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Indonesian Digital Bank Stock Valuation: Case Study of Bank Jago in 2022

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ABSTRACT: In 2019, in the midst of the early stage of the digital banking industry in Indonesia Bank Arto underwent a transition and rebranded as Bank Jago, a digital bank. As a result of Bank Jago's transition from a traditional commercial bank into a digital bank, the company's stock reached an all-time high share price of Rp 19,000 per share in January 2022. This was the highest share price the company had ever achieved. The public's excitement eventually subsided, however, and this resulted in a decline in the price of the company's shares. The price per share of Bank Jago was recorded at Rp 4,200 in November of 2022, which was 77% lower than the price recorded in the beginning of 2022.

This research will analyze the financial performance of Bank Jago through the utilization of financial ratio analysis, and to determine the intrinsic value of Bank Jago through the utilization of absolute valuation using the Dividend Discount Model as well as the competitiveness and environment of the Indonesian digital banking industry using PESTEL and Porter Five Forces. From the Porter Five Forces, Indonesian digital banking industry indicates a high level of competitiveness, whilst the industry itself in Indonesia through the PESTEL analysis indicates that it will continue to grow due to the level of support from the political and government factors. According to the analysis of financial ratios, Bank Jago's profitability has increased significantly over the past three years, as indicated by the rapid growth rate of the NIM, ROE, and ROA ratios since the time of its transformation. With a ratio of 145.86%, Bank Jago displayed a level of liquidity that was unsatisfactory. According to the projections using Dividend Discount Model, Bank Jago's intrinsic value is currently undervalued by -23%.

KEYWORDS: Bank Jago, Bank Stock, Digital Bank, Dividend Discount Model, Stock Valuation.

INTRODUCTION

As a result of the COVID-19 epidemic and the rapid advancements in information technology, businesses have had to make substantial adjustments to the way they conduct their economic and financial activities. The banking sector is also being affected by the shift from traditional to digital banking as a result of this new economic behavior.

In addition, it has been observed that the usage of digital banking by consumers in Indonesia has increased over the past few years, mostly due to the innovation of banks and fintech companies in emerging countries. Similar to the bulk of Southeast Asian countries, Indonesia's population is young and increasingly urbanized. Consequently, we are observing an improving economy and a high smartphone penetration rate, yet a large number of individuals still lack access to banking services. This makes the region ideal for the expansion of digital banking.

Indonesia is now the region with the fastest-growing market for digital wallets, with usage expected to climb by more than 300 percent between 2020 and 2025. This is due to the tremendous expansion of e-commerce in the region, which doubled between 2019 and 2020 in countries such as Thailand and Malaysia. Even yet, neither of those nations could compete with Indonesia, which is currently the leader in mobile e-commerce.

According to a report issued by McKinsey's new Personal Financial Services 2021 survey, almost 90 percent of the region's population uses digital banking, and the majority of them are willing to purchase additional banking services through its digital channels. The usage of digital banking has exploded in Indonesia in particular. Approximately 78% of Indonesian customers currently regularly utilize digital banking, up from 57% in 2017. As a result, Indonesians are spending less cash as they become increasingly dependent on digital banking.

One of the most powerful digital wallets in Indonesia, Gojek, purchased a stake in Bank Jago in 2017. Gojek and Tokopedia are the owners of the GoPay wallet, and their share in the bank gives them access to a wider range of financial services. The GoPay application

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allows users to pay for trips, meals, and other services. Currently, GoJek users can open bank accounts via Bank Jago, allowing them to save money, earn interest, manage their finances, and perhaps apply for a loan.

During the initial launch of Bank Jago, it received a warm welcome from the Indonesian public that was reflected by the surge on its stock price. It went from Rp. 190 per share in the beginning of August 2019 to Rp. 830 per share by the end of September 2019.

