

# Comparative Analysis of Islamic Commercial Bank Financial Performance Before and After the Emergence of Financial Technology

Shafia Jihadie

**Abstract:** *Financial technology (fintech) has developed rapidly in recent years, especially in Indonesia. Fintech offers various product services, which greatly influence the performance of financial institutions, including sharia commercial bank finance. This research aims to find out how significant the differences are in the financial performance of Islamic commercial banks before and after the introduction of fintech. In this research, the author uses secondary data sourced from monthly Islamic commercial bank financial reports published by the Financial Services Authority (OJK) and uses a different test (paired sample t-test) for the analysis technique. The research results show that there was a significant difference between the risk indicators of Islamic Commercial Banks before and after the existence of fintech in Indonesia.*

**Keywords:** BUS, Fintech, Financial Performance

Universitas Negeri Surabaya, Surabaya, Indonesia, Jl. Ketintang, Ketintang, Kec. Gayungan, Surabaya, Jawa Timur, 60231, Indonesia

e-mail: [shafia.18075@mhs.unesa.ac.id](mailto:shafia.18075@mhs.unesa.ac.id)

## 1. Introduction

Development financial technology (fintech) has transformed the financial industry, including the Islamic banking sector. In Indonesia, the growth fintech which has grown very rapidly since 2015, such as the existence of e-wallet and payments using digital systems have influenced the pattern of financial interaction in society and created very significant changes in the banking sector. Islamic Commercial Banks (BUS), which operate based on sharia principles and focus on the prohibition of usury, transparency, and fairness, have also adapted to these dynamics.

Previous research has shown that fintech can improve operational efficiency and financial inclusion through service digitalization (Gomber, 2018). However, for Islamic banks, adaptation fintech not only requires technological transformation, but also alignment with sharia principles (Hassan, 2020). Previous research also shows that competition from fintech itself has the potential to reduce the profit margins of traditional banks, including BUS, if not balanced with strategic innovation (Kristianti, 2021).

In Indonesia in particular, specific research on the impacts fintech on BUS performance is still limited. A comparative study by Anggraini (2017) on Islamic banks after the process spin-off found significant differences in ROA and FDR, but not in BOPO. These findings indicate that technology adaptation is not always associated with increased operational efficiency.

This study aims to analyze significant differences in BUS financial performance before and after fintech in Indonesia with a research period of 2013-2023 with 2018 as the comparison year. The performance indicators used include ROA (Return of Assets), ROE (Return of Equity), and BOPO (Operational Efficiency) ratio. This analysis is very important to identify whether fintech plays an important role in positive change or whether it is actually an obstacle to the sustainability of BUS. The results of the study are expected to provide strategic steps for Islamic financial industry players and financial authorities in an effort to optimize the synergy between Islamic principles and existing digital innovations.

## 2. Methods

This study uses a quantitative approach with a comparative study to analyze the differences in financial performance of BUS in Indonesia before and after the existence of fintech. The data used is secondary data taken from the BUS public financial report from the Financial Services Authority (OJK) during the period 2013-2023. The population in this study includes all BUS in Indonesia. The sampling technique used is purposive sampling, namely Islamic general banks that have complete and consistent reports during 2013-2023.

BUS financial performance data is analyzed first by conducting a normality test to assess data distribution. If the data is normally distributed, it is continued with a difference test (Paired Sample T-Test). However, if the data is not normally distributed, a test will be carried out Wilcoxon. This test is used to see whether there is a significant difference in the financial performance of Islamic commercial banks before and after growth fintech (2013-2023) with 2018 as a comparison.

### 3. Result and Discussion

This study compares the BUS ratio before and after fintech in Indonesia. The period before fintech used in this study was 2013-2017, while the period after fintech used is 2018-2023.

#### 3.1 Normality Test

Normality test Shapiro-Wilk used to prove whether the data before and after fintech normally or abnormally distributed. The test results show:

Variable	Group	Sig.	Conclusion
ROA	Before Fintech	0.714	Normally Distributed
	After Fintech	0.698	Normally Distributed
ROE	Before Fintech	0.054	Normally Distributed
	After Fintech	0.220	Normally Distributed
BOPO	Before Fintech	0.616	Normally Distributed
	After Fintech	0.542	Normally Distributed

#### 3.2 Paired Sample T-Test

Paired Sample T-Test conducted to measure whether there is a significant difference in the financial performance of BUS before and after the rise of fintech in Indonesia. If the Sig. (2-tailed) value < 0.05, then there is a significant difference between the two data tested.

Variable	Sig. (2-tailed)	Conclusion
ROA	0.000	There is significant differences
ROE	0.000	There is significant differences
BOPO	0.002	There is significant differences

Test results Paired Sample T-Test Table 2 shows the sig. value of the three variables < 0.05. This concludes that ROA, ROE, and BOPO have significant differences in the period before and after fintech. The results of the data analysis show that the financial performance of BUS differs significantly between before and after the fintech.

ROA on BUS experienced a significant increase, which indicates that the adoption of fintech provide positive changes and increase the profitability of BUS assets. This is in line with Gomber's research (2018) which states that fintech improve operational efficiency of the financial sector. This increase can be triggered by digitalization of services that expand transactions.

