

REVIEW OF TYPES OF FINANCIAL TECHNOLOGY (FINTECH) IN INDONESIA: UNDERSTANDING SERVICES AND THEIR IMPACT

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Abstract

This study aims to identify the various types of financial technology (fintech) operating in Indonesia and analyze their impact on financial inclusion. Utilizing literature review and secondary data analysis from reputable sources, the research reveals that a diverse range of fintech, including digital wallets, peer-to-peer lending, crowdfunding, digital banks, and market aggregators, has seen significant growth in Indonesia. Each fintech type offers unique services that enhance the accessibility of financial services for the public, particularly for underserved segments of the population. The findings indicate that digital wallets have become a popular choice for daily transactions, facilitating payments and enhancing user convenience. Peer-to-peer lending platforms provide crucial financing options for individuals and small businesses who may struggle to access traditional bank loans. Crowdfunding enables entrepreneurs to raise capital from a wide audience, fostering innovation and community support. Moreover, the study highlights the varying business models within the fintech landscape, which include transaction fees, interest income from loans, and partnerships with merchants. These models illustrate the adaptability of fintech solutions in responding to the evolving needs of consumers. By shedding light on the dynamics of the fintech industry and its role in promoting financial inclusion, this research contributes valuable insights for stakeholders, including policymakers, industry players, and consumers. The study underscores the importance of fostering a supportive regulatory framework to ensure sustainable growth and responsible innovation in the fintech sector in Indonesia.

1. INTRODUCTION

Background Problem

The development of financial technology (fintech) has significantly transformed the global financial landscape. Fintech, defined as technological innovation in financial services, offers more efficient, faster, and inclusive solutions compared to traditional financial models. In Indonesia, fintech growth has been rapid, driven by high internet penetration, a large population, and *unbanked*, as well as growing regulatory support (Arner, Barberis, & Buckley, 2015).

Globally, fintech has facilitated various services, ranging from digital payments, loans *peer-to-peer* (P2P), *crowdfunding*, to automated investments and personal financial management. In Indonesia, these services exist in various forms and business models, each with distinct characteristics and impacts on the economy and society. The types of fintech developing in Indonesia include *payment gateway*, digital wallet (*e-wallet*), P2P lending, *crowdfunding*, aggregator market (*market aggregator*), digital banks, and *insurtech* (OJK, 2019).

However, the growth of fintech in Indonesia also presents challenges. The low level of financial literacy among most people is a major barrier to the adoption of this technology. A 2024 survey by the Financial Services Authority (OJK) showed that Indonesia's financial literacy index only reached 65.43%, although this was an increase compared to 2019 (OJK, 2024). Furthermore, issues of data security, consumer protection, and adaptive regulation are also crucial to ensure the sustainable and responsible development of fintech (Sliding, 2016).

One important aspect of fintech development is its impact on financial inclusion. Fintech has the potential to reach communities previously underserved by traditional financial services. By providing easier and faster access, fintech can empower individuals and small businesses, thereby improving living standards and driving economic growth (Hasan & Moudud-Ui-Huq, 2020). Research shows that the use of fintech services can improve access to capital for MSMEs, which often have difficulty obtaining loans from conventional banks.

On the other hand, regulatory challenges are also an issue that must be addressed. Regulations that are not fully clear or adaptable to technological developments can hinder innovation and the growth of the fintech industry. Therefore, collaboration between regulators and industry players is crucial to create a framework that supports innovation while protecting consumers and maintaining financial system stability (Philippon, 2016). With this strong collaboration, it is hoped that the fintech ecosystem in Indonesia can develop healthily and sustainably.

Therefore, this article aims to provide a comprehensive overview of the types of fintech operating in Indonesia. It will identify various categories of fintech services, analyze their business models, and evaluate their positive and negative impacts on financial inclusion, economic efficiency, and public welfare. This review is expected to provide stakeholders, including regulators, industry players, academics, and consumers, with a better understanding of the potential and challenges of fintech in Indonesia.

Problem Formulation

- a. What types of fintech operate in Indonesia?
- b. What business models are used by fintech in Indonesia?
- c. What are the positive and negative impacts of fintech on financial inclusion and social welfare?
- d. What challenges does the fintech industry face in Indonesia?

Research Purposes

- a. To identify the types of fintech that exist in Indonesia.
- b. To analyze fintech business models.
- c. To evaluate the impact of fintech on financial inclusion and social welfare.
- d. To identify the challenges faced by the fintech industry.