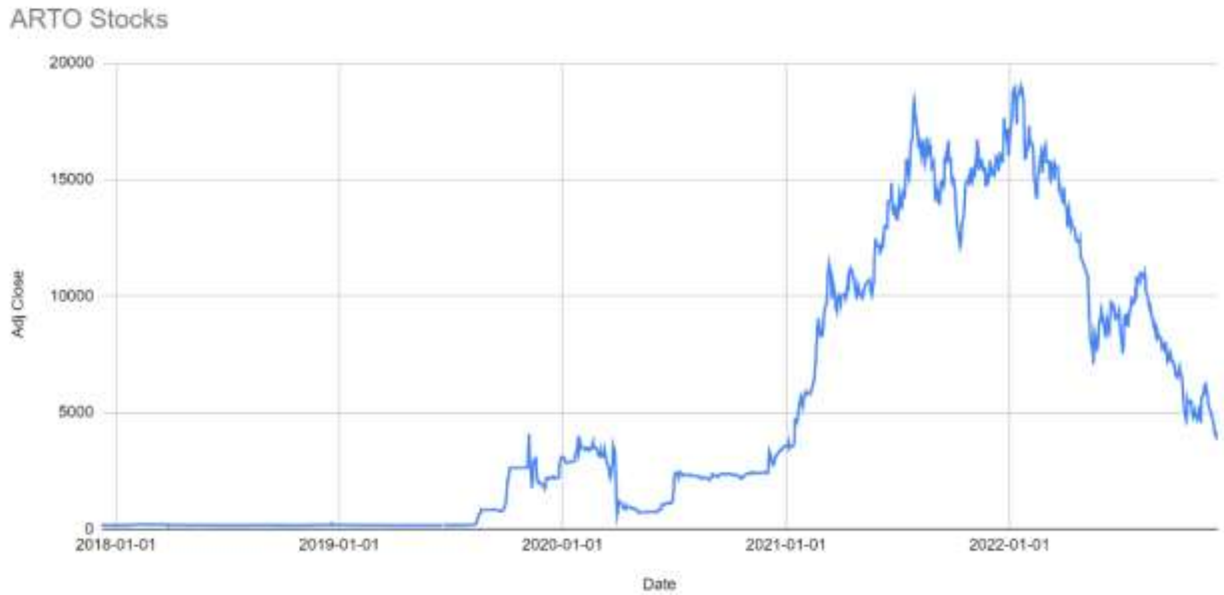

Figure I. 1 ARTO Historical Stocks

The stock then rocketed to Rp 3.590 per share on 26th of January 2020 and then break the all time high of a staggering Rp 19.000 per share two years later on 16th of January 2022. The initial increase in Bank Jago's stock was caused by acquisition from PT Metamorfosis Ekosistem Indonesian (MEI) dan Wealth Track Technologt ltd (WTT) back when it was still called Bank Artos, making both companies Bank Jago's controlling shareholders.

During the end of December 2020, Bank Artos underwent a transition with its new identity and change its name into Bank Jago. With this new identity Bank Jago issued new stocks on the Indonesian Stock Exchange and with the new shares, it managed to caught the attention of Gojek which through PT Dompet Karya Anak Bangsa (Gopay) purchased a 22.16% stake in Bank Jago, propelling Bank Jago stock prices to a record breaking number.

Shortly after the stock's reached its highest point in 2022, it went on a downward trajectory throughout 2021. By the end of November 2022 Bank Jago stocks are trading at a mere Rp 4.200 per shares and investors are left confused on what actions should they take regarding the stocks of Bank Jago.

