

# Accelerating Digital Transformation in Islamic Banking

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## Abstract

The rapid advancement of digital technology has revolutionized the banking sector, necessitating the adoption of digital banking services to enhance operational efficiency and customer experience. This study examines the digital transformation process in Indonesia's Islamic banking industry, highlighting key challenges, regulatory frameworks, and the impact of technological innovation. Using a systematic literature review, the research identifies the factors influencing digital adoption, including trust, regulatory compliance, and customer satisfaction. Findings indicate that the Covid-19 pandemic has accelerated digital banking adoption, prompting Islamic banks to expand their digital services to remain competitive. The study underscores the importance of regulatory support, technological innovation, and customer trust in facilitating a seamless transition toward fully digital Islamic banking. Future research should explore the role of artificial intelligence, blockchain, and fintech collaborations in shaping the industry's trajectory.

## Keywords

*Artificial Intelligence, Digital Transformation, Fintech, Islamic Banking, Regulatory Compliance*

## 1. Introduction

The banking industry is undergoing a significant transformation driven by digital technology. The emergence of digital banking has reshaped how people conduct financial transactions, shifting away from traditional in-person banking toward seamless, technology-driven experiences. Today's customers demand convenience, efficiency, and accessibility, preferring to manage their financial activities through smartphones and other digital devices. Understanding the immense value of digital innovation, commercial banks have begun to move away from the traditional brick-and-mortar model, embracing a digital-first approach to meet evolving customer expectations (Nguyen et al., 2020).

The widespread adoption of the internet and mobile technology has played a critical role in revolutionizing the banking and financial sectors, leading to the emergence of digital banking. Digital banking refers to the integration of technology into banking services, allowing customers to conduct transactions effortlessly and securely from anywhere (Sardana & Singhania, 2018). Terms such as electronic banking, internet banking, and online banking are often used interchangeably to describe this digital evolution. By leveraging digital solutions, banks have enhanced operational efficiency and gained a competitive edge, ultimately reshaping the financial landscape (Riza, 2019).

Indonesia, like many other countries, is experiencing rapid digital transformation in its banking sector. A survey by Barquin et al. (2019) highlights the growing adoption of internet and mobile banking among Indonesian consumers. This shift signifies that digital banking is no longer a supplementary service but a fundamental aspect of modern banking operations. Initially, digital banking services were limited to basic transactions such as fund transfers and bill payments. However, they have evolved into comprehensive platforms offering various services, including opening savings and investment accounts, real-time gross settlements, cardless withdrawals, point redemptions, and even online shopping transactions. These advancements indicate a shift toward fully integrated banking ecosystems that prioritize customer convenience.

Customer satisfaction remains a key driver for digital banking adoption, particularly in the competitive banking sector, where switching costs are low, and customers can easily move to banks offering better digital services (Mawarni, 2021). To remain relevant, Islamic banks must embrace digitalization at the same pace as their conventional counterparts. The ability to provide seamless, user-friendly digital banking services is crucial for attracting and retaining customers, particularly in an era where expectations for financial services are shaped by the rapid advancements in technology.

While digital banking offers numerous benefits, the transformation process presents challenges, particularly for financial institutions lagging in technological adoption. A study by McKinsey (2020) indicates that the banking sector is one of the slowest industries to undergo digital transformation compared to other sectors. This

delay can be attributed to the complexities of financial regulations, legacy systems, and the need to ensure security and trust among customers. However, the COVID-19 pandemic has accelerated digital innovation, compelling banks to develop digital products and services to minimize physical interactions and comply with health restrictions such as Large-Scale Social Restrictions (PSBB) and Restrictions on Community Activities (PKM). Digital banking has proven to be an essential tool in facilitating transactions, allowing customers to perform activities such as transfers, bill payments, and account management without time and location constraints. This shift underscores the importance of digital banking in enhancing operational efficiency and improving customer service.

The adoption of digital banking presents several advantages for both financial institutions and consumers. Research by Lee & Shin (2018) emphasizes that digitalization reduces traditional banking activities, enhances operational efficiency, and improves consumer-based services, ultimately promoting transparency within the financial industry. Transparency is a crucial factor in building trust and credibility among customers, ensuring that banking operations remain reliable and secure.

Additionally, Van Loo (2018) argues that integrating technology into financial services has significantly contributed to the growth of the financial sector while reducing the likelihood of financial crises. Digital banking enables financial institutions to provide real-time data analysis, risk assessment, and fraud detection, all of which contribute to a more stable and secure banking environment. Aisyah (2018) further highlights how technological advancements have enhanced financial transactions, improved service offerings, and increased consumer loyalty in Indonesia. This increase in customer retention is a direct result of banks offering seamless, personalized digital experiences that align with modern banking needs.

