

# Digital Bank Financial Soundness Analysis at PT Bank Jago Tbk.: CAMEL Framework Approach

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**Abstract**—Out of around 250 digital banks in the world, 20% are in Asia Pacific region, and only around 5% have crossed the profitability line. Bank Jago is the sixth digital bank in Indonesia. The objective of current research is to analysis financial soundness of PT Bank Jago Tbk under CAMEL framework which includes capital, assets quality, management, earnings, and liquidity. This study employs non-statistical quantitative methods. Sampling method was utilized is purposive sample technique. The data utilized is secondary data on the financial performance of CAR, KAP, NIM, ROA, and LDR, presented as a yearly time series from 2018 to 2022. The data was taken from PT Bank Jago's yearly report, which is accessible at the bank's web address. Data analysis was carried out by employing a horizontal analysis technique. Finding of the study conclude that Bank Jago has very strong capital, as indicated by the CAR ratio. Bank Jago's asset quality as reflected on KAP ratio is in good condition. Bank Jago's management, as indicated by the NPM ratio, Bank's profitability as indicated by the ROA ratio, and Bank's liquidity reflected by the LDR ratio, all off still at an unhealthy level. Going forward, Bank Jago will implement a plan to boost lending by working with partners in a variety of financing goods in order to enhance financial performance.

**Keywords:** Digital Bank; Financial Soundness; Financial Ratio, Camel Model; Bank Health.

## 1. INTRODUCTION

The global community now lives in an era known as the "era of the industrial revolution 4.0" due to the fast development of information technology. The banking industry has undergone substantial changes as a result of the use of different technologies in the financial services sector (Danuri, 2019). The shift in consumer behavior toward digital has urged banks to accelerate the process of becoming a digital bank (Kaur et al., 2021). From 2017 to 2021, global digital transaction volume increased by 118%, from USD 3.09 trillion in 2017 to USD 6.75 trillion in 2021. By 2027, it will be projected that the total transaction value will have increased by 11.80% per year (CAGR 2023–2027), totaling US\$14.78 trillion (Glowka et al., 2023). In Indonesia, the growth of digital transfers has been much greater, increasing by 1,556 percent between 2017 and 2020. Electronic money transactions reached IDR 786.35 trillion in 2021. This value increased by IDR 281.39 trillion (55.73%) compared to the previous year which was only IDR 504.96 trillion (Bank Indonesia, 2022b)

According to (Siska, 2022), numerous factors promoting the growth of digital banks in Indonesia, a country with significant capacity to absorb digitalization flows, have increased the demand for banking digitization. These driving factors are reflected in 3 (three) main aspects, namely digital opportunities, digital behavior, and digital transactions (Alhamdi et al., 2022). Digital opportunities include demographic potential, digital economic and financial potential, potential for penetration of internet use, and potential for increased consumers. Digital behavior includes ownership of devices and use of mobile applications (mobile apps). Digital transactions include online trading transactions (e-commerce), digital banking transactions, and electronic money transactions. Online trading transactions (e-commerce), digital banking transactions, and electronic money transactions are all examples of digital transactions.

Digital banks vary conceptually from conventional banks offering digital services like online and mobile banking (Vally & Shankar, 2020). In general, digital banks allow customers to conduct all banking operations including account opening, transfers, deposits, and account closure through cell phones or other electronic devices without having to visit the actual location of the bank (Oleg et al., 2020). Aside from that, the most significant distinction is that digital banks typically have no real offices (outside of the main office) or only a small number of physical offices (Financial Services Authority Regulation No. 12 of 2021).

Meanwhile, the conventional bank that offers digital services, on the other hand, has typically not been able to provide all of its services online. Additionally, conventional banks are often associated with a huge amount of branch locations (Djalil et al., 2020). According to (Mbama & Ezepue, 2018), there are two most important potential advantages that could come from banks' adoption of digital transformation are at least two. First, increasing ease to finance. Second, improve Indonesian banking's ability to compete. Digital banking will be able to improve public access to banking services and boost banking productivity, which will stimulate more economic activity.