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RESEARCH DESIGN

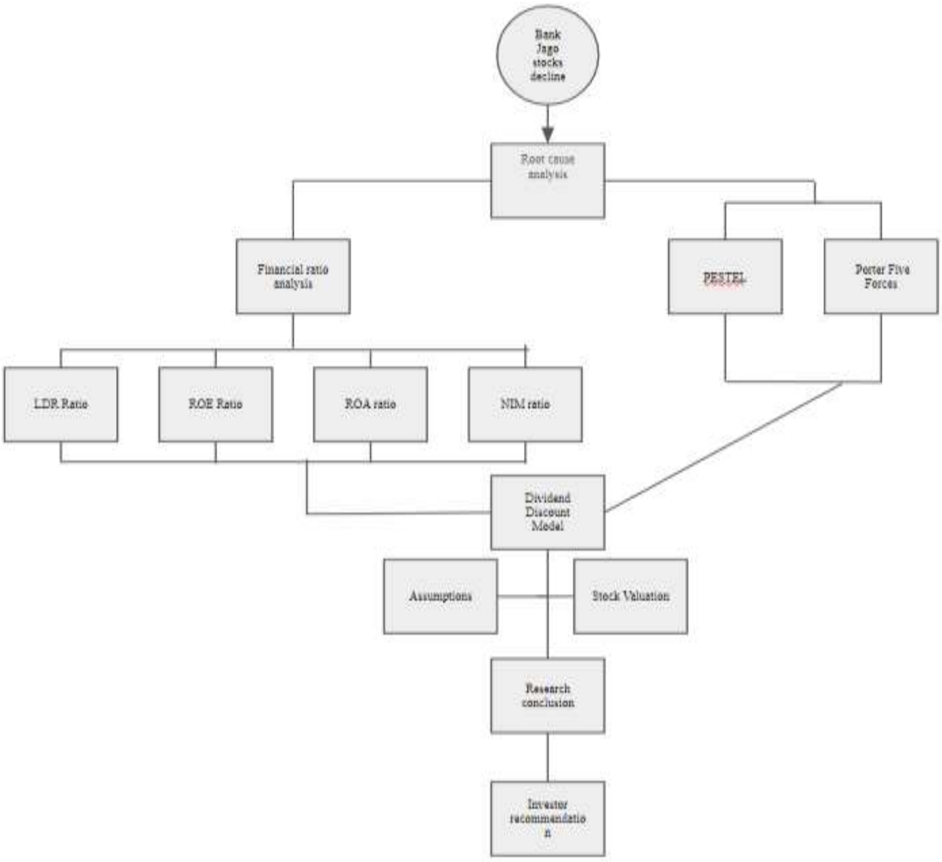

Figure II. 1 Research Design

This research will implement a research design shown in figure 2.1. Beginning with examination of the issue with Bank Jago stock price that are declining using root cause analysis to explore the root cause of the issue. The next step is to conduct internal analysis using financial ratio analysis which will determine the financial performance of Bank Jago as well as providing variables to later on be used on the stock valuation process.

After the internal analysis, the next step in this framework is to conduct PESTEL analysis and Porter Five Forces analysis to help this research develop a better understanding of the industry and the economic environment of the digital banking in Indonesia. Both external analysis will also provide a holistic view in order to provide a more comprehensive conclusion and recommendation for the investors.

The final step in this framework is to conduct a stock valuation using Dividend Discount Model with the two stage growth model. The assumptions made from internal and external analysis will be put to use for this model. The outcome of the stock valuation process is to find the intrinsic value of Bank Jago stock.

The intrinsic value, along with the result from the financial ration analysis, PESTEL analysis and Porter Five Forces will provide a conclusion to answer the research questions and give investors a recommendation on what actions to take during Bank Jago stocks decline.

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ANALYSIS

A. *Financial Ratio Analysis*

1) *Liquidity Ratio*

Mayes (2012) states that liquidity ratios characterize a company's capacity to satisfy its short-term obligations. The term "liquidity" refers to the rate at which an asset can be changed into cash without incurring a significant loss in value. For instance, accounts receivable may be rapidly changed to cash with only a minor discount, whereas structures could be quickly converted to cash only with a substantial discount. The liquidity ratio for the banking industry is the ratio of loans to deposits (LDR).

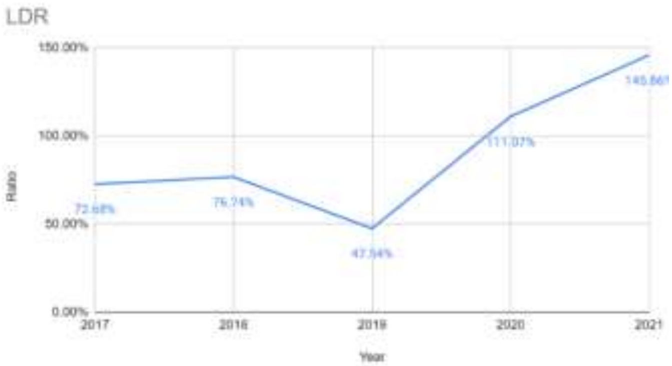

Figure III. 1 Research Design

Figure III.1 shows the LDR of Bank Jago for the past five years. The graph shows at the end of 2021 Bank Jago recorded a 145.86% LDR which indicates Bank Jago is in a state of high financial risk due to its loans exceeding the amount of deposits the bank has.

2) *Profitability Ratio*

Both shareholders and management are concerned with the company's profitability. Profitability ratios provide a metric for comparing a company's profit to prior periods or to competitors in the same industry. In actuality, profitability ratios are the simplest ratios to assess because high ratios are desirable.

The profitability ratios in the banking business are net interest margin (NIM), return on assets (ROA), return on equity (ROE), and operational expenses to operating income.

Net interest margin is a crucial metric for analyzing banks, as it reflects the bank's net profit on interest-earning assets, such as loans and investment securities. Since the interest received on such assets is a bank's principal source of revenue, this metric is a good indicator of its overall profitability, with greater margins generally indicating a more profitable bank. Numerous variables, such as the bank's interest rates and the origin of its assets, can have a substantial impact on net interest margin.

