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Financial Technology on Banking Financial Performance with Audit Quality as Moderating Variable

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Abstract
The purpose of this study is to determine the effect of fintech on banking financial performances as seen from profitability and liquidity risk with audit quality as moderating variable. The urgency of this research is due to the inconsistency of results in testing the effect of fintech on banking financial performance. In addition, this study also considers the audit quality variable as moderating variable to see whether the audit quality can stengthen or weaken the effect of fintech on banking financial performance. This research is descriptive research with quantitative approach. The population used in this study were all banking companies listed on the IDX for the 2020-2022 period. The study's samples, which were chosen using the purposive sampling technique, include banks that periodically released yearly financial reports throughout the research period and have used fintech services such phone, SMS, and internet banking. Managing data using Eviews 12. The findings demonstrated that financial technology significantly affects LDR and ROA. However, as a moderating variable, the audit quality variable has no discernible effect on ROA or LDR.
***Keywords**: Fintech, Audit Quality, ROA, LDR, Banking.*

1. INTRODUCTION

Based on (Martowardojo, 2017), financial technology (fintech) is the use of technology in the financial system that produces new products, services, technology, and or business models and can have an impact on monetary stability, financial system stability, and or the efficiency, smoothness, security, and reliability of the payment system. Fintech is a modern platform on digital technology that serves as a safe and practical financial hub (Aaron et al., 2017).

With the utilization of fintech in banking, it is expected to have a good impact on improving banking financial performance. Financial performance is an assessment of the level of efficiency and productivity carried out periodically on management reports and financial reports which is a reflection of the achievements of what the company has achieved. Some studies show that fintech services increase profitability in Islamic banking. Other research also shows that e-banking has a significant effect on the profitability, where profitability is measured using ROA (Anindyastri et al., 2022; Baker et al., 2023; Hermuningsih et al., 2022; Yoon et al., 2023). However, the results of this study are not in line with research conducted by (Kristianti & Tulenan, 2021; Sudaryanti et al., 2019) which shows that the use of mobile banking has a negative effect on ROA. Other research conducted by (Arief Aditya & Noer Rahmi, 2022; Untoro et al., 2022) shows that the use of mobile banking has no impact on improving bank performance.

This research was conducted because there are differences and inconsistencies in the results, so that it is necessary to retest the effect of financial technology (fintech) on the financial performance of bank listed on the Indonesia Stock Exchange (IDX) with the observation year 2020-2022. The financial performance of banks in this study is measured by four indicators, namely: 1) Profitability (Return on Assets/ ROA) and 2) Liquidity Risk (Loan to Deposit Ratio/ LDR).

2. LITERATURE REVIEW AND DEVELOPMENT HYPOTHESES

Financial technology (fintech) can be defined as a modern platform in digital tehcnology that aims to be a safe and practical financial hub (Aaron et al., 2017). The existence of fintech is a technological

advancement that creates various activity models that are easier and safer for consumers to access financial technology. Fintech is an innovation, platform or financial application that provides easy, safe, and practical financial services that can help the community and improve the economy.

The Nexus Between Fintech and ROA

ROA (Return on Assets) is a ratio used to show the bank's ability to manage its assets to generate profits. The greater the ROA, the company's profitability increases and shows good banking performance. ROA will be calculated by dividing net income after tax by total assets. In reseach conducted by (Sudaryanti et al., 2019), it is known that the use of fintech has negative significant effect on banking financial performance as measured by ROA. While other results were found in research conducted by (Mar'atushsholihah & Karyani, 2021), where fintech has a significant effect on ROA. The hypothesis built in this study is as follows.

H1: Fintech has a significant effect on ROA

The Nexus Between Fintech and LDR

LDR (Loan to Deposit Ratio) is a ratio used to measure the bank's ability and repay obligations to customers who have provided funds. The higher LDR, it will show a better level of liquidity. Research conducted by (Idfilandu & Saripudin, 2021; Mar'atushsholihah & Karyani, 2021) shows that fintech affects LDR. The decrease in LDR is due to the decreasing number of loans or increasing deposits of banking companies. The hypothesis built in this study is as follows.