Assessment of the soundness of a bank is an assessment of various aspects that affect the condition or performance of a bank through the assessment of aspects of capital, asset quality, management, profitability, liquidity, and sensitivity to market risk (Rosdiana, 2019). A Bank health assessment is carried out every year to see whether there is an increase or decrease in performance (Stella, 2020). For banks whose health continues to improve, an effort is needed to maintain health. However, banks that are not healthy, may have to receive direction or sanctions from Bank Indonesia as the supervisor and supervisor of banks. Bank Indonesia may suggest changes in management, mergers, consolidations, acquisitions, or even liquidate its existence.

Bank Jago is the sixth digital bank in Indonesia. The first digital bank is Jenius which is part of Bank BTPN. The second digital bank is Wokee which is from Bank Bukopin. Next is Digibank which is from Bank DB, TMRW from Bank UOB and BCA Digital. Bank Jago, which was previously present under the name PT Bank Artos Indonesia (Bank Artos) on December 14, 1992. Bank Artos listed its shares on the Indonesia Stock Exchange with the issuer code ARTO in 2016. In December 2019, Bank Artos was acquired by PT Metamorphosis Ekosistem Indonesia (MEI) and PT Wealth Track Technology Limited (WTT) with an acquisition value of Rp 243 billion, which since then has become a Controlling Shareholder (PSP) of 51%. On June 11 2020, the company name has officially changed to Bank Jago.

According to research conducted by (Choi et al., 2021), only 13 of the 250 digital banks in the world are profitable. As an example, only 1 out of 3 digital banks in South Korea, including Kakao Bank, are profitable, and only 4 out of 16 digital banks in China, include WeBank. Out of around 250 digital banks worldwide, 20% are in Asia Pacific countries. Only a few, around 5% have crossed the profitability line. In Indonesia, several studies on digital transformation have been carried out. Research conducted by (Shabri et al., 2022) analyzed the impact of digital transformation on the number of customers and banking assets. The results of the study show that digital transformation has an impact on the development of Islamic banks in terms of increasing the number of customers and the number of bank assets. Then research by (Putri et al., 2021) shows that the strategic importance of digitalization, as well as using digital technology provides various conveniences for customers. The results of research by (Kurniawan et al., 2021) show that digital transformation at Bank BJB has a significant influence on bank performance in terms of profitability, customer retention and ROI. Furthermore, research by (Suharbi & Margono, 2022) concluded that transforming into a digital bank can increase revenue for the bank by utilizing fee-based income from every transaction made by customers. The results of (Robbiyani et al., 2022) also show that the success of digital transformation affects bank performance. From a number of studies that have been conducted, the authors found a gap, including that there has been no research on the impact of the transformation from a conventional bank into a digital bank in terms of financial performance in the form of a bank's soundness ratio. Therefore the authors are interested in conducting research with the topic of analyzing the financial performance of digital banks by using Camel method approach at PT. Bank Jago Tbk. The objective of current research is to analysis financial soundness of PT Bank Jago Tbk in term of capital, assets quality, management, earnings, and liquidity.

## 2. RESEARCH METHODOLOGY

### 2.1 Digital Bank

Financial Authority Service (most well know as OJK) explained the definition related to digital banks by introducing OJK Regulation number 12/POJK.03/2021. The regulation states that digital banks are banking institutions that are included in banks with Indonesian legal entities (BHI). Based on this category, digital banks have the function of providing and carrying out banking business activities through electronic channels without physical offices other than the head office or using limited physical offices. Issuance of digital bank services can be carried out by new banks or old banks that have transformed into digital banks.

Banking services or business activities carried out through electronic channels are fully operational with the online method. In other words, all forms of customer activities that were previously carried out at branch offices, such as opening savings accounts, deposits, printing checking accounts, applying for loans, to customer service assistance can be carried out by digital banks without having to have face-to-face sessions between customers and customers.

