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Thesis for the Degree of Master of Management of Technology

# Comparison Analysis on Sustainable Digital Banking: Focused on Bank Jago and WeBank

by

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Graduate School of Management of Technology

Pukyong National University

February, 2023

# Comparison Analysis on Sustainable Digital Banking: Focused on Bank Jago and WeBank

지속가능한 디지털뱅킹 비교분석 :  
Bank Jago와 WeBank를 중심으로

Advisor: Prof. Dong Phil Chun

by

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A thesis submitted in partial fulfillment of the requirements  
for the degree of

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Pukyong National University

February, 2023

# **Comparison Analysis on Sustainable Digital Banking: Focused on Bank Jago and WeBank**

A thesis

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February 17<sup>th</sup>, 2023

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# 지속가능한 디지털뱅킹 비교분석 : Bank Jago와 WeBank를 중심으로

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## 초록

모바일 인터넷, 클라우드 컴퓨팅, 빅데이터, 검색엔진, 블록체인 기술 등이 포함된 금융기술(핀테크)의 성장은 금융권에 큰 영향을 미쳤다. 핀테크가 전통적인 은행 비즈니스 모델을 교란해 기관들의 업그레이드와 구조조정을 강요할 것으로 예상된다. 디지털 전용 은행의 등장은 기존 은행과 핀테크 사이의 유사한 특성을 지닌 금융 기관이 됐다. 이들은 은행이지만 기존 은행과 차별화된 특징인 지점이 없는 핀테크와 같은 기술 기반 금융 서비스를 보유하고 있다. 인도네시아는 인터넷에 접속할 수 있는 상당한 인구를 가지고 있으며, 은행 산업이 특히 주식 시장에서 가장 큰 자산이기 때문에 디지털 은행 산업이 빠르게 확장될 가능성이 있다. 본 연구에서는 은행 Jago와 WeBank를 집단 사례 연구 접근법을 사용하여 비교 분석하였다. 본 연구는 연구배경에 관한 선행연구를 통해 지속가능한 디지털 뱅킹 프레임워크가 채택한 재무성과와 혁신, 고객집중, 이해관계자 관리와 리스크 감소, 기업지배구조, 미소금융, 금융적 수용성 등을 조사한다. 해당 정보는 선행 연구, 서적, 웹사이트, 저널 및 연구 주제와 관련이 있는 다른 형태의 문헌을 포함한 2차 자료를 통해 수집되었다. 본 연구는 후발주자인 뱅크자고가 디지털전용은행으로 선행 설립된 위뱅크의 기술력과 사업계획, 경영진을 따라잡기 위해 디지털전용은행으로 변화하기 시작했음을 시사한다. 본 연구의 결과는 디지털 전용 은행

산업에서 실증적 결론과 결과를 얻기 위한 추가 실증 연구에 적용될 수 있다.

키워드: 디지털 बैं킹, 지속 가능한 बैं킹, बैं크 jago, webank, 혁신, 고객,  
이해관계자, 관리, 기업지배구조, 마이크로파이낸스, 금융포함



# **Comparison Analysis on Sustainable Digital Banking: Focused on Bank Jago And WeBank**

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Master of Management of Technology  
in Graduate School of Management of Technology  
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## **Abstract**

The growth of financial technology (FinTech), which includes mobile Internet, cloud computing, big data, search engines, and blockchain technology, has had a significant impact on the financial sector. Fintech is expected to disrupt the conventional banking business model, forcing institutions to upgrade and restructure. The emergence of digital-only banking has become a financial institution that has similar characteristics between conventional banks and fintech. They are actually banks but have technology-based financial services like fintech, a branchless concept which is also a distinguishing feature from conventional banks. Given that Indonesia has a sizable population that has access to the internet and since the banking industry there is the country's biggest asset, particularly in the stock market, there is potential for the digital banking industry to expand quickly. The Bank Jago and WeBank are compared and analyzed in this study using a collective case study approach. This study investigates the

financial performance and innovation, customer focus, stakeholder management and risk reduction, corporate governance, microfinance, and financial inclusion adopted by the sustainable digital banking framework from prior research concerning the research backdrop. The information was gathered through secondary sources, including prior studies, books, websites, journals, and other forms of literature that are still relevant to the research themes. This study suggests that Bank Jago, a late entrant, has begun to change into a digital-only bank to catch up with the technology, business plan, and management of pioneer WeBank, which was established specifically as a digital-only bank. The findings of this study can be applied to further empirical research to obtain empirical conclusions and consequences from the digital-only banking industry.

Keywords: digital banking, sustainable banking, bank Jago, WeBank, innovation, customer, stakeholder, management, corporate governance, microfinance, financial inclusion

## **I. Introduction**

Financial technology (FinTech)'s advancements in the fields of mobile Internet, cloud computing, big data, search engines, and blockchains have substantially altered the financial sector and forced traditional institutions to modernize (Chen et al., 2017). In research by Citibank (Citi GPS, 2016), they said that the number of personnel in traditional banks will drop by around one-third over the next ten years thanks to FinTech innovation. The current state of the banking business is what Stephen Bird, CEO of Global Consumer Banking at Citigroup, called a "stage of extinction," when institutions must either quickly change and forge new competitive positions or progressively disappear.

The prospect of digital bank business in Indonesia can be said to have very good potential. Quoting from various news, one of which is from (Anggraeni, 2022), the digital bank business has the potential to have large profits because digital banks enter into partnerships with other parties in terms of digital payments, where digital banks get a fee for each transaction. In Indonesia, several digital banks are business to support the previous business ecosystem, for example, PT Allo Bank Indonesia Tbk is a digital bank formed by a large corporation CT Corp

which is engaged in television, shopping centers, and others (Kontan.co.id, 2022a).

In this study, the case studies selected were Bank Jago from Indonesia and WeBank from China. Bank Jago is one of the largest digital-only banking in Indonesia. The reason for choosing Bank Jago as an example of a case study in this research is because Bank Jago is a company listed on the Indonesia Stock Exchange in 2021. And also this digital bank is a native Indonesian company that previously was a conventional bank named PT Bank Artos which was transformed into digital-only banking (Khuan, 2022).

Bank Jago is also affiliated with GoTo, which is a listed company on the Indonesia Stock Exchange with the 3rd largest market capitalization on the IDX (A. Pratama, 2021). GoTo is a combination of Gojek and Tokopedia issuers, where Gojek was originally a company engaged in the ride-hailing industry while Tokopedia did business in online sales (market place) (Kompas.com, 2021). The merger of these two issuers is one of the largest mergers in Indonesia, which can create an ecosystem in the fields of online shopping ordering, digital finance, online transportation, and others.

As a comparison from Bank Jago, in this study, WeBank from China was selected. Quoting from sources (Fintechnews. hk, 2022), WeBank is the largest digital-only banking in Asia. Behind WeBank's success in becoming the world's largest digital bank, the Tencent Group played a major role in this success. The Tencent Group was behind the creation of WeBank to strengthen the Tencent ecosystem in the financial sector (Marous, 2020).

WeBank at the beginning realized that their company is a start-up, they are constantly innovating in terms of technology. They are investing heavily in technologies such as AI, blockchain, and cloud computing (Kinsey, 2022). WeBank is active in registering technology patents which they have developed into one of the largest technology patent-holding companies in the world. As of March 8, 2022, WeBank has 204 technology patents (IPRdaily, 2022). WeBank is targeting to build projects together with developers around the world in an open source form, for example, FATE (Federated AI Technology Enabler), FISCO BCOS (consortium chain platform built together with FISCO open source taskforce team), and open-source big data platform the WeDataSphere suite (PRNewswire, 2020).

The bank's role in Indonesia is very important. It plays a role in supporting the country's economy. Bikker & Haaf (2002), the banking industry is a leading indicator or a driver of the country's economy. Since SMEs make up more than 90% of all businesses in Indonesia that are not in the agricultural industry, they are the largest employer in the nation, especially for women and young people. (Tambunan, 2008). Indonesian MSMEs contribute slightly over 61 percent to Indonesia's total gross domestic product (GDP); Indonesian MSMEs absorb around 97 percent of Indonesia's domestic employment, and around 99 percent of the existing business in Indonesia today fall in the MSME category. In China, there were over 140 million SMEs and self-employed in 2020. Overall, SMEs contribute over 60% of the total GDP. Digital banking like Bank Jago focuses on microlending to individuals and SMEs that build economics bottom up. Digital bank has a branchless concept that is suitable for Indonesia's condition with a lot of citizens and archipelago. Its benefit is to reduce cost and increase efficiency.

In previous research (Chen et al., 2017), he has conserved digital transformation in the banking sector. The research discusses various digital transformation strategies, organizational innovations, human resources analysis, and business analysis, between Citibank and ICBC. From the two case studies of the two banks, the type of bank analyzed is a traditional bank that has digital services in the form of mobile internet banking. The bank cannot be categorized as digital-only banking. On the other hand lately, with the rapid development of technology, many fintech have sprung up which at the same time triggers the emergence of digital-only banking. The emergence of digital-only banking is very interesting to study because banking is one of the most influential industries in Indonesia. Therefore, this study will select a case study of digital-only banks, namely Bank Jago from Indonesia and WeBank from China, to complement earlier research and also contribute new knowledge in the area of digital-only banks.

The method used in this study is a case study collective case study. Data were taken from previous research, books, journals, news, websites, and official publications from the companies discussed, namely Bank Jago and WeBank. A comparison of the two banks is carried out within

the framework of sustainable banking.

The comparison starts with a summary of the general condition of the two banks. Then followed by an in-depth comparison of the sustainable banking framework which consists of financial performance & innovation, customer orientation, stakeholder management & risk reduction, corporate governance, microfinance & financial inclusion. In addition, the analysis is also followed by a SWOT analysis.

In previous studies, there was not much literacy about digital-only banking. As for those who have conducted comparative banking performance research, but only from the scope of conventional banks that have an internet banking business model. In addition, discussions on sustainable banking that are applied to digital-only banking have not yet been carried out. Therefore, this research is expected to be able to fill the research gap that has not been done in the past. Discussion of this research can bring up new research questions and new hypotheses in the field of digital-only banking.

## II. Literature Review

### 2.1 Digital Banking

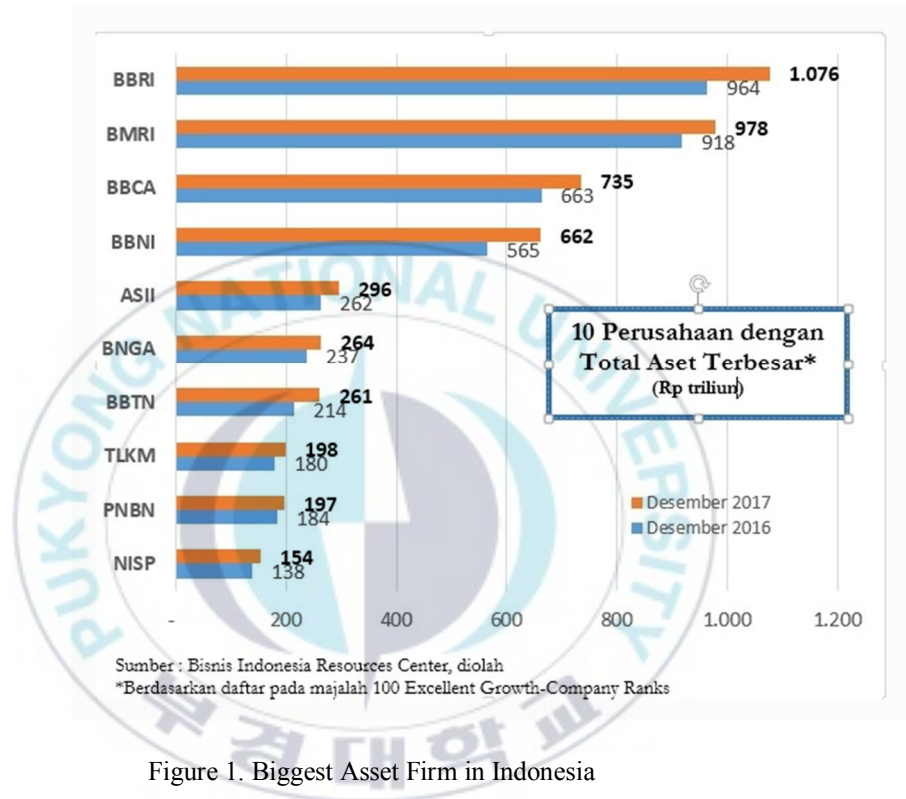


Figure 1. Biggest Asset Firm in Indonesia

In Indonesia, the largest assets are generally owned by banking companies (Bisnis.com, 2018). The prospect of digital bank stock prices is considered to be able to grow to be large. Quoted from (Kontan.co.id, 2022d), the stock price of digital banking in Indonesia has increased because the company's performance has improved with a profit surplus

from the previous year. Digital banks are very closely related to technology because the infrastructure that supports digital banks is technology, of course innovation is a natural thing for digital banks to do. So that stock investors can use innovation as a reason to invest in digital banking companies.

