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The piranhas: Endgame of banking in Indonesia

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The piranhas: Endgame of banking in Indonesia

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Abstract

Neobank is a form of financial technology innovation that offers banking services without a branch office. This is a form of disruption in the banking industry. Therefore, this paper aims to look at the phenomenon regarding the shift in the banking industry due to the presence of neobanks and, at the same time, question whether this is the beginning of the extinction of conventional banking. Based on an analysis of the literature on fintech and digital banking from research, case studies, and news media in both English and Indonesian, this study discusses research related to neobank trends disrupting the conventional banking industry. Finally, this paper shows the phenomenon of the presence of neobanks and regulation from the government and market response. This research finds that fintech disrupts the financial services sector and changes customer behavior. This was further clarified when the concept of neobank emerged through Bank Jago and Bank Neo Commerce, which became the starting point for the conventional banking industry to transform into fully digital banks. Future research on neobanks will show how all the conventional banking industries have changed their business models to become digital banks.

Keywords

digital banking, neobank, fintech, evolution of banking, revolution of banking

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The Piranhas: Endgame of Banking in Indonesia

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Abstract

Neobank is a form of financial technology innovation that offers banking services without a branch office. This is a form of disruption in the banking industry. Therefore, this paper aims to look at the phenomenon regarding the shift in the banking industry due to the presence of neobanks and, at the same time, question whether this is the beginning of the extinction of conventional banking. Based on an analysis of the literature on fintech and digital banking from research, case studies, and news media in both English and Indonesian, this study discusses research related to neobank trends disrupting the conventional banking industry. Finally, this paper shows the phenomenon of the presence of neobanks and regulation from the government and market response. This research finds that fintech disrupts the financial services sector and changes customer behavior. This was further clarified when the concept of neobank emerged through Bank Jago and Bank Neo Commerce, which became the starting point for the conventional banking industry to transform into fully digital banks. Future research on neobanks will show how all the conventional banking industries have changed their business models to become digital banks.

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Introduction

Industrial acceleration, which can disrupt technological developments, is evident in the banking sector, particularly in Asia. The value chain and business models in banking are being transformed by industries outside the traditional banking sector, particularly the technology industry, which has a greater capacity for adapting to advanced technologies (Gasser et al., 2018). This transformation is supported by Asian consumers who are highly responsive to changing times and quickly shift to the digital industry, including banking (Barquin et al., 2019; Barquin & Hv, 2015).

Initially, competition within the banking industry was predominantly based on price (Dasho et al., 2016), compelling banks to rapidly adopt technology to enhance operational efficiency and reduce costs (Vives, 2019b). In Indonesia, the adoption of banking technology has surged due to the strong demand for financial services (Barquin et al., 2019). According to a McKinsey report, only 5% of Indonesians utilize non-banking financial services, positioning Indonesia as a frontrunner in digital adoption ahead of Brazil and China (Barquin & Hv, 2015). Additionally, customer loyalty to banking products in Indonesia is notably high compared to other countries (Barquin et al., 2019).

Therefore, the market conditions for financial services present significant potential for the digital industry. The Fourth Industrial Revolution, characterized by the integration of digital technology across all industrial aspects, has revolutionized conventional business models, particularly in Asia and Indonesia (Bettiol et al., 2021). This shift has given rise to fintech, or *financial technology,* rapidly altering consumer behavior (Suharbi & Margono, 2022). This development poses a considerable threat to traditional banks, which are slower in technology adoption despite being one of the fastest-growing industries in this regard (Barquin & Hv, 2015; Barroso & Laborda, 2022).

Fintech services offer various financial conveniences, such as savings, loans, payments, deposits, and investment services (Cornelli et al., 2019). The popularity of fintech accelerated during the COVID-19 pandemic as consumers increasingly turned to digital services (Putri & Christiana, 2021). Conventional banks have responded by developing their fintech services, such as mobile banking applications (Gasser et al., 2018). Despite this, conventional banks remain competitive due to their greater capital reserves compared to new fintech companies.

