Examining the Effectiviness of Jago Bank's,Allo Bank's, and Digibanks in Implementing Digital Transformation

Ireniza Diva Kanisa[1], Imronudin [2]
b100200516@student.ums.ac.id[1] , imronudin@ums.ac.id[2]

University Muhammadiyah Surakarta[1], University Muhammadiyah Surakarta[2]

Abstract

The expansion of digital technology has affected the banking industry by giving each bank the chance to innovate and boost consumer loyalty in transactions. Products for digital banking services have been used to satisfy client needs without requiring customers to visit an office. Banking with digital technologies can boost internalefficiency and bank growth. This study employs a descriptive analytical research design with a quantitative approach to explain the object under study, identify specific issues with Indonesian digital banking firms, and assess the soundness of the digital banks at Bank Jago, Allo Bank, and Digibank in implementing cutting-edge technology. The Riskprofile, Good Corporate Governance, Earnings, and Capital (RGEC) technique is used toassess the health of banks. The examination of this study's findings shows that, overall, Bank Jago, Allo Bank, and Digibank are in good health, despite the fact that a few evaluation indicators are in poor health. Utilizing NPL and LDR, the risk profile for the credit risk component is evaluated. The Bank Jago NPL index predicts highly good resultsfor 2020-2021 and a healthy 2022. The outcomes of a very healthy bank condition are displayed in Allo Bank's NPL 2022 and in Digibank's NPL. Allo Bank is in good health,Digibank is in good health, however the LDR at Bank Jago is unhealthy. Bank Jago and Digibank's good corporate governance is capable of upholding GCG norms. In the interim, Allobank must repair GCG. This suggest that a sound bank can advance technological innovation. To compete in the age of digital technology, Allo Bank's and Digibank's advancements in their banking operations.

Keywords: Digital Bank; Digital Transformation; RGEC; Financial; Technology

1. Introduction

The condition of Indonesian banking has undergone considerable changes as a result of the development of digital technologies. The digital era is increasingly permeating daily life in Indonesia, especially in the banking and financial industries. It is crucial to respond quickly in response to all forms of change in order to make sure that financial service businesses are readyto handle digital innovation. Because of this, global banking industry rivalry is now more fierce,and as digital technology develops, each bank must now come up with unique tactics to distinguish out from the competition.

Choi et al research's Out of the 250 digital banks worldwide, only 13 are profitable, according to Restiana Le Tjoe Linggadjaya (2022)[1]. Only KakaoBank, one of three financiallysuccessful digital banks, is based outside of South Korea. Only 4 of the 16 digital banks, including WeBank, are present in China. Only 5% of the 250 digital banks that already exist inthe world of which 20% are in countries in the Asia Pacific are expected to be profitable. Therefore, banks need to be knowledgeable about both intricate regulatory frameworks and customer behavior.

Customers choose digital banks for a variety of reasons, per Jamie Morgan's research from 2022[2]. For instance, due to security concerns and minimal risk, household savings are allocated at about 21%, 30% of households trust the top firms that construct digital banks to manage their payment transactions, and modern society hardly ever carries cash.

Digital banking services are independently carried out banking functions or actions carriedout through digital media owned by potential bank clients while utilizing electronic or digital facilities controlled by the bank. According to the Directorate General of Treasury and PKN Directorate of the Indonesian Ministry of Finance (2022)[3], the advent of financial technologyinto the financial industry, which crossed geographic boundaries, was what finally led to the formation of digital banks. Customers desired banking services that could be accessed quickly,conveniently, and from any location.

Examining the business strategies of digital banks like Bank Jago, Allo Bank, andDigiBank is the goal of this study. Digital bank Bank Jago, formerly known as PT Bank Artos Indonesia Tbk, provides financial services based on digital technology (Bank Artos). Allo Bankwas formerly known as Bank Harda Internasional Tbk, and Digibank is a digital banking service that is operated by PT Bank DBS Indonesia (BBHI).

The Central Bank Digital Currency (CBDC), which is essential in the current era of digital assets, the research is Yizhi Wang, Brian M. Lucey, Samuel A., and Larrisa Yoravaya (2022)[4]. This study shows that the CBDC's adoption can result in major improvements to the economy by showing that digital banking and government regulations have a favorable impact. However,in this specific instance, it reduces asset uncertainty, which has a major negative impact on theCBDC Uncertainty Index HD outcomes. The CBDCUI and CBD Attantion Index (CBDCAI) HD results show a significant improvement in the context of digital currency and CBDC innovation. The CBDC system's primary objectives are the digitalization, decentralization, and disintermediation of sovereign currencies.

According to research by Seungju Lee, Yona Kwon, Nam Nguyen Quoc, et al. (2022)[5], traditional banks respond to the pressure of digital transformation in different ways, leaving gaps in the implementation of banking strategies. As an illustration, BNP Paribas, a French bank, employs digital strategies to alter its business models and engage in partnerships,acquisitions, and digital updates to meet the demands of this shifting environment. To cut expenses, other banks around the world are gradually eliminating their branches. Additionally,they have made investments in digital transformation over the past few years to improve their customer service and operational efficiency. Most banks have been successful in creating mobile banking applications that offer direct access via financial technology.

This research will show that, based on a range of different factors, Indonesian banking can experience a digital revolution. In specifically at Bank Jago, Allo Bank, and Digibank, we chosethis study to learn more about the stability of banks in assisting the change to digital banking. This study can serve as a standard for other banks wishing to enter the field of digital banking as well as a tool for analyzing the stability of a bank.

