

# INTEGRATING BANK SIZE, LIQUIDITY, AND FINANCIAL PERFORMANCE INTO MODERATING FINANCIAL TECHNOLOGY: A CASE STUDY OF SHARIA COMMERCIAL BANKS IN INDONESIA

JAM

20, 4

Received, August '22  
Revised, October '22  
November '22  
Accepted, November '22

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**Abstract:** A company evaluates each profit-generating success to understand the organization's growth, prospects, and potential developments. If a business meets the established goals and standards, it can be said to succeed. This study examines and demonstrates how bank size and liquidity affect financial performance in Indonesia's Islamic Commercial Banks using Financial Technology (Fintech). This moderating factor connects the Financial Services Authority from 2016 to 2021, which constitutes the study's population. The sample was drawn from Islamic Commercial Banks using Fintech between 2016 and 2021. The sampling procedure used purposeful sampling with the requirements of Islamic Commercial Banks that incorporated Fintech to obtain data from 12 Islamic Commercial Banks with 76 financial statement data. SmartPLS software (PLS-SEM method) is used for the analysis process. The findings of this study show that bank size and liquidity positively affect financial performance. Applying Fintech by Indonesia's Islamic Commercial Banks improves their impact on earnings management. Due to the size of the bank and more liquidity, such financial performance will consequently enhance the chances of adopting Fintech. This empirical data shows that Indonesia's Islamic Commercial Banks' adoption of Fintech is unprecedented.



Journal of Applied  
Management (JAM)  
Volume 20 Number 4,  
December 2022  
Indexed in DOAJ -  
Directory of Open Access  
Journals, ACI - ASEAN  
Citation Index, SINTA -  
Science and Technology  
Index, and Google  
Scholar.

**Keywords:** Bank Size, Liquidity, Financial Performance, Financial Technology

**Cite this article as:** Hermuningsih, S. and Rahmawati, A.D. 2022. Integrating Bank Size, Liquidity, and Financial Performance Into Moderating Financial Technology: A Case Study Of Sharia Commercial Banks In Indonesia. *Jurnal Aplikasi Manajemen*, Volume 20, Number 4, Pages 938–949. Malang: Universitas Brawijaya. DOI: <http://dx.doi.org/10.21776/ub.jam.2022.020.04.15>.

In every nation, the banking industry is the backbone of the economy. A robust banking industry will boost a nation's financial growth, and banks and investors must pay close attention to the key variables that determine this

sector's health. The banking industry significantly impacts how the economy develops because banks boost overall financial activity, which leads to financial growth. For various reasons, larger banks have more experience than smaller banks and benefit from economies of scale. Investors assume that major banks are more financially stable than small ones and that their assets are safe.

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nesia, DOI: <http://dx.doi.org/10.21776/ub.jam.2022.020.04.15>

Some bank branches have been closing around the world in recent years due to the development of technology in the banking sector, such as internet payments and e-banking. Banks no longer require more physical offices due to the banking sector's fight to preserve digitalization and accessibility of digital services to a wider range of clients and consumers. In addition to the widespread adoption of digital technology during the pandemic, other factors force banks to consolidate branch locations due to rising employee costs and office rental costs caused by a decline in transaction volume. When branch banks' operating costs rise while lending rates drop, they are advised to cut costs, which implies closing branch offices.

In January 2022, the Financial Services Authority released Indonesian Banking Statistics (SPI), which discovered a decline in the number of state-owned banks' branch offices. In contrast to privately owned banks, which are becoming more prevalent, this situation is different. According to SPI, the total number of state-owned bank locations was 14,640 in January 2022, down 13.72 percent from January 2021, when it stood at 16,969 locations. In this digital age, state-owned banks reduced the number of offices. AlAli (2020) used the network of branches as a stand-in for the size of the bank to show how branch offices relate to the banks' profitability. Customers frequently open accounts and deposit money in financial institutions that provide them with better services and a stable financial position, giving them peace of mind that their money won't be lost in bankruptcy. Banks with greater overall assets, deposits, equity capital, loans, and determining macro financials (financial growth, stock market capitalization, and inflation) benefit from a higher level of security and have the opportunities for higher returns.