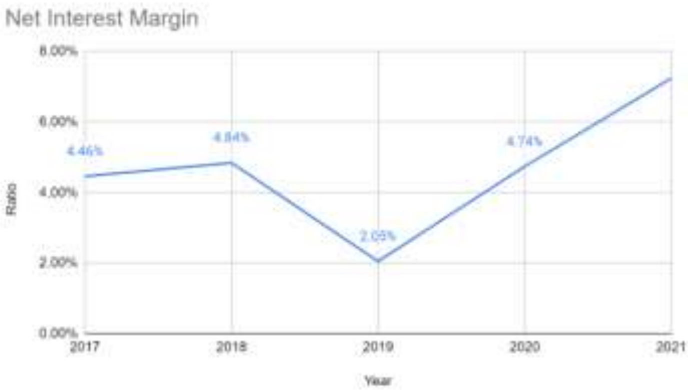

Figure III. 2 Net Interest Margin Ratio for Bank Jago in 2017 – 2021

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Figure III.2 shows the line chart of Bank Jago Net Interest Margin ratio from 2017 – 2021. Although Bank Jago experienced a dip in the NIM ratio in 2019, it was mainly caused by the transition from a commercial bank (Bank Arto) into a digital bank. As shown in the figure above, during the first year of Bank Jago it managed to raise the NIM ratio back to above 4% and then further increase the ratio to 7.24% in 2021. This shows that the number of interests earned by Bank Jago is growing thus indicating Bank Jago promising future in profitability.

The next ratio is ROA, ROA ratio is a key indicator of a bank's profitability and is frequently used by investors, analysts, and regulators to evaluate the institution's financial performance (Rowley & Soward, 2018). A high ROA ratio for a bank shows that it is making substantial profits relative to its assets, whereas a low ROA ratio may suggest that the bank is underperforming or using its assets inefficiently. It is crucial to remember that the proper ROA ratio for a bank might vary based on its operating environment and business style.

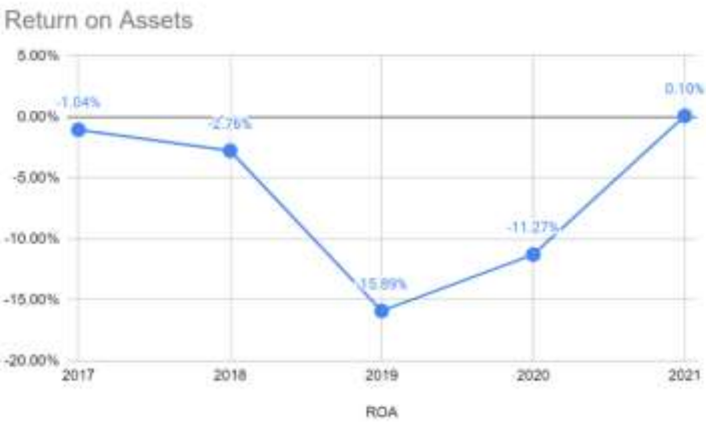

Figure III. 3 ROA Ratio for Bank Jago in 2017 – 2021

Figure III.3 shows the historical ROA for Bank Jago currently at 0.10% although the number is considered undesirable for a company to have such a low ROA, investors must take into consideration the fact that Bank Jago are a new bank. Bank Jago managed to increase ROA even though it only inherited a miniscule asset from Bank Arto. It managed to grow its asset that leads to a 15.79% growth in ROA in a span of 2 years.

The last ratio to analyse is ROE. Return on equity (ROE) ratio is an important indicator of a bank's performance and is frequently employed by investors, analysts, and regulators to assess the institution's financial health (Choudhry, 2012). A high ROE ratio for a bank implies that it is making substantial profits relative to the amount of equity invested in the firm, whereas a low ROE ratio may suggest that the bank is underperforming or inefficient in its use of equity.

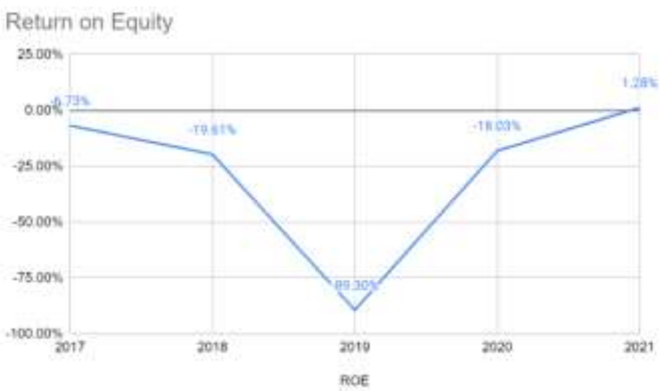

Figure IV. 4 Return on Equity Ratio for Bank Jago in 2017 – 2021

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Figure IV.4 shows ROE for Bank Jago in 2017 – 2021 period. In 2019 the acquisition of Bank Jago by PT Metamorfosis Ekonomi Indonesia and Wealth track technology Ltd contributed to the downfall of the bank's ROE of -89.3%. In 2020 when Bank Arto transformed into Bank Jago it recorded an increase in ROE as it grew in profitibality and continue to finally have a positive ROE of 1.28% in 2021.