2. Literature

2.1 Digital Bank Transformation

Digital bank transformation with the aim of boosting customer satisfaction, financial institutions are changing how they interact with clients and moving banking from the traditionalto the digital realm. According to (Gita Putri Maulidya and Nur Afifah, 2021: 278)[6],understanding digital customer behavior, preferences for likes and dislikes, and changes that lead to significant changes in businesses from product-centric to customer-centric are the starting points for digital transformation. It takes the best innovation to adapt to these changes in banking so that clients are more loyal and there are more potential customers.

"Digital transformation" refers to the process of integrating technology into certain businesses to enhance output and wealth (Darren Byrne, Aisling T, John Organ: 2022)[7]. Whenused to the business sector, information technology can show how technology-enabled information and communication works, which can improve our understanding of how the economy and company operate.

Adopting digital transformation prospects in banking can help the concerned bank to boost internal productivity, facilitate the growth of new markets and businesses, and enable bank expansion. Every bank that is tech-savvy can utilize all services by using customer data to anticipate the behavior and consumption patterns of potential clients.

Big data analytics (BDA) and artificial intelligence (AI) are essential in the banking era for concentrating clients based on data drives (Elisa Indriasari, Lumban Gaol, and Tokuro Matsuo, 2019)[8]. Artificial intelligence (AI) is a field of computer science that blends mathematical expertise with algorithmic statistical methods. Through processing, extraction, and analysis, big data analytics (BDA) aims to transform data into information. 2022: 4749 (Hendro Margono and M. Suharbi)[9] Banks can gain from the digital bank transformation in anumber of ways that will keep them competitive in their sector. Customers choose digital banksover traditional ones for financial transactions because they are easy, fast, and efficient, and since doing so significantly increases banks' profits.

Financial Services Authority Regulation No.12/POJK.03/2021[10] defines "digital banks"as "banks with Indonesian legal entities that provide and conduct commercial activities primarily through electronic channels without physical offices other than the head office or employing restricted physical offices." Digital banks act as a mediator, bringing together fund owners and individuals in need of finance, much like traditional commercial banks do. The distinction is between using systems that can adapt to suit customer needs and using applicationsto handle most or all client services.

2.2 Indonesian Digital Bank

Digital banks are financial institutions with legal entities in Indonesia that offer and conduct business online. In Indonesian society, the use of digital banks is growing. Common examples of these banks include: Jenius, a digital bank application launched by BTPN in 2016,Jago Bank‘s, which offers services through applications and bases its operations on user- friendly life oriented concepts. Allo Bank is a digital bank owned by PT Allo Bank Indonesia Tbk, whereas Neobank is a digital bank application owned by Bank Neo Commerce. Digibankis a digital bank owned by DBS Bank, and all transactions and registration are done using the online Digibank application.

The most well-known digital banking application, Bank Jago, will debut in April 2021. Due to the flexibility of Bank Jago's application, which among others may collaborate and integrate with the current digital economy, the bank is able to operate in this market. zaman. Ekosistem GOTO is the only system integrated with the Jago app for addressing user demand for top-up Gopay. Cunningly taunt Jago's account to Gopay's user's account. This makes it possible for transactions to be secure, swift, and lawful. The Bank Jago app is seamlessly integrated with the Bibit.ID online marketplace for trading in digital goods. Pelanggan can easily transfer their Bibit.ID account to their Jago account without having to use the Bibit.ID app.

Building a digital economy is Bank Jago's top priority, and it is being done so with a mature application standard. All of the financial, payment, trading, exchange, and entertainment sectorsare a part of Bank Jago's digital economy. In addition, based on bank performance during the third quarter of 2011, PT Bank Jago Tbk succeeded in generating laba worth approximately Rp.40,57 million. As a result, Bank Jago may resume operations as normally as those who experienced a loss of approximately Rp. 32,61 million during the third quarter of 2021. In comparison to the previous triwulan, the Bank Jago Bunga Bersih Payment Amount increased by 209,83% (yoy) to Rp. 983,84 Million (per September 2022). Operational earnings for this business exceed Rp. 48,25 million. Due to the existence of a digital economy, credit expansionand shariah-compliant financing are made possible[11].

Prior to transitioning to Allo Bank, the original name was Bank Harda International, which transformed a traditional bank into a digital bank. Through smartphone applications with a biometric login method, Allo Bank offers ease to current and potential customers. Through QRIS, this bank offers a non-cash payment capability. Allo Bank boosted its DPK from Rp. 3.2trillion as of June 2022 to Rp. 4.1 trillion as of September 2022, based on performance. Operating income grew from IDR 530 billion in September 2022 compared to IDR 341 billionin June 2022. A rise in net interest income, from IDR 215 billion to IDR 402 billion,. However,between June 2022 and September 2022, net profit after tax increased from Rp. 151 billion to Rp. 209 billion. Allo Bank is getting ready to make a number of moves to increase bank growthby enlisting strategic partners[12].

In order to develop into a fully functional digital banking platform that offers consumersa range of conveniences, Digibank was introduced in 2017. A variety of investment products, comprehensive payment features, and quick credit applications are all available through the digibank application. For account opening and secure transactions, Digibank has security technology that uses soft tokens and biometric verification. Many people use banking transactions since it's so simple to open an account using the online system. This bank's use of digital technology benefits consumers who own businesses.