The business performance of a bank is greatly influenced by its size. Large banks impact bank profitability because they have several competitive advantages, such as market power, which allows large banks to charge high prices for their products, and economies of scale, which have affected cost savings. It will also increase the bank's profitability. Rotich and Josephat (2019); AlFadhli and Alali (2021)

discovered that asset size positively relates to profitability, allowing banks to consolidate and expand, as evidenced by two causal relations between variables. Naushad and Malik (2015) and Alex and Ngaba (2018) showed how bank size and Kenyan financial performance are closely linked. Mwangi (2018) found that bank size has positively affected financial performance. In contrast, Tharu and Shrestha (2019) found that bank size did not affect financial performance.

Bank liquidity refers to a bank's capacity to hold on to enough cash to cover obligations as they become due. The ability of the bank to promptly fulfill obligations for cash, checks, other withdrawals, and new legal loan requests while adhering to the reserve requirements in place. The goal of liquidity management is to strategically provide liquidity corresponding to the short-term reserve money level while maintaining the bank's profitability and performance. It is based on determining the banking system's liquidity requirements concerning the amount of liquidity distributed or removed from the market. Demirgünes (2016), Lucy et al. (2021), and Waswa et al. (2018) found that liquidity positively influences financial performance. Musyriyah (2020), Jaworski and Czerwonka (2021), and Paul et al. (2021) add that liquidity positively affects profitability. Bank liquidity and profitability have a significant positive association (Al-Qadi and Khanji, 2018). Achmady et al. (2021) research were inversely proportional to the research finding that liquidity does not affect profitability. Iskandar and Zulhilmi (2021) stated that liquidity has no impact on financial performance.

This study is necessary because, due to recent rapid growth in the banking and financial services sector brought about by technological advancements, people now have to choose banking that best suits their needs, both as individuals and as businesses. With the Islamic banking sector's existence and growth, Indonesia's banking sector has expanded. Sharia Commercial Banks provide banking services to establish Islamic sharia principles. Therefore, they must also adhere to these principles. The following table demonstrates Indonesia's growth of Islamic Commercial Banks from 2016 to 2021.

Table 1. Growing Indonesia's Islamic Commercial Banks from 2016 to 2021

Bank and Office Group	Number of banks and bank offices (Units)											
	Bank						Bank Office					
	2016	2017	2018	2019	2020	2021	2016	2017	2018	2019	2020	2021
Sharia Commercial Banks - Regional Development Banks			7	2	2	2	-	-	178	184	195	190
Islamic Commercial Bank - National Private Bank	12	12	12	12	12	10	1731	1678	1691	1721	1825	1833
Number of Sharia Commercial Banks	12	12	19	14	14	12	1731	1678	1869	1905	2020	2023

Source: Financial Services Authority

Table 1 showed that while the percentage of Islamic Commercial Banks - National Private Banks has remained stable from 2016 to 2020, it decreased between 2016 and 2021 for Regional Development Banks. They were down in 2021. The use of digital technology in banks will increase along with the number of banks and bank locations. As shown in the phenomenon, changes in the number of banks and Islamic commercial bank branches in Indonesia due to technological advancements impact the industry's rapid growth. Research must determine how financial technology (Fintech) impacts liquidity, financial performance, and bank size.

The rate of digital technology is critical for banks to survive in the face of emerging disruption, which is why researchers focused on Islamic Commercial Banks. Banks must take this action to compete with various new products, be key players, and uphold appropriate security and dependability. Therefore, the advantages of Sharia Commercial Banks over traditional banking during the COVID-19 pandemic are relevant to the financial assets.

Sharia Commercial Banks, whose credit underlines have genuinely predictable assets from the financial system using profit sharing, not interest. Then in terms of liquidity, Islamic Commercial Banks have a fanatic side; people save one of them because they believe that the sharia system follows Islamic teachings. Therefore, the liquidity of Islamic Commercial Banks in times like this will not experience a liquidity shortage. Sharia Commercial Banks with genuinely predictable assets from the financial system using profit sharing rather than interest. People save one of them because they believe the sharia system is following Islamic teachings. Thus, the liquidity of Islamic Commercial Banks will not be in limited supply. During the pandemic, Sharia Commercial Banks can gain customers from a broader savings foundation and expand the digital world, which is safe for saving funds. There will be no liquidity shocks in the long term.

