

Analyzing the Financial Performance and Stock Valuation Of Digital Bank on the Indonesian Stock Exchange (Case Study: ALLO Bank Indonesia)

Hemadanda Muhammad¹, Subiakto Soekarno²

¹ *School of Business Management, Institute Teknologi Bandung, Indonesia*

² *School of Business Management, Institute Teknologi Bandung, Indonesia*

**Corresponding Author: Hemadanda Muhammad¹*

ABSTRACT : Stocks are one of the most popular investment instruments among Indonesians. One of the companies that has good performance is the banking sector. Allo Bank is one of the banks with a new business model that is digital banking. Allo Bank shares continue to decline even though Allo Bank's profits have continued to increase for several years. Investors are looking for stocks that miss valuation. Allo Bank recorded very good performance based on the risk-based banking method. However, Allo Bank shares are still considered overvalued by the market when viewed from their intrinsic value which has been analyzed using the dividend discounted model (DDM) method.

KEYWORDS – Digital Bank Indonesia, Allo Bank Indonesia, Bank Performance, Risk Based Banking Method, Dividend Discounted Model Valuation

I. INTRODUCTION

Shares are an investment that is very popular among many investors due to their many benefits over other financial investments. One of the main advantages of owning shares is that shareholders receive partial ownership of the company, including the right to vote at general meetings of shareholders. Shareholders also have rights to the company's earnings and assets because they are co-owners of the company. Moreover, stocks are also popular as they offer attractive returns through capital gains and dividends. The financial sector, especially the banking sub-sector, is very attractive to stock investors. Another factor supporting stock as an investment vehicle in Indonesia is the very attractive of the Indonesian capital market. This can be seen in the value of capital market capitalization in Indonesia, which continues to grow, for example, in 2022 it will increase by 15%, and in 2023 by 22.9%. In addition, the Composite Share Price Index (IHSG) continues to strengthen and grow, with it expected to grow by 6.16% in 2023 and 4.09% in 2022[1].

One of the most sought-after industries with high company performance in Indonesia is the banking sector. The largest profitable companies on the Indonesia Stock Exchange (IDX) come from this sector. In 2023, the top three in terms of profit will be Bank Rakyat Indonesia (BRI), Bank Mandiri (BMRI) and Bank Central Asia (BBCA). These three banks have also consistently been Indonesia's largest profitable banks over the past three years [2]. Credit growth in Indonesia has also reached double digits over the past two years. Lending growth in 2022 will reach 11.35%, and in 2023 – 10.38%. This growth in lending may indicate an increase in the efficiency of the banking sector, since most of the banks' income comes from lending [3], [4].

Banks in Indonesia are also showing growth in their business. This can be seen in the existence of new business models and new banking products designed to adapt to Indonesia's social conditions. Bank in Indonesia began to change their model business with apply massive technology development and adaption in their business model. This adaptation can be seen in the growth of digital banking in Indonesia between 2018 and 2023. Digital banking transaction growth in Indonesia has increased by 158% over the past 5 years between April 2018 and April 2023 [5]. Allo Bank is one of the digital banks in Indonesia that has successfully recorded profits in the last three years and has become the digital bank with the highest profit for the last three years in Indonesia. Allo Bank started operating as a fully digital bank in 2021. This was well received by stock investors in the Indonesian capital market as seen from the stock price of Allo Bank which began to jump significantly in 2021. However, this increase in Allo Bank shares did not continue in the following year because in 2022 Allo Bank shares experienced a significant decline of 55% in 2022. This decline in share price also continued in 2023 with a decrease of 37%.

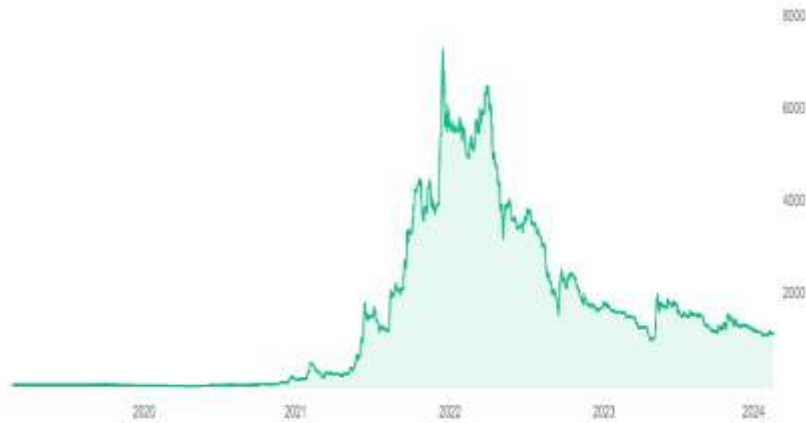


Figure 1: Allo Bank's Stock Performance in 2020 - 2024
 Source: (Yahoo Finance,2024)

This phenomenon shows an anomaly in the performance of Allo Bank shares because Allo Bank has good financial performance as seen from the increase in profits over three years and being a digital bank that has the highest profit over three years. Allo Bank's profit in 2021 amounted to Rp. 192 billion, in 2022 Allo Bank's profit amounted to Rp. 270 billion and in 2023 Allo Bank's profit amounted to Rp. 444 billion. Good financial performance has an influence on stock prices because investors look for companies that can provide maximum return [6], [7]. Even though the IDX Finance Index and IDX Banking Index shows an increase in performance, Allo Bank shares, which are also included in banking stocks, are not in line with the banking Index.



Figure 2: IDX Finance Index's Performance



Figure 3: IDX Banking Index's Performance
 Source: (Investing.com, 2024)

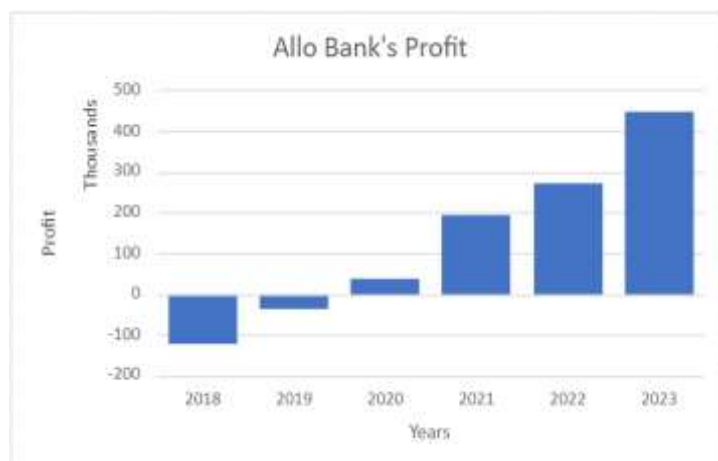


Figure 4: Allo Bank's Business Performance in 2023

Source: (Author, 2024)

A company's shares reflect the value of the company. High stock value or price reflects high or good company performance and vice versa because company shares contain company information in accordance with the market hypothesis theory [8], [9]. Allo Bank's shares, which continue to fall, are inversely proportional to the performance of Allo Bank's business, which has increased profits for three years, causing an anomaly in the phenomenon of Allo Bank's shares so that an analysis is needed. The analysis needed to help investors in determining investment decisions regarding Allo Bank shares. Analysis of financial performance, bank health and intrinsic value analysis of Allo Bank can help investors in making decisions related to Allo Bank shares because investors are looking for stocks that are misvalued in the capital market. In addition, the analysis can be used as a consideration for Allo Bank management for decision making that can improve Allo Bank performance and increase shareholder wealth through shares owned by shareholders.

II. LITERATURE REVIEW

2.1 Risk Based Banking Rating (RBBR)

Risk Based Banking Rating is a bank health measurement method created and required by the financial services authority (OJK) to be used by all banks in Indonesia which has been authorized in POJK No.4/POJK.03/2016. This Risk Based Banking Rating method is based on the principle of bank prudence in carrying out its operations and this principle is very compatible with current bank operations [10]. This risk-based bank rating method replaces the previous bank health assessment method, CAMELS. This Risk Based Banking Rating method has four components or aspects used to measure the health of a bank. Each aspect of this bank health measurement has its own proxy measuring instrument. The four aspects that will be used to evaluate the health of the bank are risk profile, corporate governance, earnings and capital.