B. Porter Five Forces Analysis

Five Forces Analysis is used to gain a greater understanding of the business ramifications of a company's strategy (Porter, 2008). In this instance, competitive strategy in the digital banking industry must be evaluated. The five forces of Porter's model will differ from other industrial structures. Before investing, it is extremely beneficial for investors to understand the industrial environment using Five Force Analysis. The digital banking sector will be evaluated using Porter's Five Forces in this instance.

1. Threat of New Entrants

The growing adoption of electronic wallets, prompted by the presence of numerous start-up businesses to the expanding reach of financial technology services in the formation of a new financial ecosystem is another reason why digital banks are becoming more and more of a pipe dream.

Furthermore, OJK in October 2021 released a blueprint for the transformation of digital banking in order to promote the digital transformation in the national banking industry. The blueprint, along with the enthusiastic welcome by the investors ignited businesses to acquire tiny banks to transform into a digital bank. Therefore the threat of new entrants is medium.

2. Rivalry of Competitors

The proliferation of digital banks has redrawn the competitive landscape of the digital banking market. In the current age of disruption, the creation of digital banks has become appealing. Numerous stakeholders are interested in the potential of a digital bank.

On the basis of the preceding description, it is possible to conclude that the strength of the intensity of company competition in the industry in this segment has a substantial value, as the competition in the digital banking business is very intense, as evidenced by the number of service providers and existing facilities, as well as the low switching costs of customers.

3. Threat of Substitutes

In the Indonesian digital banking business, the emergence of alternative payment methods and e-wallets is one of the most significant substitution threats. These alternative payment systems, such Go-Pay, Ovo, and Dana, have gained appeal among customers since they provide similar services to digital banking and are frequently more convenient and user-friendly. Similar to most digital banking platforms, these e-wallets enable users to make payments, transfer funds, and perform other financial activities using a mobile application.

Peer-to-peer (P2P) lending systems, which allow individuals to borrow and lend money directly to each other, circumventing traditional banks, also pose a threat of substitution. These platforms might provide as an alternative for consumers who lack access to conventional banking services or are seeking more flexible credit options.

In addition, the introduction of blockchain technology and cryptocurrencies may pose a threat of substitution to the digital banking business. Cryptocurrencies such as Bitcoin and Ethereum can be used to make payments, store value, and even gain access to financial services such as loans, insurance, and remittances, which might challenge established banking practices.

In general, the digital banking industry in Indonesia faces competition from alternative payment methods including e-wallets, peer-to-peer lending platforms, blockchain technology, and cryptocurrencies that may offer similar services to traditional digital banking. Banks will be required to adapt and develop in order to remain competitive in the market.

4. Bargaining Power of Suppliers

In the banking industry, capital is the most important resource for any bank, and there are four major capital sources (others, such as fees, contribute to a lesser extent).

1. Customer deposits.
2. Mortgage-backed securities.
3. Mortgages and loans.

4. Loans from alternative lending institutions

By leveraging these four key suppliers, the bank may ensure that it has the requisite resources to meet the borrowing needs of its customers while preserving sufficient capital to meet withdrawal expectations.

Given that Bank Indonesia projected a 4.5 – 5.5% economic growth for the year 2023 the bargaining power of suppliers is medium. The economic growth will allow more capitals to flow in to the bank, and economic growth will increase the loans carried out by the bank to customers to expand businesses and other needs.

5. Bargaining Power of Buyers

As a result of the proliferation of digital banks and the unequal distribution of high-quality internet networks, consumers are in a relatively advantageous negotiating position due to the abundance of alternative digital bank service providers and the low switching costs associated with switching services between digital banks.

On the basis of the above description, it can be stated that the danger posed by the bargaining power of buyers is strong due to the abundance of alternative service providers and cheap switching costs, which make it simple for customers to switch between digital bank service providers.

C. PESTEL Analysis

The macro-level analysis is conducted using the PESTEL framework, in which the researcher analyzes six (six) aspects associated with the company's operations: politics, economy, social culture, technology, environment, and law (Islam, 2017).

1. Political

From the political side, there is an ongoing support for the development of the financial technology industry in Indonesia by the government, OJK and BI. The support comes in a form of regulations that can spur the birth of innovations in the digital financial service technology and to provide protection for the customers,

Sri Mulyani Indrawati, Minister of Finance of the Republic of Indonesia, delivered the assurance of the government's pledge. The government will continue to offer assistance by way of accommodating rules. In addition to health and education, the government has invested in the construction of information and communication technology infrastructure, one of its top goals, in order to expedite internet network access throughout Indonesia. The State Budget for 2022 includes Rp25,4 trillion for the continuation of several ICT infrastructure development activities.

On the basis of the above explanation, it can be stated that political issues present prospects for Digital Bank's operations due to government policies that support the advancement of technical innovation in the banking sector.