In addition, global technology giants have entered the financial sector with ambitious plans to compete with large traditional banks (Cofta, 2008). Two often-confused concepts are digital banks and neobanks. Digital banks are extensions of established traditional banks offering services via digital platforms. In contrast, neobanks are entirely online entities without physical branches, often emerging as startups focusing solely on digital services.

In 2019, Google planned to launch a neobank called Plex in 2020, though the launch was eventually postponed (Riyanto & Pratomo, 2021). Similarly, Facebook, a Google competitor, introduced Meta Pay to join the digital banking trend (Malik, 2022). The Indonesian market has quickly adapted; for example, Gojek acquired the neobank, Bank Jago (Rahman, 2020), and other traditional banks have launched their versions of neobanks and digital banks, such as Bank BTPN's (Bank Tabungan Pensiunan Nasional) Jenius and Bank Mega's Allobank.

The distinction between neobanks and digital banks lies in their operational foundation. Neobanks like Bank Jago, Jenius, and Allobank operate without physical branches and are not extensions of existing banks, offering a separate business model focused entirely on digital services. The shift towards digital and neobanking trends has raised concerns among conventional banks and the current market leaders, as consumers increasingly prefer digital banking for its convenience, speed, and security (Barquin & Hv, 2015). Digital banks also offer lower cost efficiency, enhancing customer satisfaction (Chauhan et al., 2022).

In response, Bank Central Asia (BCA) acquired Royal Bank in 2020 and transformed it into BCA Digital (Prasetyo, 2019), while Bank Mega acquired Bank Harda International and launched Allobank in 2021. Furthermore, non-banking sectors have also ventured into digital banking. For instance, Shopee's parent company, Sea, acquired Bank Kesejahteraan Ekonomi [Economic Welfare Bank] and established SeaBank Indonesia, and Bukalapak, in collaboration with Standard Chartered, launched BukaTabungan [OpenSavings]. This digital and neobanking trend indicates a significant transformation in the banking industry. Conventional banks are adapting to this shift, anticipating a substantial transformation towards digital banking. This study aims to explore the continued evolution of digital banking, its potential to disrupt the banking sector, and the regulatory responses from the government to these changes.

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Literature Review

Digital Banking

The advent of the Industrial Revolution 4.0 has significantly impacted various aspects of life and behavior, leading to changes in the business models of multiple industries, including the banking sector (Anshari & Almunawar, 2022). Adopting technology as an innovation in banking is crucial to addressing the high competition driven by the growth of financial technology, or fintech. Consequently, many conventional banks have opened new business lines to compete with fintech, impacting the stability of traditional banking (Dasho et al., 2016).

According to Sardana and Singhania (2018), the banking sector initially operated with a straightforward business model, primarily focused on collecting and safeguarding public funds. The technology used was simple; customers needed to bring savings books and other documents for deposits or withdrawals. Over time, technological advancements have eliminated the need for physical bank visits. The ATMs revolutionized banking by enabling transactions without the need for branch offices.

Following the standardization of ATMs, even more advanced technologies emerged, such as Internet banking and mobile banking. Customers can now perform various transactions using their smartphones, reducing the reliance on branch offices. This shift means customers no longer need to visit bank offices for many services, as these can be handled via mobile devices. Dermine (2016) predicted that the disruption caused by digital-based banks would surpass previous technological advancements. Banks, once considered rapid adopters of technology, may become conventional in the future. This supports the idea that digital banks will evolve from traditional banks, as their foundations are rooted in conventional banks expanding into new business lines.