2.1.1 Risk

Risk profile is an assessment of inherent risk and the quality of risk management implementation in the bank's operations, as stipulated in POJK No.4/POJK.03/2016. In this study, the risk profile is assessed using two approaches, namely credit risk and liquidity risk. Both risks were chosen by the researcher because they have a significant impact on the health and performance of the bank. Credit risk is the risk that arises from the inability or unwillingness of debtors or other parties to meet their obligations to the bank. It includes the inability to repay loans, complete financial transactions, and meet other obligations to the bank [11]–[13]. To measure credit risk, you can use a financial ratio measurement tool, namely the non-performing loan (NPL) ratio. Non-performing loan ratio is a ratio that measures the amount of non-performing, doubtful and or substandard loans to total loans [12], [14]. In Indonesia regulation, NPL under 2% indicate that bank is health and good performance. Liquidity risk is the risk that arises when a bank is unable to meet due claims and obligations, despite having high cash funding and liquid assets, without causing a negative impact on financial activities or losses (POJK No. 18/POJK.03/2016). Liquidity risk can be measured by various indicators, one of which is the loan to deposit ratio (LDR). LDR is used to measure the liquidity of banking assets by comparing total credit to deposits collected by the bank and redistributing the funds in the form of credit to generate income [15]–[17]. The higher the bank's LDR will increase the bank's liquidity risk because the amount of credit will exceed the bank's third party funds but if the bank has a very low LDR, it causes the bank to experience losses because the bank is unable to distribute its third party funds into loans that benefit the bank [18], [19]. According to Indonesia regulations, a healthy LDR ratio is 50% to 75% and an unhealthy LDR ratio is above 100%.

2.1.2 Earning

Earning is the ability of the company to earn profits from the revenues earned during the operating activities of the company and reduced by all the costs incurred by the company in a given period [20]. To earn profits, companies can use all the resources like asset and equity. The ability of the business to turn a profit and control how efficiently it uses resources or carries out commercial activities is another way to define earning. Earnings can also be a gauge of a company's success and a method of assessing how well a corporation is performing [21]. A well-run company is often judged by its ability to increase its profits. Earning in banks can be proxied by various measuring instruments but in this study will only use Return on Asset and Net interest Margin as a proxy for earning measurement.

Return on assets is a proxy to measure the earning or profitability of the company by comparing the profit generated by the company to the total assets owned by the company. Return on assets can be used as a benchmark in measuring the efficiency of the company in using its assets to generate profit or income [22]–[24]. A high ROA indicates that the bank generates high profits and the higher the bank's ROA indicates that the bank is healthier [25]–[27].

Net interest margin is the difference between interest income from loans and interest expense on bank deposit products [28]. Net interest margin is one of the important and special indicators for banks to measure their stability, profitability and health [28], [29]. The higher the NIM, the higher the bank's profitability [30]. According to Indonesian regulatory regulations, banks categorized as very healthy have NIM above 5% and unhealthy banks have NIM below 0%. The following is the net interest margin formula used in this study.

2.1.3 Capital

Since capital is one of the company's sources of funding for carrying out its operations, capital is the most crucial component of any business, especially one in the banking industry. Banks must prepare and maintain capital supplies since capital is used not only for operations but also for risk prevention and absorption [31]. Bank capital measurement can use a measuring tool, namely the Capital Adequacy Ratio (CAR). The capital adequacy ratio (CAR) measures the ratio of a bank's capital to its risk-weighted assets [32]. In Indonesia, banking capital is rigorously overseen by banking regulators and financial institutions due to the significant impact banks have on the national economy. Banks must carefully calculate their capital and report it diligently to stakeholders. Enhancing the CAR is essential for safeguarding depositors' interests, boosting the competitiveness of financial institutions, and ensuring the stability of financial markets.

Table 1: Risk Based Banking Rating Measurement

Aspect	Measuring tool	Formula
Risk	Non-Performing Loan (NPL) Ratio	$NPL = \frac{\text{Non Performing Loan}}{\text{Total Loan}} \times 100\% \dots \dots \dots (1)$
	Loan to Deposit Ratio (LDR)	$LDR = \frac{\text{Total Loan}}{\text{Total Third Fund Party}} \times 100\% \dots \dots \dots (2)$
Earning	Return on Asset (ROA)	$ROA = \frac{\text{Net Profit}}{\text{Total Asset}} \times 100\% \dots \dots \dots (3)$
	Net Interest Margin (NIM)	$NIM = \frac{\text{Net Interest Income}}{\text{Average Earning Assets}} \times 100\% \dots \dots \dots (4)$
Capital	Capital Adequacy Ratio (CAR)	$CAR = \frac{\text{Capital}}{\text{Risk Weighted Assets (ATMR)}} \times 100\% \dots \dots \dots (5)$

2.2 Stock Valuation

Stock valuation is the process of applying core financial ideas to ascertain a stock's intrinsic value, or genuine worth [33]–[35]. The term "intrinsic value" describes a company's actual value, as determined by fundamental analysis, independent of its market value. When deciding whether the shares of a company is overvalued or undervalued, this value is taken into consideration. The Dividend Discounted Model (DDM) is a method of stock valuation that operates under the premise that the present value of all cash flows paid to shareholders in the form of potential future dividends on those shares represents the intrinsic value of those shares [36], [37]. Since dividends are the only cash flow that a firm either pays to its shareholders or that they get from them, they are utilized as a benchmark for determining the equity value of a company [36], [37]. The dividend discounted model (DDM) will only be influenced by the cost of equity and the expected dividend that the company will pay in determining the intrinsic value of shares. This study will use several assumptions to be able to project the intrinsic value of allo bank shares. Determining the intrinsic value of shares using the

dividend discounted model method is basically discounting the entire or total expected dividend that will be received by investors [36]. Here is the basic formula of the Dividend Discounted Model (DDM):

$$Value\ per\ share = \sum_{t=1}^{\infty} \frac{DPS_t}{(1 + ke)^t} \dots\dots\dots(6)$$

An additional valuation method to strengthen the analysis in this study is the relative valuation method using Price to earning (PER) and Price to book value ratio (PBV). The following are the formulas of Price to earning (PER) and Price to Book Value (PBV):

$$Price\ Earning\ Ratio\ (PER) = \frac{Market\ price\ per\ share\ of\ common\ stock}{Earning\ per\ share\ of\ common\ stock} \dots\dots\dots(7)$$

$$Price\ to\ Book\ Value\ (PBV)\ Ratio = \frac{Market\ price\ per\ share\ of\ common\ stock}{Book\ value\ per\ share\ of\ common\ stock} \dots\dots\dots(8)$$

III. RESEARCH METHOD

This research will use panel data analysis by using time series data for five years from 2019 to 2023 and using data from several bank companies, namely digital banks and banks incorporated in KBMI 2 in accordance with Indonesian regulatory regulations. The data used in this study are secondary data taken from company reports that have been published through the company's official website and the Indonesian stock exchange website. The analysis used in this research is financial ratio analysis using a framework or regulatory regulation, namely Risk Based Bank Rating (RBBR). This research will also use valuation analysis using the dividend discounted model (DDM), price to earning ratio and price to book value ratio. This research stems from the phenomena found by researchers and will draw conclusions from the results of the analysis that has been carried out on the phenomenon to be studied and then suggestions and recommendations will be given to several stakeholders to be able to help make decisions related to this research. Conceptual framework will be built to facilitate understanding related to this research.

