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The Effect of Financial Performance on Company Value with Financial Technology as a Moderating Variable in Banking Companies Listed on the Indonesia Stock Exchange

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Abstract

Banking companies have a strategic role in maintaining economic stability, but they face challenges in increasing corporate value amid regulatory changes, economic uncertainty, and accelerating digital transformation. This study aims to analyze the influence of financial performance on company value with financial technology (fintech) as a moderating variable in banking companies listed on the IDX for the 2019–2023 period. Financial performance was measured using ROA, NPL, LDR, and BOPO, while company value was proxied by Tobin's Q. The research sample consisted of 43 banking companies with a total of 215 observations, and the analysis was conducted using moderated regression analysis (MRA) with SPSS v.22 as the analysis tool. The results showed that ROA, NPL, LDR, BOPO, financial technology, firm size, and firm age did not have a significant effect on company value. However, fintech significantly moderated the relationships between ROA, LDR, and BOPO and company value, while its moderation of the relationship between NPL and company value was significant but negative. These findings confirm that fintech adoption plays an important role in strengthening or weakening the influence of financial performance indicators on company value in the banking industry.

Keywords: ROA, NPL, LDR, BOPO, Financial Technology, Corporate Value, Banking.

INTRODUCTION

Investors increasingly value the importance of a company's ability to adapt to new technologies (Day & Schoemaker, 2016). Companies that integrate digital technology into their operations tend to be more competitive and can gain a larger market share. Therefore, fintech can act as a moderating variable that strengthens the relationship between financial performance and company value, as shown by research by Schueffel (2016). In this case, investors see companies that adopt technology as superior and potentially more profitable in the future.

Financial Technology (Fintech) refers to the integration of information technology innovations in the provision of more efficient, affordable, and widely distributed financial services to the public. Fintech is changing the traditional way banks provide services such as payments, loans, savings, and investments through digital platforms that are real-time and application-based. According to Arner, Barberis, and Buckley (2016), fintech can be understood as technology-based financial innovation that accelerates the transformation of the global financial industry using Artificial Intelligence (AI), Blockchain, Big Data, Cloud Computing, and Mobile Platforms. According to Schueffel (2016), fintech refers to the application of innovative technology to provide more efficient and effective financial services. These technologies include a wide range of tools and platforms, such as digital payments, peer-to-peer lending, automated investing, and app-based banking services, which are transforming the way financial companies operate. As a moderating variable, fintech can strengthen or weaken the impact of financial performance on a company's value, depending on the level of adoption and effectiveness of the implementation of this technology within the company (Schueffel, 2016). In recent years, Indonesia's banking sector has undergone significant transformation through the adoption of fintech and payment digitalization, which has a direct impact on company performance, risk, and value. According to OJK data in February 2025, fintech peer-to-peer (P2P) lending financing reached IDR 80 trillion with an annual growth of 31.06% and a non-performing loan (NPL) rate of 2.78% (OJK, 2025).

When fintech is well adopted and integrated into a company's strategy, it can improve operational efficiency, expand the service range, and enhance service quality to customers, which in turn can improve financial performance (Brown & Green, 2020). Along with technological advancements in the financial industry, many banks and financial companies are increasingly aware of the importance of digitalization to improve their competitiveness (Smith & Lee, 2021). Therefore, effective fintech adoption can strengthen the positive relationship between financial performance—especially as measured by Return on Assets (ROA), Non-Performing Loan (NPL), Loan to Deposit Ratio (LDR), and Operating Costs to Operating Income (BOPO)—and a company's value (Jones & Kumar, 2022). Recent studies show that fintech adoption can lead to more efficient operations and better customer satisfaction, which directly impacts a company's financial metrics (Santos & Oliveira, 2021). Moreover, fintech's role in reducing operational costs while maintaining service quality is critical to improving financial outcomes (Tan & Wang, 2020). As a result, companies that embrace fintech can enhance their overall financial stability and market position (Zhang et al., 2021).

However, while fintech has the potential to strengthen the relationship between financial performance and a company's value, its impact is not always consistent and can be influenced by several external factors. In a study by Al Farom et al. (2024), it was found that fintech has a significant moderating role in the relationship between bank size and liquidity on company value. Effective fintech adoption can increase bank liquidity and size, as well as improve profitability, which has a positive impact on the company's value. Meanwhile, research by Ulfa (2023) shows that the influence of sharia fintech as a moderating variable on leverage and operational efficiency in Islamic banks does not always have a strong impact, especially related to the influence of liquidity and profitability on company value. This suggests that the characteristics of each bank and the type of fintech applied can affect the impact of fintech moderation on the relationship between financial performance and company value.

In terms of fintech measurement, it is usually measured based on the level of adoption and utilization of digital technology by financial institutions. According to Wan (2023), fintech indices are formed from indicators such as Mobile Banking, API Integration, Blockchain Adoption, Big Data Analytics, Cloud Computing, and Cyber Security. Each indicator is weighted and processed to produce a score that illustrates the level of digitalization and technological innovation within the bank. According to Al Farom (2024), banking companies that have a high fintech adoption score tend to have better liquidity, increased profitability, and higher market value than banks that have not been digitized.