The National Committee for Islamic Economy and Finance (KNEKS), through its Executive Director, Ventje Rahardjo, claims that banks have

some flexibility due to the monetary authority's implementation of its liquidity slack policy. Islamic Commercial Banks continue to offer bank transaction activity services during the COVID-19 pandemic to help attract clients to use online and mobile banking. Previously, traditional customers had to alter their behavior to use the internet and mobile banking.

Based on the abovementioned issues, banks must boost profitability to improve financial performance due to the community's embrace of digital technology and digitization efforts. In some earlier studies, banks' profitability and financial performance were shown to be positively impacted by bank size and liquidity. In contrast, others did not connect the bank size to liquidity and business achievements. When analyzing or demonstrating whether the bank size relates to liquidity on financial performance would be strong or weak if the bank adopts Fintech, researchers take Financial Technology (Fintech) into account as a moderating variable. The research's novelty deals with using Fintech as a mediating factor. With Fintech acting as a moderating variable, this research investigates and demonstrates how the bank size connects to liquidity on business performance in Indonesia's Islamic commercial banks. In addition, this study will also examine whether implementing Fintech will negatively or favorably affect Indonesia's Commercial Islamic Banks' performance.

## **LITERATURE REVIEW**

### **Signaling Theory**

The signaling theory, a foundational idea for the study of financial management, emphasizes the significance of information released by the company to outside investors' investment decisions. It implies that management makes information investors desire available, mainly if the information is positive. Investors use information about the company as a signal when choosing an investment. An indicator that a company has been performing well is when its financial statement information shows strong performance. They must continue to send positive signals to clients and the broader public because outside parties will warmly receive positive signals.

Customers feel more secure knowing that their money has been guaranteed by the concerned Islamic Commercial Bank's security precautions.

### **Financial performance**

The company's financial performance demonstrates how numerous actions have contributed to the business's success. Fahmi (2017) claims that financial performance evaluates how effectively a corporation has applied financial implementation principles to its operations. In this study's financial performance calculations, return on assets deals with the following formula (Kasmir, 2016) :

$$\text{Return On Asset} = \frac{\text{Net Income}}{\text{Total Asset}}$$

### **Bank size**

Banking size refers to a ratio used to calculate a bank's wealth. A bank's total assets indicate its wealth, with net assets or log size indicating wealth. The bigger the bank, the higher the possibility that the bank must endure. The Total Asset Log is used in this study to calculate the bank's size.

### **Liquidity**

The Financial Services Authority defines liquidity as the ability to meet all obligations that must be met immediately and in a short period. A company is said to be liquid if its payment instrument in the form of current assets exceeds all of its obligations. Precisely, liquidity reflects the company's ability to meet all maturing debts with funds it owns. Liquidity is determined as follows, using the current ratio and calculation (Kasmir, 2016):

$$\text{Current Ration} = \frac{\text{Current Asset}}{\text{Current Liability}}$$

### **Financial Technology**

Financial technology is a term used to describe innovative approaches to creating applications, goods, or business models in the financial services sector that use technology. Companies that utilize technology to improve the efficiency of financial

systems and the provision of financial services make up the financial technology sector. The study's primary focus is the usage of financial technology, including mobile, internet, SMS, and phone banking.

## HYPOTHESIS DEVELOPMENT

### The Bank Size Affecting Financial Performance

The sum of its assets determines the size of a bank. Banks having substantial total assets demonstrate their stability. Established banks often enjoy steady financial conditions. Consequently, the size of the bank has an enormous impact on how well it does financially. Large banks have several benefits, one of which is that they can entice customers to save money, increasing the bank's overall assets. Therefore, banks with huge sizes are anticipated to increase financial performance since the more significant the overall assets, the better the prosperity and stability in their financial situation. Alex and Ngaba (2018); Jaouad and Lahsen (2018); Mwangi (2018); Rotich and Josephat (2019); Yulianto et al. (2020); Alfadhli and Alali (2021) concluded that financial performance benefits from a larger bank. The findings of this study show that a bank's financial performance increases with size. The study's hypothesis is relevant to theoretical research and the findings of earlier researchers, as follows:

H1: Bank size positively affects bank financial performance

### Liquidity Affecting Financial Performance

The bank's capacity to fulfill commitments or settle short-term debt is known as liquidity. A bank's liquidity can be evaluated using its liquidity ratio. A bank is liquid if it can pay short-term commitments on time and follow a preset maturity because it has more current assets than current liabilities. Because of the bank's increased credibility due to its higher level of liquidity, clients may be more inclined to save money for the bank to use for investments to boost its financial performance. Waswa et al. (2018); Musyriifah (2020); Jaworski and Czerwonka (2021); Lucy et al. (2021); Paul et al. (2021) found that liquidity plays a determinant role in the financial stability of banks. It is clear from the study's findings that financial performance will improve as liquidity

value rises. The study's theory is based on theoretical investigations and the findings of earlier researchers.