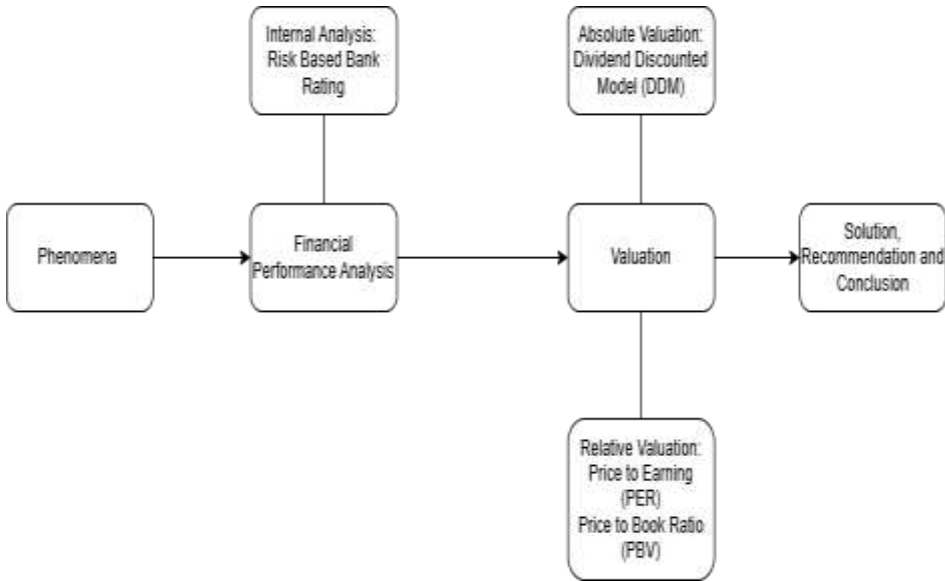


Figure 5: Conceptual Framework

Several actions will be taken as part of the research design in order to analyze and make results. To make the research design in this study easier to read and comprehend, the research design will be represented as an image of a flow diagram. There will be eight research phases in this project, which will be conducted constantly and serially. The problem identification and background, literature review, conceptual framework development, data collecting and gathering, data analysis, conclusion, and suggestion are the eight stages of research.

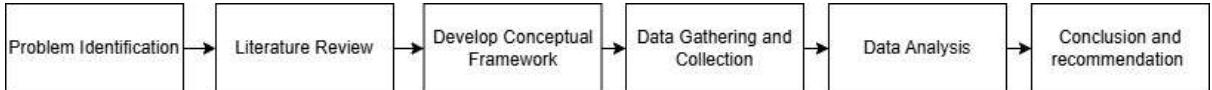


Figure 6: Research Design

IV. RESULTS AND DISCUSSION

4.1 Financial and Bank Health Analysis

4.1.1 Risk

Analysis of the first aspect of bank performance and health is risk. The measuring instruments used are the Non-performing loan (NPL) ratio and Loan to deposit (LDR) ratio. The NPL ratio will represent credit risk and the LDR ratio will represent liquidity risk. In the graph below, it can be seen that Allo Bank has a very small NPL risk level in 2023 of 0.08% and continues to experience a downward trend in the NPL ratio over the last five years. When compared with fellow digital banks listed on the Indonesian stock exchange, Allo Bank has good non-performing loan (NPL) performance. One of Allo Bank's competitors in the digital banking industry which has the NPL performance closest to Allo Bank is Bank Jago (ARTO) which will also experience a decrease in NPL in 2023 by 0.84% and Bank Capital Indonesia (BACA) by 0.07%. These three banks managed to record an NPL of less than 2%, which according to Indonesian regulatory regulations is categorized as a very healthy and well-performing bank. Allo Bank (BBHI) also has better performance than other conventional banks. This can be seen from conventional banks in the KBMI 2 category having higher NPL values than allo banks (BBI) in the last three years. The average NPL value of KBMI 2 bank is 1.5%, while Allo Bank managed to record an NPL value of 0.08% in 2023. This indicates that Allo Bank (BBHI) has very good asset or credit quality compared to other digital banks and existing banks. in the KBMI 2 bank category. Allo Bank (BBHI) also has high potential to avoid credit risks that can harm the bank and negatively affect bank performance.

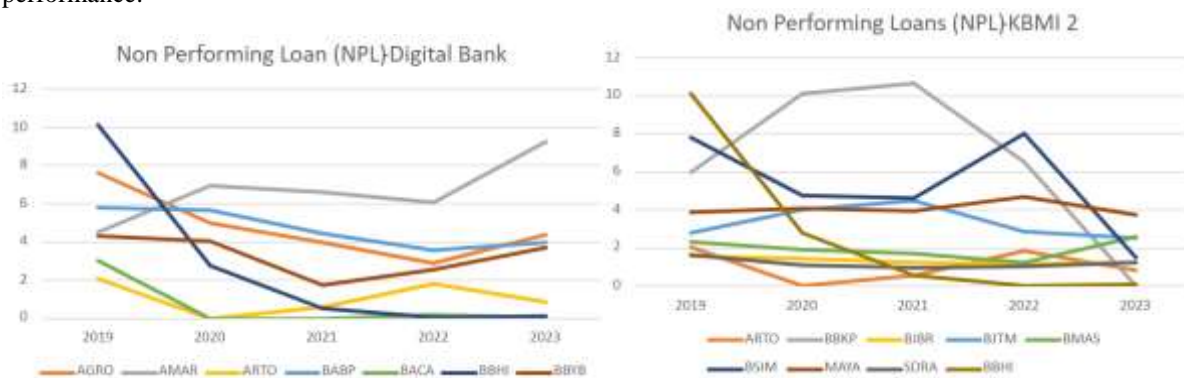


Figure 7: Graphic of NPL Ratio

The second risk measurement is liquidity risk using the financial ratio Loan to deposit ratio (LDR). Allo Bank (BBHI) recorded a very high liquidity risk in 2023 of 150% and over the past five years has experienced a quite significant trend of increasing LDR. Allo Bank (BBHI) is also the bank with the second highest LDR ratio among other digital banks since 2022 and is also the bank with the highest LDR ratio among banks in the KBMI 2 category. This high LDR shows that Allo Bank distributes more credit than third party funds that they collect. LDR above 100% indicates an unhealthy bank because the bank will be vulnerable and have liquidity problems according to Indonesian banking regulator regulations. Allo Bank (BBHI) has high liquidity risk because Allo Bank (BBHI) has a target and focus on expanding credit in 2022 and 2023. This high liquidity ratio must be reduced to avoid Allo Bank's liquidity problems.

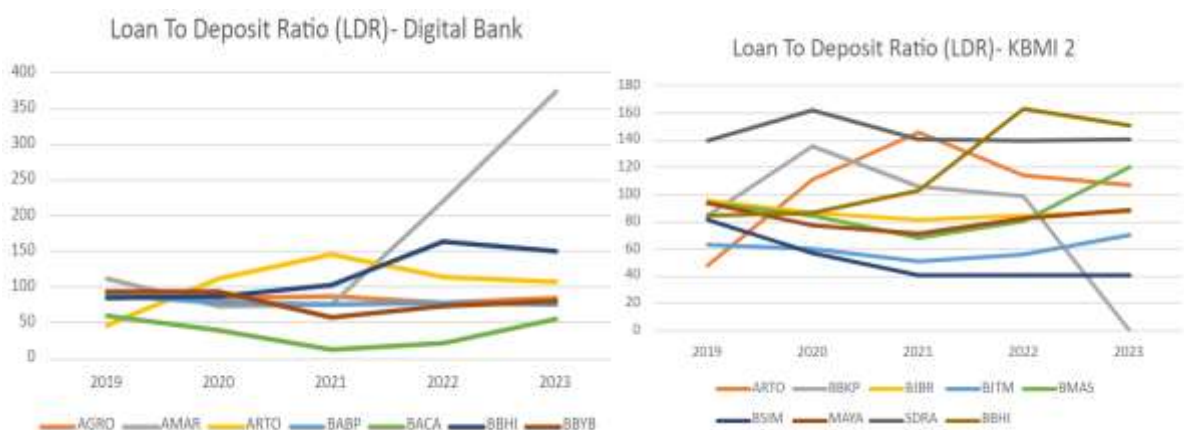


Figure 8: Graphic of Loan to Deposit Ratio (LDR)