Through Digibank, PT Bank DBS reported a loan disbursement of Rp. 48.21 trillion, up 2.45% year over year from Rp. 47.06 trillion. This rise served as one of the catalysts for the bank assets' 5.29% year-over-year increase, from Rp. 85.32 trillion to Rp. 89.84 trillion. Bank DPK's IDR 68.25 trillion in the first quarter of 2022 increased by 15.13 percent from IDR 59.28trillion in the previous quarter. Digibank optimizes the application to fulfill all customer transaction demands in one application, from opening a savings account to managing credit cards and immediate KTA applications, all of which can be completed online, in order to increase performance.

In OJK Regulation (PJOK) 22 of 2022, which was released by the Financial Services Authority (OJK), it is specified that parties that can become investors of banks include, among others, businesses in the financial sector whose primary business involves the use of informationtechnology to produce financial products. There are a number of provisions in the POJK that are based on the official statement (in CNCB Indonesia: 2022)[13] including the following:

a. Verification of the range of financial sector businesses that join as investee banks in line with the evolution of the present digital ecosystem
b. Relaxing the requirements for soundness level in equitable participation activities
c. Widening the extent of bank subsidiary enterprises' equity participation

According to POJK, equity investments must be balanced with bettering the effectivenessof risk management implementation to foresee potential dangers. This is in conformity with the publication of POJK Number 22 of 2022 about Equity Participation Activities by Commercial Banks and POJK Number 20 of 2022 concerning Supervision of the Public Housing Savings Management Agency.

The establishment of a Core Banking System (CBS) as one of the bank's initiatives to improve customer service and facilitate access by customers through the banking system is legally supported by Financial Services Authority Regulation No.12/POJK.03/2018 in the Implementation of Digital Banking Services for Commercial Banks. According to Article 2 Paragraph 1 POJK No. 12/POJK.03/2018[10], the functions of customer intermediation, deposits, loans, accounting, and reporting must be included in bank applications for processingbanking service transactions. To take advantage of opportunities in the digital age, banks is anticipated to improve digital banking services.

According to Financial Services Authority Regulation. No. 12/POJK.03/2018[14], bank clients' services are intended to help them quickly, simply, and as needed by allowing them to communicate, make financial transactions, and acquire information through electronic media. In April 2022, the value of digital banking transactions and electronic currency increased significantly, according to a Bank Indonesia (BI) study. In April 2022, the value of transactions involving electronic money increased by 50.3% year over year (yoy) to Rp. 34.3 trillion[15].

2.3 Banking Health

The ability of a bank to conduct regular banking activities and be able to appropriately meet all commitments using procedures that are in compliance with relevant banking regulations is known as "bank health." The soundness level of a bank is determined by evaluating factors of capital, asset quality, management, profitability, liquidity, and sensitivity to market risk. Thisassessment is done in accordance with PBI No.6/10/PBI 2004[16]. The following general guidelines are provided by Bank Indonesia Circular Letter No.13/24/DPNP[17], issued October25, 2011, for determining a bank's soundness:

a. Risk-oriented, the soundness grade is based on the bank's risks and how those risks affect the performance of the bank as a whole. This is accomplished by determininginternal and external elements that could raise risk or have an impact on the bank's financial results
b. Proportionality, the application of parameters or indicators in each component for evaluating the soundness of a bank, is done by taking into consideration the unique aspects and complexity of the bank's business.
c. Materiality and Significance, which considers the importance and materiality of the variables used to gauge a bank's soundness, including risk profile, GCG, profitability, and capital. Based on an analysis supported by sufficient facts and information aboutrisks and the bank's financial performance, materiality and relevance are determined

d. Complete and Organized, with a focus on the bank's primary issues. The evaluation process is carried out in-depth and methodically

2.4 RGEC Analysis

Bank Indonesia Circular Letter No. 6/23/DPNP[18], dated May 31, 2004, contains regulations pertaining to bank soundness and contains an assessment of the soundness of commercial banks using the CAMELS factors, which include capital, asset quality, management, earnings, liquidity, and sensitivity to market risk. The Risk Profile, Good Corporate Governance, Earnings, and Capital (RGEC) method, also known as the RBBR risk strategy, is now the method that banks must use to determine the level of soundness. The following elements are used by RGEC in Bank Indonesia Regulation No. 13 of 2011[19] Article6 to evaluate each bank's soundness on an individual basis using a risk-based approach:

2.5 Risk Profile

According to Bank Indonesia Regulation No.13I/PBI/2011[20], legal, strategic, compliance, and reputational risks are all considered in this case's risk assessment along with market, liquidity, credit, and operational risks. Credit risk and liquidity risk are two of the eightfactors that are used in this study.

2.6 Good Corporate Governance (GCG)

The principles of good corporate governance are those that businesses use to increase corporate value, enhance performance and contribution, and uphold the company's long-term viability. According to Bank Indonesia Circular Letter No. 15/15/DPNP of 2013[21], banks must evaluate the implementation of GCG on their own. GCG, according to Pupu Sopini (2018)[22], is a concept to boost business performance by overseeing or monitoring management performance and guaranteeing management accountability to stakeholders based on a legal framework. The RGEC technique bases its evaluation of GCG variables on three primary considerations, namely: The effectiveness of the Board of Directors' and the Board of Commissioners' roles, as well as the completion and execution of committee obligations, are allpart of the governance structure. The compliance department of the bank is part of thegovernance process.