2. Economic

The economic climate post-Covid has improved. This demonstrates that the influx has grown as a result of the reduction of global concern and the efforts taken to combat the COVID-19 outbreak in Indonesia. The position of Indonesia's foreign exchange reserves at the end of April 2020 was 127.9 billion US dollars, up from 121.0 billion US dollars at the end of March 2020. Due to the improvement in economic conditions post-covid-19, it may be stated that economic variables give prospects for Digital Bank's business, as described above.

Despite the obstacles posed by unlawful industry participants, the government recognizes Fintech's actual contribution to the success of numerous projects as a government partner. Included among the highly regarded partnership programs with Fintech are online retail SBN sales through Fintech distribution partners.

It was stated that Fintech media investors increased from 7.9% of ORI16 in 2019 to 11.1% of ORI17 in 2020.

3. Socio-Cultural

Socioculturally, digital banking has taken off in Indonesia, propelled by factors such as rising smartphone and internet adoption and government attempts to promote digital financial inclusion.

Numerous individuals in Indonesia are at ease utilizing digital platforms to perform transactions and maintain their bank accounts. Mobile banking and digital payments are especially popular in Indonesia, where a huge number of users use digital platforms to perform a variety of banking services, such as account management, money transfers, and bill payments.

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In Indonesia, cultural considerations also influence the adoption of digital banking. In the conventional banking system, connections between customers and bankers are often personal and founded on trust. The transition to digital banking, in which interactions are increasingly impersonal, may provide an obstacle for some customers. Banks and financial institutions in Indonesia have adapted to this cultural characteristic by providing customer care via phone and chat to facilitate personal connections with customers.

There are also worries regarding the privacy and security of digital banking in Indonesia. The government and banks have taken measures to address these concerns by enacting legislation to ensure the security of digital banking and the protection of client data. Additionally, banks have invested in security infrastructure to guarantee the safety and security of digital platforms.

While digital banking is rising in popularity in Indonesia, the government and financial institutions must address cultural and security concerns to ensure the continuing acceptance of digital banking in the country.

4. Technological

Increasing internet and smartphone usage, as well as government policies promoting digital financial inclusion, are driving the rapid expansion of the digital banking business in Indonesia. A substantial percentage of consumers in Indonesia use digital platforms to perform transactions and manage their finances.

Indonesian banks have made significant investments in digital technologies to enhance the customer experience and boost efficiency. Numerous banks have created mobile applications and internet platforms that enable users to perform an extensive array of banking activities, such as account management, money transfers, and bill payments. In order to enhance their operating skills, banks are increasingly investing in digital infrastructure, such as cloud computing and data analytics.

Indonesia's government has also actively promoted the usage of digital financial services. The Central Bank of Indonesia (BI) has enacted regulations to promote the use of digital payments and has set a goal for at least 50 percent of all transactions to be handled digitally by 2020. In addition, the government has undertaken a number of efforts to promote financial inclusion, including the National Non-Cash Movement (GNNT) and the National Payment Gateway (NPG).

In general, the digital banking business in Indonesia is well-developed and is anticipated to continue expanding over the next several years. Increasing internet and smartphone usage, government efforts, and bank investments in digital technology are driving the expansion of Indonesia's digital banking business.

5. Environmental factor

Indonesia's geographical condition is another environmental aspect that has an effect on the digital banking industry. The geographical condition of Indonesia, which comprises of numerous islands and is situated within the ring of fire, offers hurdles for network access providers in terms of infrastructure development, as it is highly expensive. As a result, not all regions have a reliable internet network, despite the fact that the internet network is essential to the continued existence of digital banks. Due to Indonesia's geographical characteristics, the high cost of developing network access service production equipment poses a danger, as not all regions have an internet network, which is the backbone of the digital banking industry.

6. Legal Factor

In recent years, the legal and regulatory environment for digital banks in Indonesia has evolved. The Central Bank of Indonesia (BI) has enacted a number of laws to encourage the growth of digital banking in the nation.

In 2018, the BI issued rules on the licensing and oversight of digital banks. These regulations set a framework for the operation of digital banks in the country, including capital, liquidity, and governance criteria. The regulations also establish a phased-in strategy for digital banks, with the goal of ensuring that these institutions adhere to the same requirements as conventional banks.

The government has also been pushing the use of digital financial services through projects such as the National Non-Cash Movement (GNNT) and the National Payment Gateway (NPG), both of which aim to promote the usage of digital payments in the country. The government has established a goal that by 2020, at least fifty percent of all transactions will be handled digitally.

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In addition, to promote the growth of digital banking, the government has launched other efforts to enhance the nation's digital infrastructure and expand access to digital services. This involves the development of e-KTP and the deployment of 4G and 5G networks.