4.1.2 Earning

The second aspect of analysis is earnings. Earnings will be measured using two financial ratios, namely Return on assets (ROA) and Net interest margin (NIM). Return on assets (ROA) is used to measure the level of bank effectiveness in using its assets to earn profits, while the net interest margin ratio is used to measure the bank's performance in obtaining margin interest which becomes the bank's income. Allo Bank (BBHI) recorded a very good ROA ratio in the last five years and has experienced an upward trend over the last five years. In 2023 Allo Bank will record an ROA of 4.76%. Allo Bank (BBHI) is also the bank with the highest ROA among digital banks and other KBMI 2 banks. This indicates that Allo Bank has good performance in managing its assets to earn profits. Allo Bank which has an ROA value above 1% indicates that the bank in the category is very healthy and has very good performance in accordance with regulations from the Indonesian financial services authority (OJK). A high ROA ratio value also indicates that Allo Bank (BBHI) can make high profits and profits can be used as an indicator of a company having good performance. A high ROA ratio can also be a good signal for investors and customers because the bank can obtain high profits by utilizing its assets well. A high ROA also indicates that the bank can reduce and streamline its costs to obtain high profits. Allo Bank (BBHI) or other digital banks tend to have a high ROA ratio because Allo Bank (BBHI) as a digital bank can be said to have low operational costs because it does not need to pay for branches, ATM machines, employee costs, overheating costs and fees. related to conventional bank operations.

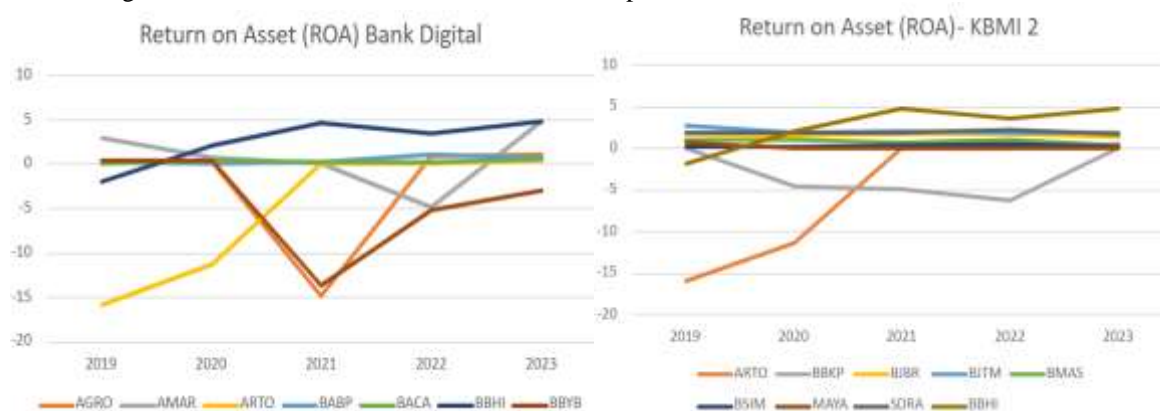


Figure 9: Graphic of Return on Asset (ROA)

The second ratio to measure earnings is the net interest margin (NIM) ratio. Allo Bank recorded a quite impressive net interest margin ratio. This can be seen from Allo Bank (BBHI) being able to record an NIM ratio of 9.45% and recording an upward trend over the last five years. Allo Bank also ranks third among other digital banks as the bank with the highest NIM ratio over the last three years. Allo Bank (BBHI) is also the second highest bank among KBMI 2 banks which recorded the largest NIM ratio in 2023. Allo Bank (BBHI) managed to record an NIM value above the digital bank industry average of 9.15% and above the KBMI 2 bank average of 5.5%. Allo Bank (BBHI) also has an NIM value above 5%, which indicates that Allo Bank (BBHI) is in the healthy category and is performing well in accordance with Indonesian regulations. This high NIM indicates that Allo Bank (BBH) has a high net interest income or it could be said that Allo Bank (BBHI) has succeeded in expanding its credit so that it obtains interest income that is higher than the interest expenses incurred by the bank from its savings products. A high NIM also indicates that Allo Bank (BBHI) has a good credit portfolio. This is in accordance with the results of the NPL ratio which shows a low NPL value. Allo Bank (BBHI) can also carry out efficiency and cost management well.

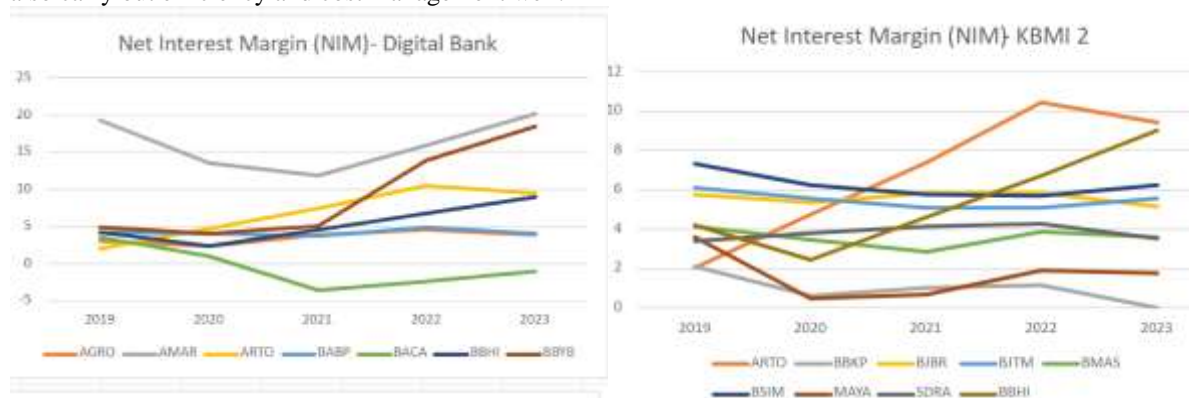


Figure 10: Graphic of Net Interest Margin (NIM)

4.1.3 Capital

The final measurement aspect to see the performance and health of Allo Bank is capital. capital will be measured using financial ratios, capital adequacy ratios. In this aspect of capital, what will be assessed is the condition of bank capital or the adequacy of bank capital to absorb losses arising from bank operations such as bad credit, and the bank's ability to protect its deposit customers. Allo Bank (BBHI) has a capital adequacy ratio (CAR) of 83.35% in 2023. Allo Bank (BBH) is the second highest bank after bank amar in high CAR ratios and is the bank with the highest CAR ratio among KBMI 2 banks. Bank BBHI also shows an increasing trend in the CAR ratio in the last five years. The increase in Allo Bank's CAR (BBHI) was due to the action of additional capital by Allo Bank's holding company (BBHI) and the action of Allo Bank's retained earnings which caused the bank's capital to increase. Allo bank's CAR ratio is also above the digital bank industry's average CAR ratio of 57.52% and also above the KBMI 2 bank's average ratio of 37.63%. Allo Bank's high CAR ratio (BBHI) indicates that Allo Bank has strong enough finances to absorb losses that arise and can protect customer deposit funds. A high CAR ratio also indicates that Allo Bank (BBHI) is protected from the possibility of bankruptcy and financial difficulties. A high CAR ratio can be a good signal to customers, investors and the public that Allo Bank has a strong and good financial position.