For its customers to benefit, banks require digital banks (DB) (Patsiotis et al., 2012). The DB scope covered includes digital device-based electronic banking services, such as t-banking, e-banking, and m-banking, as well as contactless cards (such as tap and go), ATMs, and point-of-sale systems. Customers who use online banking can access their accounts from the comfort of their homes (Martins et al., 2014). M-Banking allows for the control of financial services using mobile devices (Carlos Tam, 2015).

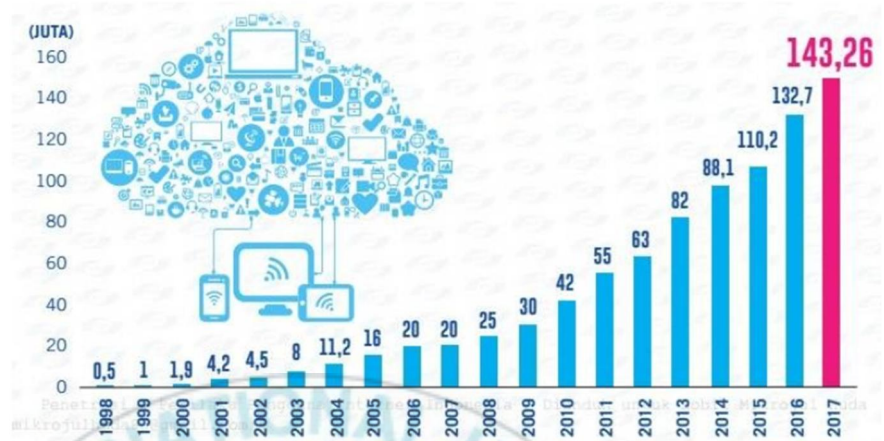


Figure 2. Internet Users in Indonesia

51.7% of Indonesia's population used an internet connection in 2016, according to data gathered by the Association of Internet Service Providers in Indonesia (APJII). On average, a mobile phone user accesses the internet for four hours every day. Additionally, it has just come to light that Indonesia has 370 million active sim cards, which is more than the country's whole population of 270 million Indonesians. (Lubis & Febrianty, 2018)

According to (Linggadjaya et al., 2022), a digital bank is defined as an Indonesian legal entity bank (BHI Bank) that delivers and conducts business activities primarily through electronic channels

without a physical presence, following Financial Services Authority Regulation Number 12/POJK.03/2021 concerning Commercial Banks. These companies have the option of starting new BHI Banks or becoming digital banks to operate. The only categories of banks that will be institutionally divided into are commercial and rural ones, according to Tony, the Deputy Director of Basel and International Banking OJK. Therefore, as digital banks only comprise a change in the business model and way of providing services to the public, no additional license will be issued for them.

A Digital only bank is a bank that only operates online, on mobile devices, tablets, and other digital platforms and provides banking services. With the aid of real-time data, automated processes, and electronic documentation, it provides fundamental services in the most straightforward way possible (Aggarwal & Varghese, 2018). The Millennial Generation's high-end banking demands make digital-only banks an obvious choice for these customers. Real-time data analysis, Agile-based technologies, and continual innovation are the primary differentiating factors that set digital-only banks apart from their traditional competitors.

According to (Tosun, 2020), due to the internet's widespread use and the quick advancement of technology, nearly all traditional banks now offer their clients digital banking options. A digital bank provides all of its customers with online and self-service banking options rather than traditional branch-based customer support. Challenger banks, virtual banks, internet banks, or mobile banks are other names for digital-only banks, which offer a variety of digital banking services.

First Direct in the UK provided the first neo-banking service in 1989 using a call center service model (Okunevych and Hlivecka, 2018). To keep up with the rapid advancement in technology, these services were enhanced in the 1990s by adding online banking, and in the 2000s, traditional banks began to offer digital banking in addition to their branch services (Okunevych and Hlivecka, 2018). A digital-only banking system needs legislation, rules, and a robust technical infrastructure in addition to user acceptability and competency with the digital banking interface.

More than 4.5 million customers are served by Revolut Bank, Monzo Bank, N26 Bank, Starling Bank, and Tandem Bank, which are

all now functioning in the UK as neobanks or digital-only banks brands (Somoglobal, 2019). The USA, Germany, France, India, China, Italy, Canada, Brazil, and Spain are among the nations that have digital-only banks (Okunevych and Hlivecka, 2018).

Some of the defining characteristics of the new generation include a heavy reliance on cellphones and a need for data when on the go. Digital-only banks are attempting to use real-time analytics to give customized consumer information like expenditure alerts and geo-based products by capitalizing on these traits. Services like informing customers about their spending patterns and alerting them when certain purchases might be beyond their means are valued. Such customized offerings will encourage clients to save more, which will ultimately increase client loyalty.

The legacy IT infrastructure of traditional banks, which is highly complicated and expensive to maintain, is not a problem for the new digital-only banks. Instead of on-premise technology, these institutions mostly use cloud infrastructure. Application programming interfaces (APIs) have recently been adopted by Fidor, enabling its application to outside parties. Additionally, the Ripple block chain

payments technology has been implemented, along with partnerships with Bitcoin exchanges. These attributes allow these innovative, technology-based banks to roll out fresh consumer offerings more quickly.



Table 1. Digital Banking Literature Review

YEAR	TITLE	METHOD	RESULT
Patsiotis, A. G, 2011	Adopters and non-adopters of internet banking: a segmentation study	Quantitative research. K-means segmentation method	To create profiles of users and non-users of the service, this research looks at internet banking adoption and resistance behavior in Greece.
Carlos Tam, 2015	Literature review of mobile banking and individual performance	Extensive literature review	This paper aims to analyze and summarizes prior research and offers suggestions to academics and industry professionals.
Mbama & Ezepue, 2018	Digital banking, customer experience, and bank financial performance UK customers' perceptions	Quantitative research. Linear regression	This study's goal is to investigate how customers perceive UK banks' financial performance (FP), customer experience (CE), contentment, and loyalty. The study showed that banks may use digital banking to enhance their financial performance. Banks should be providing more mobile banking services since customers are expecting them and looking for value.
Nel & Boshoff, 2021	"I just don't like digital-only banks, and you should not use them either": Traditional-bank customers' opposition to using digital-only banks	Linear regression	The study's main goal was to find out how traditional bank customers' reluctance to utilize digital-only banks is influenced by their assessments of the functional and psychological barriers that may prevent it.
Sajić et al, 2018	Digital Technologies in the Transformation of Classical Retail Bank into Digital Bank	Qualitative research	This study examines, suggests, and describes potential applications of digital technology for making traditional banks into present digital ones.
Tosun, 2020	BRAND TRUST FOR DIGITAL-ONLY BANK BRANDS: CONSUMER INSIGHTS FROM AN EMERGING MARKET	Qualitative research	For a digital-only banking brand in an emerging region, this study attempts to investigate consumer motivations and key components of establishing client trust. In the banking industry, trust has been identified as the key determinant of brand selection. In addition to trust, a wide range of products and services and the caliber of customer service provided in branches were mentioned as essential criteria for choosing a bank.
Linggadjaya et al., 2022	DIGITAL TRANSFORMATION OF PT BANK JAGO TBK FROM CONVENTIONAL BANK TO DIGITAL BANK	Qualitative research	This study examines PT Bank Jago Tbk's (Bank Jago) business strategy as it transitions from a conventional bank (formerly Bank Artos) to a digital bank. The researcher broke down Bank Jago's multiple strategies such as financial performance, corporate governance, profitability, and capital.

## 2.2 Sustainable Banking

According to previous research about sustainable banking, the Integrated framework for the literature on sustainable banking is based on the findings from the keyword analysis and the conceptual connections between them that have not received enough attention. The framework links the three domains (A) Ethical Foundations, (B) Sustainable Products, and (C) Business Case to the nine distinct clusters. The following guiding principles (Valor, 2012) were used in the framework's development: universality (suitable to host any article within the literature on sustainable banking), comparability (allowing for both intra- and inter-domain comparisons), information accessibility (based on open data), parsimony (covering a manageable number of clusters), and comprehensiveness of the various research dimensions within the sustainable banking literature. Domain (A), Ethical Foundations, integrates the functions of firm enablers (clusters "Corporate governance" and "Organizational ethics-focus") and institutional enablers (cluster "Supervision and regulation"). Genuinely sustainable banks can make social and ecological sense thanks to these

moral underpinnings, which set them apart from opportunistic, symbolic, or "greenwashing" endeavors (Arend, 2013).

Sustainability-related financial products, such as "SRI and green banking," "financial inclusion," and "microfinance," are included in Domain (B), Sustainable Products. Business-Case Domain (C) integrates research on the indirect relationships between sustainable banking and corporate performance (Vishwanathan et al., 2020) through "Innovation," which enables adaptation to rapidly changing environments (Birkinshaw et al., 2008); "Customer-Orientation," which helps businesses build social capital (i.e., legitimacy, trust, and loyalty) and endure ongoing industry transformation Forcadell and Aracil, 2019; Forcadell et al (Godfrey et al., 2009; Weber, 2005)

Sustainable banking is defined as a bank's choice to market goods and services to clients who care about their social and environmental effects (Jeucken and Bouma, 1999).

Sustainable banks, according to Earhart et al. (2009), are devoted to fostering genuine economic growth and to supporting

businesses that provide goods and services with consideration for social and environmental impacts (Bouma et al. 2001; Giuseppi, 2001; Dragan, 2012).

According to Bouma et al. (2001), sustainable banking is defined as the (imperishable/renewable/unceasing) sustainable finance that provides financial capital and risk management from products to projects and organizations that promote (or do not harm) economic prosperity, social justice, and environmental protection.

Furthermore, according to Imeson and Sim (2013) and Stankeviciene and Nikonorova (2014), sustainable banking is a value system that not only benefits the bank's shareholders and workers as part of its business but also benefits its clients and the broader economy. Additionally, this approach mitigates or completely avoids any negative effects on society or the environment.

Additionally, sustainable banking offers the chance to develop cutting-edge goods and services that benefit society and the environment. These include renewable energy, energy efficiency, cleaner production processes and technologies, microfinance,

biodiversity preservation, financial services for underserved groups (such as women and young people), low-income housing, and agency banking. Through these products, banks will then enter new markets and attract new clients, building goodwill, attracting new capital, and supporting stakeholders (Polonskaya and Babenko, 2012).

The banking industry contributes significantly to the promotion of sustainable development as a fundamental support system and enabler of economic growth in the economy (Weber, 2005). Sustainability has been increasingly incorporated into banking during the past few decades.

Increasingly, banks in India are recognizing the importance of the same in attaining sustainable development (Rebai, 2014). The idea of "green banking" has developed to support eco-friendly practices in the financial industry. The type of banking known as "green banking" focuses the bank's primary activities on environmental management (Dewi and Dewi, 2017). The idea of "green banking" mainly focuses on the environmental aspect of sustainability in the financial industry. To reduce carbon footprints and improve environmental management,

Bose et al. (2018) defined green banking as the adoption and promotion of eco-friendly technology in the internal and external activities of banks. Sustainable banking encompasses the ideas of green banking, ethical banking, social banking, and CSR. The idea of sustainability in banking has been developing over time; it first included:

- Social banking is a philanthropic and community-building initiative for social development;
- Integrating moral principles and ethical conduct into banking activities is known as ethical banking;
- utilizing environmental management systems and avoiding financing environmentally risky enterprises; and
- sustainable banking – incorporating ESG issues and managing the environmental and social impact of banking activities for sustainable development (Weber and Feltmate, 2016).

"Banks can adopt sustainability in two different ways. First, they can integrate environmental and social responsibility into their daily operations

by implementing energy-saving, paperless banking, and other environmental initiatives, as well as social development initiatives like community welfare programs and financial inclusion initiatives. Second, by including social and environmental factors in the bank's basic strategy (such as by incorporating environmental and social impact criteria into financing activities and creating sustainable financial products, among other things). Banks must create their social conduct policy and environmental risk management system to integrate sustainability into their business plan (UNEP and World Bank Group, 2017).