H2: Liquidity has a positive effect on bank financial performance

### The Effect of Bank Size on Financial Performance with Financial Technology as a Moderating Variable

A "bank size" scale can calculate a bank's size based on its total assets. The size of a bank increases with total asset size, and financial performance increases with total asset size. Customers frequently open accounts and save money in Islamic banks; therefore, Fintech adoption will boost the financial performance of an Islamic bank. As a result, financial technology enables more efficient and effective financial services and the financial system. The size of the bank contributes to financial technology in business. Yulianto et al. (2020) asserted that Islamic Commercial Banks' financial performance is moderated by using electronic banking. The study's hypothesis, which is based on theoretical research and the findings of earlier investigations, is as follows:

H3: Firm size has an effect on financial performance with Financial Technology as a moderating variable

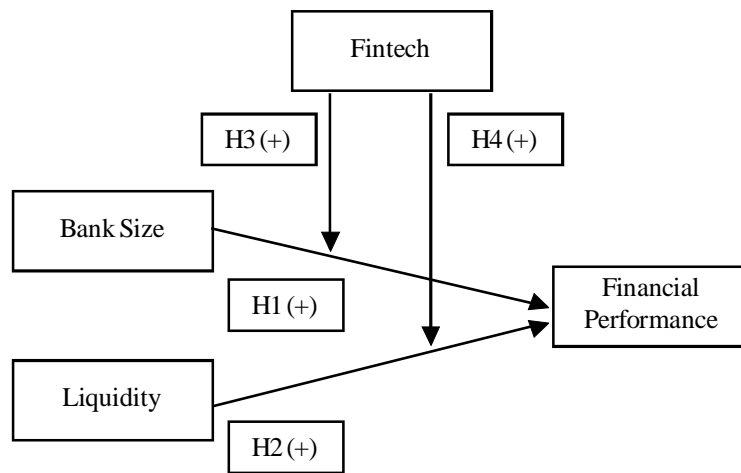
### The Effect of Liquidity on Financial Performance with Financial Technology as a moderating variable

A bank's capacity to fulfill urgent financial obligations is known as liquidity. The size of current assets serves as a proxy for this liquidity ratio. When banks can pay their debts on time, they are said to be in a liquid state. Customers frequently open new accounts and save funds from financial institutions that consider other factors in addition to the bank's capacity to meet immediate obligations. Therefore, a Sharia Commercial Bank with strong liquidity through adopting Fintech would boost financial performance. Fintech services in finance will have a more significant impact on banks' financial performance as they evolve. Based on this, technological advancements like digital banking have started to be applied to client financial operations to enhance

transaction or product offering services. Banks require technology to develop e-banking services, including mobile payments, SMS banking, and online payments. Kurniawan (2016) stated that the relationship between financial performance and liquidity variables could be moderated by using informa-

tion technology. Financial technology enhances how liquidity affects financial performance. The following hypotheses are based on theoretical research and previous research findings:  
 H4: Liquidity affects financial performance and Financial Technology as a moderating variable.

**Conceptual Framework**



**Figure 1. Research Conceptual Framework**

**METHOD**

The target population is Islamic Commercial Banks approved by the Financial Services Authority from 2016 to 2021. The sample was gathered from Islamic Commercial Banks using Fintech between 2016 and 2021. Using a purposive sampling technique and the requirements of Islamic Commercial Banks implementing Fintech innovation, data from 12 Islamic Commercial Banks with 72 financial report data were obtained. The study samples were chosen based on the following standards: 1)

from 2016 to 2021, Islamic Commercial Banks registered with the Financial Services Authority. 2) Commercial Islamic Banks utilizing Fintech between 2016 and 2021 3) ratios are necessary for the 2016–2021 research period. Utilizing the website [www.ojk.go.id](http://www.ojk.go.id), time series data were retrieved from the financial accounts of Islamic Commercial Banks between 2016 and 2021 using the analysis tool for SmartPLS (PLS-SEM method). The following table displays the selection process that produced a final sample of 72 Islamic Commercial Banks.