Similarly, ROE reflects the utilization of fintech can increase the ability of BUS to generate profits from shareholders. This digital-based sharia product innovation has the potential to increase revenue and net profit. This is explained by Hassan (2020) about the importance of adapting technology that is in line with sharia principles.

The test results also revealed that the BOPO ratio experienced a significant increase. This study shows that the implementation of fintech can actually increase operational costs against BUS income, which is contrary to Anggraini's study (2017) which did not find any significant changes or increases in BOPO. The increase in operational costs may be due to technology investment, namely fintech itself, or the existence of competition with fintech non-bank which forces BUS to increase its digital marketing budget.

Overall adoption fintech on BUS has a positive impact, namely increasing profitability. However, on the other hand, it increases the operational costs of the BUS itself, which confirms Kristianti's (2021) findings that competition with fintech can suppress profit margins if not balanced with the right strategy. In short, BUS needs to strengthen collaboration with fintech sharia to reduce operational

costs, while ensuring that with this technology, BUS continues to operate in accordance with sharia principles (Hassan, 2020).

#### 4 Conclusion

Fintech emergence significantly improve the profitability performance of BUS through the expansion of digital services and increased transactions. However, on the one hand, it causes an increase in operational costs due to the existence of fintech, BUS must spend money on technology development, such as creating applications, m-banking, or costs for digital marketing. In this case, BUS needs to collaborate on technology infrastructure to reduce operational costs. BUS also needs to remain focused on sharia digital services to maintain competitive advantage. In this study, the author proposes to analyze the long-term impact fintech on the financial stability of BUS.

#### Acknowledgements

Praise be to Allah SWT, because of His grace and mercy, the author can complete this research until the end. On this occasion the author would like to express his deepest gratitude to the entire academic community of State University of Surabaya, especially the Faculty of Economics and Business. Then also to Mrs. Clara as the coordinator of the Islamic Economics study program, Faculty of Economics and Business, State University of Surabaya, as well as the supervising lecturer who always provided support while the author completed this research until the end. Also to Mr. Yasin as the accompanying lecturer, and also to all the lecturers of the Islamic Economics study program of State University of Surabaya who cannot be mentioned one by one. The author also does not forget to express his deepest gratitude to both parents who have provided support both mentally and materially, as well as endless prayers that are the reason the author can complete this research. Then to colleagues and friends who always provide motivation and assistance in the midst of this challenging journey. Finally, the author does not forget to express his deepest gratitude to himself, who has survived, progressed, and continued to try even though he is often faced with feelings of fatigue and doubt.

#### References

- Anggraini, R., Yuliani, & Hs Umrie, R. (2017). Analisis Tingkat Kesehatan Bank Syariah Sebelum dan Sesudah Spin-Off. *Ekspektra, Jurnal Manajemen Dan Bisnis*2, 1(2017), 11–20.
- Aulia, I. 2024. Analisis Pengaruh Fintech Terhadap Kinerja Keuangan Perbankan Dengan Ukuran Bank Sebagai Variabel Moderasi (Studi Kasus Pada Bank Syariah Yang Terdaftar Di Bursa Efek Indonesia Periode 2015 -2022). *Tesis*. Fakultas Ekonomi dan Bisnis Islam UIN Sunan Kalijaga Yogyakarta.
- Aulia, I. 2024. Analisis Pengaruh Fintech Terhadap Kinerja Keuangan Perbankan Dengan Ukuran Bank Sebagai Variabel Moderasi (Studi Kasus Pada Bank Syariah Yang Terdaftar Di Bursa Efek Indonesia Periode 2015 -2022). *Tesis*. Fakultas Ekonomi dan Bisnis Islam UIN Sunan Kalijaga Yogyakarta.
- Azwar., S. 2004. *Metode Penelitian*. Edisi ke 2. Pustaka Pelajar. Yogyakarta.
- Fidsriani, R. 2025. Perbandingan Sebelum Dan Sesudah Kerja Sama Bank Syariah Dengan Fintech Syariah Berdasarkan Kinerja Keuangan. *Skripsi*. Fakultas Ekonomi dan Bisnis UIN Syarif Hidayatullah Jakarta.
- Ghozali, I. 2018. *Aplikasi Analisis Multivariate: Dengan Program IBM SPSS 2025*. Edisi ke 9. Badan Penerbit Universitas Diponegoro. Indonesia.
- Hassan, R., Hassan, M., & Aliyu, S. (2020). Fintech and Islamic Finance: Literature Review and Research Agenda. *International Journal of Islamic Economics and Finance (IJIEF)*, 3(1).
- Kristianti, I., & Tulenan, M. V. (2021). Dampak financial technology terhadap kinerja keuangan perbankan. *KINERJA: Jurnal Ekonomi dan Manajemen*, 18(1).
- Otoritas Jasa Keuangan, “Statistik Perbankan Syariah”, 2025.
- Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the Fintech Revolution: Interpreting the Forces of Innovation, Disruption, and Transformation in Financial Services. *Journal of Management Information Systems*, 35, 220-265.

Setyawan, D., A. 2021. *Petunjuk Praktikum-Uji Normalitas dan Homogenitas Data dengan SPSS*. Edisi 1. Tahta Media Group. Surakarta. Indonesia.