2.7 Earning

Evaluation of earnings performance, sources of profitability, sustainability of profitability,and management of profitability are all included in the assessment of earnings factors. This ratiois used to gauge the bank in question's level of operational effectiveness and financial success. A ratio called profitability is used to assess how successfully a business generates profits (Wardinah in Dewi, 2018: 196)[23]. The ROA and NIM indicators are used in this study to assess each bank's state of health.

2.8 Capital

The CAR ratio is used in this study to evaluate the factor capital in the RGEC component.This research is performed to determine whether the bank has enough capital to operate its business effectively. The customer's level of security is more secure the more capital is owned relative to the customer's funds. An rise in the CAR ratio shows that a bank is better able to manage the risk associated with each risky producing asset, which lowers the likelihood of financial crisis (Titis in Hesti Tri Lestari: 2020)[24].

3. Methods

This study employs a descriptive analytical research design with a quantitative method to describe the object of study and pinpoint specific issues in Indonesia's three largest digital banking firms, Bank Jago, Allo Bank, and Digibank, for the years 2020 to 2022. The RGEC method is used to analyze data from digital banking, and it contains criteria set by Bank Indonesia that must be met. A bank's soundness is evaluated using the RGEC approach based on its risk profile, good corporate governance, income, and capital characteristics (Bayu Aji Permana: 2012)[25]. This study's primary focus is on:

3.1 Risk profile NPL dan LDR

An assessment of a company's risk appetite and capacity is known as a risk profile. The 2forms of risk used in this research are:

3.2 Risiko Kredit

Risk that develops as a result of debit card fraud when attempting to satisfy a bank's requirements. Risk factor from Non-Performing Loan (NPL) with the following explanation:

$$NPL = \frac{issue\ with\ credit}{Total\ credit} \times 100\%$$

3.3 Risiko Likuiditas

Liquidity risk refers to a bank's inability to meet its maturity commitments through sourcesof cash flow funding or through high-quality liquid assets. This ratio evaluates the company's ability to pay down short-term debt through liquidity.

$$LDR = \frac{Totak\ Credit}{external\ resources} \times 100\%$$

3.4 Good Corporate Governance Factor

According to PBI No. 13/1/2011, every commercial bank is expected to pay attention to the GCC element. This component is seen as crucial for guaranteeing strong management governance and raising the standard of employee performance by comprehensively and methodically applying GCG principles to the three areas of governance structure, governance procedures, and governance outcomes.

3.5 Factor Rentabilitas (*Earnings)*

Penilaian faktor rentabilitas meliputi evaluasi terhadap kinerja rentabilitas, sumber-sumber rentabilitas, kesinambungan rentabilitas, dan manajemen rentabilitas. Fokus penelitian ini menggunakan parameter ROA dan NIM

$$ROA = \frac{Profit\ before\ tax}{Average\ total\ assets} \times 100\%$$

$$NIM = \frac{Net\ Interest\ Income}{Average\ earning\ assets} \times 100\%$$

3.6 Capital

When a corporate entity is established, bank capital refers to the owner's investments. Capital is crucial for a bank to enable an activity's smooth operation. Measurement of capital adequacy in the ratio of total capital is done using the capital parameter, or CAR.

$$CAR = \frac{Capital}{Risk\ weighted\ assets} \text{ x } 100\%$$

4. Results

4.1 Menurut Risk Profile Non Performing Loan (NPL)

The maximum ratio for non-performing loans is 5%, according to Bank Indonesia regulation no. 06/10/PBI/2004 concerning the Soundness Rating System for Commercial Banks. The ability of bank management to manage non-performing loans is indicated by the NPL ratio,which compares non-performing loans to all loans. The profit that will be made will decline thehigher the NPL value of a financial institution. The Jago Bank's NPL ratio is as follows:

Table 1. NPL Jago Bank‘s composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	0,37%	0% < NPL < 2%	Very healthy
2021	0,59%	0% < NPL < 2%	Very healthy
2022	2,10%	0% < NPL < 2%	Healthy

Source: Processed data 2023

In a highly healthy condition, Jago Bank's Non-Performing Loans (NPL) for 2020-2021 are 0,37% and 0,59%, indicating that there is very little chance that other parties will fail to meet their obligations to Jago Bank‘s. But because the NPL is less than 5%, Bank Jago's NPL has climbed by 2,10% in 2022, which is considered healthy.

Table 2. NPL Allo Bank‘s composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	3,39%	2% < NPL < 5%	Healthy
2021	2,18%	2% < NPL < 5%	Healthy
2022	0%	0% < NPL < 2%	Very healthy

Source: Processed data 2023

The Non-Performing Loan (NPL) ratio for Allo Bank in 2020–2021 dropped from 3,39% to 2,18%; a level under 5% denotes a healthy bank. While Allo Bank's NPL is 0% in 2022 with avery strong predicate, there is no possibility of other parties failing to meet their commitments to Allo Bank at that time.

Table 3. NPL Digibank‘s composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	4,55%	2% < NPL < 5%	Healthy
2021	3,62%	2% < NPL < 5%	Healthy
2022	2,79%	2% < NPL < 5%	Healthy

Source: Processed data 2023

Digit Bank's Non Performing Loan (NPL) for 2020-2022 will have a lower risk due to the good bank position and NPL of less than 5%, with NPL in 2020 of 4,55%, in 2021 of 3,62%, and in 2022 of 2,79%. Although the NPL percentage is less than 5%, Digibank continues to take stepsto reduce risk on an annual basis.