To strengthen the scientific and rational basis of this research, several relevant theories are used to explain the relationship between financial performance and company value and financial technology (fintech) as a moderating variable.

First, this research is based on Signaling Theory proposed by Ross (1977). This theory explains that company management has better information than external parties (investors), so the company needs to send signals to the market through its financial statements and operational policies. Positive signals such as high Return on Assets (ROA), low Operating Costs to Operating Income (BOPO), and small Non-Performing Loans (NPLs) indicate management's ability to manage assets and risks efficiently. The signal will be accepted by the market as a sign that the company has good financial prospects, so investor confidence increases and the company's value also increases. On the contrary, poor financial performance is a negative signal that can lower the market's perception of the company. Thus, Signaling Theory strengthens the understanding that financial performance plays an important role in shaping investors' perceptions of a company's value.

Second, this research is also based on the Resource-Based View (RBV) Theory developed by Barney (1991). This theory states that a company's competitive advantage comes from its internal ability to manage valuable, rare, inimitable, and non-substitutable resources.

In the context of modern banking, fintech is a form of strategic resource that becomes a long-term competitive advantage. The application of fintech such as digital banking, big data analytics, artificial intelligence, and blockchain makes banks more efficient, responsive to customer needs, and able to expand market reach. In other words, fintech becomes a strategic asset that strengthens the relationship between financial performance and company value, because companies with high-tech innovations will be perceived as superior by the market.

Third, this research is supported by Disruptive Innovation Theory introduced by Christensen (1997). This theory explains that new technologies can replace old systems that are less efficient and cause major changes in the industry. The presence of fintech is a tangible form of disruptive innovation that changes the way banks operate, from traditional systems to faster and more integrated digital financial services. The adoption of fintech allows banks to reduce operational costs, increase efficiency, and improve service quality. Therefore, the application of fintech is believed to strengthen the positive influence of financial performance on company value, because companies that innovate are considered more adaptive to market changes and have better growth prospects.

Furthermore, this research is also associated with Data Transformation Theory, which explains the importance of using digital technology to transform raw data into valuable information in the decision-making process. In the context of banking, the use of Big Data and Machine Learning through fintech systems helps banks analyze customer behavior, predict credit risk, and improve operational efficiency. The effective use of data will reduce the level of non-performing loans (NPLs) and increase profitability (ROA), thus having a positive effect on company value.

Finally, this research is based on Firm Value Theory proposed by Brigham and Daves (2019), which states that the main goal of a company is not only to obtain short-term profits but to maximize long-term company value. Company value reflects the market's confidence in management's ability to manage the company's resources and create sustainable profits. Tobin's Q ratio is used to measure company value because it describes the extent to which the market rates a company based on its financial performance. The better the company's financial performance, the higher the Tobin's Q value, which indicates an increase in the company's market value in the eyes of investors.

By combining these five theories, this research has a strong conceptual basis. Signaling Theory explains how financial performance gives signals to investors, Firm Value Theory shows that the signal leads to an increase in the company's market value, while RBV Theory, Disruptive Innovation, and Data Transformation explain how fintech plays a role as a strategic resource that moderates the relationship between financial performance and company value. The combination of these theories provides a complete scientific framework to understand that the success of banks in managing financial performance and adopting financial technology will have a direct impact on increasing company value in today's digital era.

Based on the above background and phenomenon, further research is needed to prove that company value is the main indicator that reflects investor confidence in the prospects of financial performance as reflected in ratios such as ROA, NPL, LDR, and BOPO in assessing the effectiveness of bank management. Moreover, the banking sector in Indonesia is currently undergoing a major transformation through the integration of digital technology, especially financial technology (fintech). Therefore, the researcher is interested in analyzing the influence of financial performance on company value with financial technology as a moderating variable in banking companies listed on the Indonesia Stock Exchange for the 2019–2023 period.

Based on the background and phenomena described above, further research is needed to prove that company value is a primary indicator reflecting investor confidence in the prospects of financial performance as reflected in ratios such as ROA, NPL, LDR, and BOPO in assessing the effectiveness of bank management. Moreover, the banking sector in Indonesia

is currently undergoing a major transformation through the integration of digital technology, especially financial technology (fintech). Therefore, this study aims to analyze the effect of financial performance on company value with financial technology as a moderating variable in banking companies listed on the Indonesia Stock Exchange for the 2019–2023 period. To achieve this goal, the research problems are formulated as follows: first, whether Return on Assets (ROA) has a positive and significant effect on the value of banking companies listed on the Indonesia Stock Exchange; second, whether Non-Performing Loan (NPL) has a negative and significant effect on company value; third, whether Loan to Deposit Ratio (LDR) has a positive and significant effect on company value; fourth, whether Operating Costs to Operating Income (BOPO) has a negative and significant effect on company value; fifth, whether fintech moderates the effect of ROA on company value; sixth, whether fintech moderates the effect of NPL on company value; seventh, whether fintech moderates the effect of LDR on company value; and eighth, whether fintech moderates the negative and significant effect of BOPO on company value.