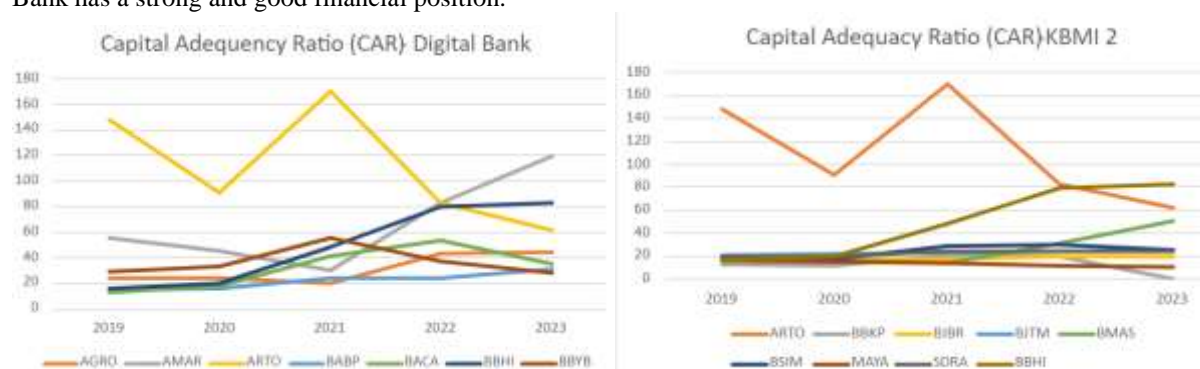


Figure 11: Graphic of CAR

4.2 Stock Valuation and Intrinsic Value Analysis

From the financial fundamental analysis of Allo Bank (BBHI) based on the risk based banking rating (RBBR) method in accordance with the recommendations of the Indonesian regulator, it can be seen that Allo Bank (BBHI) has good fundamentals so that Allo Bank has the potential to continue to grow. After the fundamental analysis has been carried out, a valuation analysis can be carried out to assess whether Allo Bank (BBHI) shares reflect the fundamental condition of Allo Bank (BBHI).

4.2.1 Price to earning Ratio (PER)

Price to earnings ratio (PER) is the ratio of market price to earnings per share (EPS) of a stock. In the price to earnings ratio (PER) and price to book value (PBV) valuation, this research will carry out a five-year valuation and compare the valuation of Allo Bank (BBHI) shares with other digital bank shares and KBMI bank shares 2. In the price to Earning Ratio (PER) shows that Allo Bank (BBHI) shares experienced an upward trend in PER value from 2019 to 2021, however Allo Bank shares (BBHI) experienced a decrease in the PER ratio value from 2022 to 2023. Allo Bank shares have the highest PER value. in 2021. The high PER value in 2021 is the result of an acquisition carried out by the large conglomeration company PT. Mega corpora of Allo Bank (BBHI) shares thereby increasing investor confidence in the positive performance of Allo Bank (BBHI) under the new management of PT. Mega corpora. Apart from that, Covid 19 has caused changes in society towards the adoption of digital technology and one of the industries that has been positively impacted is the banking industry. Allo Bank (BBHI) as a digital bank was affected positively by seeing the PER value soaring as a result of the market price of Allo Bank's shares soaring.

Allo Bank (BBHI) recorded a PER value in 2023 of 63.05X. Allo Bank shares are in third place as the highest PER value among other digital bank shares, however Allo Bank (BBHI) has a PER value that is far from Bank Jago (ARTO) with a PER value of 555X and Bank Raya (AGRO) with a PER value of 316X. These results show that Allo Bank (BBHI) shares are still relatively cheaper than Bank Jago (BBHI) and Bank Raya (AGRO) shares. Allo Bank (BBHI) shares also still have a smaller PER value compared to other KBMI 2 banks such as Bank Maspion (BMAS) 166X, Bank Sinarmas (BSIM) at 231X and Bank Mayapada (MAYA) at 241X. These results show that Allo Bank (BBHI) has relatively cheaper shares than these banks. However, Allo Bank (BBHI) shares have a higher PER value than other large banks such as BPD Bank West Java (BJBR), BPD Bank East Java (BJTM) and Bank Woori Saudara (SDRA), so Allo Bank (BBHI) has shares. relatively more expensive than these banks.

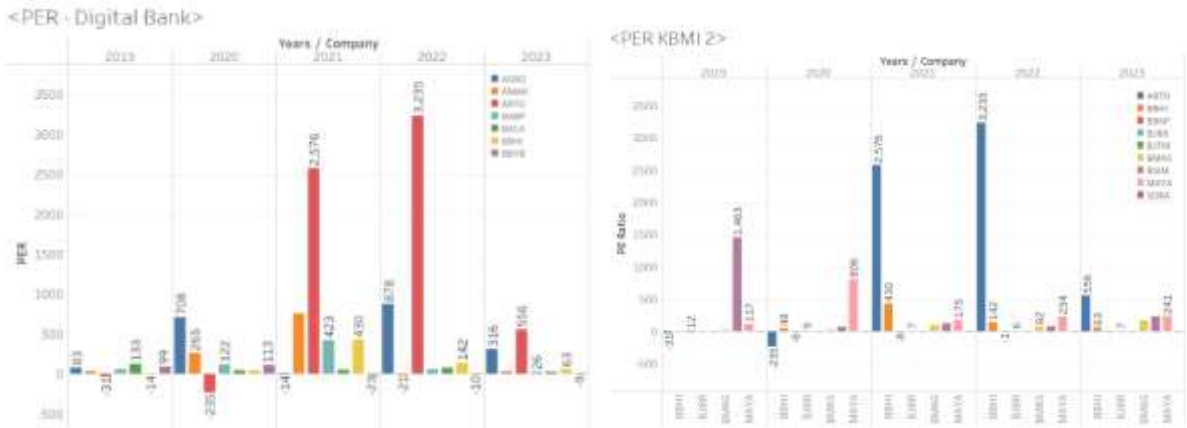


Figure 12: Digital Bank and KBMI 2 Bank's Price to Earning Ratio (PER)

The PER value of Allo Bank shares (BBHI) which continues to decline can be caused by a decrease in the market price of Allo Bank shares (BBHI) and an increase in earnings per share of Allo Bank shares. This is evident from the decline in the market price of Allo Bank's shares since 2021, however, Allo Bank (BBHI) recorded an increase in EPS value in 2023. Allo Bank (BBHI) has the highest EPS value among other digital banking industries and is the stock with the highest EPS value. four of the bank shares are KBMI 2. Allo Bank (BBHI) in 2023 has a PER value below the average PER value of Allo Bank (BBHI) for 5 years which is 133X. This shows that the market considers Allo Bank's shares to be undervalued or cheap compared to the average for five years and the average PER for the digital bank industry is 144x and that of Bank KBMI 2 is 142x.

4.2.2 Price to Book Value Ratio (PBV)

The next valuation ratio analysis is the price to book ratio (PBV). Price to book value ratio is a ratio that compares the market value of shares to the book value of equity. Allo Bank (BBHI) has a price to book value ratio (PBV) of 4.07x and is experiencing a downward trend in the price to book value ratio (PBV) from 2021 to 2023. This decrease in price to book value is caused by a decrease in market value Allo Bank (BBHI) shares over the past three years and the increase in book value as a result of additional capital by the parent company Allo Bank (BBHI). Apart from that, Allo Bank (BBHI) also has a price to book value (PBV) higher than the The average price to book value (PBV) of the digital banking industry is 2.06X. These results show that Allo Bank (BBHI) shares are considered by the market to be expensive or overvalued compared to the average price to book value (PBV) of the digital banking industry. Allo Bank (BBHI) also has the second highest price to book value (PBV) value among KBMI 2 banks in 2023. Allo Bank (BBHI) also has a price to book value (PBV) higher than the average price value to book value (PBV) of KBMI bank 2. These results show that Allo Bank (BBHI) shares are considered overvalued or expensive compared to the average price to book value of the KBMI bank industry 2. One of the factors in the price to book value of Allo Bank (BBHI) high because the market value of bank shares in KBMI 2 is already at a stable stage and reflects the actual condition of the company.