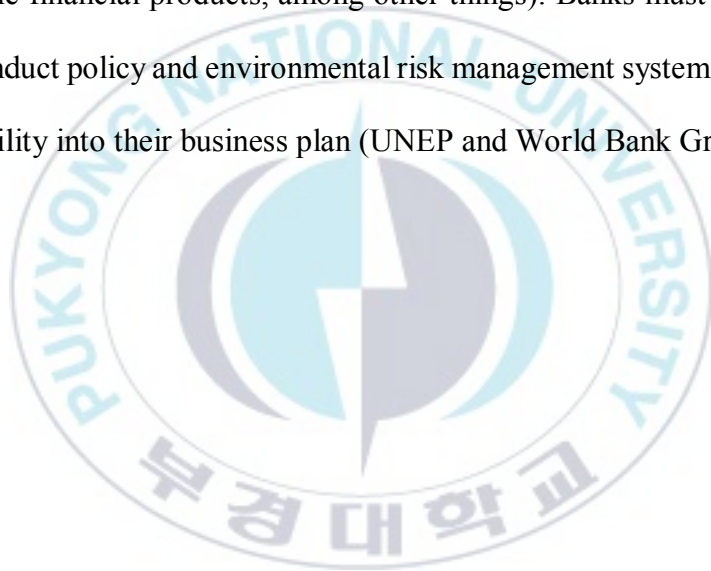


Table 2. Sustainable Banking Literature Review

YEAR	TITLE	METHOD	RESULT
Tan et al., 2017	A holistic perspective on sustainable banking operating system drivers A case study of the Maybank group	Qualitative research. Interview with 35 bankers.	This essay seeks to offer a more comprehensive viewpoint on the motivations that led Maybank to adopt a sustainable banking operating system.
Kumar & Prakash, 2019	Developing a framework for assessing the sustainable banking performance of the Indian banking sector	Qualitative research	Through the use of a sustainable banking performance framework, this study seeks to determine how widely sustainable banking practices have been adopted in the Indian banking industry.
Aracil et al., 2021	A Systematic Review of Sustainable Banking through a Co-Word Analysis	Co-word analysis method	This study examined the literature that has been published on sustainable banking for three time periods: up until and including 2008, 2009–2014, and 2015–2019.
Aracil et al., 2021	Sustainable banking: a systematic review of concepts and measurements	Qualitative research	Through a systematic assessment of peer-reviewed articles that either measured the concept or discussed its definition and role, the purpose of this research was to contribute to a better understanding of the sustainable banking construct and its domains.
da Silva Inácio & Delai, 2022	Sustainable banking: A literature review and integrative framework	Bibliometric studies. Peer-reviewed articles gathered through the web of science	<ul style="list-style-type: none"> <li>→ A) Ethical foundation <ul style="list-style-type: none"> <li>- supervision and regulation</li> <li>- organizational ethics focus</li> <li>- corporate governance</li> </ul> </li> <li>→ B) Sustainable Product <ul style="list-style-type: none"> <li>- SRI and green banking</li> <li>- Financial inclusion</li> <li>- Microfinance</li> </ul> </li> <li>→ C) Business Case <ul style="list-style-type: none"> <li>- Financial performance and innovation</li> <li>- Customer-orientation</li> <li>- Stakeholder management &amp; risk reduction</li> </ul> </li> </ul>

### **2.3 Competitive Advantage and Sustainable Advantage**

A competitive advantage is anything that the company accomplishes better than any other company. This distinction ought to inspire customers to purchase the brand's goods or services. The difference might be a more cost-effective production procedure, which would result in a reduced price for consumers. Alternatively, specialized services that appeal to customers may be a competitive advantage (Cantwell & Mowery, 2013).

A company's higher success can be attributed to either a stronger market position or the possession of priceless, uncommon, unique, and non-replaceable resources. To put it another way, a company's competitive advantage is made up of two parts: the sources of the advantage (market position or resources) and the results of the advantage (performance, like profitability) (Huang et al., 2015).

Any competitive advantage-generated status quo would be vulnerable to change. For instance, until the beginning of 2000, Nokia and Motorola were two of the biggest handset manufacturers worldwide. However, as the market transitioned from analog-based mobile phones (1G) to digital-based mobile phones (2G),

Motorola's dominance in terms of market share was diminished (He, Lim, and Wong, 2006). In the second half of the first decade of the new millennium, when the system transitioned from 2G to 3G, Nokia similarly lost market share and leadership to Apple and Samsung. As the technology foundation in the handsets changed, the incumbents' strong market position (higher market share) in the mobile phone sector deteriorated.

The company must also think about whether its competitive edge can be sustained over time or if another company can match it. A competitive edge is anticipated to continue for at least two to three years. One issue that most businesses deal with is that as technology skills have improved, the amount of time for which a competitive edge may be maintained has shrunk. Additionally, there is now essentially a global market. This is referred to as hypercompetitive by Richard D. Aveni. Hypercompetition arises in a setting when competitive advantage is difficult to preserve due to competitors copying successful organizations' methods or quickly advancing technology.

The company wants its competitive edge to not only

last as long as possible but also be difficult to replicate, which is the purpose of sustainability. When attempting to maintain their competitive advantage, businesses do not operate in a uniform atmosphere. When a company has developed characteristics that give it a competitive edge, there is minimal pressure for it to change because some situations are generally calm. Other contexts, however, are quite chaotic; the firm's competitive advantage, as well as the capabilities that support it, are constantly under attack, and the firm must change quickly. How quickly the environment changes is a major challenge in the management of technology and innovation. Depending on the type of environment it competes in, a company may or may not be able to develop a sustainable advantage (Cantwell & Mowery, 2013).

The emergence of COVID-19 has changed the community's need for finance. This happened because transactions that were previously carried out in cash were replaced by digital payments. Reduced community mobilization due to the spread of the virus, makes banks with the concept of "branchless banking" more effective because they do not require a lot of operational costs. In addition, the public is also increasingly aware of the importance of financial education,

because big or small the impact of the spread of COVID-19 affects the financial condition of the community (insiderintelligence.com, 2022). In this regard, financial education features are provided by the bank's digital-only application, which allows them to manage in detail their expenses, income, and the investment percentage of the salary they earn. The ease of lending without having to provide large collateral and a relatively simple verification process allows digital-only banks to penetrate the market share of small peer-to-peer lending as well as small and medium enterprises (mckinsey, 2022). All of these are the competitive advantages possessed by digital-only banks. If this can be maintained and even improved, there will be a sustainable advantage from digital-only banking.

## **2.4 Research Gap**

### **Similarity**

Previous research (Chen et al., 2017) has investigated mobile internet banking at Citibank and ICBC. The things compared include several things, namely development history, digitalization strategy, analysis of the organization, and human resources. The research

method used is also the same, namely the qualitative method by collecting data from a second party, such as news, websites, previous research, books, journals, and sources related to digital-only banks.

### **Differences**

With the development of technology, more and more financial technology has emerged. This has also triggered the emergence of digital-only banks. In this study, researchers compared specifically digital-only banking. The points used as benchmarks are also different from previous studies. The selected framework used to compare the two banks has been described in the previous chapter on research design. And lastly, the bank used for comparison is also different from previous research, the researcher determined Bank Jago and WeBank to be case studies in this research.

This research proposes some hypotheses :

H1. Innovation in information technology (IT) can affect digital-only bank financial performance.

H2. A customer-oriented firm can effectively attract digital-only bank new customers.

H3. Stakeholder management gives a big role in a digital-only bank's performance.

H4. Good corporate governance can increase a digital-only bank's performance.

H5. The digital-only bank can help microlending and financial inclusion to individuals and small and medium enterprises



Table 3. Research gap

YEAR	TITLE	RELATED DIGITAL BANKING	RELATED CONVENTIONAL BANKING	SUSTAINABLE BANKING	COMPARISON STUDY
K. S. Tan et al., 2010	An evaluation of e-banking and m-banking adoption factors and preference in Malaysia: a case study	<input checked="" type="checkbox"/>			
Ngugi et al., 2010	M-PESA: A CASE STUDY OF THE CRITICAL EARLY ADOPTERS' ROLE IN THE RAPID ADOPTION OF MOBILE MONEY BANKING IN KENYA	<input checked="" type="checkbox"/>			
Burianova, Lenka et al., 2014	Corporate Social Responsibility in Commercial Banking - A Case Study from the Czech Republic		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Chen et al., 2017	The transition from traditional banking to mobile internet finance: an organizational innovation perspective - a comparative study of Citibank and ICBC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
L. H. Tan et al., 2017	A holistic perspective on sustainable banking operating system drivers A case study of Maybank group		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
González et al., 2008	An Alternative Approach in Service Quality: An e-Banking Case Study	<input checked="" type="checkbox"/>			
Salman & Nawaz, 2018	Islamic financial system and conventional banking: A comparison		<input checked="" type="checkbox"/>		
Yakubiv et al., 2019	DEVELOPMENT OF ELECTRONIC BANKING: A CASE STUDY OF UKRAINE	<input checked="" type="checkbox"/>			

Table 4. Related digital bank studies

	Year	Title	Method	Result
RELATED DIGITAL BANKING	K. S. Tan et al., 2010	An evaluation of e-banking and m-banking adoption factors and preference in Malaysia: a case study	Quantitative, linear regression. 200 customer survey	The findings from 184 customers indicate that perceived usefulness, perceived ease of use, convenience, computer efficacy, device features, and security influence the adoption of e-banking.
	Ngugi et al., 2010	M-PESA: A CASE STUDY OF THE CRITICAL EARLY ADOPTERS' ROLE IN THE RAPID ADOPTION OF MOBILE MONEY BANKING IN KENYA	Quantitative, survey via email 102 respondents	About 47% of the respondents are satisfied with internet banking. The study also makes contributions to the technology adoption literature.
	Chen et al., 2017	The transition from traditional banking to mobile internet finance: an organizational innovation perspective - a comparative study of Citibank and ICBC	Qualitative. Study case Citibank and ICBC	This study analyzes the strategies, organizations, HR systems, and product innovations adopted by these two banks in response to the impact of FinTech.
	González et al., 2008	An Alternative Approach in Service Quality: An e-Banking Case Study	Quantitative 3800 surveys spread by email	Demonstrate Kansei engineering (KE) and quality function deployment (QFD) not only for manufacturing but also can implement to e-banking service.
	Yakubiv et al., 2019	DEVELOPMENT OF ELECTRONIC BANKING: A CASE STUDY OF UKRAINE	Qualitative	The article offers the fundamental building blocks for Internet banking's continued growth in Ukraine which will attract much more clients, and increase speed, and quality service.

Table 5. Related conventional bank studies

	Year	Title	Method	Result
RELATED CONVENTIONAL BANKING	Burianova, Lenka et al., 2014	Corporate Social Responsibility in Commercial Banking - A Case Study from the Czech Republic	KOPR method	In this study, the companies with the best CSR outcomes were GE Money Bank with 29 points, SOB with 49 points, Komern bank with 48 points, and eská spoitelna with 59 points on average.
	Chen et al, 2017	The transition from traditional banking to mobile internet finance: an organizational innovation perspective - a comparative study of Citibank and ICBC	Qualitative. Study case Citibank and ICBC	This study analyzes the strategies, organizations, HR systems, and product innovations adopted by these two banks in response to the impact of FinTech.
	L. H. Tan et al., 2017	A holistic perspective on sustainable banking operating system drivers A case study of Maybank group	Qualitative interview with 35 bankers	This paper proposed a sustainable banking driver's model, which provides a more holistic perspective by considering macro-, meso- and micro-level drivers
	Salman & Nawaz, 2018)	Islamic financial system and conventional banking: A comparison	Quantitative method. Linear regression	The present study is conducted to empirically test whether there is any difference in the performance of Islamic and conventional banking concerning the customer deposit of each bank.