This research specifically aims to analyze the effect of ROA, NPL, LDR, and BOPO on company value, as well as to examine the moderating role of fintech in the relationship between each financial performance indicator and company value in banking companies listed on the Indonesia Stock Exchange. Furthermore, this study is expected to provide practical benefits for bank management by offering insights into how fintech adoption can optimize the impact of financial performance on corporate valuation. For investors and regulators, the findings can serve as a reference in assessing bank performance and stability in the digital era, while academically, this research enriches the literature on corporate finance and financial technology in the context of emerging markets.

RESEARCH METHOD

This research employed a quantitative approach (Hardani et al., 2020). The object of the study comprised banking companies listed on the Indonesia Stock Exchange (Sugiyono, 2019). Secondary data were sourced from the financial statements of these companies for the 2019–2023 period. The population consisted of banking sector companies listed on the Indonesia Stock Exchange during that period.

Table 1. Research Population

No	Company Code	Company Name
1	AGRS	IBK BANK INDONESIA
2	AMAR	BANK AMAR, Tbk
3	ART	BANK ARTO (BANK JAGO), Tbk
4	BBCA	PT. BANK CENTRAL ASIA, Tbk
5	BBHI	ALLO BANK
6	BBKP	PT. BANK BUKOPIN, Tbk
7	BBMD	BANK MESTIKA
8	BBRI	PT. BANK RAKYAT INDONESIA (PERSERO), Tbk
9	BTPS	BTPN SYARIAH
10	PNBS	BANK PANIN DUBAI SYARIAH
11	AGRO	PT BANK RAYA INDONESIA TBK
12	BABP	PT BANK MNC INTERNATIONAL, Tbk
13	READ	PT BANK CAPITAL INDONESIA, Tbk
14	BANK	PT BANK ALADIN SYARIAH, Tbk

No	Company Code	Company Name
15	BBNI	PT BANK NEGARA INDONESIA PERSERO, Tbk
16	BBSI	PT KROM BANK INDONESIA, Tbk
17	BBTN	PT BANK TABUNGAN NEGARA (PERSERO), Tbk
18	BBYB	PT BANK NEO CPMMERCE, Tbk
19	BCIC	PT BANK J TRUST INDONESIA, Tbk
20	BDMN	PT BANK DANAMON INDONESIA, Tbk
21	BEKS	PT BANK PEMBANGUNAN DERAH BANTEN, Tbk
22	BGTG	PT BANK GANESHA, Tbk
23	BINA	PT BANK INA PERDANA Tbk
24	BJBR	PT BANK PEMBANGUNAN DAERAH JAWA BARAT DAN BANTEN, Tbk
25	BJTM	PT BANK PEMBANGUNAN DAERAH JAWA TIMUR, Tbk
26	BKSW	PT BANK QNB INDONESIA, Tbk
27	BMAS	PT BANK MASPION, Tbk
28	BMRI	PT BANK MANDIRI (PERSERO), Tbk
29	BNBA	PT BANK BUMI ARTA, Tbk
30	BNGA	PT BANK CIMB NIAGA, Tbk
31	BNII	PT BANK MAYBANK INDONESIA, Tbk
32	BNLI	PT BANK PERMATA, Tbk
33	BRIS	PT BRISYARIAH, Tbk
34	BSIM	PT BANK SINARMAS,Tbk
35	BSWD	PT BANK OF INDIA INDONESIA, Tbk
36	BTPN	PT BANK BTPN, Tbk
37	BVIC	PT BANK VICTORIA INTERNATIONAL, Tbk
38	DNAR	PT BANK OKE INDONESIA, Tbk
39	INPC	PT ARTHA GRAHA INTERNATIONAL, Tbk
40	MASB	PT BANK MULTIARTA SENTOSA, Tbk
41	MAYA	PT BANK MAYAPADA INTERNATIONAL, Tbk
42	MCOR	PT Bank CHINA CONSTRUCTION BANK INDONESIA, Tbk
43	CLOUD	PT BANK MEGA, Tbk
44	NISP	BANK OCBC NISP
45	NOBU	PT BANK NATIONAL NOBU, Tbk
46	PNBN	PT PANIN FINANCIAL, Tbk
47	ARDRA	PT BANK WOORI SAUDARA INDONESIA 1906, Tbk

Source: Data sources processed by researchers 2025

The sample taken is the annual report of banking companies for the period 2021 to 2023 totaling 43 companies. The sample in this study uses a sampling technique, namely purposive sampling, only selecting banking companies listed on the Indonesia Stock Exchange and banking companies that publish consecutive annual reports on the IDX for the 2019-2023 period

Table 2. Research Sample Criteria

No	Name	Sum
1	Annual Report Data of Banking Companies listed on the Indonesia Stock Exchange 2019 - 2023	47
2	Companies that do not publish complete financial statements for the 2019-2023 period	4
	Total Sample	43

Data source: processed by researchers 2025

This study used secondary data collected through documentation from annual reports of banking companies listed on the Indonesia Stock Exchange (IDX) for 2019–2023, sourced from the official website www.idx.co.id. Additional data came from the internet, financial journals, prior research, and literature sources.