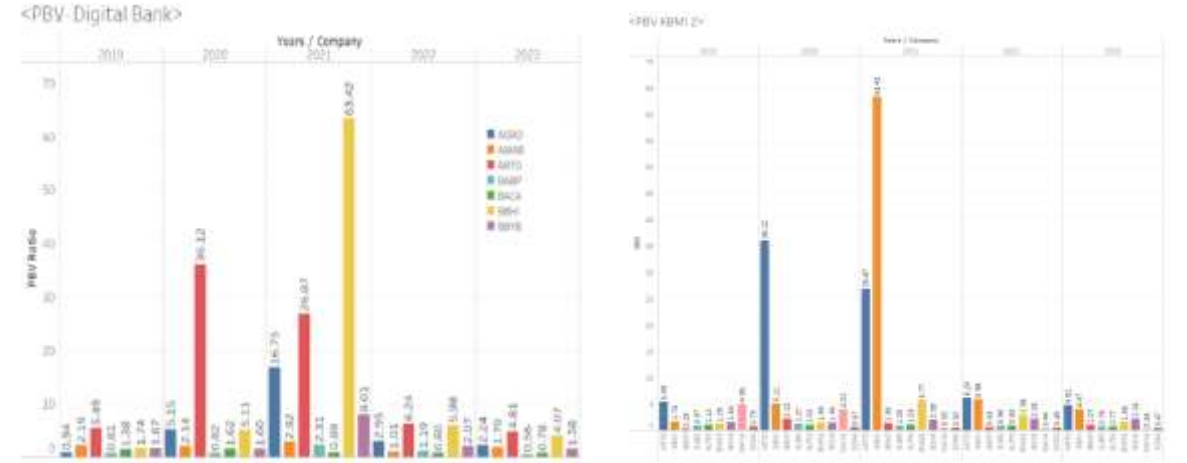


Figure 13: Digital Bank and KBMI 2 Bank are Price to Book Value Ratio

The relative valuation method still has shortcomings, namely that it still depends on market conditions and capital market investors are sometimes irrational and fluctuating so that the relative valuation method still does not reflect the fundamental value of the company so an absolute analysis method is needed to see the intrinsic value of Allo Bank shares.

4.2.3 Dividend Discounted Model

The intrinsic analysis of Allo Bank (BBHI) shares can be founded and analysed with the dividend discounted model method because Allo Bank (BBHI) is a bank financial services company whose business model is different from the business models of other industries. it is difficult to differentiate between debt and reinvestment or capital expenses, so it will be difficult to carry out valuations using other methods such as the free cash flow model. This research will use the dividend discounted model method with the assumption that Allo Bank will experience a growth phase during the first five years. Allo Bank (BBHI) will not distribute dividends because dividends are used to improve its business and will begin to experience a linear decline in growth and begin to distribute dividends from sixth year and increases linearly until entering a stable phase in the tenth year.

This research will use the assumption of Allo Bank's growth of 32.23% based on historical Allo Bank EPS data for the last five years. EPS growth of 32.23% will occur during the first five years because Allo Bank (BBHI) is assumed to have high growth. In the bank's initial five year growth phase. In the initial five years, to calculate the cost of equity, it also uses beta 1.6 with a risk free of 6.49% based on 10 year government bonds and uses the Indonesian equity risk premium from Damodaran of 7.38%. To carry out a valuation in the initial five years, researchers must calculate the cost of equity value using the following capital asset pricing model (CAPM):

$$\begin{aligned}
 \text{Cost of Equity} &= R_f + \beta \times ERP \dots \dots \dots (9) \\
 \text{Cost of Equity} &= 6.49\% + 1.6 \times 7.38\% \\
 \text{Cost of Equity} &= 18.30\%
 \end{aligned}$$

Table 2: Growth Stage Valuation

	1	2	3	4	5
Expected Growth Rate	32.23%	32.23%	32.23%	32.23%	32.23%
EPS	Rp. 27.05	Rp. 35.77	Rp. 47.30	Rp. 62.55	Rp. 82.71
Payout ratio	0%	0%	0%	0%	0%
DPS	Rp.0	Rp.0	Rp.0	Rp.0	Rp.0
Cost of Equity	18.30%	18.30%	18.30%	18.30%	18.30%
Cumulative Cost of Equity	118.30%	139.94%	165.55%	195.84%	231.68%
PV	Rp.0	Rp.0	Rp.0	Rp.0	Rp.0

The valuation value in the first five years of Allo Bank (BBHI) shares was IDR. 0 because Allo Bank (BBHI) focuses on growth so Allo Bank (BBHI) does not distribute dividends and invests its profits back into the company to increase earnings every year. After achieving high growth in the first five years, Allo Bank (BBHI) will experience a transition phase to a stable phase in the tenth year. Allo Bank (BBHI) began distributing dividends in the sixth to tenth year and continued to experience an increase in dividend payments because the company had begun to enter a stable stage. The growth of Allo Bank (BBHI) also began to decline linearly towards stable growth in the tenth year. Using the following formula, researchers will determine the pay out ratio that Allo Bank hopes to attain in the tenth year, when it enters a phase of stable growth. The growth rate in the stable phase (g) is assumed to be the same as Indonesia's economic growth. The ROE in the formula above uses Banking Industry ROE data in indonesia as a reference. Here the formula of stable phase dividend payout ratio:

$$\begin{aligned}
 \text{Expected Stable Phase Dividend Payout Ratio} &= 1 - \frac{g_{\text{Stable}}}{ROE_{\text{stable}}} \dots \dots \dots (10) \\
 \text{Expected Stable Phase Dividend Payout Ratio} &= 1 - \frac{5.19\%}{12.47\%} = 58.38\%
 \end{aligned}$$

In the sixth to tenth years, cost equity assumptions will be used that are different from the cost equity at the high growth stage. Beta at this stage changes to one because the stock has the same risk as the market, and the volatility of the bank stock is considered low or stable. The following is the cost of equity that will be used in the stable growth phase:

$$\begin{aligned}
 \text{Cost of Equity} &= 6.49\% + 1 \times 7.38\% \\
 \text{Cost of Equity} &= 13.87\%
 \end{aligned}$$

Table 3: Transition and Stable Phase Valuation

	6	7	8	9	10
Expected Growth Rate	26.82%	21.41%	16.01%	10.60%	5.19%
EPS	Rp.104.89	Rp.127.36	Rp.147.74	Rp.163.40	Rp.171.88
Payout ratio	11.68%	23.35%	35.03%	46.70%	58.38%
DPS	Rp. 12.25	Rp.29.74	Rp.51.75	Rp.76.31	Rp.100.03
Cost of Equity	17.41%	16.53%	15.64%	14.76%	13.87%
Cumulative Cost of Equity	272.02%	316.98%	366.56%	420.64%	478.99%
PV	Rp.4.50	Rp.9.38	Rp.14.12	Rp.18.14	Rp.20.95

In the sixth to tenth year, it can be seen that the company made dividend payments and the dividend payment ratio increased to 58.81%. The company is starting to enter a stable period so it can focus on providing returns to shareholders in the form of continuously increasing dividends. Allo Bank (BBHI) share valuation can also be done by adding up the entire present value of the dividends distributed to shareholders. The final stage is to calculate the terminal value of Allo Bank shares (BBHI) using the following formula:

$$Terminal Value = Eps_{11} \times (1 + g_{stable}) \times \frac{Payout Ratio}{(Cost of Equity - g_{stable})} \dots\dots\dots(11)$$

$$Terminal Value = Rp. 171.88 \times (1 + 5.19\%) \times \frac{58,38\%}{(13.87\% - 5.19\%)}$$

$$Terminal Value = Rp 1216.02$$

$$PV of Terminal Value = Rp. 253.8$$

To find out the intrinsic value of Allo Bank shares (BBHI) you can do this by adding up all the present values of the dividends distributed and the terminal value of Allo Bank shares (BBHI). The following is the intrinsic value of Allo Bank shares (BBHI):

$$Value per share of Equity = Rp. 320.97$$

Given that the closing price of Allo Bank shares in 2023 is IDR. 1290, and that the intrinsic value is Rp. 320.99, it may be inferred that the market still views Allo Bank shares as overpriced or overvalued. Many variables, including the market or investors' overconfidence that the digital banking industry will surpass traditional banking and maintain its strong performance, could be to blame for this overvalued stock state. Investors' illogical financial practices are another factor contributing to the market's overpriced Allo Bank share price. Speculative bubbles in the financial markets are a result of irrational investors following trends or schemes to become wealthy quick, as well as their overconfidence in the share price of Allo Bank.