4.2 The Loan to Deposit Ratio (LDR)

The Loan to Deposit Ratio (LDR) measures a bank's ability to meet short-term obligationsby comparing the total quantity of loans to the total amount of third party funds (DPK). An LDRratio that produces a result that is too low suggests that banks have adequate liquidity but are allowing their income to be lower, which is how most banks make money. Dahlan Siamat asserts that it provides a clue as to how much money from outside sources has been transferred in the form of credit (in Mustafa Kamil: 2022)[26]. The LDR ratio increases with the bank's liquiditycondition becoming less favorable.

Table 4. LDR Jago Bank‘s composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	157,69%	LDR > 120%	Not wholesome
2021	145,76%	LDR > 120%	Not wholesome
2022	111,68%	100% < LDR ≤ 120%	Unhealthy

Source: Processed data 2023

Jago Bank's Loan to Deposit Ratio (LDR), which is termed unhealthy, is 257,96% in 2020 whereas it has a reduced risk of 145,76% in 2021. then 111,68% in 2022, a reduced risk but stillan unhealthy condition.

Table 5. LDR Allo Bank's composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	84,85%	75% < LDR ≤ 85%	Healthy
2021	93,43%	85% < LDR ≤ 100%	Quite heathy
2022	175,55%	LDR > 120%	Not wholesome

Source: Processed data 2023

Allo Bank's Loan to Deposit Ratio (LDR) was 84,85% in 2020, which was still a reasonable level. It increased by 9,43% in 2021. Meanwhile, it will get steadily worse with an LDR ratio of 175,55% in 2022.

Table 6. LDR Digibank's composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	79,54%	75% < LDR ≤ 85%	Healthy
2021	76,53%	75% < LDR ≤ 85%	Healthy
2022	76,93%	75% < LDR ≤ 85%	Healthy

Source: Processed data 2023

Compared to Bank Jago and Allo Bank, Digibank has a higher Loan to Deposit Ratio (LDR). Digibank has experienced a reduced risk in 2020-2021, namely in 2020 of 79.54%, in 2021 of 76.53%, and in 2022 it will experience a slight increase of 76.93%. This reduction in risk is dueto Digibank's ability to meet maturing obligations from liquid assets without interfering with its operations and financial condition.

4.3 Good Corporate Governance (GCG)

Good Corporate Governance is a company's efforts to establish a pattern of beneficial interactions between its stakeholders are referred to as good corporate governance. In order to increase business value in the eyes of shareholders and stakeholders and to increase the company's competitiveness, GCG is consistently applied. The use of GCG in business operations is crucial, particularly in the financial sector where banks operate (Aulia S et al: 2019)[27]. The following is how Bank Digital Indonesia has put its good corporate governanceinto practice:

4.4 Jago Bank for the period 2020 to 2022

In order to meet the challenges and hazards that the increasingly varied banking industry faces, Jago Bank's adoption of GCG is necessary and essential. In regard to the execution of GCG, the OJK Regulations and other pertinent laws and regulations are discussed. The Bank's general guiding principles for adopting GCG include Transparency, which seeks to uphold objectivity in corporate operations by making important information easily accessible and understood to all pertinent stakeholders, Accountability: The Bank must be able to hold itself transparently and fairly accountable for its actions if it is to succeed in the long run. To preserveits long-term existence and recognition as, the Bank is required to obey all relevant laws and regulations and satisfy its social and environmental obligations.

4.5 Allo Bank

Appropriate corporate governance Every Bank According to Bank Indonesia Circular No. 15/DPNP/2013 about the implementation of GCG, a self-assessment system is used to evaluateGCG factors. The evaluation criteria include: Governance In order to improve bank performance, the board of directors' and commissioners' compositional structure should be considered. Governance Each decision that results from a meeting of the board of directors andboard of commissioners is made by deliberation for consensus as well as in terms of bank creditstill requiring management attention. Process in this case, the board of directors and board of commissioners have carried out their duties and responsibilities independently. Governance Results of operating activities at Bank BHI are not subject to ownership or other relevant investments.

4.6 Digibank

Digibank implements a strong framework including the establishment of Governance Structure, Governance Process and Governance Outcome to assess the adequacy and effectiveness of the Bank's governance structure and infrastructure so that the process of implementing GCG principles produces good results in accordance with stakeholder expectations. Governance Structure related to the composition and competence of the Bank's Board of Commissioners and Directors in accordance with the size and complexity of the Bank's business, Governance Process in this case the Directors effectively carry out business management and carry out the Bank's strategic plan as well as meeting the board of commissioners and directors held effectively and efficiently, Governance Outcome in where theBank is able to avoid potential conflicts of interest through very comprehensive internal policieswith very good implementation. Currently the Bank uses Finacle as its core banking system. Corebanking system will continue to be improved according to the needs of the Bank. In 2012,the Bank upgraded the Finacle version to version 10.2 which is expected to further support the needs of the Bank's Management Information System, particularly with regard to the availability and adequacy of complete, accurate and reliable internal reporting.

4.7 Earning

Return On Asset (ROA)

An important measure of financial statements retained for a variety of purposes is return on assets (ROA) (Hafiz M. et al: 2019)[28]. This ratio assesses a bank's capacity for profit- making by contrasting net income with available resources or total assets. The ability of banks to make money is better when ROA is higher in value.