Table 6. Related sustainable bank studies

	Year	Title	Method	Result
RELATED SUSTAINABLE BANKING	Burianova, Lenka et al., 2014	Corporate Social Responsibility in Commercial Banking - A Case Study from the Czech Republic	KOPR method	In this study, the companies with the best CSR outcomes were GE Money Bank with 29 points, SOB with 49 points, Komern bank with 48 points, and eská spoitelna with 59 points on average.
	Chen et al., 2017	The transition from traditional banking to mobile internet finance: an organizational innovation perspective - a comparative study of Citibank and ICBC	Qualitative. Study case Citibank and ICBC	This study analyzes the strategies, organizations, HR systems, and product innovations adopted by these two banks in response to the impact of FinTech.
	L. H. Tan et al., 2017	A holistic perspective on sustainable banking operating system drivers A case study of Maybank group	Qualitative interview with 35 bankers	This paper proposed a sustainable banking driver's model, which provides a more holistic perspective by considering macro-, meso- and micro-level drivers

Table 7. Related comparison study

	Year	Title	Method	Result
RELATED COMPARISON STUDY	Chen et al., 2017	The transition from traditional banking to mobile internet finance: an organizational innovation perspective - a comparative study of Citibank and ICBC	Qualitative. Study case Citibank and ICBC	This study analyzes the strategies, organizations, HR systems, and product innovations adopted by these two banks in response to the impact of FinTech.

### **III Research Design**

#### **Define Framework Process**

A thorough assessment of the literature was conducted after this study to examine articles on digital banking, sustainable banking, digitalization strategy, and digital transformation banking. This research was done based on a prior relevant investigation, which is in line with these studies.

Case study research is a method that qualitative researchers are using more and more frequently (Thomas, 2011). Numerous well-known writers have made methodological contributions, which have raised the appeal of case study approaches across disciplines. Case studies in the published literature differ because different paradigms, study designs, and method choices influence current qualitative case study methodologies. Case studies are created in accordance with the case and the research question, and published case studies show a broad range of study design. To further develop and comprehend the case, a variety of data collecting and analysis techniques are used, driven by the context and emergent data (Stake, 1995). This qualitative approach "explores a real-life, contemporary bounded system (a case)

across time, through thorough, in-depth data collecting involving numerous sources of information and produces a case description and case themes" 2013 (Creswell)

To compare and contrast Bank Jago and WeBank in a sustainable banking structure, this study uses a collective case study approach. Researchers choose multiple cases from the class in collective case study research to establish some sort of representation. Data collection and analysis typically occur concurrently in case study research; according to Stake (1995, p. 71), "analysis is a matter of imparting meaning to both first impressions and final compilations." (Cousin, 2005).

Apart from conducting research by means of a collective case study, the framework used for comparison is the sustainable banking framework. The selection of the sustainable banking framework category is based on previous research searches. The main search is from Google Scholar which will then be directed through pages of various journals, such as Web of Science, Scopus, Springer, Taylor & Francis. The selected research is SSCI-based journals, whose quality can be justified. After searching for research related to the

aforementioned keywords, we filtered out 40 studies related to the sustainable banking framework. Of the 40 studies, the researcher observed the most widely used framework in previous studies and also the most suitable for this research. In the end, the selected studies were narrowed down to 4 pieces, and were considered suitable as a framework for comparing the two digital-only banks. The process flow will be explained in the image below.

The points of the sustainable banking framework are obtained from points that often or always appear in every previous research. The number of points determined from the framework is 5 points, namely financial performance & innovation, customer orientation, stakeholder management & risk reduction, corporate governance, and microfinance financial inclusion.

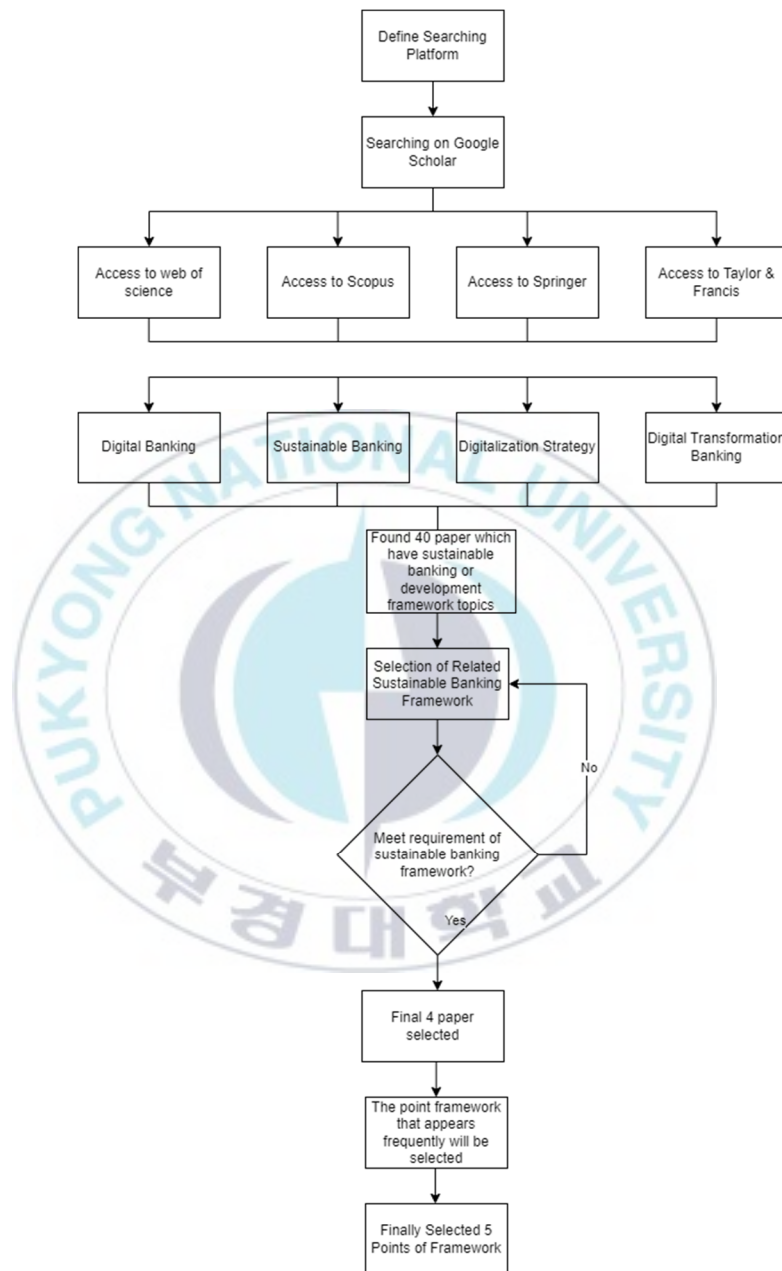
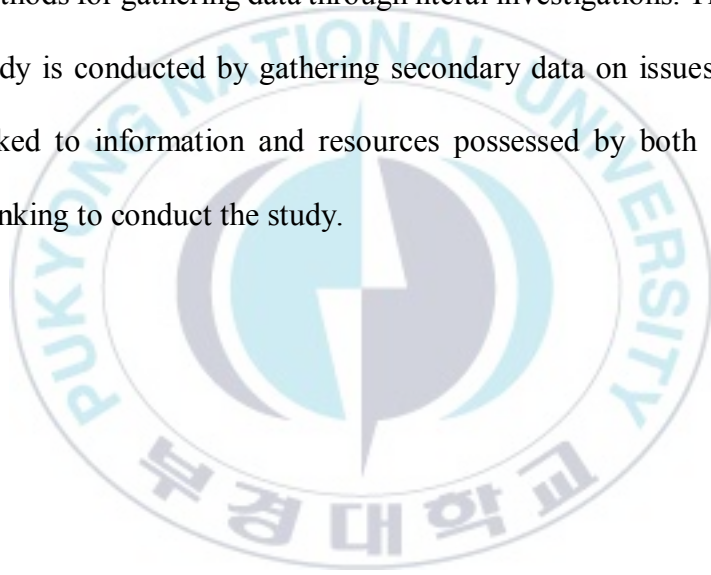


Figure 3. Define Framework Process

In this study, the procedure was broken down into three stages: data gathering, data comparison, and data analysis. Secondary data sources were the main source of information for this investigation. Secondary data, including information from research institutes, pertinent agencies, books, journals, and documents, can be found in supporting libraries. methods for gathering data through literal investigations. The literature study is conducted by gathering secondary data on issues and issues linked to information and resources possessed by both digital-only Banking to conduct the study.



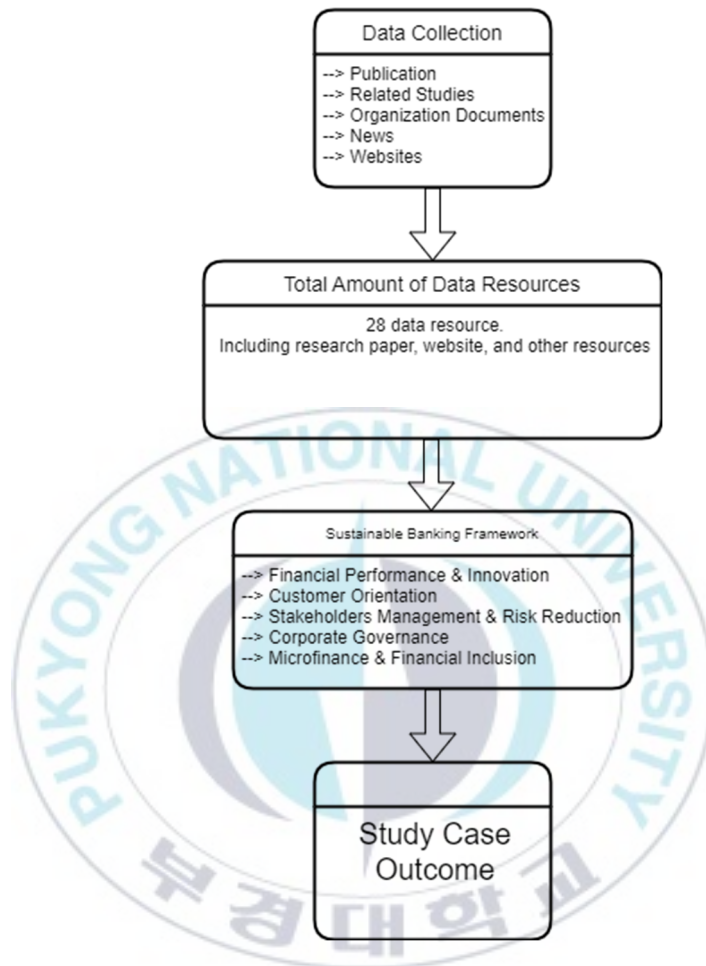


Figure 4. Data Collection

The Bank Jago and WeBank publications, annual reports, related research, and numerous government websites were used in the data collection processes for this study. Following the completion of the data collection process, the second stage, data comparison, is carried

out. When comparing data, WeBank, the largest digital-only bank in the Asia Pacific, is compared to Bank Jago, the biggest digital-only bank in Indonesia, by reading, studying, evaluating, and comparing numerous resources that belong to each of them.



Table 8. Lists of Sustainable Banking Framework Research

YEAR	TITLE	METHOD	RESULT
(Chen et al., 2017)	The transition from traditional banking to mobile internet finance: an organizational innovation perspective - a comparative study of Citibank and ICBC	Qualitative	Comparing ICBC & Citibank <ul style="list-style-type: none"> <li>- History</li> <li>- Strategy Analysis</li> <li>- Organizational innovation</li> <li>- HR Analysis</li> <li>- Business Analysis</li> <li>- Product Development</li> </ul>
(Kumar & Prakash, 2019)	Developing a framework for assessing the sustainable banking performance of the Indian banking sector	Quantitative	Literature Review <ul style="list-style-type: none"> <li>- Sustainable financing</li> <li>- Microfinance</li> <li>- Financial inclusion product</li> <li>- Socially responsible investment</li> <li>- Environmental loan</li> </ul>
(Diener & Špaček, 2020)	The Role of 'Digitalization' in German Sustainability Bank Reporting	Qualitative	Sustainable Banking Reporting Concept <ul style="list-style-type: none"> <li>- Strategy</li> <li>- Stakeholder Engagement</li> <li>- Innovation &amp; Product Management</li> <li>- Responsibility</li> <li>- Resource Management</li> </ul>
(Aracil et al., 2021)	Sustainable banking: A literature review and integrative framework	Qualitative	<p>A) Ethical foundation</p> <ul style="list-style-type: none"> <li>- supervision and regulation</li> <li>- organizational ethics focus</li> <li>- corporate governance</li> </ul> <p>B) Sustainable Product</p> <ul style="list-style-type: none"> <li>- SRI and green banking</li> <li>- Financial inclusion</li> <li>- Microfinance</li> </ul> <p>C) Business Case</p> <ul style="list-style-type: none"> <li>- Financial performance and innovation</li> <li>- Customer-orientation</li> </ul> <p>- Stakeholder management &amp; risk reduction</p>

The data examined in this study is broken down into five categories: financial performance & innovation, customer orientation, stakeholders management & risk reduction, corporate governance, and microfinance & financial inclusion.