Technological innovation is also explained as one of the conditions in the implementation of digital bank services. According to the OJK regulation, digital banks have a business strategy using innovative and safe technology to serve customer needs. A digital bank must also be capable of managing a sensible and long-lasting digital banking business strategy in order to be put into operation. Digital banking services not only need to offer convenience or comfort regarding their services, but also important in being able to bring a sense of security to customers. As a form of technological innovation, digital banks offer a variety of benefits that can be enjoyed by customers. These benefits includes 24 hour service, inclusive financial services, and affordable admin fees.

### 2.2 CAMEL Framework

Evaluation of a bank's health will have an impact on the bank's capability and client loyalty (Gultom & Siregar, 2022). A bank's stability can be evaluated using a variety of techniques. The CAMEL study is one method used to assess a bank's health (Lestari, 2020). The following are the evaluation components of the Camel analysis:

#### a. Capital

Capital is the first factor in assessing the soundness of a bank using the CAMEL model of financial ratios. This factor is related to the bank's ability to provide capital in accordance with obligations minimum capital of a bank. The assessment of the capital adequacy factor uses the capital adequacy ratio (CAR). The higher the ratio is, the bank is more stable and health (Siska et al., 2021). The CAR ratio can be calculated using the following formula:

$$CAR = \frac{\text{Bank's Capital}}{\text{Risk Weighted Assets}} \times 100\% \quad (1)$$

Criteria for assessing the CAR ratio are displayed in Table 1.

**Tabel 1.** CAR Evaluation Guidelines

Ratio	Description
CAR > 12%	very healthy
9% < CAR < 12%	healthy
8% < CAR < 9%	healthy enough
6% < CAR < 8%	less healthy
CAR < 6%	unhealthy

b. Assets Quality

The next factor of the financial ratios of the CAMEL model is asset quality. According to (Ashyari & Rokhim, 2020), asset quality is assessed through the quality of earning assets (most well-known as KAP) with the following formula:

$$KAP = \frac{\text{Non-Performing Earning Assets}}{\text{Total Earning Assets}} \times 100\% \tag{2}$$

The criteria for assessing the KAP ratio are displayed in Table 2.

**Tabel 2.** KAP Evaluation Guidelines

Ratio	Description
KAP ≤ 10.35%	healthy
10.35% < KAP ≤ 12.6%	healthy enough
12.6% < KAP ≤ 14.85%	less healthy
KAP > 14.85%	unhealthy

c. Management

The management factor is proxied by the net profit margin (NPM) with the consideration of this ratio showing how management manages sources as well as the use or allocation of funds efficiently (Shahnia et al., 2020). NPM ratio can be calculated by using the formula as follow:

$$NPM = \frac{\text{Net Profit}}{\text{Operating Revenue}} \times 100\% \tag{3}$$

A bank is considered strong if its NPM rate is greater than 5%.

d. Earnings

Earning is the bank's ability to generate profit (Ashyari & Rokhim, 2020). The assessment is based on the profitability of a bank, namely looking at a bank's ability to create profits. Assessment in this element is based on the ratio of profit to total assets (Return on Assets) with the formula:

$$ROA = \frac{\text{Earning Before Tax}}{\text{Total Assets}} \times 100\% \tag{4}$$

The guidelines for assessing the ROA ratio are depicted in Table 4.

**Tabel 3.** ROA Evaluation Guidelines

Ratio	Description
ROA > 1.5%	very healthy
1.25% < ROA < 1.5%	healthy
0.5% < ROA < 1.25%	healthy enough
0% < ROA < 0.5%	less healthy
ROA < 0%	unhealthy

e. Liquidity

The last factor in the CAMEL method is liquidity. Liquidity shows the level of a bank's ability to pay off its short-term obligations on time. Liquidity is assessed through the Loan to deposit Ratio (LDR) which can be calculated using the following formula:

$$LDR = \frac{\text{Total Loan to Third Party}}{\text{Total Fund from Third Party}} \times 100\% \tag{5}$$

The guidelines for assessing the LDR ratio are summarized in Table 5.