Neobank

The emergence of neobanks has introduced new perspectives in the financial sector, particularly in fintech. Neobanks are a type of digital bank that operates independently without the backing of a larger traditional bank. In contrast, most digital banks are extensions of conventional banks, developed to compete with fintech by leveraging digital platforms. Thus, digital banks are essentially conventional banks in digital form (Okunevych & Hlivecka, 2018). Neobanks are perceived as having significantly lower operational costs compared to other banks, including digital banks. This efficiency stems from their lack of reliance on conventional bank infrastructure, which typically increases operational expenses. As a result, neobanks can offer more competitive pricing to consumers, such as higher interest rates on deposits and lower or even zero administrative fees (Vives, 2019a).

Moreover, the foundation of neobanks is rooted in the technology sector rather than the traditional banking industry. This technological foundation gives neobanks a more advanced and sophisticated system compared to digital banks, which are fundamentally extensions of traditional banking institutions. This distinction highlights the technological superiority of neobanks over digital banks (Vives, 2019b).

Government Regulation

The banking industry is currently compelled to continuously develop products that enhance customer satisfaction, mainly through digitizing banking services. The introduction of mobile banking represents a significant advancement in financial services and has been a catalyst for the growth of the fintech industry in Asia, especially in Indonesia. The Indonesian Financial Services Authority (FSA) issued Regulation Number 13/POJK.02/2018 to regulate the banking and fintech sectors. This regulation aims to support operational efficiency, improve the quality of financial services, and protect consumer rights and privacy (Financial Audit Board Regulation Database, 2018).

Furthermore, the presence of fintech providing financial payment services is bolstered by government regulations via Bank Indonesia, precisely Regulation Number 19/12/PBI/2017 (Bank Indonesia, 2017). This regulation governs electronic transactions, prioritizing consumer safety through various monitoring and supervision mechanisms. Bank Indonesia also addresses electronic transaction security by prohibiting virtual currencies, as they are not legal tender in Indonesia, thereby maintaining consumer financial stability amid the rapidly growing fintech trend (Bank Indonesia, 2017).

However, there is currently no specific government regulation dedicated to neobanks. Neobanks operate under the same regulations as traditional banks for digital transactions, using Bank Indonesia Regulation Number 19/12/PBI/2017 (Bank Indonesia, 2017), supplemented by FSA Regulation Number 13/POJK.02/2018 (Financial Audit Board Regulation Database, 2018). Given the substantial market potential of neobanks, which was valued at USD18.6 billion in 2018 and is projected to reach USD395 billion by 2026 with an average annual growth rate of 46.5% between 2019 and 2026 (Dabu, 2021), there is a clear need for specific regulations to oversee neobank operations in Indonesia.

Moreover, the collaboration between neobanks and peer-to-peer lending could significantly enhance the business ecosystem in Indonesia. As of November 2023, loan growth was 9.7% year-on-year, reaching IDR 6,930 trillion. The average annual growth rate over the past five and three years increased from 3.6% to 4.9%, contributing to Indonesia's global GDP share of 2.9% in 2023 (Burhan, 2023; World Economics, n.d.).

Methods

This study employs a qualitative descriptive analysis to explore the trend in the banking sector industry, particularly focusing on the disruption caused by the emergence of neobanks in Indonesia. Our objective is to examine the phenomenon of neobanks in Indonesia by detailing technological advancements in the financial industry and their impact on banking, government, and society as consumers. Additionally, we analyze the effects of neobanks on other industrial sectors. The data for this study are derived from literature references, reports from reputable national and international media, and direct observations of fintech developments, particularly from the consumer perspective regarding neobanks. Furthermore, we consider regulations issued by governing bodies, namely Bank Indonesia and the Indonesia Financial Service Authority.

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Findings

Banking Competition

Competition within the banking industry initially begins with relatively simple dynamics. Each bank offers products tailored to specific markets, resulting in an imperfectly competitive landscape (Widyastuti & Armanto, 2013). However, driven by the desire for growth, banks increasingly seek opportunities beyond their traditional markets. This heightened competition fosters innovation as banks strive to differentiate themselves by offering enhanced value-added products (Cornaggia et al., 2015).