Figure 5. Selected Sustainable Banking Framework

## **Financial Performance & Innovation**

According to (Endris, 2008), four indices measuring the dedication of international corporations to their ethical, environmental, community, and diversity duties were created using the sustainability reports of the world's most sustainable corporations. Their research demonstrates that global sustainable enterprises prioritize ecocentric challenges over ethnocentric ones. Overall, the statistical findings support the notion that, in some activity areas, businesses that prioritize sustainable practices outperform those that don't in terms of return on assets, profit before taxes, and cash flow from operations. Additionally, their data demonstrate the improved and sustained higher financial performance of sustainable enterprises across the periods of 2006-2008, 2006-2009, and 2006-2010, respectively. They discover that between 2006 and 2010, ROA, PBT, and CFO all grew steadily. Despite the sample size and period restrictions, the overall results of this study provide reasonable evidence that there is a relationship between corporate sustainability policies and the financial performance of the company.

Based on research on the relationship between green management and financial performance (Carmeli A, And Freund A, 2004), they looked at this issue. They discovered from 32 prior investigations that The metrics for

measuring financial performance that stand out are ROA, ROS, ROE, stock market returns, stock price, and profits. Others utilize perceptual assessments, while some studies used objective measures (such as accounting performance). Regression analysis is more common than other types of analysis in this research. Structured equation models, correlation analysis, analysis of group differences, and event study methods are some more analyses that were noted. Results are inconsistent overall, however, studies that show a strong correlation between the environment and firm performance are more common. 21 research found that environmental management and/or environmental performance had a beneficial impact on financial performance.

However, the management of the environment may also be impacted by financial performance (Wagner et al., 2002). In reality, a company with strong financial results can devote more funds to projects, technologies, and practices that focus on prevention. While Nakao et al. (2007) concluded that financial success has a favorable impact on environmental performance, Wagner et al. (2002) found no evidence of a substantial impact of any economic performance indicator on environmental performance. Whatever the case, there may be a selection effect (the ex-ante mechanism of selection where better-performing firms have a greater propensity to carry out

environmental initiatives) and a treatment effect (the ex-post improvement effect of environmental initiatives on financial performance) according to Toffel's (2006) terminology.

Competitive advantage and company resources could be crucial factors. Better environmental performance, for instance, can give businesses competitive benefits (low cost and distinction), which will then enhance financial success (Klassen and McLaughlin, 1996; Sharma and Vredenburg, 1998). A proactive approach by the company toward the environment will likely encourage the development of new resources and capabilities, which in turn may help the company obtain competitive advantages, according to the resource-based view (Russo and Fouts, 1997). Various studies consider some variables that may have an impact on the relationship between green management and financial performance in terms of control and contextual elements.

For instance, Klassen and McLaughlin (1996) demonstrated that financial markets respond favorably to the announcement of an environmental award to a firm operating in a cleaner industry, and Hart and Ahuja (1996) found that emission reduction enhanced financial performance more for firms with high emissions levels. Furthermore, Telle et al. (2004)

emphasized the need to include control factors to prevent drawing hasty conclusions regarding the beneficial effects of environmental management on financial performance.

### **Customer Orientation**

According (Bhat & Darzi, 2018), by giving a survey to the staff of a private sector bank operation in the state of Jammu and Kashmir, they conducted a study to determine whether customer relationship management (CRM) is connected to sustainable competitive advantage (SCA). According to the study's findings, there is a significant correlation between CRM competence and SCA that is compatible with the company's resource-based view (RBV.)

For firms to survive in the competitive business environment, customer orientation and customer focus have emerged as crucial concepts. For businesses to succeed, long-term client relationships are essential to acquiring a competitive edge (Bejou et al., 1998). Customer-centric businesses expand their sales sustainably over time (Jaramillo and Grisaffe, 2009). This is explained by the company's mission statement, which is to "assist consumers in making purchase decisions that match not only their

immediate needs but also focused on increasing long-term satisfaction" (Saxe and Weitz, 1982). To enhance the likelihood of closing an immediate sale, customer-focused salespeople "avoid behaviors which sacrifice customer interest." (1982, p. 344) Saxe and Weitz. They are prepared to go above and beyond to protect the interests of their clients (Huang, 2008; Kumar et al., 2008; Macintosh, 2007). Customers respond favorably by spreading the news and becoming loyal, which is profitable.

### **Stakeholders Management & Risk Reduction**

Stakeholder management has always been centered on organizations and enterprises in particular. The most frequently referenced definition of a stakeholder is arguably Freeman's. Any organization or person that can affect or is affected by the firm's aims is a stakeholder, in his words (Freeman, 1984:25). AU defines stakeholders by connecting them to a focal company, despite other publications suggesting variants of this definition. 25 of the 28 stakeholder definitions that Mitchel et al. (1997: 858) compiled refer to "organizations," "firms," "corporations," or "businesses." The other three definitions refer to "contracts" (CorneU and Shapiro, 1987: 5), "relationships" (Thompson et al., 1991: 209), and "shared value creation" (Freeman, 1994:

415), all of which imply an indirect connection between stakeholders and a central organization.

In actuality, a network of connections binds the business to a large number of interconnected people and groups, or stakeholders (Freeman, 1984; Donaldson and Preston, 1995; Post et al., 2002). These connections affect how a company is run and, in turn, are affected by the actions of the company. More specifically, Post et al. (2002, pp. 9, 8) stress that "any stakeholder relationship may be the most critical one at a particular time or on a particular issue" and "the capacity of a firm to generate sustainable wealth over time, and hence its long-term value, is determined by its relationships with critical stakeholders." (Perrini & Tencati, 2006).

### **Corporate Governance**

Referring to previous research conducted by (Adu, 2022), the study discusses the influence of corporate governance on sustainable banking initiatives in 16 countries in Sub-Saharan Africa for the period 2007-2018.

The findings add to the body of knowledge by demonstrating that wide corporate governance is favorably correlated with sustainable banking parameters. Additionally, the evidence demonstrates that the positive impact

of corporate governance on sustainable banking disclosure is enhanced in banks with greater governance, but is minimal in banks in underdeveloped SSA (Sub-Saharan Africa) nations (Adu, 2022).

First and foremost, the findings urge banks to adopt and implement good governance disclosures because it has been demonstrated that doing so will enhance sustainable banking operations. Second, it can be deduced from the study's findings that policy changes in the SSA banks should be undertaken together to achieve higher utility for monitoring (CG) and sustainable business initiatives (SBD). Thirdly, the study's findings aid senior managers in managing sustainable banking activities strategically by revealing new factors that have an impact on SBD and contributing to a better understanding of responsible banking programs.

### **Microfinance & Financial Inclusion**

Low-income individuals are given access to financial resources with fewer bank costs through microcredit, which is a successful and well-liked technique for eradicating poverty. As an illustration, consider the Indian Microcredit Bank, Grameen Bank, the first bank in the world to focus only on microcredit. This bank was awarded the Nobel Peace Prize in 2006 and

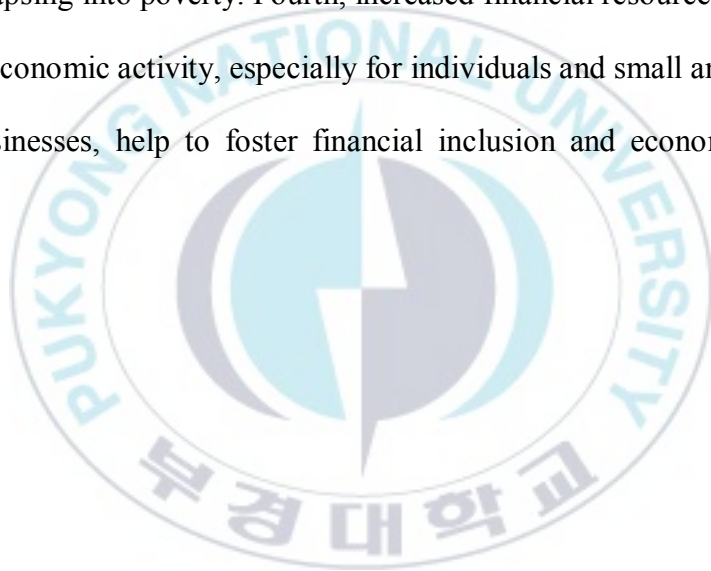
runs a self-supporting private business. A portfolio of investments called socio-environmental funds can be centered on various sustainability challenges, such as climate change and renewable energy (da Silva Inácio & Delai, 2022).

According to (Babajide et al., 2015), financial inclusion is "a process that indicates an increase in quantity, quality, and efficiency of financial intermediary services," and it contributes to bettering people's lives, creating opportunities, and boosting economies. Financial inclusion encourages local savings, which increases productive investments in neighborhood companies.

More financial transactions will be handled by the same current intermediaries as financial inclusion grows. The social costs of particular institutional flaws may increase due to this greater level of financial market engagement. As a result, social and moral hazards will probably arise more frequently, endangering the stability of the financial system (Le et al., 2019).

According to (Arner et al., 2020), delivering affordable financial services to all facets of society is known as financial inclusion. 33 It makes it possible for people to effectively manage their financial obligations, lowers poverty, and promotes overall economic expansion. It first lessens people's susceptibility. For instance, encouraging saving enables people to withstand

shocks and make investments in their microbusinesses, health, and education. Second, technology makes daily life more efficient because bills can be paid electronically without taking time away from work. Thirdly, financial inclusion enables the financial system to socialize and diversify people's financial risks. As an illustration, breadwinner insurance can help people avoid relapsing into poverty. Fourth, increased financial resources to support genuine economic activity, especially for individuals and small and medium-sized businesses, help to foster financial inclusion and economic growth (SMEs)



## **IV. Result**

### **4.1 Case Study**

#### **4.1.1 Bank Jago**

Bank Jago is reportedly set to become the first fully digital bank in Indonesia following the upcoming digital banking measures by the OJK (Financial Services Authority of Indonesia). The bank aims at a customer-centric approach by providing customized digital banking services to its consumers. Bank Jago now falls under Book III banks and has a core capital of between IDR 5 trillion and IDR 30 trillion. Regulation POJK Number 12/POJK.03/2021 on bank grouping based on core capital was released by the OJK in 2021. It consists of Kelompok Bank Berdasarkan Modal Inti (KBMI) 1, which has a core capital of up to IDR 6 trillion, KBMI 2, which has a core capital between IDR 6 trillion and IDR 14 trillion, KBMI 3, which has core capital between IDR 14 trillion and IDR 70 trillion, and KBMI 4, which has core capital above IDR 70 trillion. According to the POJK, Bank Jago is a part of KBMI 2. As of November 2021, however, Bank Indonesia's Statistik Sistem Keuangan Indonesia (SSKI) reporting for financial data from all commercial banks continues to be dependent on

the bank book and does not use the KBMI. Comparative reporting restrictions apply to Book III banks as well as aggregate banks. (Linggadjaya et al., 2022)

According to Kharim Siregar, President and Director of Bank Jago, the strong level of public interest in the Jago Application will cause the total number of financing consumers to exceed 3.9 million by the end of August 2022 (Kontan.co.id, 2022b). The increase in consumers helped Bank Jago's customer funding, which by the end of the first semester of 2022 increased 253% annually to Rp 6.1 trillion.

#### **4.1.2 WeBank**

WeBank, a private lender funded by Tencent, debuted in early 2014. WeBank offers all of its services online and has no intention of opening physical locations. WeBank's financial innovations include BD as a core component. An applicant uploads an internet loan application after taking a photo of themselves with their cellphone camera.

To confirm the person's identification, WeBank's system compares the image with information supplied by the Ministry of Public Security. Based on information gathered from many sources,

including online purchasing, use of social networking sites, gaming, and other online activities, the system assigns the applicant a credit rating.

WeBank offers a variety of products, such as Microcredit Loans, the WeBank APP, Wechat Loan, Weizhong Youzhe, Micropower, Weiye Loan, etc. To build distinctive customer portals, its clients mostly use shareholder resources. As a result, the primary avenues for customer acquisition are QQ and the WeChat instant messaging services. The majority of WeBank's clients share the following personality: more than 72% of individual loans are less than 100 yuan in cost; around 80% are not college graduates; and about three-quarters of the clients are non-white-collar workers (Nam & Yi, 2020).

The quantity of credit that the applicant is eligible for is determined by their credit rating (Zhou, 2015).