**Table 2. Sample Selection Criteria**

Criteria	Total
Sharia Commercial Banks - Regional Development Banks from 2016 to 2021	2
Islamic Commercial Banks - National Private Banks from 2016 to 2021	12
Number of Sharia Commercial Banks from 2016 to 2021	14
Islamic Commercial Banks that do not adopt Fintech	2
Sharia Commercial Banks that meet sample requirements	12

## RESULTS

### Descriptive Statistical Analysis

Table 3 displays the descriptive statistical values for the research variables. The findings of descriptive statistics from 72 research samples are presented in Table 3 and include the following information: Minimum and maximum values for the Financial Performance variable are 1.62 and 180.25, respectively. The mean value is 30.2218, and the standard deviation is 28.04592. The statistical data show that the standard error is less than the mean. With a range of 15.72 to 30.97, Variable Bank Size

has an average value of 22.5336 and a standard error of 5.47698. The standard error is lower than the mean. The liquidity variable's values range from 73.80 to 187.33, with a mean of 109.0493, a standard error of the mean, and other values. These data show that the standard error is lower than the mean value, with a range of 1.00 to 4.00, a mean of 2.3194, and a standard error of 0.68846 for the Financial Technology variable. These findings show that the standard error is below the mean. The R-square value for the business performance variable is presented in the table below.

**Table 3. Descriptive Statistics Test Result**

	Financial Performance	Bank Size	Liquidity	Fintech
N	72	72	72	72
Valid Missing	0	0	0	0
Minimum	1.62	15.72	73.80	1.00
Maximum	180.25	30.97	187.33	4.00
Mean	30.2218	22.5336	109.0493	2.3194
Std. Deviation	28.04592	5.47698	26.62207	0.68846

Source: Processed data, 2022

**Table 4. R-Square Value**

	R Square	R Square Adjusted
Financial Performance	0.810	0.796

Source: Processed data, 2022

**Table 5. Results of P-Value (Bootstrapping)**

	Original Sample	T Statistics	P Values	Results	Conclusion
Bank Size -greater than Financial Performance	0.323	3.961	0.000	Significant	<b>H1 accepted</b>
Liquidity -greater than Financial Performance	0.210	2.304	0.022	Significant	<b>H2 accepted</b>
Bank Size*Fintech -greater than Financial Performance	0.192	2.109	0.035	Significant	<b>H3 accepted</b>
Liquidity*Fintech -greater than Financial Performance	0.140	1.994	0.042	Significant	<b>H4 accepted</b>

Source: Processed data, 2022

Table 4 shows that the R-square value for financial performance is 0.810. Accordingly, bank size, liquidity, Fintech, liquidity\*Fintech, and bank size\*Fintech variables may explain 81.00 percent of the variance in financial performance. To see the results of t-statistics estimation, utilize the inner weight result, which is displayed in the table 5. Based on Table 5, hypothesis testing applies a t table of 1.994 (N = 72) and a significance level of 5 percent.

#### **The Bank Size Affecting Financial Performance**

A parametric coefficient test connects the bank size to the financial performance that yielded coefficient values of 0.323, 3.961 for the t-count, and 0.000 for the p-value. The result of the t-count value is higher than the t-table value (3.961 greater than 1.994); the p-value is lower than 0.05 (smaller than 0.05) at the significance level ( $\alpha$ ) = 0.05. Thus, bank size favors financial performance because the coefficient value is positive and the p-value is less than 0.05.

#### **The Liquidity Affecting Financial Performance**

The parametric coefficient test between liquidity and financial performance yields a coefficient value of 0.210, a t-count value of 2.304, and a p-value of 0.022. The result of the t-count value is higher than the t-table value (2.304 greater than 1.994) at the level of significance ( $\alpha$ ) = 0.05, and the p-value is less than 0.05 (smaller than 0.05). Liquidity positively affects financial performance because the coefficient value is positive, and the p-value is less than 0.05.