For instance, in Indonesia, Bank BRI (Bank Rakyat Indonesia), a state-owned bank, initially targeted customers from middle to lower economic segments. Over time, however, BRI expanded its offerings to include products aimed at the middle and upper classes, such as BritamaX and BRIPrioritas. Similarly, Bank BCA, a prominent private bank, initially focused on the affluent segment but has since introduced products like BCA Xpress catering to middle-income customers, including college students. This trend is observed across various banks, leading to a convergence of product offerings and a greater emphasis on innovation and service provision as differentiators (Bikker & Spierdijk, 2008).

Efficiency is crucial for banks in conducting their operations, driven by the intense competition that often leads to price wars and eroding profit margins (Widyastuti & Armanto, 2013). To address this challenge and attract customers, banks increasingly rely on technology to enhance operational efficiency and streamline processes (Cornaggia et al., 2015). Consequently, the banking industry has become one of the fastest adopters of technology, driven by the imperative to provide effective and efficient financial management solutions to meet customer demands (Smith, 1998).

Enter the Piranhas: The Fintech Reborn

The advent of the Fourth Industrial Revolution has spurred the emergence of startups prioritizing technological innovation, particularly in the financial sector, giving rise to financial technology or fintech (Cornelli et al., 2019). Fintech startups have proliferated worldwide, particularly in Southeast Asia and Indonesia, where they offer greater convenience in addressing customer financial needs (Fajar & Larasati, 2021).

A crucial role of fintech is facilitating easier access to loans and credit, particularly for individuals and micro, small, and medium enterprises (Najaf et al., 2022). This is especially significant during crises like the COVID-19 pandemic, where fintech provides crucial support to businesses (Putri & Christiana, 2021). As of April 22, 2022, Indonesia boasts 102 licensed fintech lending companies, including both conventional and Sharia-compliant entities, according to data from the Financial Service Authority (2022).

Despite their relatively small size and scale compared to traditional banks, fintech companies have significantly impacted the banking market share (Gomber et al., 2018). Despite limited capital, fintech startups have influenced consumer behavior, with many preferring fintech services over traditional banking options (Jiang et al., 2021). Consequently, the banking sector has created fintech solutions to meet evolving customer needs (Jiang et al., 2021).

Industry projections indicate substantial growth, particularly in the neobanking sector, with a predicted market share of USD461.63 billion by 2026, driven by increased smartphone penetration and technological advancements like AI, blockchain, and Big Data (Statista, n.d.). In Indonesia, conventional banks like BRI and Bank Mandiri have launched their fintech products, such as BRI Mobile and Livin by Mandiri, shifting their focus towards mobile services (Zalan & Toufaily, 2017). Despite fintech's rise, conventional banks remain competitive due to their larger capital reserves.

Enter the Titans: Fintech Adoption by Global Giant Companies

Initially, conventional banks were not overly concerned about fintech startups as they could easily replicate the services offered by these startups through their latest mobile products (Zalan & Toufaily, 2017). However, this changed when global tech giants without financial sector backgrounds began offering fintech services aimed at disrupting banking services worldwide. Google, for instance, announced plans to launch Google Plex as a digital bank in 2019, followed by Facebook's introduction of Facebook Pay as a transaction tool within the virtual world of the Metaverse (Maranis, 2020; Tangermann, 2019). Despite internal challenges, Google persisted with its digital bank endeavor, while Facebook rebranded its offering as Meta Pay (Malik, 2022; Riyanto & Pratomo, 2021).