The main tactic employed by Tencent has been to provide frequent WeChat users with credits to entice them to make purchases from particular merchants. By the end of 2014, WeChat and QQ had connected over 100 million users' bank cards to Tencent's payment

system (Yining, 2015). The business intends to introduce point programs and membership packages that will offer WeChat users better deals if they choose to utilize the WeChat payment method (china.org, 2015).

### Summary Case Study

Table 9. Summary Study Case

	<b>BANK JAGO</b>	<b>WEBANK</b>
<b>Employees</b>	+/- 386	+/- 858
<b>Headquarters</b>	Jakarta	Shenzhen
<b>Founded</b>	1992 (Former name as known as Bank Artos Indonesia)	2014
<b>Start to digital bank</b>	2016	2014
<b>Founder</b>	Arto Hardy	Tencent Group
<b>CEO (Recent)</b>	Jerry Ng	David Ku
<b>Amount of customers</b>	3.9 million customers	300 million individual users, 2.7 million small business

<b>Type of company</b>	Public company	Private company
<b>Total asset</b>	\$943.5 million	\$64.9 billion
<b>Total loan</b>	\$500 million	\$110 billion

## 4.2 Outcome Sustainable Banking Framework

### 4.2.1 Financial Performance & Innovation

Table 10 Overview of financial performance comparison

	<b>BANK JAGO (2021)</b>	<b>BANK JAGO (2020)</b>	<b>WEBANK (2020)</b>	<b>WEBANK (2019)</b>	<b>Description</b>
Net profit	\$5.6 million	-\$12.3 million (minus)	\$697.4 million	\$78.2 million	WeBank 124X bigger than Bank Jago
Total asset	\$795.7 million	\$140.9 million	\$48.7 billion	\$40.9 billion	WeBank 60x bigger than Bank Jago
Total liabilities ( )	\$255.4 million	\$ 61.2 million	\$45.8 billion	\$38.7 billion	WeBank 176x bigger than Bank Jago

Shareholder equity	\$5.6 billion	\$111.8 million	\$2.9 billion	\$2.3 billion	Bank Jago shareholder equity is bigger 2x than WeBank
Non-performing loans ratio	0,04	0,00	1.20%	1.24%	Bank Jago NPL better than WeBank
Return to Asset (ROA)	0,10%	-11,27%	26.69%	28.15%	WeBank ROA better than Bank Jago
Return to Equity (ROE)	1,28%	-18,03%	24%	3%	WeBank ROE 12x bigger than Bank Jago

The table data above is sourced from WeBank's 2020 annual report which can be downloaded from the company's official website. The financial comparison begins in 2018, 2019, and 2020. From the table above, information is found that operating income and net profit increase every year. WeBank's ROA from 2018 to 2020 has increased and the management can maintain above 20%.

WeBank fully believes that even when there isn't a clear financial benefit, banks should make use of their technical capabilities to benefit society as well as their clients. WeBank's artificial intelligence (AI)-generated China Economy Recovery Index (CERI) and the Satellite Manufacturing Index (SMI) were both used in 2020 to give an additional monitoring tool for Covid-19 prevention and management. WeBank helped the government of the Macao Special Administrative Region provide reciprocal recognition of health codes between mainland China and Macao based on our blockchain technologies, while also satisfying the demands of Covid-19 prevention and control and cross-border personal privacy protection. WeBank kept promoting the growth of the open-source ecosystem in the interim.

The Bank is spearheading the creation of the open-source blockchain platform FISCO BCOS, which has emerged as the locally produced consortium blockchain platform that supports localization the most fully. The platform has adopted encryption techniques for the entire link, completely supported localization, and passed the certification of compatibility with the Galaxy Kirin OS. It is compatible with the domestic Kunpeng server and Phytium server based on the ARM

architecture. WeBank independently built the federated learning technology platform known as FATE (Federated AI Technology Enabler), which has enabled billion-scale data traffic and the growth of a variety of federated data services. It is accessible to more than 100 partners, and the federated learning platform's open-source community presently comprises more than 700 cooperating institutions worldwide.

The table data above is sourced from Bank Jago's 2021 annual report which can be downloaded from the company's official website. The table above shows the growth of assets each year. There was a significant jump in numbers in the interval from 2020 to 2021 where assets increased almost 6 times. It can also be seen from the table that the public has begun to trust Bank Jago where third-party funds have experienced a significant spike every year. third party funds consist of demand current accounts, savings, and time deposits.

Bank Jago is reportedly set to become the first fully digital bank in Indonesia following the upcoming digital banking measures by the OJK (Financial Services Authority of Indonesia). The bank aims at a customer-centric approach by providing customized digital banking

services to its consumers. Bank Jago now falls under Book III banks and has a core capital of between IDR 5 trillion and IDR 30 trillion. Regulation POJK Number 12/POJK.03/2021 on bank grouping based on core capital was released by the OJK in 2021.

The sustained focus of Bank Jago on serving the mass market, particularly the retail segment, has resulted in a significant annualized rise in our customer base, lending volume, and financing volume. Bank Jago started collaborating with ecosystem partners in 2021, such as the lending platforms Kredit Pintar, Findaya, Dhanapala, and Investree, as well as the financial institutions Home Credit, BFI Finance, and Atome Finance.

While interest expenses climbed less than threefold, interest income more than sevenfold increased, giving the bank a respectable net interest margin. Bank Jago has achieved profitability thanks to efficient operations and a fantastically low default rate of less than 1%, as opposed to 3% for the industry as a whole.

#### **4.2.2 Customer Orientation**

At the end of 2017, WeBank introduced Weiyedai, the first local online unsecured credit loan that gives businesses liquidity. This was done to support small and micro businesses. Since that time, the Bank has kept Weiyedai growing to meet the demands of the vast majority of distributors and suppliers in the supply chain and industry chain. By the end of 2020, Weiyedai had lent money to more than 560,000 businesses and had assisted 1.88 million small and micro private businesses.

By the end of 2020, WeBank had assisted 1.88 million businesses by providing loans to more than 560,000 of them. Additionally, the number of loans under administration climbed by 207%, and the proportion of corporate clients with unpaid loans represented more than 6% of all small and micro businesses in the covered area. The Bank has by far the most extensive capacity to support small and micro firms.

In 2022 WeBank is China's first digital-only bank, serving 2.7 million small enterprises and more than 300 million individual

customers, many of whom lack a traditional credit history. The fact that WeBank has access to more than a billion active users of Tencent's social network WeChat is part of the reason for that growth. WeBank now has access to a sizable prospect area as well as mobile data for assessing the credit risk of potential borrowers. WeBank offers rapid and convenient services to retail customers and small businesses that are frequently disregarded by China's state-owned banks through the integration of data and mobile technology. (Financialbrand.com, 2022).

Bank Jago launched Jago App, a life-centric financial tool that makes managing money simple, creative, and collaborative. Jago's integration into digital ecosystems is equally significant. Through GoPay integration, it is possible to pay with Gojek and its ecosystems, invest in mutual funds with the Bibit app and buy stocks with Stockbit. Select GoPay, Bibit, and Stockbit functionality is available in the Jago App thanks to this two-way interface. All in the name of giving the clientele what they require in the most practical setting.

In terms of the number of customers, Kharim Siregar, the Main Director of Bank Jago said that the public's high interest in the Jago Application has driven the number of funding customers to reach more

than 3.9 million customers by the end of August 2022. The growth in the number of customers has encouraged Bank Jago's funding customers to jump 253% on an annual basis to IDR 6.1 trillion at the end of semester I-2022 (Kontan.co.id, 2022c).

From a year earlier, the Bank Jago loan increased nearly six-fold to IDR 5.37 trillion at the end of 2021. The increase is related to ecosystem players that have partnered with partners to offer clients frictionless financial transactions between cross-platform apps.

#### **4.2.3 Stakeholders Management & Risk Reduction**

In 2020, more aspects are erratic and unclear. Faced with this external circumstance, the Bank continued to enhance the comprehensive big data risk management system, comprehensively optimize and expand various algorithms, strategies, models, and quantification tools for pre-loan customer access threshold, in-loan approval, and post-loan monitoring, and concentrate on bolstering the development of anti-fraud and anti-money laundering models and systems. With the development of more than 600 risk management models, WeBank has now further strengthened the first line of defense against hazards. With a combination of steps, we strengthened the

second line of protection against dangers. For example, we have run the "WeStrict" campaign for three years running.

By taking steps to reduce compliance risk, operational risk, and information security risk, such as developing rules and regulations and upgrading management systems, WeBank has continued to strengthen internal compliance control. At the same time, the internal audit system-based third line of defense against risks has been strengthened. To ensure the successful application of various internal control measures, we created and improved digital auditing techniques and increased audit frequency. The Bank's NPL ratio, provision-to-loan ratio, and provision coverage ratio were, respectively, 1.20%, 5.17%, and 431.26% as of the end of 2020. Additionally, significant risk indicators performed better than the industry average in addition to meeting regulatory requirements, helping to achieve the stated objective of steady development.

Bank Jago will concentrate on three strategic objectives in 2022 as it continues to innovate and grow the business. To start, they'll keep innovating and adding new features to the Jago App to cater to the specific demands of each of our customers for both traditional and Sharia-based financial services. These will enable customers to handle their finances in an easy, creative, and

collaborative way, freeing them up to concentrate on their family and personal commitments.

Second, they will create a business-oriented app with MSMEs as the primary target group because they can benefit from both traditional and Sharia-based banking services. For them to focus on the most important issues, such as expanding their business and making bigger contributions to the economy, Bank Jago will provide financial solutions made to boost operating efficiency.

#### **4.2.4 Corporate Governance**

According to (Pandaily.com, 2022) interviewing with WeBank's vice president and chief information officer, Henry Ma, stated that "fair and sustainable development has now become a national plan. Blockchain technology will be utilized to put the ESG idea into practice and create a trustworthy infrastructure, accelerating industrial digitalization and promoting sustainable development.

WeBank Blockchain will concentrate on important technologies including privacy computing, trustworthy governance, and distributed digital identity to better foster the development of ESG. It will create an open-source

ecosystem and platform for ESG applications, accelerating the development of ESG-related businesses.

WeBank started its blockchain business in 2015 and led the charge in establishing the Financial Services Blockchain Consortium (FISCO), the first blockchain alliance in the financial sector, in 2016. WeBank fully opened the underlying platform, FISCO BCOS, after realizing the independence, security, and controllability of blockchain technology.

As of right now, WeBank Blockchain and the open source alliance chain ecosystem are used by more than 3,000 institutions and businesses, as well as more than 70,000 individual members, and they support hundreds of blockchain applications in sectors like finance, healthcare, legal administration, agriculture, and manufacturing (Pandaily.com, 2022).

WeBank is the first digital bank in China to join 300 other banks worldwide in formally signing the UN's Principles for Responsible Banking (PRB). The United Nations Environment Program Finance Initiative now counts WeBank as a member (UNEP FI). This represents a significant accomplishment for WeBank in terms of aggressively implementing its ESG strategy and leveraging its financial strength to support the nation's high-quality economic and social development. The PRB is a special framework

for ensuring that the business operations and plans of its member banks comply with the Paris Climate Agreement and the UN Sustainable Development Goals (SDGs).

WeBank offers specialized green finance services for environmentally conscious businesses. By way of targeted interest rate incentives, for instance, assists in lowering the cost of financing for green businesses.

WeBank improved its client structure in 2022 and continued its investigation into the green finance market. WeBank works with top green business partners to analyze different sectors of the green market and offer a variety of digital solutions. As a result, distributors throughout their supply chain receive preferential loan support from WeBank.

To meet the wholesale financing needs of various new energy vehicle (NEV) brands, WeBank offers a multi-dimensional smart assistant toolkit for automotive enterprises, including AI online marketing. WeBank provides NEV loans to its retail customers to support the use of environmentally friendly transportation (Aap.com, 2022).

The Board of Directors is answerable to the Shareholders' General Meeting; it is responsible for the overall operation and management of the company; it faithfully implements and carries out the resolutions of the

Shareholders' General Meeting; it exercises its authority, and it makes sound judgments following the law. The Board of Supervisors is responsible to all shareholders, works closely with the Board of Directors and senior management, conducts thorough special investigations and performance reviews, makes recommendations for supervisory action, and carries out its duties as a board of supervisors in a professional manner. The senior management takes oversight from the Board of Supervisors and carries out its responsibilities with caution and diligence, conducting operations and management following the Board of Directors' decisions.