The data consisted of interval or ratio scales and were analyzed using IBM SPSS version 22, which supported moderation regression analysis (MRA). Before MRA, assumption tests—including normality, heteroscedasticity, multicollinearity, and autocorrelation—were conducted. MRA produced three regression equations: first, between the independent variable (X) and dependent variable (Y); second, between X, the moderating variable (Z), and Y; and third, between X, the moderating variable (M), the interaction term (XM), and Y (Ghozali, 2018).

In this case, the above equation can be summarized in the regression model equation into:

$$Y = \alpha + \beta 1ROA + \beta 2NPL + \beta 3LDR + \beta 4BOPO + \beta 5FT + \beta 6ROA*FT + \beta 7NPL*FT + \beta 8LDR*FT + \beta 9BOPO*FT + Control + e$$

According to Baron and Kenny (1986), the MRA method proved effective for studying interactions between independent variables and moderators on dependent variables. This approach allowed researchers to evaluate the extent to which moderators strengthened or weakened those relationships. In this study, financial technology was examined for its role in moderating the relationship between financial performance indicators and company value.

RESULTS AND DISCUSSION

Data Analysis Results

Descriptive statistical analysis was carried out to provide an overview of the characteristics of the research data used. The data analyzed is secondary data obtained from the financial statements of banking companies listed on the Indonesia Stock Exchange (IDX) during the 2019-2023 period. The research variables consisted of *Return on Assets* (ROA), *Non-Performing Loan* (NPL), *Loan to Deposit Ratio* (LDR), Operating Costs; to Operating Income (BOPO), as an independent variable *of Financial Technology* (Fintech) as a moderation variable and Company Value (Tobin's Q) as a dependent variable.

Descriptive statistics provide an overview or descriptive of data as seen from the mean value, standard deviation, maximum and minimum of each variable. Mean is used to find out the average of the data in question. Standard deviation is used to find out how much the data in question varies from the average. The maximum value is used to find out the largest amount of data in question. Minimum values are used to find out the smallest amount of data in question varies from the average. The results of descriptive statistical analysis with the help of the SPSS program version 22. The following are the descriptive statistical results of each variable.

Table 3. Descriptive Statistical Test Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
ROA	215	-.44360	.34560	.0104693	.05843305
NPL	215	.00010	.22270	.0329628	.02671791
LDR	215	-.1100	20.1800	1.350698	2.1008076
BOPO	215	.0100	4.9500	.715581	.6141802
FINTECH	215	.000	1.000	.49070	.260135
COMPANY VALUES	215	.34	8.47	1.2977	.92273
FIRM SIZE	215	28.00	35.00	31.4279	1.72208
FIRM AGE	215	6.00	112.00	46.4186	21.86752
Valid N	215				

Source : Data Processed Using SPSS 22

Descriptive statistical analysis was carried out to provide an overview of the characteristics of the data in 215 observations of banking companies that were sampled in this study. Based on the results of the data processing, the minimum, maximum, mean, and standard deviation values of each research variable were obtained as shown in Table 4.2.

The Return on Assets (ROA) variable has a minimum value of -0.44360, a maximum value of 0.34560, an average value of 0.0104693, and a standard deviation of 0.05843305. This shows that the bank's ability to generate profits from its total assets is still relatively low. Although there are several banks that have high efficiency, overall banking in Indonesia is still not optimal in managing its assets to create high profitability

The Non Performing Loan (NPL) variable has a minimum value of 0.00010, a maximum of 0.22270, an average of 0.0329628, and a standard deviation of 0.0261791. The average NPL value of 3.29% indicates that the non-performing loan level is still within safe limits below Bank Indonesia's 5% provision. This means that the bank's ability to manage credit risk is quite good, and the stability of the banking system is maintained.

The Loan to Deposit Ratio (LDR) variable shows a minimum value of -1,100, a maximum of 20,1800, an average of 1,350698, and a standard deviation of 2,1008706. The average LDR of 135.07% indicates that some banks are quite aggressive in channeling third-party funds into credit. This condition illustrates that some banks maximize their intermediation function to increase interest income.

The BOPO variable (Operating Costs to Operating Income) has a minimum value of 0.0100, a maximum of 4.9500, an average of 0.715581, and a standard deviation of 0.6141802. The average BOPO value of 71.55% shows that most banks are quite efficient in managing operational costs compared to their operating income. A low BOPO value indicates the bank's ability to control costs and increase revenue.

Fintech variables are measured using fintech indices that reflect the level of adoption and utilization of financial technology by banking companies. Based on the results of the descriptive analysis, a minimum value of 0.000, a maximum of 1,000, an average of 0.49070, and a standard deviation of 0.260135 were obtained. This value shows that the level of fintech adoption by Indonesian banks is still at a moderate level, where most banks have started digitization but are not yet fully optimal.

Furthermore, the Company Value variable has a minimum value of 0.34, a maximum of 8.47, an average of 1.2977, and a standard deviation of 0.92273. These results show that the variation in company values between banks is quite large, which indicates that there is a difference in investor perception of the performance and prospects of each company.