In Indonesia, the fintech trend has attracted responses from tech giants without financial sector backgrounds, such as Gojek, a popular startup in Southeast Asia. Gojek revamped its business to launch Gojek fintech through GoPay, offering various banking features like transactions, savings, loan applications, and investment payments with advanced security technology (GoPay, n.d.; Tempo.co, 2021). This underscores the effectiveness and efficiency of fintech in addressing customer financial needs (Gomber et al., 2018), despite conventional banks also rolling out their fintech applications. However, conventional banks face stiff competition from tech giants with superior technological adoption and innovation. If these fintech applications can offer loans and savings interest more easily while assisting customers in managing finances, it begs the question: *What drives people to continue relying on traditional banks?*

Digital Banking: The Revolution of Banking

The rise of the fintech trend has ushered in a new era in the financial sector, giving birth to digital banks that are increasingly preferred by consumers for their perceived ease, efficiency, and effectiveness (Barroso & Laborda, 2022). In response, the banking industry has been compelled to innovate its products and services to align with customer demands, spurred by fintech's introduction of convenient finance access (Das, 2020). Several conventional banking companies in Indonesia have responded to this trend. In 2016, Bank BTPN launched Jenius, which is considered the pioneering digital bank application, inspiring other banks to follow suit with similar offerings (van Nieuwenhuizen, 2018).

The drive behind these innovations in digital banking is recognizing the immense potential among the younger generation, who represent a significant market share capable of generating substantial income (Das, 2020). Peter Jan van Niewenhuizen, head of Digital Banking at BTPN, emphasized the rapid growth and potential value of the Indonesian digital market, prompting the transition from conventional to digital banking (van Nieuwenhuizen, 2018).

Following suit, other conventional banks launched their digital banks in subsequent years. Bank Bukopin introduced Wokee in 2018, while the Development Bank of Singapore rolled out Digibank by the Development Bank of Singapore. Two years later, United Overseas Bank entered the fray with TMRW by United Overseas Bank. This surge in digital bank launches reflects the competitive landscape as conventional banks vie to adapt to the disruptions caused by fintech (Barroso & Laborda, 2022).

McKinsey & Company's study highlights Indonesia as the fastest adopter of digital technology, driven by the high penetration of banking products among Indonesians, with 95% utilizing such services (Barquin et al., 2019). Moreover, Indonesia boasts a remarkably high level of customer loyalty towards banking products and services compared to other countries (Barquin & Hv, 2015). Major players in the fintech industry have also begun acquiring stakes in Indonesian banks, further fueling the banking revolution. Companies like Akulaku, Kredivo, Ajaib, and WeLab are driving this shift towards digital and neobanking models (Burhan & Setyowati, 2022). This evolving landscape underscores the substantial market potential within the Indonesian financial sector, which has fueled the growth of fintech startups and disrupted conventional banking models, particularly among the younger demographic (Chen & Lam, 2014). Consequently, threatened conventional banks redirect their investments towards digital banking models to stay relevant.

Neobank: New Player in the "Fintech War"

The advent of fintech initially unsettled the conventional banking industry, prompting several banks to transition to digital banking. However, a new wave of disruption emerged with the rise of neobanks, which operate solely online without physical branches, distinguishing them from digital banks that are extensions of conventional banks (Bradford, 2020; Hopkinson et al., 2019). In Indonesia, neobanks like Bank Jago and Bank Neo Commerce have emerged, leveraging their online presence to operate more efficiently and offer competitive pricing compared to digital banks (Temelkov, 2020a).

Neobanks, being technology companies at their core, excel in leveraging customer data for personalized services, earning them favor among customers who increasingly prefer digital banking (Temelkov, 2020b). This preference for digital banking is evident across demographics, with a majority of banking customers in the Asia–Pacific region expressing interest in switching to neobanks (Woetzel et al., 2021). Conventional banks, faced with these disruptions, have pursued acquisitions of smaller banks to transition them into neobanks, recognizing the need to adapt to the changing landscape (Brietenstein, 2017). For instance, BCA transformed Royal Bank into BCA Digital, offering branchless banking services (Prasetyo, 2019). Similarly, Bank Mega acquired Bank Harda International, rebranding it as Allobank, a neobank (IDN Financials, 2022).