V. CONCLUSION AND RECOMMENDATION

5.1 Conclusion

Based on the analysis and valuation that has been carried out, it can be seen that Allo Bank (BBHI) has very good fundamentals based on assessing the level of soundness and performance using the risk based banking rating (RBBR) method from the Indonesian regulator. Allo Bank (BBHI) has a very low NPL value compared to digital banks and other KBMI 2 banks, so it can be concluded that Allo Bank (BBHI) is protected from credit risk, especially non-performing loans which will reduce Allo Bank's profitability. Apart from that, it can also be concluded that Allo Bank has very good asset quality from its small NPL value and it can be concluded that Allo Bank's assets (BBHI) are categorized as a very healthy bank based on its credit risk. For Allo Bank (BBHI) liquidity risk, it is categorized as unhealthy because Allo Bank (BBHI) has an LDR value above 100%, which indicates that Allo Bank (BBHI) loans are greater than deposits so they will face high liquidity risk too. However, this is in accordance with Allo Bank's (BBHI) targets and plans to focus on expanding its credit, as can be seen from Allo Bank's credit value which has continued to grow over the last three years. Even though it has a high LDR value, Allo Bank has a very low NPL value so it can be concluded that Allo Bank (BBHI) is still very far from the risk of bankruptcy and liquidity difficulties.

Allo Bank (BBHI) also has good performance in the earnings aspect. This can be seen from the financial ratios Return on assets (ROA) and Net interest margin (NIM) which are quite high. Allo Bank (BBHI) has the highest ROA value among other digital banks and has the highest ROA value among KBMI 2 banks as well. Allo Bank (BBHI) has an ROA value above the average ROA value of the digital bank industry and KBMI 2 banks, indicating that Allo Bank (BBHI) can effectively use its assets to earn profits. Allo Bank (BBHI) ROA above 1.5% indicates that Allo Bank (BBHI) is categorized as a very healthy bank. The second ratio is Net interest margin, Allo Bank has a fairly high net interest margin. This indicates that Allo Bank (BBHI) is able to

carry out efficiency and manage costs well, resulting in high interest margins. Apart from that, Allo Bank (BBHI) can be concluded to have succeeded in expanding its credit aggressively. The final aspect is capital, Allo Bank (BBHI) has a high capital adequacy ratio and above the digital banking industry average and the KBMI 2 banking industry average. A high capital adequacy ratio indicates that Allo Bank has enough capital to absorb losses and protect customer deposits, thus avoiding bankruptcy. Allo Bank (BBHI) has a good level of health and performance.

Allo Bank (BBHI) can be concluded to have very good health and performance in recent years. After analyzing the company's financial fundamentals, the valuation process can be carried out to obtain the value of the shares. Price to earning ratio (PER) and price to book value (PBV) valuations show that Allo Bank (BBHI) is still considered expensive by the market compared to digital bank stocks and other kbmi 2 banks. However, the price to earning ratio (PER) of Allo Bank (BBHI) shares still shows a lower value than jago bank (ARTO) and Bank raya (AGRO) so that Allo Bank (BBHI) has cheaper shares with better performance than the two digital bank stocks. Price to earning (PER) value of Allo Bank (BBHI) continues to experience a downward trend due to a decrease in the value or market price of Allo Bank shares and an increase in Allo Bank EPS (BBHI). The next valuation uses price to book value to value the shares of Allo Bank (BBHI). Allo Bank (BBHI) has a relatively higher PBV value among the digital bank industry and bank kbmi 2. The PBV value of bank raya also shows above the average value of the two industries. It can be concluded that Allo Bank (BBHI) shares are still valued more expensive than the book value owned by Allo Bank (BBHI) and among other banks in the digital bank industry and kbmi 2 banks are also considered relatively more expensive by the market.

The next valuation method is absolute valuation using company fundamentals. Dividend discounted model (DDM) is used to find the intrinsic value of Allo Bank stock (BBHI). From the dividend discounted model method, it was found that the intrinsic value of Allo Bank (BBHI) shares was Rp. 320.97. The intrinsic value of Allo Bank (BBHI) of Rp. 320.97 indicates that the value of Allo Bank (BBHI) shares is in an overvalue condition because the market values Allo Bank (BBHI) shares at Rp. 1290. The overvalue stock condition reflects that the stock condition is not in accordance with the company's fundamental conditions. This happens because of the influence of capital market investors who are still optimistic about the performance and market opportunities of the digital bank industry in the future. The phenomenon of a decline in the share price of Allo Bank (BBHI) in the last three years shows that investor confidence in the digital bank industry is starting to decline and Allo Bank shares will begin to go to their fair price.

This research still has several limitations, such as this research was conducted using a yearly time period, this research is limited to digital bank companies and banks in the KBMI 2 category. This research is also limited by the assumptions used by researchers to carry out the analysis. Future research can use a deeper time span such as every quarter for five years and can add other banks to be able to measure more accurately the performance of all banks.

5.2 Recommendation

For Shareholder and Investor

The recommendation that this research can provide for shareholders and capital market investors is that shareholders can consider selling their shares to the capital market because Allo Bank shares are currently overvalued or considered by the market to be more expensive than their fair value based on the company's financial fundamentals. Shareholders can obtain capital gains if they sell when shares are overvalued. Apart from that, capital market investors who want to own Allo Bank shares can wait for share prices on the market to decline again because share prices on the market are still not close to their intrinsic or fair value.

For Allo Bank Management

Allo Bank management has one goal that must be achieved, namely increasing shareholder wealth. One way to increase shareholder wealth is high share prices and market capitalization. Allo bank can improve its fundamental and business performance to increase the value of allo bank shares. There are many strategies and methods that can be applied by Allo Bank, such as expanding its credit, collaborating with financial institutions or other companies to strengthen the Allo Bank ecosystem and others.

For Academic and Future Research

Recommendations that can be given to future research are that academics can make comparisons between other categories of banks such as large banks that are included in the KBMI 4 category in Indonesia because KBMI 4 banks can be used as a benchmark for banks that have very good business performance and stock performance. Future researchers can also make comparisons with other banks that are still under Allo Bank to see how far Allo Bank's performance is. Future researchers can also use different assumptions from researchers in conducting valuations and intrinsic value analysis to enrich knowledge. Future researchers can also use fundamental analysis methods that are different from this research.