H2: Fintech has a significant effect on LDR

The Nexus Between Fintech and ROA with Audit Quality as Moderating

Audit quality is crcuial and the primary means of guaranteeing the accuracy of the financial statement examination since it will have an impact on the audit report that the auditor issues. As a monitoring tool, audit may assist in reducing skewed information to safeguard stakeholders and guarantee that there are no majo misstatements in the financial statements that are provided. Research conducted by (Mulyadi, 2017) shows that audit quality has a significant positive effect on company profitiability as measured by ROA. However, the results of this study ore not in line with research conducted by (Butar-butar & Chang, 2023), where the results showed that audit quality had no significant effect. Based on this incosistency, the hypothesis is as follows.

H3: Audit quality has a significant effect relationship in moderating the relationship between fintech and ROA

The Nexus Between Fintech and LDR with Audit Quality as Moderating

External auditors have an influence on the company's internal control in order to improve company performance. Referring to research conducted by (Rukmi & Hutami, 2015), it was found that audit quality was not significant to the financial performance of banks proxied by LDR.

H4: Audit quality has a significant effect relationship in moderating the relationship between fintech and LDR

3. RESEARCH METHODOLOGY

The data used in this study are secondary data in the form of banking financial ratios obtained from the annual reports of banks listed on the Indonesia Stock Exchange for the periode 2020-2022. The sampling method uses purposive sampling techniques, which is a sampling technique by considering certain criteria. The banking criteria used as samples in this study are: 1) Banking companies listed on the IDX in 2020-2022; 2) Publish financial statements and annual reports completely within the last three years; 3) Use fintech services (such as: internet banking, mobile banking, SMS banking, and phone banking).

This study conducted a chow test and hausman test to determine the right model, F test, and T test using Eviews12 software. The independent variable in this study is fintech, namely the use of internet banking, mobile banking, SMS banking, and phone banking, while the dependent variable in this study is the financial performance of banks, namely: 1) Profitability (ROA); and 2) Liquidity Risk (LDR). The operational definitions of the research variable used in the study can be seen in the following table.

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Table 1. Operational Definition of Variables

Variable	Definition of Variable	Indicator
Dependent Variable		
ROA	The ratio that shows the bank's ability to manage funds invested in assets that generate profits, so the higher the ratio shows better results.	*ROA = Net Income after Tax/ Total Assets*
LDR	The ratio that shows the bank's ability to pay back obligations to customers who have invested their funds, so the higher the ratio, the better the liquidity level.	*LDR = Total Assets/ Total Deposit*
Independent Variable		
Fintech	Innovations in the financial sector related to modern technology.	Fintech services used by banks are: 1) Internet banking; 2) Mobile banking; 3) SMS banking; and 4) Phone banking
Moderating Variable		
Audit Quality	The expertise and independence of an auditor in finding and disclosing material misstatements in financial statements.	Nominal "1" for banks audited by Big 4 and "0" if not.

Based on the theories and empirical models, authors suggest the following studies model to test what are the effects of fintech on ROA and LDR which are proxies for measuring banking financial performance.

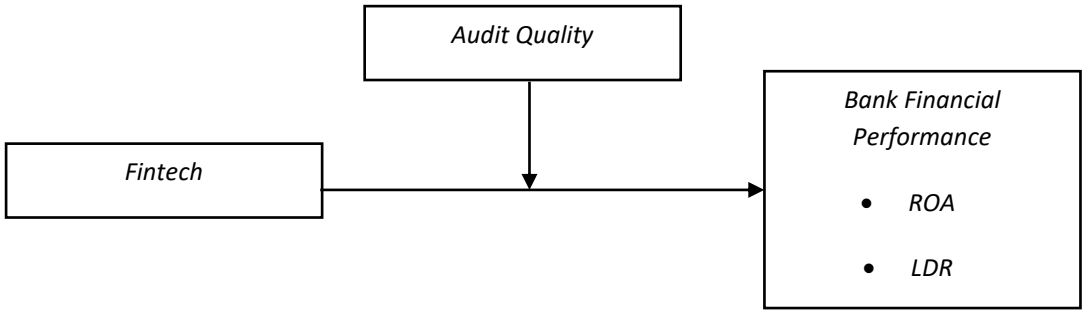

Figure 1. Conceptual Framework

4. RESULTS AND DISCUSSION

Hasil penelitian secara langsung menyajikan data dan hasil yang didapat dari penelitin. Bagian ini hanya memberikan uraian naratif atas hasil penelitian. Sedangkan bagian pembahasan menginterpretasikan makna dari hasil penelitian, baik sesuai dengan harapan atau tidak.