The Firm Size variable has a minimum value of 28.00, a maximum of 55.00, an average of 51.4279, and a standard deviation of 1.72208. This value indicates that most of the sample

is a large-scale bank. The larger size of the company reflects the ability to manage assets and bear higher business risks.

Lastly, the Firm Age variable has a minimum value of 6.00, a maximum of 112.00, an average of 46.4186, and a standard deviation of 21.86752. These results illustrate that most banking companies in Indonesia have been operating for a long period of time. The longer the life of the company indicates the level of stability and experience in managing the business.

Discussion of Research Results

This study aims to determine the effect of Financial Performance on Company Value moderated by Financial Technology listed on the Indonesia Stock Exchange during the period of 2019 to 2023.

The Effect of Return on Assets Variables on Company Value

Based on the results of the partial test (t-test), the significance value of the Return on Assets (ROA) variable was 0.001 < 0.05, which shows that ROA has a significant effect on the company's value. However, the direction of the regression coefficient with a negative value indicates that the relationship between ROA and the company's value is the opposite direction to the proposed hypothesis, so the first hypothesis (H1) is declared rejected. This means that the increase in the value of ROA is actually followed by a decrease in the value of companies in banking companies listed on the Indonesia Stock Exchange for the 2019–2023 period.

These results show that high profitability is not necessarily responded positively by investors in the capital market. This condition is possible because the increase in profit reflected through ROA does not necessarily come from the bank's main operational activities, but from temporary efficiency or short-term non-operational factors. Investors tend to be cautious in assessing an increase in profit if it is not accompanied by evidence of sustainable growth, especially in the context of banking that is facing pressure due to digitalization and regulatory adjustments in the financial sector (Hirdinis, 2019).

In addition, a negative coefficient result may indicate that increased profitability is accompanied by increased asset risk and future earnings uncertainty. In the context of the banking sector, increased ROA is sometimes generated through aggressive credit expansion strategies or a decrease in loss reserves, which can increase short-term profits but pose a long-term risk to financial stability (Ghani et al., 2023). Thus, efficiency in the use of assets does not necessarily increase the value of the company if the market assesses that there is a higher potential risk behind the increase in profitability.

Theoretically, the results of this study are not in line with the Signaling Theory put forward by Ross (1977), which states that high profits are a positive signal to the market that the company is managed efficiently and has good prospects. However, in the context of this study, high profit signals were not responded positively by investors. This can be explained by the existence of information asymmetry, where investors have not fully understood the source of profit and the sustainability of the company's performance (Brigham & Houston, 2019). In other words, the market may judge that the increase in profits does not reflect the fundamental strength of the company, but rather is due to external conditions or short-term strategies.

This finding is also not in line with the Firm Value Theory explained by Brigham and Daves (2019), which states that the value of the company will increase along with the increase in the company's ability to generate profits from the assets owned. However, negative results show that the increase in operational efficiency reflected in the ROA does not necessarily increase the market value if there is a high perception of risk from investors to the sustainability of the profit. In this context, investors tend to pay attention to performance stability, risk management, and the company's ability to sustain growth in the midst of digital change, not just the amount of reported profit.

Empirically, the results of this study are in line with the findings of Hanung Firdianto and Bambang Sudiyatno (2024) who stated that profitability does not always have a significant

effect on the value of companies in the banking sector due to differences in market perception of profits during the digital transformation period. However, these results are different from the research of Pramudita and Sari (2021) and Hasibuan and Wirawati (2020) which shows that ROA has a positive effect on company value. These differences in results show that the relationship between profitability and company value is very contextual, depending on industry conditions, economic stability, and company management policies in each period.

The Influence of Non-Performing Loan Variables on Company Value

Based on the results of the partial test (t-test), the significance value of the NPL variable was 0.990 > 0.05, which means that the NPL variable does not have a significant effect on the company's value. Thus, the second hypothesis (H2) was declared rejected. This shows that the level of non-performing loans does not affect the increase or decrease in the value of banking companies listed on the Indonesia Stock Exchange for the 2019–2023 period.

These results indicate that the large NPL ratio is not the main concern of investors in assessing the company's performance and prospects. One of the reasons is because the NPL ratio in banks during the study period was still below the safe limit set by the OJK (maximum 5%), so it does not raise concerns about bank stability. In addition, banks are able to maintain performance through income diversification and the implementation of good risk management.

Theoretically, the results of this study do not support the Signaling Theory which states that increased credit risk will lower the value of the company (Ross, 1977). However, these results show that the market assesses that credit risk can be controlled with loss reserve policies and digital risk management. This finding is also not in line with the firm value theory (Brigham & Daves, 2019), because credit risk factors are not the dominant variable in the formation of a bank's market value.

The results of this study are consistent with the findings of Prameswari and Purwanto (2024) and Sunaryo and Adiyanto (2022) which prove that NPLs do not have a significant effect on the value or performance of banking companies in Indonesia. Thus, it can be concluded that NPLs are not the main determinant of a company's value, as banks are able to manage credit risk effectively amid the development of financial technology and changing industry conditions.