Table 7. ROA Jago Bank‘s composite assessment

Year	Ratio	Bank assessment standards	Rating
2020	-8,95%	ROA ≤ 0%	Not wholesome
2021	-0,52%	ROA ≤ 0%	Not wholesome
2022	0,50%	0% < ROA ≤ 0,5%	Unhealthy

Source: Processed data 2023

A solid bank should have a ROA of at least 1.5%, but Jago Bank's ROA in 2020 will be -8.95%, -0.52%, and -0.50%, respectively, which translates to every Rp. With its 100 assets, the bank can generate a net profit before tax of Rp. 0.50. Even though Jago Bank's ROA is below average,it has made modifications to generate earnings that are acceptable.

Table 8. ROA Allo Bank‘s composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	2,97%	ROA > 1,5%	Very healthy
2021	2,68%	ROA > 1,5%	Very healthy
2022	3,78%	ROA > 1,5%	Very healthy

Source: Processed data 2023

Even though it dropped from 2.97% to 2.68% in 2020-2021, Allo Bank’s Return on Assets still fulfills the standards for being deemed acceptable because the ratio is below 1.5%. This is not a reason for concern because it is still in a good position and will grow by 3.78% in 2022.

Table 9. ROA Digibank's composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	0,20%	0,5% < ROA ≤ 1,25%	Healthy enough
2021	0,83%	0,5% < ROA ≤ 1,25%	Healthy enough
2022	1,34%	1,25% < ROA ≤ 1,5%	Healthy

Source: Processed data 2023

Digibank's ability to generate profits on the use of a number of company assets with a bank standard ROA ratio of more than 1,5%. While in 2020 Digibank has a ratio of 0,20% which is considered quite healthy because it is greater than 0,5%, meaning every Rp. With its 100 assets,the bank is able to generate a net profit before tax of Rp. 0,20. But in 2021-2022 it has increasedfrom 0,83% to 1,34% which is considered quite good.

Net Interest Margin (NIM)

Net Interest Margin (NIM) is a ratio obtained by dividing net interest income by average earning assets. This ratio is used to measure the ability of bank management to manage its productive assets to generate net income. The greater this ratio indicates the increasing interest income on earning assets managed by the bank. NIM reflect market risk arisig from movementsin market variables, where this can be detrimental to the bank (Pinasti W: 2018)[29]

Table 10. NIM Jago Bank composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	4,37%	NIM > 3%	Very healthy
2021	6,09%	NIM > 3%	Very healthy
2022	10,47%	NIM > 3%	Very healthy

Source: Processed data 2023

Due to the NIM of Jago Bank exceeding the predetermined level of more than 3%, the ratio was quite good. It achieved a NIM of 4,37% in 2020 with a very strong precondition. Then it will rise by 6,09% in 2021. A NIM of 10,47% with a very healthy predicate will be obtained in 2022,which will result in a large increase.

Table 11. NIM Allo Bank composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	2,51%	2% < NIM ≤ 3%	Healthy
2021	4,41%	NIM > 3%	Very healthy
2022	6,01%	NIM > 3%	Very healthy

Source: Processed data 2023

Allo Bank achieved a NIM of 2,51% in 2020, which was only slightly below the bar established by Allo Bank. Despite this, Allo Bank was able to maintain its healthy predicate and experiencea growth of 4,41% with a very healthy predicate in 2021. It will then make considerable development by attaining a NIM of 6,01% in 2022, which is regarded as extremely healthy.

Table 12. NIM Digibank composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	5,53%	NIM > 3%	Very healthy
2021	5,17%	NIM > 3%	Very healthy
2022	5,03%	NIM > 3%	Very healthy

Source: Processed data 2023

The ratio is higher than the predetermined level, which is more than 3%, according to Digibank's NIM calculations. It achieved a ratio of 5,53% in 2020 with a very strong predicate. Although there will be drops of 5,17% and 5,03% in 2021 and 2022, respectively, they are still in a very robust condition. It is believed that the data will help the affected institutions increase their capacity to generate net interest once more.

4.8 Capital

Capital Adequacy Ratio (CAR)

The capital ratio known as the capital adequacy ratio, which demonstrates the bank's capacity to expand its operations and manage the risk of losses resulting from those operations(Dendawijaya in Helmalia Fauziah: 2021)[30]. CAR serves as a measure of capital adequacy that demonstrates banks' capacity to contribute cash used to prepare for potential financial hazards. The bank is better able to manage potential financial risks when the CAR value ishigher.

Table 13. CAR Jago Bank composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	133%	CAR > 12%	Very healthy
2021	224,24%	CAR > 12%	Very healthy
2022	97,50%	CAR > 12%	Very healthy

Source: Processed data 2023

The Capital Adequacy Ratio for Jago Bank for 2020–2021 increased significantly from 133% to 224,24%. The Financial Services Authority is aiming for a CAR of above 12% to 14%, thuseven though it has reduced by 97,50% since 2022, it is still considered a good precondition.

Table 14. CAR Allo Bank's composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	18,89%	CAR > 12%	Very healthy
2021	41,56%	CAR > 12%	Very healthy
2022	78,36%	CAR > 12%	Very healthy

Source: Processed data 2023

Every year, the Capital Adequacy Ratio (CAR) of Allo Bank has gone up; in 2020, it was 18,89%; in 2021, it went up by 41,56%; and in 2022, it went up by 78,36%. Allo Bank is considered to be in extremely good condition because its CAR for the past three years has beenhigher than 12%.