The following are descriptive statistics for each research variable.

Table 2. Results of Descriptive Statistics

Variable	N	Min	Max	Mean	Std. Dev
ROA	132	-84.610	13.580	0.057	8.212
LDR	132	0.000	196.73	83.817	28.738
Fintech	132	1.000	4.000	2.325	0.756

The results of the descriptive statistical test can be observed through the table attached above. The amount of research data used in this study is 132 data. In this study, Fintech acts as an independent variable. The mean value of fintech is 2.325 with a standard deviation value of 0.756. While ROA and LDR as

dependent variables which are proxies for measuring banking financial performance. The mean values for ROA and LDR are 0.057 and 83.817, respectively. Then for the standar deviation value of ROA is 8.212 and the standard deviation value of LDR is 28.738.

Table 3. Descriptive Statistical Test Results of Audit Quality Variables

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non Big 4	53	40.15	40.15	40.15
	Big 4	79	59.85	59.85	100
	Total	132	100	100	

The results of the descriptive statistical test of the dummy variable in Table 3 show that of the 132 company data sampled in this study, 59.85% of company data used big four auditor services and 40.15% of company data did not use big four auditor services. This shows that 59.85% of banking sector company data uses big four auditor services from 2020 to 2022.

Table 4. Results of Chow Test for ROA

Effects Test	Prob	Result
Cross-section Chi-square	0.0026	Fixed effect model

Table 4 makes it clear that the resulst of the Chow test have a probability value of less than 0.05. It is concluded that the fixed effect model is the optimal model approach and that the common effect model is not the best model for estimate.

Table 5. Results of Chow Test for LDR

Effects Test	Prob	Result
Cross-section Chi-square	0.0000	Fixed effect model

Table 5 makes it clear that the results of the Chow test have a probability value of less than 0.05. It is concluded that the fixed effect model is the optimal model approach and that the common effect model is not the best model for estimate. The Hausman test is used to compare the fixed effect model and the reandom effect model after the Chow test.

Table 6. Results of Hausman Test for ROA

Effects Test	Prob	Result
Cross-section random	0.0199	Fixed effect model

Table 6 makes it clear that the results of the Hausman test have a probability value of less than 0.05. It is concluded that the fixed effect model is the better model approach and that the common effect model is not the best model for estimate.

Table 7. Results of Hausman Test for LDR

Effects Test	Prob	Result
Cross-section random	0.0033	Fixed effect model

Table 7 makes it clear that the results of the Hausman test have a probability value of less than 0.05. It is concluded that the fixed effect model is the optimal model approach and that the common effect model is not the best model for estimate.

Table 8. Result of F Test

Variable	Prob. (F-statistic)	Conclusion
ROA	0.0033	Significant
LDR	0.0000	Significant

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Based on the table above, it can be seen that the Prob. (F-statistic) value is 0.0033, which means that the independent variables in this study have a significant impact on ROA as a proxy for profitability in measuring banking financial performance. Meanwhile, the Prob. (F-statistic) value of LDR is 0.0000, which means that the independent variables in this study have a significant impact on LDR as a proxy for liquidity risk in measuring banking financial performance.

Table 9. R-square Test Result

Variable dependent	Adjusted R-Squared
ROA	0.171797
LDR	0.579906

Based on the table above, the adjusted R-squared value on ROA shows a value of 0.146686, which means that the fintech variable is able to explain ROA as a proxy for profitability in banking financial performance by 14,67% and the rest is explained by variables outside the research model. Meanwhile, the adjusterd R-squared value on LDR shows a value of 0.584790. This means that the fintech variable is able to explain LDR as a proxy for liquidity risk in banking financial performance by 58,48% and the remaining 41,52% is explained by variables outside the research model.