**Tabel 3.** LDR Evaluation Guidelines

Ratio	Description
LDR < 75%	very healthy
75% < LDR < 85%	healthy
85% < LDR < 100%	healthy enough
100% < LDR < 120%	less healthy
LDR > 120%	unhealthy

**2.3 Research Framework**

Referring to the conceptual description that has been discussed, the authors created a research framework regarding the financial performance of PT Bak Jago Tbk with the CAMEL method approach as follow:

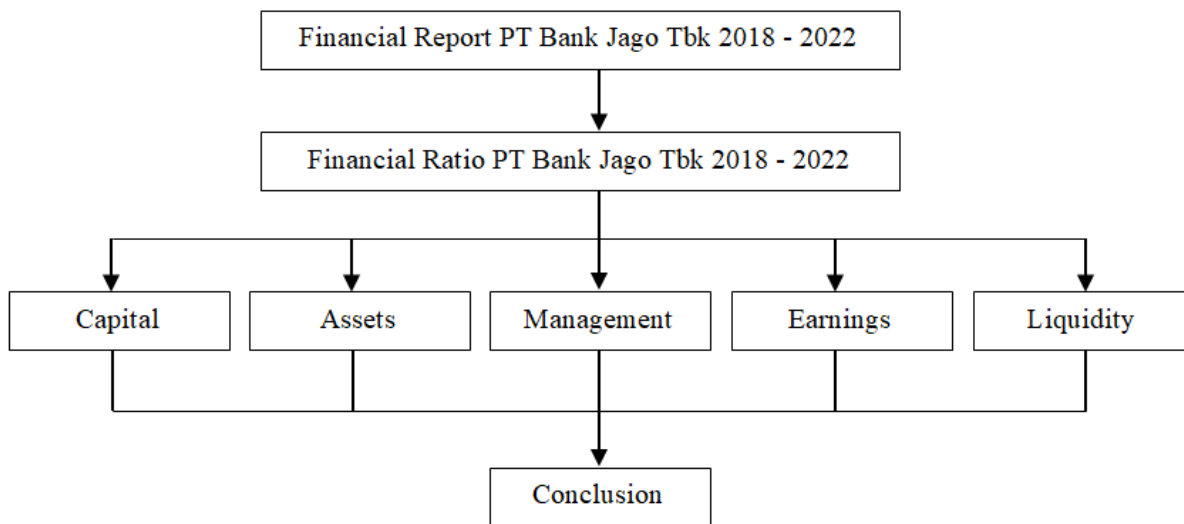


Figure 1. Research Framework

**2.4 Research Design, Population, Sampling Technique, and Source of Data**

This research uses non-statistical quantitative methods, namely research that emphasizes the use of numbers starting from collecting data, displaying the results, interpreting the data in the form of graphical figures without using statistical tests. Out of the 6 digital banks in Indonesia (Jenius, Wokee, Digibank, TMRW, Bank Jago, and BCA Digital), the research was conducted at Bank Jago using a purposive sample technique. The selection of research locations was based on the consideration that the financial statements of the other four digital banks were not separated from the reports of their parent banks, so comprehensive comparisons could not be made. The data utilized is secondary information on the financial performance of CAR, KAP, NIM, ROA, and LDR, presented as a yearly time series from 2018 to 2022. The information was taken from PT Bank Jago's yearly report, which is accessible at the web address <https://jago.com/en/transparency/investor-relations>.

**2.5 Data Analysis**

Data analysis was carried out by employing a horizontal analysis technique, which involved comparing the financial ratios in the CAMEL framework in the last 5 year of the study period with financial ratios in previous years.

**3. RESULT AND DISCUSSION**

A financial ratio under CAMEL framework of PT Bank Jago Tbk during the research period is summarized in Table 6.