2. LITERATURE REVIEW

Disruptive Innovation Theory

This theory, proposed by Clayton Christensen, explains how new innovations can transform existing markets by offering more efficient and affordable products or services. In the context of fintech, new companies

often introduce solutions that disrupt traditional business models, such as conventional banks and financial institutions, which are often unable to meet evolving consumer needs (Christensen, 1997).

In the fintech context, many new companies are emerging with business models that challenge traditional financial institutions. For example, digital wallets and peer-to-peer lending platforms provide faster and more accessible services, often unavailable to conventional banks. These innovations not only meet evolving consumer needs but also create new, previously underserved market segments. Thus, this theory provides a framework for understanding how fintech can disruptively change the financial landscape.

Technology Adoption Theory

This theory explains the factors that influence individuals and organizations in adopting new technologies. Models such as the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) can be used to understand how users accept and use fintech services. Factors such as ease of use, perceived usefulness, and trust in the technology are key to fintech adoption in society (Davis, 1989; Venkatesh et al., 2003).

Factors such as ease of use, perceived benefits, and trust in the technology are key in determining how quickly and widely fintech services are adopted. For example, if users perceive a digital wallet application as easy to use and provides tangible benefits, they are more likely to adopt and use the service regularly. By understanding these factors, fintech service providers can design products that are more attractive and accessible to users.

Financial Inclusion Theory

Financial inclusion refers to adequate access to financial services for all levels of society, especially those underserved by the traditional financial system. This theory emphasizes the importance of accessibility, affordability, and sustainability of financial services in empowering individuals and small businesses. Fintech has the potential to increase financial inclusion by providing more accessible services tailored to user needs (World Bank, 2014).

In many countries, including Indonesia, marginalized segments of society still lack access to traditional banking services. Fintech has the potential to address this issue by offering more affordable and accessible services. For example, online lending applications can provide access to financing for small businesses and individuals who previously did not qualify for bank loans. Thus, fintech plays a role not only in increasing financial inclusion but also in empowering individuals and small businesses through better accessibility to financial services.

Theory of Regulation and Supervision

In the context of fintech, regulation and oversight are crucial for ensuring consumer safety and protection. This theory discusses how an adaptive regulatory framework can support innovation while protecting public interests. With appropriate regulation, fintech can develop sustainably and responsibly (Philippon, 2016).

In the fintech context, appropriate regulations can help address security and privacy concerns frequently faced by users. For example, regulations requiring fintech companies to implement strict data security standards can increase consumer trust in their services. On the other hand, overly stringent regulations can stifle innovation and industry growth. Therefore, it is crucial to find the right balance between innovation and protection to create a healthy and sustainable fintech ecosystem.

3. RESEARCH METHODS

Study Literature

A literature study was conducted to gather information from various relevant sources regarding fintech in Indonesia. The sources used included journal articles, books, industry reports, and regulatory documents. This approach aims to comprehensively understand the types of fintech, their business models, and their impact on financial inclusion in society.

Secondary Data Analysis

Secondary data analysis was conducted using data published by reputable institutions, such as the Financial Services Authority (OJK), Bank Indonesia, and other research institutions. The collected data includes statistics on fintech service usage, user demographics, and industry development trends. This approach provides a solid foundation for analyzing the challenges facing the fintech industry in Indonesia.

Descriptive Analysis

Following data collection, descriptive analysis was conducted to illustrate the findings and provide a better understanding of the phenomenon under study. This analysis included a systematic presentation of information and an analysis of trends and patterns emerging from the collected data. In this way, the research provided a clear picture of fintech's influence on financial inclusion and the challenges facing the industry.

4. RESULTS AND DISCUSSION

RESULTS

Identifying Types of Fintech in Indonesia

This research identifies various types of fintech active in Indonesia, including:

a. **Digital Wallet (E-wallet):**

A digital wallet is a service that allows users to conduct financial transactions digitally. With easy access and a variety of features, digital wallets have become the primary choice for many people in transactions. Users can make payments for various services, from online shopping to bill payments. These services not only simplify transactions but also often offer attractive loyalty programs and promotions for users. Services that allow users to conduct financial transactions digitally. Examples of popular digital wallets in Indonesia include GoPay, OVO, and DANA. For example: GoPay, OVO, DANA.

b. **Peer-to-Peer (P2P) Lending:**

Peer-to-peer (P2P) lending platforms connect borrowers with lenders directly, bypassing traditional financial institutions. This model offers easy access for individuals and small businesses in need of financing. P2P lending has become an alternative solution for those who struggle to obtain loans from conventional banks, offering faster processing and more flexible terms. These platforms connect borrowers with lenders directly. Examples include Kredivo and Modalku, which allow borrowers to apply for loans online and receive approval quickly.