The Effect of Loan to Deposit Ratio on Company Value

Based on the results of the partial test (t-test), the significance value of the LDR variable was 0.679 > 0.05, which means that the LDR has no significant effect on the company's value. Thus, the third hypothesis (H3) was rejected. These results show that the high and low ratio of credit disbursement to third-party funds does not affect the value of companies in the banking sector listed on the Indonesia Stock Exchange for the 2019–2023 period.

This insignificance can be attributed to the bank's ability to maintain a balance between liquidity and credit expansion. Although a high LDR reflects increased intermediation activity, it is not always accompanied by an increase in profitability or investor confidence, especially if it is accompanied by increased credit risk. On the other hand, LDR that is too low can also indicate a lack of optimal use of funds, so that it does not have an impact on the market value of the bank.

Theoretically, the results of this study do not support the Signaling Theory (Ross, 1977), because the LDR ratio that reflects the bank's ability to channel funds does not provide a strong signal to investors regarding the company's prospects. Similarly, these results do not support the Firm Value Theory (Brigham & Daves, 2019), as the value of the company is more influenced by other factors such as operational efficiency, profitability stability, and market confidence in the bank's long-term performance.

This finding is in line with the research of Deni Sunaryo and Yoga Adiyanto (2022) who stated that LDR does not have a significant effect on the value of banking companies in the Southeast Asian region. Thus, it can be concluded that during the research period, LDR was not the dominant factor in determining the value of the company, as the market focused more on the aspects of profitability and the bank's ability to innovate in the face of digital transformation.

The Effect of Operating Costs on Operating Income on Company Value

Based on the results of the partial test (t-test), the significance value of the BOPO variable was 0.115 > 0.05, which means that the BOPO variable has no significant effect on the company's value. Thus, the fourth hypothesis (H4) was rejected. This shows that the level of operational efficiency of banks has not been able to affect the increase or decrease in the value of banking companies listed on the Indonesia Stock Exchange for the 2019-2023 period.

These results indicate that although the BOPO ratio reflects the level of efficiency in managing operating costs to revenue, this factor has not yet become a key consideration for investors in assessing the company's performance and market value. One reason is that high operational efficiency is not always followed by increased profitability or significant profit growth. In addition, during the digital transformation period, the increased burden of technology and digitalization investment can affect the BOPO ratio without having a direct impact on market perception.

Theoretically, the results of this study do not support the signaling theory (Ross, 1977) because good operational efficiency has not been able to provide a positive signal to investors regarding the increase in the company's value. Similarly, these results do not support the firm value theory (Brigham & Daves, 2019), because the company's value is more influenced by external factors such as economic conditions, digital innovation, and market confidence in the company's long-term prospects.

This finding is in line with the research of Alyzza Lintang Prameswari and Agus Purwanto (2024) who stated that the operational efficiency of banking does not have a significant influence on company value because the market assesses its adaptability to technology and digital risks more. Thus, it can be concluded that during the research period, BOPO has not been a major determinant of the company's value, as operational efficiency has not fully reflected the financial performance assessed by investors.

The Influence of Fintech Moderating Variables on Company Value

Based on the results of the partial test (t-test), the significance value of the Fintech moderation variable was 0.655 > 0.05, which means that the Fintech variable does not have a significant effect on the company's value. Thus, the fifth hypothesis (H5) is declared rejected. These results show that the level of application of financial technology has not been able to moderate the relationship between financial performance and company value in the banking sector listed on the Indonesia Stock Exchange for the 2019–2023 period.

This insignificance suggests that Fintech adoption has not fully had a direct impact on increasing the company's value. This can happen because the banking digitalization process is still in the adjustment stage, where the high cost of technology investment has not been offset by significant increases in efficiency and profitability. In addition, some banks still face challenges in digital system integration, data security, and service adoption by customers, so the benefits of Fintech to the company's value have not been fully realized.

Theoretically, the results of this study do not support the Signaling Theory (Ross, 1977), because the application of Fintech has not been a positive signal for investors about increasing the value and efficiency of the company. Similarly, these results do not support the Firm Value Theory (Brigham & Daves, 2019), because the value of a company is not only determined by

the level of technological innovation, but also by fundamental factors such as financial performance and operational stability.

This finding is in line with the research of Prameswari and Purwanto (2024) which states that the adoption of Fintech in the banking sector in Indonesia has not had a significant effect on financial performance and company value because the technology implementation stage is still focused on strengthening digital infrastructure. Thus, it can be concluded that during the research period, Fintech has not been able to play a role as a factor that strengthens the relationship between financial performance and company value, as the benefits of new technological innovations are felt in the long term.

The Effect of Firm Size Control Variables on Company Value

Based on the results of the partial test (t-test), the significance value of the Firm Size variable was 0.000 < 0.05, which means that Firm Size has a significant effect on the company's value. However, the direction of the regression coefficient shows a negative value, so the relationship that occurs is in the opposite direction to the proposed hypothesis. Thus, the sixth hypothesis (H6) was declared rejected. This shows that the larger the size of the company is not always followed by an increase in the value of the company in the banking sector listed on the Indonesia Stock Exchange for the 2019–2023 period.