Table 5. Financial Ratio PT Bank Jago Tbk 2018 - 2022

Financial Ratio	2018	2019	2020	2021	2022	Average
CAR (%)	18.62	148.28	91.38	169.92	82.75	102.19
KAP (%)	4.94	0.49	0.00	0.27	1.03	1.34
NPM (%)	-0.75	-3.73	-1.31	0.13	0.01	1.13
ROA (%)	-2.67	-15.89	-11.27	0.10	0.14	-5.59
LDR (%)	76.74	47.54	111.07	145.86	113.75	98.59

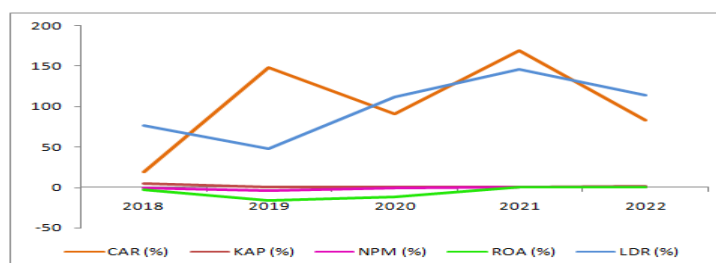


Figure 2. Financial Ratio PT Bank Jago Tbk 2018 – 2022

The Capital Adequacy Ratio (CAR) assesses a bank's capital position in relation to its risk-weighted assets, which include loans, funding provided on a Sharia basis, and equities held by third parties. A higher CAR enables the bank to ensure that it has adequate capital to safeguard clients' funds. To support company development and maintain investors, depositors, customers, and the confidence market, the Bank must maintain a solid capital position. The Bank takes into account a number of variables when managing capital, including the optimal yield on capital for shareholders, balancing greater earnings with gearing ratios, and the protection offered by a strong capital position.

Based on the information in Table 5 and Figure 2, it can be explained that during the study period, Bank Jago's capital was very healthy with a Capital Adequacy Ratio (CAR) of more than 12% every year with an average CAR of 102.92% per year. The highest CAR value is in 2021 which is 169.92, a significant increase compared to the previous year of 91.38. This is due to additional capital in the Rights Issue in March 2021. Bank Jago was able to raise capital in the March 2021 Rights Issue from about IDR 1 trillion to more than IDR 8 trillion, which attracted a lot of investor interest, giving the bank's balance sheet very adequate capital adequacy and giving it room to grow and compete in the future.

During the research period, as presented in Table 5 and Figure 2, Bank Jago's asset quality as measured by the ratio of non-performing earning assets to total earning assets was able to be maintained in a healthy condition. This can be seen in the value of KAP ratio below 10.53% for each year.

Assets owned by Bank Jago are of good quality, demonstrating the bank's proficiency in managing non-performing debts. (NPL). The company's NPL was reported at a level below the industry average for the banking sector throughout the research period. For instance, Bank Jago's lending disbursement increased from IDR 5.4 trillion in 2021 to IDR 9.4 trillion in 2022, a growth of roughly 76 percent. Meanwhile, Bank Jago's NPL remain low at 0.58% in 2021 and 1.8% in 2022. This figure is far below the national banking industry's average NPL, which was 3% in December 2021 and 2.44% in December 2022 (Bank Indonesia, 2022a).

How management manages sources as well as the use or allocation of funds efficiently was reflected in the bank's NPM. During the research period, Bank Jago's NPM is unhealthy as their NPM value was below 5%. However, since the last 2 years, Bank Jago has started to grow in a healthy and sustainable in terms of loans, third party funds (DPK), and the number of customers. In order to maintain healthy business growth, Bank Jago distributes sharia loans and financing in a prudent and measurable manner while taking into account existing expansion opportunities. Along with that, Bank Jago are also boosting net interest income or net interest margin (NIM) and low-cost funds or current accounts and savings accounts (CASA). For example, in 2022, Bank Jago's net interest income shot up 129.42% (yoy) to IDR 1.35 trillion compared to the previous year which amounted to IDR 589.74 billion. Meanwhile, the company's operating profit also increased to IDR 12.72 billion, from the previous IDR 10.5 billion. Low-cost funds (current account saving accounts/CASA) which contribute 68.56% to total DPK. It was recorded that the amount of low-cost funds collected by Bank Jago reached IDR 5.67 trillion, a sharp increase of 238.23% (yoy). Meanwhile, Bank Jago's net interest margin in 2022 was observed to increase to 10.45% from 7.42% in 2021.