Table 15. CAR Digibank composite assessment

Year	Ratio	Bank assessment standards	Predicate
2020	23,26%	CAR > 12%	Very healthy
2021	24,07%	CAR > 12%	Very healthy
2022	22,45%	CAR > 12%	Very healthy

Source: Processed data 2023

Digibank Capital Adequacy Ratio for 2020-2021 has increased from 23,26% to 24,07%. While in 2022 it has decreased by 22,45%, it is still classified as very healthy because the Financial Services Authority is targeting a CAR of above 12% to 14%.

5. Conclusion

The analysis of the soundness of Bank Jago, Allo Bank, and Digibank's digital banks from2020 to 2022 using the RGEC method approach yielded the following results: Bank Jago is unhealthy with an LDR ratio of more than 100% and ROA of less than 0%, but these ratios areimproving to meet predetermined standards and allow the bank to be in a healthy condition supported by other ratios. Both Allo Bank and Digibank have strong financial standing, according to analysis of their health.

According to Bank Jago and Digibank's self-evaluation of the three GCG components, they are good at applying GCG principles to enhance banking performance. Allobank, meantime, needs to increase its business goals and bank credit. Bank Jago's profits computationindicates an unhealthy condition, whereas Digibank's analysis of the bank's ratio reveals that itis rather healthy at less than 1.5%. With a ratio value of more than 1.5%, the Allo Bank ROA ratio demonstrates the bank's extremely wholesome condition. Meanwhile, the NIM ratio of thethree banks demonstrates that each bank is in extremely good health and has the potential to grow its company as evidenced by the CAR.

6. Acknowledgements

Praise be to God for enabling the researcher to complete this research via His will and pleasure. The author is aware that without the prayers and assistance of numerous parties, this research could not have been carried out. The author expresses gratitude to Mr. Imronudin, S.E.,M.Si., Ph.D. supervisor, for assisting him in completing this study.

References

[1] R. I. T. Linggadjaya, B. Sitio, and P. Situmorang, “Transformasi Digital Pt Bank Jago Tbk dari Bank Konvensional menjadi Bank Digital,” *International Journal of Digital Entrepreneurship and Business*, vol. 3, no. 1, pp. 9–22, Feb. 2022, doi: 10.52238/ideb.v3i1.76.

[2] J. Morgan, “Systemic stablecoin and the defensive case for Central Bank Digital Currency: A critique of the Bank of England’s framing,” *Res Int Bus Finance*, vol. 62, Dec. 2022, doi: 10.1016/j.ribaf.2022.101716.

[3] “Digital Banking.” https://djpb.kemenkeu.go.id/direktorat/pkn/id/odading/2919- digital-banking.html (accessed Jan. 27, 2023).

[4] Y. Wang, B. M. Lucey, S. A. Vigne, and L. Yarovaya, “The Effects of Central Bank Digital Currencies News on Financial Markets,” *Technol Forecast Soc Change*, vol. 180, p. 121715, Jul. 2022, doi: 10.1016/j.techfore.2022.121715.

[5] S. Lee *et al.*, “Red Queen Effect in German Bank Industry: Implication of Banking Digitalization for Open Innovation Dynamics,” *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 7, no. 1, p. 90, Mar. 2021, doi: 10.3390/joitmc7010090.

[6] G. Putri Maulidya, N. Afifah, U. Tanjungpura, and J. Imam Bonjol, “278 | Proceeding Seminar Bisnis Seri V 2021.”

[7] D. Byrne, A. Tuite, and J. Organ, “A Study of the Organisational Behaviour of SoftwareTest Engineers, Contributing to the Digital Transformation of Banks in the IrishFinancial Sector,” *IFAC-PapersOnLine*, vol. 55, no. 39, pp. 259–264, 2022, doi:10.1016/j.ifacol.2022.12.031.

[8] E. Indriasari, F. L. Gaol, and T. Matsuo, “Digital Banking Transformation: Applicationof Artificial Intelligence and Big Data Analytics for Leveraging Customer Experience in the Indonesia Banking Sector,” in *2019 8th International Congress on Advanced Applied Informatics (IIAI-AAI)*, Jul. 2019, pp. 863–868. doi: 10.1109/IIAI- AAI.2019.00175.

[9] M. A. Suharbi and H. Margono, “Kebutuhan transformasi bank digital Indonesia di erarevolusi industri 4.0,” *Fair Value: Jurnal Ilmiah Akuntansi dan Keuangan*, vol. 4, no. 10, pp. 4749–4759, May 2022, doi: 10.32670/fairvalue.v4i10.1758.

[10] Otoritas Jasa Keuangan, “Peraturan Otoritas Jasa Keuangan Republik Indonesia Nomor 12/POJK.03/2021 tentang Bank Umum,” *Www.Ojk.Go.Id*, pp. 1–113, 2021, [Online]. Available: https://sikepo.ojk.go.id/SIKEPO/DatabasePeraturan/PeraturanUtuh/84c36c57-c4bb- 4815-9b13-c229

[11] “Kinerja Bank: Kuartal III/2022, Bank Jago Raup Laba Rp40 Miliar.” https://dataindonesia.id/bursa-keuangan/detail/kinerja-bank-kuartal-iii2022-bank-jago- raup-laba-rp40-miliar (accessed Jan. 26, 2023).