Table 10. Moderation T-test Results on ROA

	Coefficient	Prob.	Conclusion
Constant	14.71420	0.0108	
Fintech	-0.252143	0.0223	Negative significant
AQ	-0.685455	0.0739	Not significant
FinAQ	-10.48364	0.0609	Not significant

Based on Table 10, the test results generated from this study obtained a result of 0.0223 with a negative coefficient, which means that the financial tehcnology and ROA variables has a significant and negative effect. From these results, the first hypothesis in this study is supported. This means that the use of financial a negative impact on ROA for banking sector. This results is supported by research conducted by (Sudaryanti et al., 2019) where the use of financial technology services in banks will reduce ROA. This is because the use of financial technology has not been comprehensive and maximized so that it becomes an obstacle to the development of financial technology services.

Referring to Table 10, it can also be seen that the t-test result on the relationship between audit quality and the correlation between financial technology and ROA produces a value of 0.0619, which means that audit quality in unable to moderate the relationship between financial technology and ROA, so it can be said that the third hypotesis in this study cannot be proven. This indicates that audit quality cannot have any effect on financial technology and ROA. Whether the financial statements are audited by a bigfour member or not, this cannot add to the quality of the financial statements.

Table 11. Moderation T-test Results on LDR

	Coefficient	Prob.	Conclusion
Constant	94.96466	0.0001	
Fintech	5.434286	0.0344	Positive significant
AQ	-39.47364	0.0204	Negative significant
FinAQ	-0.124091	0.0928	Not significant

In Table 11, it can be seen that the Prob. Value results show 0.0344 with a positive cofficient, which indicates that the financial technology and LDR variables have a significant and positive effect. Based on these result, the second hypothesis in this study is supported. This means that the use of financial technology has a positive impact on LDR. This is supported by (Idfilandu & Saripudin, 2021) where the results show that financial performance based on the Loan to Deposit Ratio (LDR) liquidity ratio has an influence due to the existence of fintech.

Based on Table 11, we can also see that the t-test result on the relationship between audit quality the correlation between financial technology and LDR produces a value of 0.0928, which means that audit quality cannot moderate the relationship between financial technology and LDR, so it can be said that the fourth hypothesis in this study cannot be proven. This indicates that audit quality cannot influence financial technology and LDR. This shows that whether the financial statemetns are audited by bigfour or not, this will not increase the quality of the financial statements. Thus, financial reports audited by bigfour or non-bigfour members cannot reduce the level of information asymmetry and cannot have any influence on investors in making decisions (Butar-butar & Chang, 2023; Butar-Butar & Stefy, 2023).

5. CONCLUSIONS, LIMITATIONS, AND SUGGESTIONS

Conclusions

This study aims to analyze the effects of financial technology on financial performance in banking sector companies in 2020-2022 in Indonesia. The financial performance in this study is assessed in terms of profitability as measured by the ROA proxy and liquidity as measured by the LDR proxy. The results show that financial technology has a significant influence with a negative direction on ROA, while financial technology has a significant influence with a positive direction on LDR. The use of financial technology has a negative effect on ROA, which means that the use of financial technology services in banks will reduce ROA. It is suspected that the cause is because its use is note yet comprehensive or every customer does not necessarily use this facility.

However, the quality audit variable which is a moderating variable has no significant effect on either ROA or LDR. This indicates that audit quality cannot influence financial technology with ROA nor LDR. This shows that whether the financial reports are audited by bigfour or non-bigfour, this will not improve the quality of the financial reports. Thus, financial reports audited by bigfour and non-bigfour members cannot reduce the level of information asymmetry and cannot provide influence to investors in decision making.

Limitations

There are several limitations to this study. First, the research only focuses on financial technology without considering other independent variables. Another limitation is that this study only measures financial performance, namely profitability proxied by ROA and liquidity measured by the LDR proxy.

Suggestions

Based on the limitations of this research that have been described, suggestion for further research are:

1. Adding measurements from the solvency side and adding samples, namely other countries, in order to compare the financial performance of banks and the progress of financial technology with other countries.
2. Further research can also conduct a back test, namely to test what variables can affect fintech.
3. Further research can also add other independent variables that may affect the financial performance of banks.

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