitative approach to gain an in-depth understanding of disruptive technology in the financial sector. The qualitative approach allows the researcher to explore the subject's views, perceptions, and experiences in a disturbing financial context. Researchers will present detailed and objective information about this phenomenon through a descriptive approach. The research method used in this study is a literature study. Researchers will collect and analyze relevant theoretical and empirical sources on disruptive finance in the literature study. These sources may include scientific journals, books, research reports, online articles, and other sources of information that can provide insight into technological shifts in the financial industry. Using the literature study method, researchers will build a solid theoretical basis to explain the challenges and opportunities in disruptive finance and gain a better understanding of the associated social and economic impacts.

4. Result And Discussion

Challenges in Adopting Innovation in the Financial Industry

In adopting innovations in the financial industry, regulations and policies related to financial innovation are significant challenges. Existing regulations tend to be designed for conventional business environments, making covering all aspects of fast-growing financial innovation difficult. Data security and privacy are crucial in financial innovation (Song et al., 2020). Along with increasingly sophisticated technology, protecting personal data and financial transactions is a major issue that must be taken seriously. The influence of organizational culture also plays an important role in adopting innovations in the financial industry. A culture that does not support change or a tendency to maintain traditional business practices can be a barrier to introducing and adopting innovations (Chang et al., 2020).

Therefore, financial organizations need to carry out cultural transformations that support the adoption of innovations. This involves changing traditional mindsets and a broader understanding of the benefits offered by financial innovations. Resistance to change is often challenging in adopting innovations in the financial industry. Some may feel uncomfortable with changes that have a major impact on how they work or question the sustainability of the innovation. Effective communication and involvement of all stakeholders are key to overcoming this resistance. Involving employees, customers, and other stakeholders in an innovation's planning and implementation stages can help create a better understanding and minimize resistance.

Education and training are also important for changing traditional mindsets and increasing understanding of financial innovation. Resistance can be better overcome by providing employees and customers with the necessary knowledge and skills. In addition, it is important to create an environment that supports innovation in financial organizations. This involves removing bureaucratic barriers and introducing mechanisms that facilitate the efficient testing and implementation of innovations. Collaboration between the financial industry, regulators and other stakeholders is also important to address innovation-related regulatory and policy challenges. By collaborating, they can create a suitable framework and support innovation development in the financial industry.

It can be concluded that adopting innovation in the financial industry is not easy, and several challenges need to be overcome. Related regulations and policies, data security, organizational culture, and resistance to change are some important points that must be considered. By taking the right steps, such as creating appropriate regulations, protecting data security, changing organizational culture, and overcoming resistance, the financial industry can face these challenges and benefit from continuously evolving innovations.

Opportunities for Innovation in the Financial Industry

Digital transformation has opened up new opportunities in the financial industry, especially in payments and financial transactions. The application of digital technologies such as digital payments, digital wallets and mobile banking applications has simplified and accelerated the payment process and enabled more efficient transactions (Kumari & Devi, 2022). Artificial intelligence (AI) and data analytics also provide great opportunities for making smarter financial decisions. With AI's ability to analyze data deeply and identify patterns, financial institutions can make more accurate decisions and better predict customer behavior (Yigitcanlar et al., 2020).

Developing platform- and ecosystem-based financial services is also an attractive opportunity. By building an integrated ecosystem, financial institutions can provide various financial services on one platform, making it easier for customers to access the products and services they need. Developing platform and ecosystem-based financial services can also create synergies between stakeholders, such as banks, technology companies and other business players. This enables mutually beneficial collaboration and broadens the range of available financial services.

Improving the customer experience is one of the main focuses of financial service innovation. By leveraging technology and data, financial institutions can enhance service personalization, provide a better experience, and meet individual customer needs. One example of innovation in improving customer experience is using chatbots or virtual assistants that can provide real-time support and information to customers. This provides greater convenience and accessibility in interacting with financial services.