#### **The Effect of Bank Size on Financial Performance with Financial Technology as a moderating variable**

The findings of the parametric coefficient test connect the Bank Size\*Fintech to the financial performance with coefficient values of 0.192, t-count values of 2.109, and p-values of 0.035. The p-value is less than 0.05 (smaller than 0.05), and the results of the t-count value are higher than the t-table value (2.109 greater than 1.994) with the level of significance ( $\alpha$ ) = 0.05. For this reason, the p-value is

lower than 0.05, and the coefficient value is positive. Consequently, Fintech is a mediating factor that sustains financial performance and bank size.

#### **The Effect of Liquidity on Financial Performance with Financial Technology as a moderating variable**

The parametric coefficient test between liquidity\*Fintech and financial performance yielded coefficient values of 0.140, 1.806 for the t-count, and 0.042 for the p-value. The result of the t-count value is higher than the t-table value (1.994 greater than 1.806), and the result of the p-value is lower than 0.05 (smaller than 0.05) at the level of significance ( $\alpha$ ) = 0.05. Thus, Fintech is a mediating factor contributing to financial performance and liquidity because the p-value is lower than 0.05.

### **DISCUSSION**

#### **The Bank Size Affecting Financial Performance**

The results of statistical tests show that bank size affects financial performance favorably. As a result, a bank's financial performance increases with size. The bank's size significantly influences the production of profits. The financial performance of a large bank will be enhanced by its larger assets, higher level of invested capital, high level of cash flow, and significant market capitalization. A large bank considered to have reached maturity is an example of how the bank is relatively more stable and capable of making profits than small banks. The findings of this study are corroborated by research by Alex and Ngaba (2018); Jaouad and Lahsen (2018); Mwangi (2018); Rotich and Josephat (2019); Yulianto et al. (2020); Alfadhli and Alali (2021) which claims that the bank size significantly affects financial performance because it can increase the bank's capacity to make profits if measured by total assets. According to each Islamic Commercial Bank's total assets from 2016 to 2021, the average bank size in Indonesia was 44,70574%, 44,92561%, 45,0148%, 45,23066%, 45,19364%, and 45,33344%. Every year, the size of the bank viewed by each Islamic Commercial bank varies. Each Islamic Commercial Bank will undoubtedly see a rise in profits as the bank grows in size. Therefore, financial perfor-



mance will also grow if total assets increase because a bank's existing resources are used to determine the size of its overall assets. However, this study contradicts Tharu and Shrestha (2019), which claimed that the size of a bank has no bearing on its financial performance.

### **The Liquidity Affecting Financial Performance**

The statistical tests indicate that liquidity enhances financial performance. It demonstrates that performance improves with larger liquidity values. The rationale is that when a company has a high degree of liquidity, it has many opportunities to receive help from different sources. In addition, the general public, vendors, and creditors invariably want to store their money in Islamic Commercial Banks with solid liquidity. As a result, this Islamic Commercial Bank's liquidity is crucial to demonstrating its performance and encouraging the community to save money. This study's findings are supported by research by Waswa et al. (2018), Musyrifah (2020); Jaworski and Czerwonka (2021); Lucy et al. (2021); Paul et al. (2021); Widarti (2021), which discovered that liquidity positively affects bank's financial achievements. On the other hand, Achmady et al. (2021); Iskandar and Zulhilmi (2021) discovered that liquidity does not affect financial performance.

### **The Effect of Bank Size on Financial Performance with Financial Technology as a moderating variable**

The results show that Fintech functions as a moderating variable, which means that adopting Fintech can strengthen either bank size or financial performance. That illustrates how large bank sizes can improve financial performance by using Fintech since clients choose to create new accounts and save money in banks where they will not lose their money due to bankruptcy, as well as those that perform better financially. Fintech, which includes online payment technology, can assist the community in providing convenience and efficiency regarding technology-based financial management. Wulandari and Novitasari (2020) stated that internet banking positively affects financial performance and is utilized to support this research. The general people

can access banking more easily based on their needs thanks to Fintech services used by Islamic Commercial Banks. This study's results differ from those of Fernando and N (2021), who found that mobile banking could not lessen the effects of changes in banking products on banks' business performance.