These results indicate that a large company size does not necessarily reflect better efficiency and profitability. In the context of banking, companies with large assets may face high operational burdens, complex credit risks, as well as large digital transformation costs. This condition can reduce investors' perception of the bank's ability to optimize its assets to generate profits and increase the company's value.

Theoretically, the results of this study do not support the signaling theory (Ross, 1977), because the size of a large company is supposed to provide a positive signal about the stability and financial strength of the company. However, the negative direction suggests that the market values that the growth of large assets is not always accompanied by efficient performance. In addition, these results also do not support the Firm Value Theory (Brigham & Daves, 2019), which assumes that the larger the company, the greater the market value it has.

This finding is in line with the research of Firdianto and Sudiyatno (2024) who found that company size does not always have a positive effect on the value of companies in the banking sector, because investors pay more attention to the effectiveness of asset management than the size of total assets. Thus, it can be concluded that during the research period, Firm Size has not been able to become a determining factor in the value of a company, because large size does not guarantee an increase in efficiency, profitability, or positive perception of the capital market.

The Influence of Firm Age on Company Value

Based on the results of the partial test (t-test), the significance value of the Firm Age variable was 0.000 < 0.05, which means that Firm Age has a significant effect on the company's value. However, the direction of the regression coefficient shows a negative value, so the relationship that occurs is in the opposite direction to the hypothesis. Thus, the seventh hypothesis (H7) was declared rejected. This shows that the longer the age of the company is not always followed by an increase in the value of the company in the banking sector listed on the Indonesia Stock Exchange for the 2019–2023 period.

These results indicate that banks with longer operational years do not necessarily have a higher market value than newer banks. This can be caused by a lack of innovation, organizational rigidity, and slow adaptation to financial technology (Fintech) developments. On the other hand, new banks with more modern and efficient systems are actually adapting faster to digitalization, making them more attractive in the eyes of investors.

Theoretically, the results of this study do not support the signaling theory (Ross, 1977), because the length of the age of the company that is supposed to be a signal of stability and experience does not increase investor confidence. Similarly, these results do not support the firm value theory (Brigham & Daves, 2019), because the value of a company is more influenced by its ability to innovate, operational efficiency, and adaptability to technological changes than by the age of the company itself.

This finding is in line with research by Firdianto and Sudiyatno (2024) which states that the age of companies does not have a significant effect on the value of companies in the banking sector, because older banks tend to face challenges in transforming towards a digital system. Thus, it can be concluded that during the research period, Firm Age has not been the main factor determining the value of a company, as long life does not necessarily reflect the ability to adapt and innovate amid changes in the digital finance industry.

The Influence of ROA and Fintech Interaction on Company Value

Based on the results of the partial test (t-test), the significance value of the interaction variable between ROA and Fintech was $0.02 < 0.05$, which means that the interaction between ROA and Fintech has a significant effect on the company's value. Thus, the eighth hypothesis (H8) is declared accepted. This shows that the existence of Fintech strengthens the relationship between profitability (ROA) and company value in the banking sector listed on the Indonesia Stock Exchange for the 2019–2023 period.

These results indicate that the application of financial technology is able to increase the effectiveness of banks' financial performance, so that the resulting profitability can provide a positive signal for investors. Fintech helps banks reduce operational costs, expand service ranges, and improve business process efficiency, which ultimately impacts increasing company value. In other words, Fintech plays a moderating factor that strengthens the positive influence of ROA on company value.

Theoretically, these results support the Signaling Theory (Ross, 1977), in which increased profitability supported by technological innovation gives a positive signal to investors regarding the ability of banks to adapt to changes in the financial industry. In addition, these findings are also in line with the Firm Value Theory (Brigham & Daves, 2019), which explains that the value of a company will increase if the company is able to optimize its assets and financial performance through technological innovation and efficiency.

This finding is consistent with the research of Prameswari and Purwanto (2024) which states that the application of Fintech can strengthen the relationship between financial performance and company value through increased efficiency and expansion of the digital customer base. Thus, it can be concluded that during the research period, Fintech played an important role in strengthening the influence of profitability on the value of banking companies, because digital innovation is able to increase competitiveness and positive market perception of company performance.

The Effect of Non-Performing Loan and Fintech Interaction on Company Value

Based on the results of the partial test (t-test), the significance value of the interaction variable between NPLs and Fintech was $0.027 < 0.05$, which means that the interaction between NPL and Fintech has a significant effect on the company's value. However, the direction of the regression coefficient shows a negative value, so the relationship that occurs is in the opposite direction to the hypothesis. Thus, the ninth hypothesis (H9) is declared rejected. This shows that the existence of Fintech has not been able to strengthen the relationship between non-performing loans (NPLs) and company value in the banking sector listed on the Indonesia Stock Exchange for the 2019–2023 period.