The highest authority of the Bank is the Shareholders' General Meeting, which is composed of all shareholders and performs its duties in line with the law and regulations. The Bank convened two general meetings in total during the reporting period, including the 2019 Annual General Meeting and one special general meeting, and it evaluated 24 proposals and heard from five reports.

Third, Bank Jago will keep looking for partners within the relevant digital ecosystem. This is consistent with the goal of a tech-based bank built to be readily connected with ecosystem partners and embedded in a variety of digital ecosystems. Bank Jago will work with any appropriate digital

ecosystem to provide consumers with successful "life-centric" financial solutions.

PT Bank Jago Tbk (ARTO) has a roadmap for business development that is based on environmental, social, and ethical standards of governance, or ESG, as a form of long-term financial transactions. Bank Jago's ESG programs for the 2021 period such as office lighting uses light emitting diode (LED) lamps which are energy efficient, Less-paper office through the operational digitization process. The use of less paper is a long-term effort made by Bank Jago to reduce the use of printing paper for internal and external information circulation. Besides that Implementation of hybrid working or a combination of work from an office (WFO) and work from home (WFH) indirectly reduces employee mobility to the office and energy use.

#### **4.2.5 Microfinance & Financial Inclusion**

Weilidai has a wide coverage, to start. Weilidai will have served clients in 560 cities throughout 31 provinces, municipalities, and autonomous areas by the end of 2020. Second, Weilidai caters to lower-class clientele. Around 78% of these clients are non-white-collar workers from the service or manufacturing sectors, and 80% of the

same clientele lack a college degree. Thirdly, Weilidai is distinguished by its affordability. The average loan size was around RMB 8,000, and since Weilidai charges interest daily and has a short maturity period, more than 70% of loan borrowers pay borrowing expenses that are often less than RMB 100.

The previous three years of practice have demonstrated that Weiyedai can fulfill the "short, small, frequent, and urgent" funding demands of small and micro firms and is a practical remedy for the issue of the "low approval rate" of small and micro-enterprise loans. Additionally, based on its portfolio of digitally inclusive financial products, which includes Weilidai, WeBank App, Weichedai, and others, the Bank has consistently held a leading position in solving the issue of "unbalanced and inadequate financial services" for individual consumers.

The emphasis placed by Bank Jago on the medium and lower segments (middle and mass market) is consistent with the goals of sustainable finance and promotes the attainment of sustainable development (Sustainable Development Goals/SDGs).

By using POJK No. 51/POJK.03/2017 as a guide, the

Sustainable Finance Action Plan (RAKB) is created. This RKAB will serve as a reference for the Bank's business activities in the years 2022 to 2025 regarding environmental, social, and governance (LST) concerns.

PT Bank Jago Tbk (ARTO) and GoTo Financial, entities under PT GoTo Gojek Tokopedia Tbk (GOTO) are committed to participating in empowering MSMEs in the country. The collaboration between the two will continue to be deepened to provide financial solutions that can further accelerate the growth of MSMEs in Indonesia. One of them, Bank Jago and GoTo Financial plans to add loan facilities for MSMEs through the GoBiz application.

Head of Merchant Business Bank Jago, Vincent explained, by collaborating with GoTo Financial, Bank Jago will have access to deeper money data for MSMEs, such as sales data. This will later be used as a basis for consideration in granting credit to MSMEs.

For now, Vincent said of the entire population of MSME partners who are members of GoBiz, only a small portion of well-recorded data are considered eligible for credit facilities. GoBiz itself is the largest digital ecosystem in Indonesia with 15.1 million business

partners (Liputan6.com, 2022).



Table 11. Summary of Comparison between Bank Jago and WeBank

	Bank Jago	WeBank
Financial Performance & Innovation	<ul style="list-style-type: none"> <li>- Encouraging collaboration on technology.</li> <li>- Products: Jago app, Jago sharia (Muslim-based bank).</li> </ul>	<ul style="list-style-type: none"> <li>- Developing FISCO BCOS. Open source blockchain platform.</li> <li>- Products : Weilidai, weiyedai, webank app, weichedai, weizhongyouzhe.</li> </ul>
Customer Orientation	<ul style="list-style-type: none"> <li>- Jago App, Jago sharia to customer approach.</li> <li>- Serving 3.4 million customers (2022)</li> <li>- Targeting young SMEs.</li> </ul>	<ul style="list-style-type: none"> <li>- WeChat, WeBank app, QQ customer approach.</li> <li>- Serving 340 million customers and 2.7 million SMEs (2022).</li> <li>- Targeting young SMEs.</li> </ul>
Stakeholders Management & Risk Reduction	<ul style="list-style-type: none"> <li>- Participate in developing Indonesia national vaccine (vaksin gotong royong).</li> </ul>	<ul style="list-style-type: none"> <li>- Exclusive service channel for hearing-impaired customers</li> <li>- Provides sign language customer services through video</li> <li>- launched a version for elderly customers</li> </ul>
Corporate Governance	<ul style="list-style-type: none"> <li>- Stakeholders have access to the Bank's numerous communication channels, including Press Releases, Public expos, and Analyst Briefings, to learn more about the Bank.</li> <li>- Use low-energy LED lights in the office.</li> <li>- Less paper office policy</li> <li>-Work from home to cut transportation fees and emission</li> </ul>	<ul style="list-style-type: none"> <li>- To ensure the successful application of various internal control measures, WeBank created and improved digital auditing techniques and increased audit frequency.</li> <li>- Help SMEs with the targeted loan rate</li> <li>- Supporting new energy vehicles (NEV) with AI online marketing, to serve wholesale financing needs</li> <li>- WeBank started blockchain technology in 2015, Built FISCO and BCOS</li> </ul>
Microfinance & Financial Inclusion	<ul style="list-style-type: none"> <li>- Can have multiple visa debit cards and Jago pocket.</li> <li>- Collaborating with Gobiz which has 15.1 million SME partner</li> </ul>	<ul style="list-style-type: none"> <li>- Microloan from WeChat and QQ without guarantee and mortgage.</li> <li>- Weilidai served 270 million clients (2020).</li> </ul>

#### **4.2.6 SWOT Analysis Bank Jago and WeBank**

##### **Strengths of Bank Jago**

1. Free bank transfer

Interbank transfers using Bank Jago are free. If a customer's bank transfers do not reach the monthly cap of 25 separate transfers, they can be made without charge using a Jago account. After that, consumers would be charged IDR 3,000 per transfer if they continue to make interbank transfers.

2. Multiple Visa debit cards and Pockets of Jago are permitted.

Accounts are referred to as "Pockets" at Jago. A maximum of 40 different Smart Pockets (20 Savings Pockets and 20 Paying Pockets) can be used by one user for various purposes.

3. Can be used to verify a Paypal account and conduct international transactions.

The Jago debit card can be used for a variety of global transactions in addition to domestic ones including interbank transfers, bill payments, and topping up e-wallets. Customers can also authenticate their Paypal accounts by, for instance, paying bills for Netflix

subscriptions, Spotify subscriptions, or purchases made on Amazon.

### **Weaknesses of Bank Jago**

1. ATMs are still not widely distributed.

One of the weaknesses of Jago is that there are not many ATMs available. Even though it provides relief with free admin fees of up to 5x if customers withdraw cash through ATMs of other banks, the rest will still be charged.

2. The verification process is quite long.

Saving money Jago benefits from being able to use the internet from home. Customers must exercise greater patience throughout the authentication process, though, as it takes some time.

3. Credit Card Not Available

One transactional instrument that makes it simpler for customers to shop is the use of credit cards. However, Jago does not currently offer this credit card. Customers have thus been unable to utilize credit card services.

## **Opportunities of Bank Jago**

### **1. Exploring Muslim-based banking (sharia)\**

The Jago Syariah application, according to Bank Jago's President Director, was created with quality on par with that of its traditional bank counterpart. In an official statement, Siregar stated, "We feel that this sharia digital banking application would give beneficial consequences in enhancing the sharia economic contribution to the national economy." (IDNfinancials.com, 2022).

### **2. Leveraging the number of customers**

Gojek, a ride-hailing and payments startup, is combining with e-commerce firm Tokopedia to establish GoTo in the largest deal in Indonesian history. Gojek, through its fintech unit Gopay, currently holds a 22% share in the bank. According to chief executive Siregar, "With Tokopedia entering the scene, it adds another digital ecosystem that may be coupled with Bank Jago, and it will be insane not to pursue it." While Tokopedia claims to have more than 11 million merchants and more than 100 million active monthly users in Indonesia, Gojek claims to have 170 million users in Southeast Asia (reuters, 2021). It

means that Bank Jago can acquire new customers and enlarge financial transactions through these partners.

### 3. Potensial aiming target to MSME

The relationship between Investree and Bank Jago is aimed at SMEs, particularly those who have had trouble securing funding from banks. Bank Jago will select a loan offer based on their preferences and risk profile from each fact sheet that Investree will supply. The distribution of funds will not be restricted to specific industries or business sectors for the time being. This means that Bank Jago offers financing opportunities to borrowers from all business sectors. The digital bank has agreed to lend 100 billion IDR as part of this agreement (Mimeasia, 2021).

### **Threats of Bank Jago**

#### 1. Higher nonperforming loan

According to UOB Kay Hian, Indonesia's digital banks run the risk of experiencing "hiccups" in asset quality despite their continued market share growth and profit improvements. Bank Neo Commerce's loan-at-risk trended up to 21% in the first half of 2022, while Bank Jago's

NPL forecast called for more non-performing loans (NPL) moving forward as loans are scaling up. Despite the asset quality risk, Pakpahan is optimistic about this sector overall due to the growth of the digital bank market, increased profitability, and positive operational developments (thebusinesstimes, 2022).

## 2. Lack of efficiency

The cost-to-income ratio (CIR), which is at a level of 69%, indicates that PT Bank Jago Tbk (ARTO) intends to continue implementing efficiencies. According to Bank Jago Tjit Siat Fun, director of compliance, this number is significantly lower than 120% last year. Bank Jago intends to maintain efficiency over the next three to four years until CIR is steady at a level of 30% to 35%. As a result, Bank Jago will work to develop both its assets and liabilities (kontan.co.id, 2022).

## **Strengths of WeBank**

The company's development has benefited greatly from the excellent management team and top-notch human resources. Its one-of-a-kind and the unrivaled internal edge is being supported by Tencent, which

enables it to fully benefit from Tencent's brand influence and the consumer base resources of WeChat and QQ. The assurance of its ongoing improvement of product competitiveness is its cost management capabilities built on cutting-edge technology.

### **Weaknesses of WeBank**

The ratio of nonperforming loans keeps increasing. Because the bank has only had five years to develop, even though it is still within a safe value, the nonperforming loan ratio may continue to rise over time. Online banks that are impacted by the current system are only able to open second-level accounts that have limitations on usage scenarios and transfer quantities. Because the usage situations are not as varied as those in first-level accounts, some consumers may find them less appealing, which will increase the bank's preference over competing institutions. When the bank first started, the majority of its workers were recruited from the Pingan Group, and a sizable number of "parachuters"—leaders and technical backbones—also joined the bank. Conflicts and collisions between cultures resulted from the influence of old bank operation philosophy and the development of

modern Internet Banks, which was very painful for the business. This is evident from the frequent manager turnover during Webank's early years.

### **Opportunities of WeBank**

An engineering basis for the growth of Internet Banking has been set by the fintech sector's rapid development. As required by The Times, Internet banks emerge thanks to supportive national regulations and significant public demand for secure financial goods. People tend to be more cautious when making investments, particularly when they are affected by coVID-19. People are more inclined to deposit money in banks than in other types of financial platforms. People who are impacted by COVID-19 require easier-to-use financial services that may be accessed remotely and are more convenient. Internet banking is the best option for satisfying this desire. Due to COVID-19's effects, which have accelerated the growth of internet banking, small and micro businesses that are already having trouble obtaining funding may need more financial support. Some people will also require finances.

## **Threats of WeBank**

The rivalry from substitutes is the primary threat. There are severe problems with the industry's extreme product homogeneity. The most direct competition in the internet banking sector comes from Ali's online commercial banks. Despite the existence of other internet banks, WeBank is currently not directly threatened by them. The competitiveness of major commercial banks' electronic services must be faced in the banking sector. For instance, the majority of the big commercial banks in China are marketing electronic payment and mobile APP services. Companies in the internet business with financial technology capabilities, like the jointly founded Baixin Bank by Baidu and China CITIC Bank, are constantly up against rivalry in the banking industry. Even contend with the opposition of numerous mixed P2P platforms, such as the orange financial management of the listed firm Lexin. Tiny businesses are under more stress to survive as a result of COVID-19, which raises the risk of bank loans. Even COVID-19 affects families' and individuals' lives and property. A critical issue that must be taken into consideration is how to recognize client risks and lower the percentage of non-performing loans.