### **The effect of Liquidity on Financial Performance and Financial Technology as a Moderating Variable**

The findings indicate that Fintech serves as a moderating variable, which means that Islamic Commercial Banks can strengthen the impact of liquidity on financial performance by adopting Fintech. It explains why implementing Fintech will boost the business performance of Islamic Commercial Banks with high liquidity since clients frequently open new accounts. Customers put money in banks that use Fintech services because they value the services offered by the bank and its ability to meet short-term obligations. This Fintech solution streamlines asset management, reduces transaction times, and speeds up fund transfers and other customer-facing functions. Kurniawan's (2016) research, which found that using information technology can modify the relationship between liquidity variables and financial performance, lends credence to this study. The findings of this study differ from those of Sinambela and Rohani (2017). They found that the bank's performance, which is listed on the Indonesia Stock Exchange, was not significantly affected by providing internet banking services.

## **CONCLUSIONS**

The data analysis and discussion results demonstrate that Islamic Commercial Banks' size positively affects their business achievements, indicating that a bank's size influences its total assets. A bank's ability to engage in more diverse operational operations with the potential for high revenue is made possible by having a solid asset base, which will impact the bank's ability to generate high profits. Liquidity favors financial performance, demonstrating that it is simpler to uphold public confidence in Islamic Commercial Banks with liquidity capacities. For this reason, Islamic Commercial Banks' liquid-

ity seeks to maintain the liquidity ratio by reducing idle funds and generating income with the least risk. Fintech can reduce the negative financial performance effects of bank size. This result is attributable to the fact that due to Fintech's high market penetration level, all present clients of Islamic Commercial Banks have access to its resources. The larger Islamic commercial banks can offer options for adopting financial technology to enhance financial performance and generate profits. Fintech has other ways to make money besides increased interest rates. Still, these other sources of income have not been sufficient to offset the costs spent, and the vast majority of users have taken advantage of this option. Fintech can be used to lessen the effect of liquidity on financial performance. The use of Fintech by Islamic Public Banks enables the general public to trade more easily, encouraging individuals to save in Islamic Commercial Banks and enhancing liquidity, which improves the business performance of Islamic Commercial Banks. The results of this study can be used as a reference to help Islamic commercial banks perform better in their daily operations throughout Indonesia, enabling fair distribution of banking performance and preserving Indonesia's financial stability.

## **IMPLICATIONS**

### **Theoretical Implications**

The impact of Fintech adoption on bank size, liquidity, and business performance is linked to the study, which also confirms the signaling theory. That results from the perception of information generated by Islamic Commercial Banks and published on the official website as having been captured by outsiders, in this case, the community, so that people are interested in saving their money in Islamic Commercial Banks, which will ultimately improve financial performance.

### **Practical Implication**

Measuring financial ratios can assist Islamic Commercial Banks in maintaining bank liquidity and financial performance and adopting Fintech to improve community services so that people are interested in investing their funds and are comfortable

with Fintech facilities. To achieve shareholder welfare goals, bank leaders must appropriately manage total assets, liquidity, profitability, and services with Fintech facilities. Many other investors will put money into the related bank if the shareholders benefit. It will benefit Islamic Commercial Banks in several ways, one of which is that the more investors invest their funds, the more capital the bank will have to develop its business. To promote the growth and functioning of Islamic Commercial Banks, managers must be aware of the amount of revenue saved. The leadership's capacity to make sensible decisions between integrating Fintech and sustaining profitability will determine the Islamic Commercial Banks' ability to finance bank operations. Thus, Islamic Commercial Banks will gain a positive reputation and become more widely known, including to shareholders who must succeed.

## **LIMITATIONS**

The use of samples in this study is limited. Suggestions for further researchers are to increase the sample of companies so that they get better results. The variables of this study are limited to bank size and liquidity. Suggestions for further researchers to add other variables, namely dividend policy, and leverage. The use of methods to predict stock returns is limited. Further researchers can use other methods so that they can be the best and most significant comparison to be applied in predicting stock returns in the company.

## **RECOMMENDATIONS**

This study advises policymakers to consider measures to improve bank size, liquidity, financial performance, and adoption of Fintech. Shareholders and managers may also use internal expansion, fundraising, merger, and acquisition methods. This evidence can support and further enhance Fintech services due to the accessibility and sophistication of financial services offered by Islamic Commercial Banks due to the development of Fintech. For additional study, it can look at other factors known to impact financial performance, particularly those related to external banking, such as bank interest rates, inflation, and the value of the US dollar. The

scope of further research can be expanded to include all Indonesian financial institutions, not just Islamic Commercial Banks.

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