This trend extends beyond the banking sector, with e-commerce and ride-hailing companies venturing into digital banking. For example, Shopee acquired Bank Kesejahteraan Ekonomi to establish SeaBank Indonesia, while Bukalapak collaborated with Standard Chartered to launch BukaTabungan (Retail Banker International, 2021; Yordan, 2022). Additionally, Gojek acquired a stake in Bank Jago, facilitating innovative collaborations between GoPay and Bank Jago (Rahman, 2020).

Large companies' acquisition of small banks and their subsequent transformation into neobanks reflects a strategic response to the digital banking era's demands (Das, 2020). Converting established conventional banks into neobanks involves significant risks and challenges, including legacy systems and regulatory hurdles (Chen & Lam, 2014). Thus, acquiring smaller banks allows a smoother transition to digital banking while mitigating risks (Hopkinson et al., 2019).

Conventional banks, recognizing the benefits of the neobank model, are compelled to adapt. While some may contemplate complete transformation, the challenge lies in reconciling offline infrastructure with the online-centric neobank model (Chen & Lam, 2014). Consequently, conventional banks focus on releasing digital banks and investing in startups to explore neobank business models, positioning themselves to navigate Indonesia's evolving digital banking landscape.

Indonesian Government Regulations and Market Response

Indonesia's increasing reliance on digital technology has prompted the government to enact policies to provide legal certainty and consumer protection for fintech-based companies. The Coordinating Ministry for Economic Affairs encouraged regulatory bodies like PPATK and FSA to establish frameworks that balance innovation with protection (Coordinating Ministry For Economic Affairs, 2019). In response, FSA planned to launch the Fintech Innovation Hub and *One Stop Contact Fintech* to foster collaboration between licensed fintech companies, the government, and other stakeholders (Financial Service Authority, 2019).

However, while regulations like POJK 12 provide guidelines for commercial banks transitioning into digital branches, specific rules for digital banks, especially neobanks, are yet to be agreed upon (Directorate General of Treasury, 2022; Financial Service Authority, 2016). Urgent regulation is necessary, given the mandate from existing laws and the need to address cybercrime threats (Disemadi & Regent, 2021; Irawansah et al., 2021). Establishing such regulations will ensure the integrity of the neobanking landscape and protect consumers.

The government's focus on regulating digital banks is driven by the market response, especially among younger generations who are comfortable with the technology (Barquin et al., 2019; Barquin & Hv, 2015; Central Statistics Agency, 2020; Kominfo, 2021). With internet infrastructure expanding and internet usage rising, the neobank era has disrupted conventional banking by catering to digital-native consumers (Barquin et al., 2019). This shift raises questions about the future of conventional banking in an increasingly digital world. Will conventional banking become obsolete in the face of digital banking's rise? This remains to be seen as regulatory frameworks evolve to address the changing financial landscape in Indonesia.

Conclusions

The rise of fintech has indeed disrupted the financial sector, particularly banking, by offering consumers easier access to financial services compared to traditional banking. Neobanks, as new players in the field, further amplify this disruption by providing more attractive offerings, such as higher interest rates and lower costs, thanks to their efficient operations driven by advanced technology. This disruption has compelled conventional banks to adopt an ambidextrous strategy, gradually transitioning towards a digital banking revolution. However, the proliferation of digital banks, including neobanks, poses challenges in terms of regulation and oversight. The unregulated nature of some financial service providers increases the risk of fraud and digital crimes.

To address these challenges, the government advocates creating regulations that govern and supervise fintech companies, particularly neobanks, while prioritizing consumer protection through FSA. These regulations aim to balance ensuring a safe environment and fostering innovation within the fintech industry. Moreover, Indonesia’s burgeoning market potential in the banking and financial industry, especially with the demographic bonus expected in 2030, underscores the importance of adapting to the digital era. As the majority of Indonesia’s population becomes digitally savvy, there is a pressing need to leverage technology to meet the evolving needs of consumers and ensure a thriving financial ecosystem.