Following six years of losses, Bank Jago was able to report profits for the first time in 2021, as shown in Table 5 and Figure 2. Bank Jago posted a pre-tax profit of IDR 20 billion at the end of December 2022, more than doubling or 122 percent increase from the previous year which amounted to IDR 9 billion. The business makes profits through the combination of loans and sharia funding with supportive third-party funds. (DPK). Bank Jago's assets increased by 38% from IDR 12.31 trillion at the end of December 2021 to IDR 16.97 trillion at the end of December 2022. ROA was reported at 0.10% and 0.014% in 2021 and 2022, respectively, reversing earlier downward trends of negative 11.27% in 2020 and negative 15.89 in 2019. The Bank's revenue (earnings) level remains poor when compared to the standards for determining bank health.

In terms of liquidity, the Loan to Deposit Ratio (LDR) is used to measure a Bank's ability to fulfill its main obligations. Bank Jago's liquidity was found to be extremely high during the research period, exceeding the national banking industry average of 81.63%, which suggested that the bank's liquidity was unhealthy. For instance, Bank Jago's LDR in 2022 is 113.75. When compared to 2021 of 145.86, this number appears to have improved. The high LDR of Bank Jago is in line with the increase in lending and Sharia financing after the Bank collaborated with various other digital ecosystems. In 2022, loans disbursed by Bank Jago increase significantly to reach 117.56% to IDR 7.23 trillion from the previous value of IDR 3.32 trillion in 2021. Bank Jago is also observed to distribute sharia financing of IDR 2.2 trillion during 2022, an increase of 7.56% (yoy) of IDR 2.05 trillion. In terms of raising funds, Bank Jago was able to collect third party funds (DPK) of IDR 8.27 trillion. This value increased to 125% (yoy) from the initial value of IDR 3.68 trillion. Even so, the high LDR in banking was triggered by the growth in banking third party funds (DPK) which was faster than credit growth.

In 2023, Bank Jago targets double digit credit growth. One of the strategies pursued is to focus on collaborating with partners in various types of financing products. One of the partners being targeted is to enlarge the financing cooperation with PT BFI Finance Tbk. So far, Bak Jago has worked together on credit with BFI Finance, but there is still a lot of room for improvement. The great potential for collaboration with BFI Finance lies in the joint financing scheme. With this scheme, the Bank is not subject to a maximum lending limit (LLL) so that it can distribute large amounts of credit. The collaboration plan between Bank Jago and BFI Finance is supported by growing car sales data. Data from the Association of Indonesian Automotive Industries (Gaikindo), shows new car sales will reach 1.05 million units in 2022, up 18.1 percent from the previous year which was recorded at 887 thousand. Gaikindo targets sales in 2023 to be the same as last year. Meanwhile data from the Indonesian Motorcycle Industry Association (AIS) revealed that sales of new

motorcycles during 2022 reached 5.22 million motorcycle units, up 3.2 percent yoy. AISI hopes that motorcycle sales this year will be in the range of 5.1 million to 5.4 million units.

## 4. CONCLUSION

Several conclusions can be drawn from the findings of a horizontal study conducted regarding the financial performance of PT Bank Jago Tbk within the CAMEL framework from the years 2018 to 2022. First, Bank Jago has very strong capital, as indicated by the CAR ratio. Second, according to the KAP ratio, Bank Jago's asset quality is in good condition. Third, Bank Jago's management, as indicated by the NPM ratio, is still at an unhealthy level, but over the past two years, the bank has begun to demonstrate development and sustainability going forward. Fourth, Bank Jago's profitability, as indicated by the ROA ratio, is still at an unhealthy level. Finally, Bank Jago's liquidity, reflected by the LDR ratio, also looks unhealthy. Going forward, in order to enhance financial performance, Bank Jago will implement a plan to boost lending by working with partners in a variety of financing goods.

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