Table 12. Overview SWOT analysis

Bank Jago	<p>Strength</p> <ul style="list-style-type: none"> <li>- Free bank transfer</li> <li>- Multiple visa debit cards in one pocket</li> <li>- Can be used to verify Paypal and international transaction</li> </ul>	<p>Weakness</p> <ul style="list-style-type: none"> <li>- ATMs not widely distributed</li> <li>- The verification process is quite long</li> <li>- credit card not available</li> </ul>
	<p>Opportunity</p> <ul style="list-style-type: none"> <li>- exploring Muslim based banking</li> <li>- Leveraging the number of customers</li> <li>- potensial aiming target to MSME</li> </ul>	<p>Threat</p> <ul style="list-style-type: none"> <li>- higher nonperforming loan</li> <li>- Lack of efficiency</li> </ul>
WeBank	<p>Strength</p> <ul style="list-style-type: none"> <li>- Tencent's brand influence</li> <li>- High technology firm</li> </ul>	<p>Weakness</p> <ul style="list-style-type: none"> <li>- Higher nonperforming loan</li> <li>- Conflict culture between worker</li> </ul>
	<p>Opportunity</p> <ul style="list-style-type: none"> <li>- Internet banking-based engineering (blockchain)</li> </ul>	<p>Threat</p> <ul style="list-style-type: none"> <li>- Competitors like Ali's commercial bank, Baixin Bank, China CITIC Bank</li> <li>-</li> </ul>

#### **4.2.7 Comparison Competitive Advantage and Sustainable Advantage**

##### **Bank Jago**

Bank Jago is one of the largest digital-only banks in Indonesia which has been listed on the Indonesian Stock Exchange (IDX) since 2016. One of the advantages of being a company listed on the IDX is being able to get large working capital through funding on the exchange. In addition, a public company makes it easy to get strategic partners.

Unlike WeBank which relies heavily on technology as the backbone in penetrating the market, Bank Jago tends to carry out massive collaborations with other companies. For example, GoTo's entry into one of the largest shareholders and becoming a partner in terms of access to finance. GoTo is one of the largest digital ecosystems in Indonesia which is engaged in ride-hailing, culinary, and online market places. The positive impact that was obtained significantly was an increase in the number of customers in 2021 and also an increase in assets and the first time Bank Jago had positive company financial performance.

Apart from that, another thing that is a competitive advantage of Bank Jago is that Indonesia is a country with a Muslim majority population. Data

from the Financial Services Authority (OJK) show that the market share of Islamic banking assets has reached 6.65 percent as of February 2022. The asset value of Islamic banking as of February 2022 was recorded at IDR 681.95 trillion, while the national banking asset value was recorded at IDR 10,249 trillion.

On the other hand, Islamic banking third party funds (DPK) reached IDR 543.11 trillion, or the equivalent of a market share of 7.23 percent of national banking, whose value was IDR 7,515 trillion. Meanwhile, financing distributed (PYD) to Islamic banks as of February 2022 was recorded at IDR 423.46 trillion or the equivalent of a market share of 7.18 percent of national banking financing with a value of IDR 5,849 trillion. From this data, the target of national Islamic banking is to reach 10% of the total banking sector in Indonesia, which currently stands at only 6.65%. This is really a very good competitive advantage for Bank Jago.

### WeBank

Unlike Bank Jago whose company is listed on the stock exchange, WeBank is a closed bank company under the auspices of the Tencent group. However, even though WeBank is a private company, Tencent as a holding company

has contributed greatly to WeBank's success. WeChat and QQ are the biggest contributors to lending and financial access from WeBank. Much communication with customers is also carried out on Tencent's platform, such as new customer registration, price promos, and other easy access to finance.

WeBank relies heavily on technology as its digital-only banking basis. They far outperform their competitors as other digital-only banks, as evidenced by obtaining many technology patents from around the world. For example, the use of blockchain technology in the banking industry is something that can increase customer trust in WeBank because this technology can minimize financial fraud.

The development of the technology sector as well as the progress of the Chinese economy have had a positive impact on WeBank. This progress was accompanied by the large number of Chinese SMEs reaching 140 million, this could be a good target market for WeBank to win the market. Considering that WeBank also targets SMEs to be their target market.

## V. Conclusion

Table 13. Conclusion of Comparison between Bank Jago and WeBank

SUSTAINABLE FRAMEWORK	Similarity		Difference	
	Bank Jago	WeBank	Bank Jago	WeBank
<b>Financial Performance &amp; Innovation</b>	Total Asset, ROA, and ROE increase from year to year.		<ul style="list-style-type: none"> <li>- In the interval 2020 until 2021 total assets, ROA, and ROE increase 6 times.</li> <li>- In 2021 Bank Jago got a first-time positive financial performance</li> <li>- Focus on collaborating with another financial party.</li> </ul>	<ul style="list-style-type: none"> <li>- Total Asset, ROA, and ROE increase constantly.</li> <li>- FISCO is one of the innovations from WeBank that allow another developer to do research in blockchain technology</li> </ul>
<b>Customer Orientation</b>	Concern about microcredit, targeting to young generation market		Amount of customers is 3.9 million users	Amount of customers is 340 million users
<b>Stakeholders management &amp; risk reduction</b>	Both banks are filled with stakeholders who are experienced in their fields		<ul style="list-style-type: none"> <li>- Stakeholders have access to the Bank's numerous communication channels, including Press Releases, Public expos, and Analyst Briefings, to learn more about the Bank.</li> </ul>	<ul style="list-style-type: none"> <li>- To ensure the successful application of various internal control measures, we created and improved digital auditing techniques and increased audit frequency</li> </ul>
<b>Corporate governance</b>	Devoted to improving corporate governance and policy structure development following legal requirements, such as the Company Law, the Commercial Banking Law, and the Guidelines on Corporate Governance of Commercial Banks.		<ul style="list-style-type: none"> <li>- An investor in Bank Jago will have the option to purchase one additional share for every 3.6 that they now own through a one-for-3.6 rights issue. To build the customer's trust</li> </ul>	<ul style="list-style-type: none"> <li>- WeBank Blockchain will concentrate on important technologies including privacy computing, trustworthy governance, and distributed digital identity to better foster the development of ESG.</li> </ul>
<b>Microfinance &amp; financial inclusion</b>	Focus on spread lending to small-medium enterprises and individual lenders without difficult requirements.		<ul style="list-style-type: none"> <li>- Peer-to-peer lending is only available in the Bank Jago app, not integrated with another program.</li> </ul>	<ul style="list-style-type: none"> <li>- Weilidai (peer-to-peer program) integrated with another social media like WeChat</li> </ul>

WeBank is relatively stable in financial performance, including ROA maintained around 20%. And ROE from 3% to 20%. WeBank can maintain financial performance because they have direct connections with customers through applications owned by their parent company Tencent, namely WeChat and QQ.

Bank Jago in 2021 can get the first positive financial performance. This can be achieved with a massive collaboration conducted by Bank Jago to get new customers and also hopes to increase the transaction volume of existing customers.

In terms of company assets and funds from the public, WeBank is much bigger than Bank Jago. WeBank is one of the most invention patents in the world (632 patents). Bank Jago focused on collaborating with other parties to get the large customer. Bank Jago also develop sharia banking, because of one of the most populous Muslim countries in the world.

Bank Jago and WeBank both focused on targeting market on the young generation, SMEs, and microloans. The number of WeBank users is far higher than Bank Jago, this is because WeBank has already started its business as digital-only banking. WeBank started digital-only banking in 2014 while Bank Jago was in 2016. In addition, they can get increase the

number of customers by approaching them through WeChat, QQ, and WeBank apps that can reach customers directly. If the potential customer chooses to apply for a loan, more data is collected about the applicant from other tech platforms and the data is used to create a real-time AI computational model to reach an exact credit worthiness figure for the applicant. The whole process from application to credit approval takes around 5-seconds.

Another influencing factor is that China's population is larger than Indonesia's, as well as the number of SMEs in China, reaching 140 million entrepreneurs, while in Indonesia there are only 64 million entrepreneurs ([www.oecd-ilibrary.org](http://www.oecd-ilibrary.org), 2022).

Bank Jago's stakeholders have access to the Bank's numerous communication channels, including Press Releases, Public expos, and Analyst Briefings, to learn more about the Bank. While WeBank created and improved digital auditing techniques and increased audit frequency.

Good corporate governance (GCG) from Bank Jago gives evidence in 2021 got the first positive financial performance. While WeBank's financial performance is relatively stable. Bank Jago implements ESG such as using low-energy LED lights in the office, less paper office policy, work from

home to cut transportation fees and emissions. While WeBank implements blockchain technology for sustainability, help SMEs with targeted loan rate, Supporting new energy vehicle (NEV) with AI online marketing.

Focus on spread lending to small-medium enterprises and individual lenders without difficult requirements. Peer-to-peer lending is available in the Bank Jago app and integrated with third-party companies. While WeBank's Weilidai (peer-to-peer program) integrated with other social media like WeChat and QQ. Bank Jago's founding came before WeBank. Compared to Bank Jago, this gives WeBank more market penetration experience. When compared to a latecomer, the first mover does not always win all of the "battles."

According to the research findings from the comparison of the two digital-only banks mentioned above, WeBank has significantly advanced technology even though their business is in the financial industry. similar to contributing to the development of blockchain, an open-source platform accessible to other developers worldwide. WeBank's accomplishments are demonstrated by the fact that they hold 204 technology patents, placing them as the fifth firm with the most patent holders and making them one of the world's largest technology patent holders. WeBank is also one of the

innovators in fully digital microfinance, which is directed toward low-income neighborhoods and SMEs.

Bank Jago, one of Indonesia's biggest digital-only banks, ought to follow suit. However, Bank Jago also showed through their positive financial statements in 2021 and a 6-fold rise in assets over the prior year that the management method it adopted was highly successful.

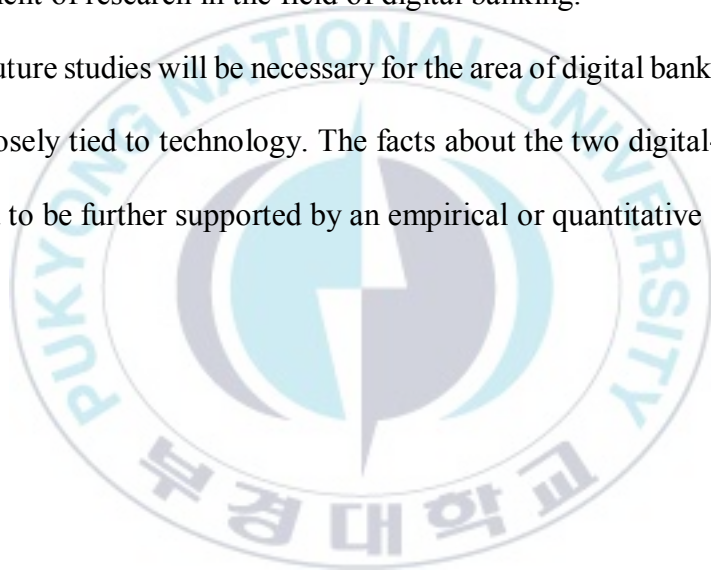
From the main innovations, Bank Jago has to pursue a lot in the field of technology, where WeBank has carried out many developments in the field of technology such as empowering blockchain as a technology that backs up the financial industry. In addition, WeBank's loan absorption is very good because WeBank can be directly integrated with Tencent as a holding company that has a very large user database. Even to pursue this, Bank Jago is implementing a strategy of collaborating with Gobiz which is a business model for the giant company GoTo.

In previous studies, the literature on digital-only banking was not too much. To explore knowledge in the field of digital-only banking, this research can fill the gap. Especially a case study that includes a comparison between two digital-only banking companies. Although in future research, quantitative empirical methods are needed to dissect the condition of the company in more

detail and comprehensively.

This research has limited data collected through second parties such as previous research, journals, books, news, and literacy related to the topic. To validate the data, it takes interviews with sources directly from each company. In addition, more empirical data is needed to support the development of research in the field of digital banking.

Future studies will be necessary for the area of digital banking because it is so closely tied to technology. The facts about the two digital-only banks may need to be further supported by an empirical or quantitative study in the future.



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