From a legislative aspect, it is anticipated that the digital banking business in Indonesia will continue to expand in the future years. Increasing internet and smartphone usage, government efforts, and bank investments in digital technology all contribute to the expansion of the digital banking business. To safeguard the stability and security of the industry, digital banks must comply with legislation and maintain high levels of risk management, compliance, and consumer protection.

D. Stock Valuation

1) Assumptions for Dividend Discount Model

Table III.1 shows the assumptions used in calculating the value of Bank Jago stock using the Dividend Discount Model. Some of the assumptions are straight-forward and derived from the financial report of Bank Jago and regulation from Bank Indonesia whilst the dividends and payout ratio were calculated through benchmarking 4 banks; Bank Mandiri, BCA, BNI and BRI.

Table III.1 Assumptions for DDM Valuation

DDM Assumptions		
		Notes
Minimum Tier 1 Ratio	6%	BI Regulation
Starting Total Assets	12312422	FR Jago 2021
Total Asset Growth Stage 1	152,00%	5 years growth average
Total Asset Growth Stage 2	6%	
Initial RWA	4541466	FR Jago 2021
RWA% of Total Assets	37%	RWA / Total Asset
ROA	0,60%	FR Jago 2021
Cost of Equity	11,50%	
Dividends	3,69	Based on benchmark
Payout Ratio	57%	Based on benchmark

Table III. 2 Payout Ratio Bank Mandiri, BCA, BNI and BRI

Payout Ratio			
	2019	2020	2021
BBCA	47,90%	48,20%	56,60%
BBRI	60,00%	65%	85%
BBNI	25,00%	25%	25%
BMRI	45,00%	60%	60%
Average	44%	50%	57%

In 2021, the average payout ratio was 57%. After the average payout ratio was determined, the next step is to calculate how much Bank Jago would pay in dividends by multiplying the payout ratio with the EPS.

Table III. 3 EPS Bank Jago Assumption 2021

Bank Jago Assumption (2021)		
EPS		6,48
Payout Ratio		57%
Dividend	Rp	3,69

Table III.3 shows the amount of dividend per share that Bank Jago will pay if it was paying dividends to its shareholders. The dividends, along with the other assumptions then will be used to value the share price of Bank Jago using Dividend Discount Model.

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2) Valuation Process

The first step of the valuation using DDM model is to project the total assets and Risk Weighted Assets (RWA). The projection is using the two-stage model in which the first 5 years or the first stage it is assumed that the growth is 152% and in the second stage the growth rate is at 6%. Table IV.4 shows the initial total assets and the projection during both stages.

Table III. 4 The Initial Total Assets and The Projection During Both Stages

In Millions	Y1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Total Assets	Rp 12.312.422	Rp 31.027.303	Rp 78.188.805	Rp 197.035.788	Rp 496.530.185	Rp 1.251.256.067	Rp 1.326.331.431	Rp 1.405.911.316	Rp 1.490.265.995	Rp 1.579.681.955	Rp 1.674.462.872
RWA	Rp 4.541.466	Rp 11.444.494	Rp 28.840.126	Rp 72.677.117	Rp 183.146.334	Rp 461.528.762	Rp 489.220.488	Rp 518.573.717	Rp 549.688.140	Rp 582.669.429	Rp 617.629.594

The second step in this valuation model is to project the net income based on the growth rate. The same growth rate assumptions is used in this projection. The net income projection is a crucial step as it allows this research to calculate and projects the dividends for Bank Jago.

Table III. 1 Net Income Projection

In Millions	Y1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Net Income	Rp 86.024	Rp 186.164	Rp 469.133	Rp 1.182.215	Rp 2.979.181	Rp 7.507.536	Rp 7.957.989	Rp 8.435.468	Rp 8.941.596	Rp 9.478.092	Rp 10.046.777

The third step is to calculate the initial dividends for Bank Jago using the payout ratio of 57% that have been determined based on the benchmark of the four major banks in Indonesia. The result in table III.5 is shown in total dividends.

Table IV. 2 Dividends Projection

In Millions	Y1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Total Dividends	Rp 49.034	Rp 106.113	Rp 267.406	Rp 673.862	Rp 1.698.133	Rp 4.279.296	Rp 4.536.053	Rp 4.808.217	Rp 5.096.710	Rp 5.402.512	Rp 5.726.663
%Growth		116,41%	152,00%	152,00%	152,00%	152,00%	6,00%	6,00%	6,00%	6,00%	6,00%
Payout Ratio	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%	57%

The fourth step in this valuation process is to project the shareholders equity. Shareholders' equity represents the leftover interest in a company's assets after obligations are subtracted. In this valuation process the shareholders equity must not fall below the minimum tier 1 ratio. Table III.6 shows the amount of shareholders equity throughout the projection is above the 6% minimum tier 1 ratio.