Furthermore, digital banking transformation has led to increased revenue and profitability while reducing costs. By leveraging technology, banks can optimize their branch networks, implement targeted marketing strategies, and provide customized financial products to specific customer segments (Alfaro et al., 2019). These improvements not only benefit banks but also enhance the overall banking experience for customers, making financial services more accessible and efficient.

Despite the numerous benefits, digital banking remains a relatively new concept for some customers. As with any new product or service, widespread acceptance takes time. One of the most critical factors influencing customer adoption of digital banking is trust. Since digital banking eliminates the need for physical branches, customers must rely entirely on technology to manage their financial transactions. Trust in the system's reliability, security, and availability plays a significant role in determining whether customers will embrace digital banking services (Sarfaraz, 2017).

Research has shown that factors such as hedonic motivation, habits, and trust significantly impact customers' intentions to use digital banking services (Kusumawati & Rinaldi, 2020). Customers expect digital platforms to offer seamless,

intuitive, and secure experiences. Any disruptions, such as system downtime or security breaches, can erode trust and hinder adoption. To address these concerns, banks must continuously invest in cybersecurity measures, customer education, and user-friendly digital interfaces to ensure a positive and secure banking experience.

While digital banking transformation has been extensively studied in conventional banking, there remains a gap in research regarding its implementation in the Islamic banking sector. Islamic banks, which operate under Sharia principles, face unique challenges in integrating digital solutions while maintaining compliance with Islamic finance regulations. Unlike conventional banks, which have made significant strides in digitalization, Islamic banks are still in the early stages of transformation.

Given this context, further research is needed to explore how digital transformation is unfolding within the Islamic banking industry in Indonesia. Key questions remain unanswered: How are Islamic banks adapting to digital advancements? What impact does digital transformation have on their growth and development? Understanding these aspects is crucial for ensuring that Islamic banking institutions remain competitive and continue to serve their customers effectively in the digital age.

## **2. Methods**

This study adopts a qualitative approach to explore the digital transformation process in the Islamic banking industry. Specifically, it employs library research, a method that involves gathering and analyzing information from various scholarly sources, including books, research papers, reports, and other credible scientific literature (Mirzaqon & Purwoko, 2018). By reviewing existing studies, this research seeks to gain a comprehensive understanding of how digital transformation is unfolding in Islamic banking and its implications for the industry's growth and competitiveness.

To ensure a structured and in-depth analysis, this study follows the Systematic Literature Review (SLR) approach. The SLR method (Ahmad et al., 2021) involves systematically identifying, assessing, and synthesizing relevant research materials to answer specific research questions. This approach not only enhances the reliability of findings but also provides a well-rounded perspective on the challenges and opportunities of digital transformation in Islamic banking.

## **3. Results**

The Covid-19 pandemic has significantly accelerated digital transformation across industries, and the banking sector is no exception. What was once a gradual shift toward digital banking has now become an essential and urgent priority. Islamic banks, like their conventional counterparts, are compelled to embrace digital

transformation as a strategic move to enhance competitiveness, improve efficiency, and meet evolving customer expectations. As banking operations become increasingly reliant on digital platforms, regulatory frameworks must also evolve to provide clear guidelines and support this transition.

Recognizing the need for a robust regulatory foundation, the Financial Services Authority (*Otoritas Jasa Keuangan/OJK*) has introduced several key regulations aimed at strengthening the digital banking ecosystem in Indonesia. These regulations serve as a catalyst for financial institutions, ensuring that digital transformation is implemented efficiently while maintaining stability, security, and compliance within the banking industry.

POJK No. 12/POJK.03/2021 on Commercial Banks is one of the key regulations aimed at strengthening the institutional framework of the banking sector, particularly in the context of digital transformation. This regulation provides a clear legal framework for banks undergoing digital transformation, ensuring that digital banking services comply with industry standards and uphold consumer protection principles. Its main objectives include simplifying and improving the efficiency of bank office networks through digital platforms, enhancing the quality and accessibility of banking services for a broader segment of society, and promoting consolidation and synergy between banks and other financial service institutions within the Bank Business Group. In addition, the regulation reinforces capital requirements for new banks to ensure financial system stability and sustainability.

Complementing the institutional regulation, POJK No. 13/POJK.03/2021 on the Implementation of Commercial Bank Products focuses on the licensing and development of digital banking products. This regulation aims to accelerate digital transformation and drive product innovation, while also streamlining the licensing process for new digital banking services. Moreover, it is designed to create a level playing field for banks to compete in the digital era and to strengthen consumer protection through the implementation of a comprehensive assessment mechanism for digital banking products. These regulatory measures have provided much-needed clarity and confidence for Islamic banks, allowing them to transition toward digital-based operations more seamlessly. As a result, digital banking services have expanded rapidly, leading to the rise of fully digital banks—where all activities are conducted online—as well as hybrid banks that integrate digital services such as online account opening, digital transactions, and remote account management.