REFERENCES

- [1] M. of Economic, "Pasar Modal Goes to Young Generation: Gaet Investor Muda, Tingkatkan Nilai Kapitalisasi Pasar," *ekon.go.id*, Jakarta, Jan. 11, 2024.
- [2] M. R. I. Taufani, "Top! Ini Perusahaan Dengan Laba Terbesar di 2023," *cnbcindonesia.com*, Jakarta, Apr. 16, 2024.
- [3] Irawati, "Kredit Perbankan Masih Mampu Tumbuh 10,38 Persen di 2023, BI Ungkap Sektor Ini jadi Pendongkrak," *infobanknews.com*, Jakarta, Jan. 17, 2024.
- [4] V. B. Kusnandar, "Pulih Dari Pandemi, Kredit Perbankan Tumbuh 11,35% pada Akhir 2022," *databoks.katadata.co.id*, Jakarta, 2023.
- [5] A. Adi, "Transaksi Digital Banking di Indonesia Tumbuh 158% dalam 5 Tahun Terakhir," *databoks.katadata.co.id*, Jakarta, Jul. 05, 2023.
- [6] K. Jessica, "Inilah Perbedaan Gaya Investasi Gen X, Milenial, dan Gen Z!," *Good Stats*, 2023. <https://goodstats.id/article/inilah-perbedaan-gaya-investasi-gen-x-milenial-dan-gen-z-eQiTW> (accessed May 14, 2024).
- [7] S. Kurniati, "Stock returns and financial performance as mediation variables in the influence of good corporate governance on corporate value," *Corp. Gov.*, vol. 19, no. 6, pp. 1289–1309, 2019, doi: 10.1108/CG-10-2018-0308.
- [8] E. F. Fama, "American Economic Association The Effects of a Firm's Investment and Financing Decisions on the Welfare of Its Security 05:53:43 AM All use subject to JSTOR Terms and Conditions," *Source Am. Econ. Rev.*, vol. 68, no. 3, pp. 272–284, 1978.
- [9] P. Wright and S. P. Ferris, "Research Notes and Communications Agency Conflict and Corporate Strategy: the Effect of Divestment on Corporate Value," *Strateg. Manag. J.*, vol. 18, no. August 1995, pp. 77–83, 1997.
- [10] H. Syaiedah *et al.*, "RISK-BASED BANK RATING PADA PERBANKAN MILIK PEMERINTAH," 2017.
- [11] G. B. Bank Indonesia, "PERATURAN BANK INDONESIA NOMOR: 13/ 1 /PBI/2011," 2011.
- [12] A. Dimitrios, L. Helen, and T. Mike, "Determinants of non-performing loans : Evidence from Euro-area countries," vol. 18, pp. 116–119, 2016.
- [13] E. Spuch, K. Valášková, and P. Adamko, "The Credit Risk and its Measurement , Hedging and Monitoring," vol. 24, no. July, pp. 675–681, 2015, doi: 10.1016/S2212-5671(15)00671-1.
- [14] M. A. Khan, A. Siddique, and Z. Sarwar, "Determinants of non-performing loans in the banking sector in developing state," *Asian J. Account. Res.*, vol. 5, no. 1, pp. 135–145, 2020, doi: 10.1108/AJAR-10-2019-0080.
- [15] Y. K. Chen, C. H. Shen, L. Kao, and C. Y. Yeh, "Bank Liquidity Risk and Performance," *Rev. Pacific Basin Financ. Mark. Policies*, vol. 21, no. 1, 2018, doi: 10.1142/S0219091518500078.
- [16] J. Y. Putri and I. Gandakusuma, "Analisis Pengaruh Risiko Kredit, Risiko Likuiditas, serta Risiko Operasional Terhadap Kinerja Perbankan: Studi Kasus pada Bank Umum Konvensional yang Terdaftar di Bursa Efek Indonesia Periode 2016-2020 Analysis of the Influence of Credit Risk, Liquidity R," *J. Manaj. dan Usahaw. Indones.*, vol. 46, no. 1, pp. 34–48, 2022.
- [17] S. Yüksel, S. Mukhtarov, E. Mammadov, and M. Özsari, "Determinants of profitability in the banking sector: An analysis of post-Soviet countries," *Economies*, vol. 6, no. 3, pp. 1–15, 2018, doi: 10.3390/economies6030041.
- [18] R. Prayoga, E. Pakki, and A. Aswan, "ANALYSIS OF THE EFFECT OF CAR AND NPL ON PROFITABILITY WITH LDR AS VARIABLE INTERVENING (Case Study on Commercial Banks Listed on the IDX Period 2018-2020)," *Hasanuddin J. Appl. Bus. Entrep.*, vol. 5, no. 2, pp. 49–59, 2022.
- [19] R. H. Valdiansyah and E. Murwaningsari, "Earnings quality determinants in pre-corona crisis: another insight from bank core capital categories," *Asian J. Account. Res.*, vol. 7, no. 3, pp. 279–294, 2022, doi: 10.1108/AJAR-08-2021-0134.
- [20] A. S. Alarussi and S. M. Alhaderi, "Factors affecting profitability in Malaysia," 2018, doi: 10.1108/JES-05-2017-0124.
- [21] E. Filatov, "ScienceDirect ScienceDirect Analysis of profitability of production of enterprises in the field of Analysis of profitability of production of enterprises in the field of transportation and storage of the Irkutsk region transportation and storage of the Ir," *Transp. Res. Procedia*, vol. 63, pp. 518–524, 2022, doi: 10.1016/j.trpro.2022.06.043.
- [22] S. Ben Aissa and M. Goaid, "Determinants of Tunisian hotel pro fi tability : The role of managerial ef fi ciency," vol. 52, pp. 478–487, 2016, doi: 10.1016/j.tourman.2015.07.015.
- [23] R. Pandey and J. F. Diaz, "FACTORS AFFECTING RETURN ON ASSETS OF US TECHNOLOGY AND FINANCIAL CORPORATIONS," vol. 21, no. 2, pp. 134–144, 2019, doi: 10.9744/jmk.21.2.134.

- [24] T. Supriyadi, "EFFECT OF RETURN ON ASSETS (ROA), RETURN ON EQUITY (ROE), AND NET PROFIT MARGIN (NPM) ON THE COMPANY ' S VALUE IN MANUFACTURING COMPANIES LISTED ON THE EXCHANGE INDONESIA SECURITIES YEAR 2016-2019," vol. 5, no. 04, pp. 219–228, 2021.
- [25] J. J. Chen, "DETERMINANTS OF CAPITAL STRUCTURE OF CHINESE-LISTED COMPANIES," *J. Bus. Res.*, vol. 57, pp. 1341–1351, 2004.
- [26] U. Harun, "3Hqjduxk 5Dwlr 5Dwlr«+Duxq 67," *Pengaruh Ratio-ratio Keuang.*, vol. 4, no. 1, pp. 67–82, 2016.
- [27] H. Imahanani and R. A. Suwaidi, "Analisis rasio profitabilitas pada perusahaan perbankan yang terdaftar di Bursa Efek Indonesia," *Fair Value J. Ilm. Akunt. dan Keuang.*, vol. 5, no. 1, pp. 264–270, 2022, doi: 10.32670/fairvalue.v5i1.1936.
- [28] M. D. Lestari, N. K. Karim, and R. Hudaya, "Pengaruh Profitabilitas, Leverage dan Likuiditas terhadap Return Saham Perusahaan Manufaktur di Bursa Efek Indonesia," *Riset, Ekon. Akunt. dan Perpajak.*, vol. 3, no. 1, pp. 1–16, 2022, doi: 10.30812/rekan.v3i1.1704.
- [29] S. Saksonova, "The Role of Net Interest Margin in Improving Banks' Asset Structure and Assessing the Stability and Efficiency of their Operations," *Procedia - Soc. Behav. Sci.*, vol. 150, pp. 132–141, 2014, doi: 10.1016/j.sbspro.2014.09.017.
- [30] A. Anatasya and E. Susilowati, "Pengaruh Bank Size , Nim , Dan Car Terhadap PROFITABILITAS PERIODE 2015-2019," vol. 1, no. 1, pp. 271–281, 2021.
- [31] N. K. Quoc Trung, "Determinants of bank performance in Vietnamese commercial banks: an application of the camels model," *Cogent Bus. Manag.*, vol. 8, no. 1, 2021, doi: 10.1080/23311975.2021.1979443.
- [32] D. M. Kinini, P. W. Kariuki, and K. N. Ocharo, "Capital adequacy, competition and liquidity creation of banks; evidence from Kenya," *African J. Econ. Manag. Stud.*, 2024, doi: 10.1108/AJEMS-02-2023-0048.
- [33] A. J. Marcus, S. C. Myers, and R. A. Brealey, "Fundamentals of Corporate Finance 7th Edition," 2012, [Online]. Available: <https://api.semanticscholar.org/CorpusID:201432736>.
- [34] Suryanto, "STOCK VALUATION BY USING PRICE EARNING RATIO (PER) IN STOCK INDEX Suryanto VALUASI SAHAM DENGAN MENGGUNAKAN METODE PRICE EARNING RATIO (PER) PADA SAHAM INDEKS LQ45 ABSTRAK," *J. AdBispreneur*, vol. 1, no. 2, pp. 137–144, 2016.
- [35] Z. Bodie, A. Kane, and A. J. Marcus, "Investments , -11/E," 2019, [Online]. Available: <https://api.semanticscholar.org/CorpusID:214072962>.
- [36] A. Damodaran, "Investment Valuation," *Second Ed. John Wiley Sons, New York*, 2012.
- [37] A. Damodaran, "Applied Corporate Finance," vol. 17, pp. 7–18, 2014, doi: 10.1007/978-1-4614-9173-6.

***Corresponding Author: Hemadanda Muhammad¹**

¹School of Business Management, Institut Teknologi Bandung, Indonesia