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Table IV. 3 Shareholders Equity The Projection

In Millions	Y1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Beginning Shareholders equity	Rp7.666.106	Rp7.703.096	Rp7.783.147	Rp7.984.874	Rp8.493.226	Rp9.774.274	Rp13.002.515	Rp16.424.450	Rp20.051.701	Rp23.896.587	Rp27.972.167
Plus: Net Income	Rp86.024,00	Rp186.163,82	Rp469.132,83	Rp1.182.214,73	Rp2.979.181,11	Rp7.507.536,40	Rp7.957.988,58	Rp8.435.467,90	Rp8.941.595,97	Rp9.478.091,73	Rp10.046.777,23
Less: Dividends	Rp49.033,68	Rp106.113,38	Rp267.405,71	Rp673.862,39	Rp1.698.133,23	Rp4.279.295,75	Rp4.536.053,49	Rp4.808.216,70	Rp5.096.709,70	Rp5.402.512,29	Rp5.726.663,02
Ending Share Holders Equity	Rp7.703.096	Rp7.783.147	Rp7.984.874	Rp8.493.226	Rp9.774.274	Rp13.002.515	Rp16.424.450	Rp20.051.701	Rp23.896.587	Rp27.972.167	Rp32.292.281

After the projection of the shareholders equity and assuring that it complies to the minimum tier 1 ratio, the next step is to discount and sum up the dividends. To calculate the present value of the dividends is by applying the formula of dividends amount divided by the discount rate which in this case is the 11,5% cost of equity.

Table III. 4 The Discount Rate Which in This Case Is The 11,5% Cost of Equity

Discount Period	0	1	2	3	4	5	6	7	8	9	10
PV of Dividends		95168,95	215090,36	486123,50	1098682,71	2483121,47	2360635,66	2244191,75	2133491,71	2028252,21	1928203,89

The next step is to calculate the terminal value. In order to calculate the terminal value, the terminal price to book value must be calculated first with a formula of (ROE – Net Income Growth) / (Cost of Equity / Net Income Growth) which resulted in a terminal P/BV multiple of 5,4. After that, the terminal value can be calculated by multiplying the shareholders equity in the projection with terminal P/BV multiple. Table III.9 shows the result with a terminal value of Rp 175.652.690,5.

Table III. 5 Terminal Value

Terminal Value Calculation	
Terminal P/BV Multiple	5,4
Terminal Value	175652690,5

After the terminal value is calculated, the next step in this valuation is to find the NPV by adding the PV of terminal value and PV of dividends which resulted in an NPV of 74.216.341.

Table III. 6 Net Present Value

PV of Terminal Value	59143379
PV of Dividends	15072962
Present Value	74216341

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The final step is to find the intrinsic value of Bank Jago by dividing the NPV with the amount of diluted shares outstanding that Bank Jago have. Table III.10 shows the implied share price using DDM stock valuation is at Rp 5378 per share.

Table III. 7 Intrinsic Value

Diluted Shares Outstanding	13800
Implied Share Price	5378,0
Current Share Price	4120
Difference	-23%
Stock Analysis	Undervalued

The current share price of Bank Jago by the time of this writing is at Rp 4120 which is 23% less than the intrinsic value of Bank Jago share price according to the valuation process. That means the current share price of Bank Jago is undervalued.

CONCLUSION

Based on the internal analysis results conducted using financial ratio analysis as a method to see the financial performance of Bank Jago, there are several conclusions that can be made:

1. Bank Jago posses a high risk due to the high level of Loan to Deposits ratio with a ratio of 145.86%. This would be a concern for investors as the high level of LDR shows that Bank Jago are dependent on borrowing and have a weaker liquidity position.
2. In terms of profitability Bank Jago shows a promising future as it managed to grow. This was reflected by its NIM ratio that grew by 5.19% from the initial launch. ROA and ROE also grew by 15.79% and 99.01% respectively.
3. Overall the financial performance of Bank Jago indicates that the digital bank is on the right track to capture the growing market share of digital bank in Indonesia.

Based on the external analysis using PESTEL and Porter Five Forces there are several conclusions to be made:

1. The digital banking industry is a newly shaped industry that still has a lot to offer with its ever-growing market and supported by the policies made to further develop the industry.
2. The digital banking industry is highly competitive but, given that Bank Jago is one of the pioneers in digital banking in Indonesia it has the upper hand in competing with other competitions.

Based on the valuation using DDM for the share price of Bank Jago it can be concluded that as of 2022 the share price of Bank Jago is undervalued. The current share price by the time of this research is conducted is Rp 4120 per share and the intrinsic value of the share price for Bank Jago is Rp 5378. There is a -23% difference between the current value and the intrinsic value of Bank Jago share price.

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