The impact of digital banking growth has been remarkable. In 2020, digital banking transactions in Indonesia reached IDR 27.4 trillion, and this figure continued to surge in 2021, reaching IDR 40 trillion. Projections indicate that digital transactions will further increase to IDR 48.6 trillion (Wulandari & Indriastuti, 2023). A significant driver of this growth has been the pandemic, which has shifted consumer behavior toward digital financial services. With an increasing number of customers relying on digital platforms for banking transactions, Islamic banks must continue to innovate and expand their digital capabilities. By embracing digital

transformation in alignment with regulatory frameworks, Islamic banks can enhance operational efficiency, expand financial inclusion, and remain competitive in an increasingly digital-driven economy.



**Figure 1.** Digital Banking Transaction Value in Indonesia 2017-2022  
Source: Data Indonesia.id

Based on Data Indonesia.id (2021), Indonesia is the second largest digital bank user country in the world, reaching 24.9% and is projected to increase by 2026 to 39.02%. The rapid growth of digital banking is happening at the perfect moment, as internet penetration becomes more widespread and accessible across different regions. The Covid-19 pandemic significantly accelerated this transformation, as restrictions on face-to-face activities led to a surge in online banking transactions. Consumers who may have previously relied on traditional banking services quickly adapted to mobile and internet banking, making digital banking an essential part of everyday financial management.

With more people becoming proficient in using digital services, the demand for seamless, efficient, and user-friendly banking solutions continues to rise. Industry players recognize this momentum and have actively launched digital banking products to meet evolving customer expectations. The trend is expected to persist, with mobile banking usage projected to continue growing through 2024. Given this shift, now is an ideal time for banks to introduce and expand their digital banking services, ensuring they remain competitive in the evolving financial landscape.

To support this transformation, the Financial Services Authority (OJK) plays a crucial role in guiding and regulating the digital banking ecosystem. Recognizing the need for a structured approach, OJK introduced the Blueprint for Digital Banking Transformation—a policy framework designed to accelerate the industry's shift toward digitalization. This blueprint outlines five main pillars that shape digital

banking policies, including secure and efficient data management, the development of advanced banking technologies, strengthened risk management encompassing cybersecurity and fraud prevention, the promotion of collaboration between banks and fintech companies, and the provision of clear institutional regulations for digital banking operations. By emphasizing innovation and customer-focused services, this blueprint serves as a strategic roadmap for banks to develop financial products that align with consumer needs, ultimately fostering a more inclusive and efficient digital banking ecosystem in Indonesia.

Currently, there are 11 digital banks operating in Indonesia, with Bank Aladin Syariah as the only sharia-based digital bank. Bank Jenius (Bank BTPN) is the digital bank with the largest assets, reaching Rp183.17 trillion. Some other fast-growing digital banks include Digital Jago (Bank Jago), Wokee (Bank KB Bukopin), Digibank (Bank DBS), Blu (BCA Digital), TMRW (Bank UOB Indonesia), Neobank (Bank Neo Commerce), SeaBank (Bank SeaBank Indonesia), LINE Bank (Bank Hana), Motion Digital (MNC Bank), and Bank Aladin Syariah. While conventional digital banks are growing rapidly, Islamic digital banks are still limited as they must comply with various sharia provisions. The DSN-MUI Fatwa only regulates information technology-based financing services based on sharia principles, while other service aspects have not been regulated in detail. Therefore, attention from relevant parties is needed to develop more comprehensive regulations so that Islamic digital banks can grow more optimally. However, the development of Islamic banking that provides digital-based services is growing rapidly. Almost all Islamic Commercial Banks already provide various digital services. Such as opening accounts, paying online transactions, paying various bills, applying for financing and also providing social fund services such as Zakat, Infaq, Sadaqah, Waqf (ZISWAF) so that it can help customers carry out social activities more easily, safely and charitably. Digital services must still pay attention to the principle of prudence.

#### **4. Conclusion**

The digital transformation of Islamic banking is no longer optional but a necessity in the evolving financial landscape. The Covid-19 pandemic has acted as a catalyst, accelerating the shift towards digital banking services. Islamic banks in Indonesia have responded by expanding their digital offerings, yet they face challenges related to regulatory compliance, trust, and technological infrastructure. To ensure sustainable growth and competitiveness, Islamic banks must continue investing in secure and innovative digital solutions, enhance customer education on digital financial literacy, and strengthen partnerships with fintech companies. Regulatory bodies should provide clear guidelines to facilitate digital banking expansion while ensuring compliance with Sharia principles. Future research should explore emerging technologies, such as artificial intelligence and blockchain, to optimize efficiency and security in Islamic digital banking.

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