These results indicate that although the application of Fintech can increase efficiency and accuracy in the credit disbursement process, it is not yet fully able to reduce the risk of non-performing loans. Fintech implementation that is not optimal can actually pose new challenges, such as data security risks, misuse of systems, or lack of readiness of human resources in managing digital technology. As a result, the increase in NPLs that occurred still had a negative impact on investors' perception of the company's value.

Theoretically, the results of this study do not support the signaling theory (Ross, 1977), because the application of Fintech has not provided positive signals that are able to change the market's perception of credit risk. Similarly, these results are not in line with the firm value theory (Brigham & Daves, 2019), as technological innovations have not succeeded in significantly reducing the negative impact of NPLs on the company's market value.

This finding is in line with the research of Prameswari and Purwanto (2024) which states that Fintech in the Indonesian banking sector still faces challenges in supporting financial stability due to limited integration of digital systems and infrastructure. Thus, it can be concluded that during the research period, Fintech has not been able to play an effective role as a moderation variable in the relationship between NPLs and company value, as credit risk remains the dominant factor that lowers market perception of bank performance.

The Influence of Loan to Deposit Ratio and Fintech Interaction on Company Value

Based on the results of the partial test (t-test), the significance value of the LDR interaction variable with Fintech was 0.048 < 0.05, which means that the interaction between LDR and Fintech has a significant effect on the company's value. Thus, the tenth hypothesis (H10) is declared accepted. This shows that the existence of Fintech is able to strengthen the relationship between the Loan to Deposit Ratio (LDR) ratio and the value of companies in the banking sector listed on the Indonesia Stock Exchange for the 2019–2023 period.

These results indicate that the application of financial technology plays an important role in increasing the effectiveness of banks' intermediation functions. Through the digitalization of the financial system, banks can distribute credit more efficiently, accelerate the risk analysis process, and expand access to financing digitally. The increase in efficiency has a positive impact on investor perception because it shows the bank's ability to utilize technology to improve financial performance and company value.

Theoretically, the results of this study support the Signaling Theory (Ross, 1977), because the integration of Fintech in financing activities provides a positive signal to the market regarding the ability of banks to innovate and adapt to technological changes. In addition, these results are also in line with the Firm Value Theory (Brigham & Daves, 2019), which explains that increased efficiency and profitability due to the use of technology will increase the company's value in the eyes of investors. These findings are consistent with Prameswari and Purwanto's (2024) research which states that Fintech can strengthen the relationship between financial performance and company value through increased efficiency, speed of service, and market trust. Thus, it can be concluded that during the research period, Fintech succeeded in acting as a moderation variable that strengthened the influence of LDR on company value, because digital innovation was able to increase the effectiveness of intermediation and investor trust in the banking sector.

The Influence of BOPO and Fintech Interaction on Company Value

Based on the results of the partial test (t-test), the significance value of the interaction variable between BOPO and Fintech was 0.018 < 0.05, which means that the interaction between BOPO and Fintech has a significant effect on the company's value. Thus, the eleventh hypothesis (H11) is declared accepted. This shows that the existence of Fintech is able to strengthen the relationship between operational efficiency (BOPO) and company value in the banking sector listed on the Indonesia Stock Exchange for the 2019–2023 period.

These results indicate that the application of financial technology plays an important role in improving the operational efficiency of banks. Through Fintech, banks can reduce operational costs, speed up services, and increase productivity through a digitalization system. This efficiency has a positive impact on investor perception, as it shows the bank's ability to utilize technological innovations to improve performance and increase company value. Thus, Fintech functions as a moderation variable that strengthens the influence of operational efficiency on company value.

Theoretically, these results support the Signaling Theory (Ross, 1977), in which improved efficiency through technological innovation is a positive signal to investors regarding management's ability to adapt to industrial changes. In addition, these results are also in line with the Firm Value Theory (Brigham & Daves, 2019), which explains that increased efficiency and cost management will contribute to an increase in the company's market value.

These findings are in line with research by Prameswari and Purwanto (2024) which states that digitalization through Fintech can improve operational efficiency and strengthen the relationship between financial performance and company value. Thus, it can be concluded that during the research period, Fintech played an effective role in strengthening the influence of BOPO on company value, as digital innovation drives efficiency, transparency, and investor trust in banking performance.

CONCLUSION

The moderation regression analysis of data from 43 banking companies listed on the Indonesia Stock Exchange (IDX) for 2019–2023 revealed that individual variables—Return on Assets (ROA), Non-Performing Loan (NPL), Loan to Deposit Ratio (LDR), Operating Costs to Operating Income (BOPO), financial technology (fintech), firm size, and company age—did not significantly affect company value, despite statistical significance in ROA (p=0.001), firm size, and company age (p=0.000), where t-coefficients contradicted the hypotheses. However, fintech interactions proved influential, with significant effects for ROA×fintech (p=0.02), NPL×fintech (p=0.027, negative direction), LDR×fintech (p=0.048), and BOPO×fintech (p=0.018), indicating that fintech moderates financial performance's impact on value, though not always positively. For future research, studies could explore nonlinear fintech effects or contextual factors like regulatory changes in Indonesia's banking sector to clarify these mixed moderation outcomes.

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