[12] “Simak! Ini Pemicu Kinerja Allo Bank Bisa Tetap

Tokcer." https://www.cnbcindonesia.com/market/20221220141614-17-398524/simak-ini- pemicu-kinerja-allo-bank-bisa-tetap-tokcer (accessed Jan. 26, 2023).
[13] B. Romys, "OJK Rilis Dua Peraturan Bank Digital," *16 November 2022*, 2022. https://www.cnbcindonesia.com/market/20221116153156-17-388605/pengumuman- ojk-rilis-dua-aturan-ada-soal-bank-digital
[14] Otoritas Jasa Keuangan, "POJK Nomor 12/POJK.03/2018 Tentang Penyelenggaraan Layanan Perbankan Digital Oleh Bank Umum," *ojk RI*, no. I, pp. 1–55, 2018.
[15] "Nilai Transaksi Uang Elektronik dan Perbankan Digital Tumbuh Pesat pada April 2022." https://databoks.katadata.co.id/datapublish/2022/05/31/nilai-transaksi-uang- elektronik-dan-perbankan-digital-tumbuh-pesat-pada-april-2022 (accessed Jan. 26,2023).
[16] Bank Indonesia, "Peraturan Bank Indonesia No. 6/10/PBI/2004 tentang Sistem Penilaian Tingkat Kesehatan Bank Umum," *Peraturan bank Indonesia*, vol. 1, no. 1, pp. 1–23, 2004, [Online]. Available: www.bi.go.id
[17] B. Indonesia, "Kodifikasi Peraturan Bank Indonesia Kelembagaan Penilaian Tingkat Kesehatan Bank," p. 326, 2012.
[18] T. Solomon *et al.*, "BI No. 6/23/DPNP," *Int J Trop Insect Sci*, vol. 8, no. 4, pp. 104– 110, 2004.
[19] M. Badriyah, "Bank Indonesia Regulation No. 13 of 2011," no. July, pp. 1–7, 2011.
[20] "Peraturan Bank Indonesia." https://djpb.kemenkeu.go.id/direktorat/pkn/id/odading/2919-digital- banking.html#:~:text=Bank Digital sendiri berdasarkan POJK,menggunakan kantor fisik yang terbatas
[21] B. Centrale, "BI No. 15/15/DPNP of 2013," pp. 36–51.
[22] P. Sopini, "Tingkat Kesehatan Bank Berdasarkan Analisis RGEC Pada Bank BNI 46," *EKONOMIS : Journal of Economics and Business*, vol. 2, no. 2, p. 194, Oct. 2018, doi: 10.33087/ekonomis.v2i2.44.
[23] M. Dewi, "ANALISIS TINGKAT KESEHATAN BANK DENGAN MENGGUNAKAN PENDEKATAN RGEC (RISK PROFILE, GOOD CORPORATE GOVERNANCE, EARNINGS, CAPITAL)," *Ihtiyath : Jurnal Manajemen Keuangan Syariah*, vol. 2, no. 2, Dec. 2018, doi: 10.32505/ihtiyath.v2i2.710.
[24] H. Tri Lestari, F. Afiyanti Tripuspitorini, P. D. Studi IV Keuangan Syariah, J. Akuntansi, P. Negeri Bandung, and J. Gegerkalong Hilir, "Risk Profile, Good CorporateGovernance, Earning, dan Capital dalam Memprediksi Financial Distress pada Bank Umum Syariah di Indonesia," *JAE (JURNAL AKUNTANSI DAN EKONOMI)*, vol. 5, no. 2, pp. 100–111, Jul. 2020, doi: 10.29407/JAE.V5I2.13809.
[25] B. A. Permana, "'Analisis Tingkat Kesehatan Bank Berdasarkan Metode CAMELS danMetode RGEC.'"
[26] M. Kamil and M. Rahmawati, "Analisa Likuiditas Dengan Rasio LDR, LAR, dan CR Pada PT. Bank Perkreditan Rakyat Syariah Al Salaam Amal Salman," *Artikel Ilmiah Sistem Informasi Akuntansi*, vol. 2, no. 1, pp. 6–11, Apr. 2022, doi: 10.31294/akasia.v2i1.1083.
[27] S. Aulia, C. Satriya, and C. B. Prabowo, "ANALISIS PENILAIAN TINGKAT KESEHATAN BANK DENGAN METODE RISK PROFILE, GOOD CORPORATE GOVERNANCE, EARNINGS AND CAPITAL PADA PT BANK NATIONALNOBUTBK."
[28] M. S. Hafiz, R. Radiman, M. Sari, and J. Jufrizen, "Analisis Faktor Determinan Returnon Asset pada Bank BUMN yang Terdaftar di Bursa Efek Indonesia," *Jurnal Manajemen dan Keuangan*, vol. 8, no. 2, pp. 107–122, Dec. 2019, doi: 10.33059/jmk.v8i2.1681.
[29] W. F. Pinasti and RR. I. Mustikawati, "PENGARUH CAR, BOPO, NPL, NIM DAN LDR TERHADAP PROFITABILITAS BANK UMUM PERIODE 2011-2015," *Nominal, Barometer Riset Akuntansi dan Manajemen*, vol. 7, no. 1, Apr. 2018, doi: 10.21831/nominal.v7i1.19365.
[30] H. Fauziah, "Pengaruh NPL, CAR, dan BI Rate terhadap ROA pada Bank Badan UsahaMilik Negara," *Indonesian Journal of Economics and Management*, vol. 1, no. 2, pp. 352–365, Mar. 2021, doi: 10.35313/ijem.v1i2.2503.