c. **Crowdfunding:**

Crowdfunding is a service that raises funds from a large number of people for a specific project or endeavor, often through an online platform. This model is particularly beneficial for startups and small businesses that need capital to start or grow their businesses. Crowdfunding not only provides access to funding but also enables entrepreneurs to build a community of support. Examples of crowdfunding platforms in Indonesia include Kitabisa, which focuses on fundraising for social projects, and GandengTangan, which supports small and micro businesses.

d. **Bank Digital:**

A digital bank is a banking institution that operates entirely online without physical branches. This model offers comprehensive banking services, including account opening, transfers, and loans, all accessible through a mobile app or website. Digital banks provide ease and convenience for users who want to conduct financial transactions anytime, anywhere. Banking institutions that operate entirely online without physical branches. Examples include Jenius and Bank Jago, which offer a variety of innovative features to meet customer needs.

e. **Aggregator Market:**

A market aggregator is a platform that brings together various financial services in a single application, allowing users to compare and choose the best service for their needs. By providing transparent information about various financial products, market aggregators help users make better decisions. Platforms that aggregate various financial services in a single application include Cermati and Kredit Pintar, which offer loan and insurance product comparisons and facilitate online application.

f. Fintech Business Model

Based on analysis, fintech business models in Indonesia vary, ranging from commission-based revenue, per-transaction fees, to revenue-sharing models. Digital wallets tend to rely on transaction fees and partnerships with merchants, allowing them to generate revenue from each transaction. P2P lending platforms, on the other hand, rely on interest-based loans as a source of revenue, profiting from the difference between the interest paid by borrowers and the interest received by lenders. Fintechs are also beginning to explore new business models, such as subscriptions for premium services, affiliate marketing, and personalized financial product offerings. With this variety of business models, fintechs have the flexibility to adapt their services to evolving market needs.

Impact on Financial Inclusion

Research shows that fintech has made a significant contribution to financial inclusion in Indonesia. Many users who previously lacked access to traditional financial services can now use fintech services to meet their financial needs. Fintech provides solutions for marginalized communities, particularly in rural areas, by increasing the accessibility of financial services.

Challenges Faced

Despite positive fintech growth, challenges such as low financial literacy, data security concerns, and unclear regulations continue to hamper the industry's growth. Many users are concerned about the security of their personal data and the need for better protection of sensitive information.

DISCUSSION

The results of this study indicate that fintech has significant potential to increase financial inclusion in Indonesia. With its diverse range of services, fintech can reach market segments previously underserved by traditional banks. This aligns with the theory of financial inclusion, which states that improved access to financial services can empower communities and support economic growth (World Bank, 2014).

Diverse business models also reflect fintech's adaptability to market needs. Fintech companies that rely on technology to increase efficiency and reduce operational costs can offer more affordable services to users. However, challenges faced, such as low financial literacy and security concerns, highlight the need for better user education and the development of stricter regulations to protect consumers.

Collaboration between regulators, industry players, and the public is also crucial for creating a healthy fintech ecosystem. Adaptive regulation can help reduce the barriers and risks faced by fintech companies, while protecting consumers from potential abuse (Philippon, 2016). In this context, collaboration can foster innovation while ensuring that fintech growth is sustainable and responsible.

Thus, this study provides important insights into how fintech can be a solution to financial inclusion challenges in Indonesia, while highlighting the challenges that need to be addressed to maximize fintech's potential.

5. CONCLUSION

This research has identified various types of fintech operating in Indonesia, including digital wallets, peer-to-peer lending, crowdfunding, digital banks, and aggregators. Each type of fintech has a distinct business model and contributes to financial inclusion in unique ways. The analysis shows that fintech has a significant positive impact on public access to financial services, especially for those previously underserved by the traditional banking system.

However, the development of the fintech industry also faces various challenges, including low financial literacy, data security issues, and unclear regulations. These challenges need to be addressed to ensure that fintech's potential can be maximized for the well-being of society.

6. SUGGESTION

- a. Improving Financial Literacy: More intensive educational programs are needed to improve public financial literacy. This is crucial for users to better understand and utilize fintech services.
- b. Adaptive Regulatory Development: Regulators need to develop clearer and more adaptive regulations to support the growth of the fintech industry. Good regulation will protect consumers while encouraging innovation in the sector.
- c. Improving Data Security: Fintech players must focus on developing better security systems to protect user data. User trust in fintech services will increase along with the transparency and security offered.
- d. Collaboration among Stakeholders: Collaboration between industry players, regulators, and the public is necessary to create a healthy fintech ecosystem. Discussions and collaboration can help identify solutions to existing challenges and encourage sustainable growth.

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