Implications

The emergence of neobanking presents several significant effects on various stakeholders. Firstly, it enhances access to financial services, particularly benefiting micro, small, and medium enterprises and retailers by promoting financial inclusion. With its easy accessibility and lower costs compared to traditional banks, neobanking fosters an innovative business model that facilitates financial transactions for individuals from diverse backgrounds. This banking revolution instigates unique competition within the industry, prompting conventional banks to innovate and improve their services and products to stay competitive. Conventional banks can also leverage this opportunity to collaborate directly with fintech firms, digital banks, or neobanks to harness their technology and expand their market reach.

For the government, neobanking holds the potential to boost financial inclusion in Indonesia by offering accessible and affordable financial services, even to those in remote areas via smartphones. This increased financial inclusion can drive economic growth by enhancing efficiency in accessing financial services. However, despite the benefits, specific challenges are associated with the neobanking industry. The reliance on online platforms makes neobanking vulnerable to cyber threats, necessitating continuous innovation in cybersecurity measures to safeguard customer data. Moreover, the anticipated growth of neobanking, while enhancing financial inclusion, also poses risks to financial stability if not carefully monitored by regulatory authorities such as the FSA and Bank Indonesia. Furthermore, digital inequality, such as limited internet access in remote areas, can impede the seamless operation of the neobanking industry. To mitigate this risk, the government must prioritize the development of internet infrastructure across various regions in Indonesia to address digital inequality and prevent potential long-term issues.

Limitations and Future Research

This study, while comprehensive, has several limitations that must be acknowledged. The research primarily focuses on the Indonesian banking sector, which may limit the generalizability of the findings to other countries with different regulatory environments, economic conditions, and levels of technological adoption. Indonesia’s unique market characteristics may not apply to other regions. Additionally, the study relies on available secondary data and qualitative insights, which may not fully capture the dynamic and rapidly evolving nature of the fintech and neobank landscape. The lack of longitudinal data limits the ability to observe long-term trends and impacts.

Furthermore, the regulatory environment for fintech and neobanks is continually evolving. This study captures the situation at a specific time, which may change as new regulations are implemented. Future regulatory developments could significantly alter the competitive landscape and the implications drawn in this study. Rapid technological advancements could also introduce new variables that were not considered in this study. As fintech and digital banking technologies evolve, new forms of disruption may emerge, necessitating ongoing research to stay current with these developments.

While the study highlights a general trend in consumer behavior toward digital banking, individual preferences and behaviors can vary widely. Cultural, demographic, and socio-economic factors can influence how different consumer segments interact with fintech and neobanks, which this study may not fully address. Building on the findings and limitations of this study, several areas for future research are suggested. Comparative analyses between Indonesia and other countries could help understand how different regulatory and economic environments impact the adoption and success of fintech and neobanks. Such studies could provide broader insights and enhance the generalizability of the findings. Long-term studies that track the evolution of fintech and neobanks over time would be valuable, providing deeper insights into the lasting impacts of digital disruption on the banking sector and consumer behavior.

Investigating the specific impacts of new regulations on fintech and neobanks, as well as the effectiveness of these regulations in mitigating risks while fostering innovation, is crucial. This research could help inform policymakers and industry stakeholders about the best practices in regulatory frameworks. Exploring the impacts of emerging technologies such as blockchain, artificial intelligence, and machine learning on the banking sector could uncover new dimensions of disruption and opportunities for innovation. Understanding how these technologies can further enhance or challenge the fintech and neobank models would be beneficial.

Detailed studies on consumer behavior, segmented by demographics, socio-economic status, and cultural factors, could provide more nuanced insights into how different groups interact with digital banking services. This would help fintech and neobanks tailor their offerings to meet the needs of diverse consumer segments better. Research focusing on the risks associated with digital banking, particularly fraud and cybersecurity threats, would also be valuable. Developing effective risk mitigation strategies and understanding the vulnerabilities in the fintech ecosystem are critical for ensuring consumer trust and safety.

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