In addition, personalization can also be done through the use of analytical techniques to understand customer preferences and behavior. With a better understanding of customers, financial institutions can provide products and services that are more relevant and according to their needs. Using biometric technology, such as facial or fingerprint recognition, is also an opportunity to increase the security and convenience of financial transactions. This eliminates the need for traditional passwords or PINs and provides customers with a more secure and easy experience.

Innovations in the financial industry also open up opportunities for broader financial inclusion. Through digital financial services, individuals who were previously difficult to reach by traditional financial institutions can access financial products and services that can help improve their welfare. It can be said that innovation in the financial industry brings many attractive opportunities. Digital transformation, artificial intelligence and data analytics, developing platform and ecosystem-based financial services, and enhancing customer experience are promising areas. By adopting these innovations, financial institutions can improve operational efficiency, provide better customer service, and better face future challenges.

Social and Economic Impacts of Innovation in the Financial Industry

One of the significant social impacts of innovation in the financial industry is increasing financial inclusion. With digital financial services that are more accessible and more affordable, individuals who previously did not have access to the formal financial system can now obtain the financial assistance they need to manage their finances better (Chen et al., 2021). Financial innovation has also increased the accessibility of financial services for the community. With digital technology, individuals can access financial services without being tied to a physical location or traditional hours of operation, thereby expanding the scope and availability of financial services (Aziz & Naima, 2021).

Changes in spending patterns and consumer behavior also significantly impact innovation in the financial industry. With easy access and a variety of choices available, consumers tend to adopt spending patterns that are more efficient and technology-based, such as digital payments and online transactions. Financial innovations have also influenced consumer behavior in terms of personal financial management. With apps and analytical tools that help with expense tracking and financial planning, consumers are becoming more aware and actively involved in managing their finances.

The economic impact of the growth of innovation in the financial industry is also significant. Financial innovation has driven economic growth by creating new opportunities, driving-related business sectors and increasing efficiency in the financial system. Increasing access to financial services also impacts the growth of micro and small businesses. Small businesses can thrive, create new jobs, and significantly contribute to local economic growth with easier access to loans and other financial services.

On the other hand, innovation in the financial industry also presents challenges and opportunities for the government, financial institutions and industry players. The government needs to pay attention to regulations that support the growth of innovation, protect consumers, and maintain financial system stability. Financial institutions are also faced with the challenge of adapting to technological changes and strengthening infrastructure that supports innovation. Industry players must innovate sustainably, collaborate with strategic partners, and manage the risks of adopting innovations.

However, these challenges also bring opportunities for governments, financial institutions and industry players to create added value and benefit from innovations in the financial industry. By facing these challenges proactively, they can broaden the scope of financial services and improve efficiency and competitiveness. Innovations in the financial industry have significant social and economic impacts. With increasing financial inclusion, changes in spending patterns and consumer behavior, and innovationdriven economic growth, it is important for governments, financial institutions, and industry players to face challenges and take advantage of emerging opportunities.

5. Conclusion

Innovation in the financial industry has a significant impact both socially and economically. Increased financial inclusion and accessibility of services have provided opportunities for previously limited individuals to manage their finances better. In addition, changes in spending patterns and consumer behavior are also occurring in response to advances in financial technology, enabling consumers to adopt more efficient and technology-based spending patterns. The economic impact of innovation in the financial industry can also be seen in the growth of related business sectors and the increase in the efficiency of the financial system. This innovation drives economic growth by creating new opportunities and supporting micro and small businesses. However, challenges also arise in terms of infrastructure regulation and adaptation. The government, financial institutions and industry players must collaborate to create a framework that supports innovation growth, protects consumers and maintains financial system stability. In facing challenges and taking advantage of existing opportunities, governments, financial institutions, and industry players must adopt a proactive approach. This involves adjusting appropriate regulations, investing in infrastructure and technology, and continuously innovating to provide added value to consumers. Thus, the financial industry can continue to transform and provide wider benefits to society and support sustainable economic growth.

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