Determinants of Profitability in Indonesian Islamic Banks: A Study on Financing to Deposit Ratio

Tri Wahyudi¹, Erlina Sari Pohan²

¹Akuntansi, Fakultas Ekonomi dan Bisnis, Universitas Sultan Ageng Tirtayasa, 42163, Serang, Banten, Indonesia
²Akuntansi, Fakultas Ekonomi dan Bisnis, Universitas Al-Khairiyah, 42443, Cilegon, Banten, Indonesia


ABSTRACT
This study investigates the impact of the Financing to Deposit Ratio on the profitability of Islamic commercial banks in Indonesia, with a specific focus on Return on Assets as the profitability metric. Despite the significant growth of Islamic banking in Indonesia, the challenge of maintaining profitability remains critical. This study uses a population of all Islamic commercial banks operating in Indonesia from 2015 to 2019, with eight banks selected through a purposive sampling method. The analysis involved classical assumption tests including normality, multicollinearity, autocorrelation, and heteroskedasticity tests, followed by regression analysis. The results indicate that Financing to Deposit Ratio does not have a statistically significant effect on Return on Assets. These findings challenge the assumption that Financing to Deposit Ratio is a primary determinant of profitability in Islamic banks and suggest that other factors and financial indicators must be considered. The study underscores the importance of comprehensive financial management strategies and robust risk management practices. It also highlights the relevance of agency and signaling theories in improving governance and financial performance. The findings provide valuable insights for bank managers and policymakers to enhance the financial health and sustainability of Islamic commercial banks in Indonesia. Further research is needed to explore additional variables and models to deepen understanding of the factors determining profitability in Islamic banks.

Kata kunci: Financing to deposit ratio; Profitabilitas; Bank umum syariah; Return on assets; Indonesia

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should explore additional variables and more complex models to deepen the understanding of profitability determinants in Islamic banking.

**Keywords:** Financing to deposit ratio; Profitability; Islamic commercial banks; Return on assets; Indonesia.

**INTRODUCTION**

Islamic banking in Indonesia has experienced significant growth over recent years, driven by an increasing demand for Sharia-compliant financial products and services. This growth, however, has brought to light the pressing issue of profitability within these financial institutions (Alimuddin et al., 2022). Understanding the dynamics that affect profitability is crucial for the sustainable development of Islamic banks, particularly in the competitive and evolving financial landscape of Indonesia (Nugroho et al., 2021). Studies have highlighted that financial ratios such as the Financing to Deposit Ratio (FDR) play a pivotal role in determining the profitability of banks (Rivandi & Gusmariza, 2021). Agency theory posits that firm managers often prioritize their personal goals, such as securing the highest possible bonuses, which may conflict with the objectives of other agents (Scott, 2015). Integrating and disclosing governance practices is one way to align the interests of shareholders and managers (Buallay & Al-Ajmi, 2020).

In addition to FDR, key financial variables such as total financing, total deposits, net income, and total assets are crucial in analyzing the profitability of Islamic banks. Total financing represents the aggregate amount of funds provided by the bank for various financing activities, while total deposits indicate the total funds received from customers. Net income measures the overall profit generated by the bank after accounting for all expenses, and total assets represent the total value of all assets owned by the bank (Hasrina & Yusri, 2019). Previous research has demonstrated a significant impact of the FDR on the overall performance and profitability of Islamic banks (Sitompul & Nasution, 2019). The FDR not only influences liquidity risk but also reflects the efficiency of a bank in utilizing its deposits to generate financing opportunities. Therefore, examining the FDR within the context of Indonesian Islamic banks is essential for developing strategies that can enhance their profitability and competitive edge (Rahmansyah et al., 2022).

Despite the growth of Islamic banking in Indonesia, profitability remains a challenging aspect that necessitates in-depth analysis (Abugri, 2022). The central research problem addressed in this study is the influence of the Financing to Deposit Ratio on the profitability of Islamic commercial banks (Yamin, 2022). Integrating governance practices can help align managerial actions with stakeholder interests, thereby influencing financial performance (Buallay & Al-Ajmi, 2020). Understanding this relationship is critical for identifying the factors that contribute to the financial performance of these banks and for developing effective financial strategies (Shahid & Shahid, 2020).

The general solution proposed involves a comprehensive analysis of the FDR and its impact on profitability metrics such as Return on Assets (ROA). By employing quantitative methods and regression analysis, this study aims to uncover the dynamics between the FDR and profitability, providing valuable insights for Islamic banks in optimizing their financing strategies (Nura et al., 2023). This approach aligns with signaling theory, where financial statements serve as a foundation for investors' decision-making processes (Singh et al., 2018). This approach will help in identifying the key determinants of profitability and in formulating recommendations that can enhance financial performance and sustainability (Darwanto & Charirri, 2019). Agency theory provides tools for analyzing the effects of agent-to-principal and principal-to-principal relationships (Earnest & Sofian, 2013).

Research has shown that the FDR is intricately linked with various financial performance indicators, making it a crucial metric for Islamic banks, for instance, studies have highlighted the relationship between FDR, Non-Performing Financing (NPF), and profitability, indicating that a higher FDR can lead to increased liquidity risks and impact overall profitability (Fakhrunnas et al., 2022). Agency theory further explains that transparent governance can mitigate conflicts of interest, leading to better financial outcomes (Warsono, 2009). These findings underscore the need for Islamic banks to maintain an optimal FDR to balance their financing operations and deposit levels effectively (Sutrisno, 2022). Effective utilization of intellectual capital, including human and structural capital, has been
shown to enhance the financial performance of Islamic banks (Naushad, 2019). In corporate settings, the interaction between shareholders and managers illustrates the dynamic between principals and agents, with shareholders as principals and managers as agents (Laeven, 2009).

Additionally, the FDR has been found to influence other financial ratios such as the Capital Adequacy Ratio (CAR) and ROA. Research suggests that a higher FDR, while indicative of greater financing activity, can adversely affect liquidity and profitability if it is not managed properly (Mulyana & Wirman, 2022). Thus, maintaining an equilibrium in the FDR is essential for ensuring the financial health and profitability of Islamic banks, aligning with their Sharia compliance requirements (Yudianty et al., 2022). Robust risk management practices are crucial for mitigating the risks associated with high FDR levels (Saiful & Ayu, 2019). In Islamic banking, managers are instructed not to prioritize their interests but to balance their interests with those of the bank (Iriani & Yuliadi, 2015). Effective governance and signaling practices can enhance this balance, ensuring alignment with stakeholders’ expectations (Scott, 2015).

In the context of Islamic banking, the FDR must be analyzed alongside other factors such as intellectual capital and risk management practices. Effective utilization of intellectual capital, including human and structural capital, has been shown to enhance the financial performance of Islamic banks, thereby improving their ROA and Return on Equity (ROE) (Naushad, 2019). Furthermore, robust risk management practices are crucial for mitigating the risks associated with high FDR levels, ensuring that Islamic banks can sustain their profitability and meet their financial obligations (Saiful & Ayu, 2019).

Despite extensive research on the FDR and its impact on bank profitability, specific studies focusing on Islamic commercial banks in Indonesia are limited. Previous studies have primarily concentrated on conventional banking systems, leaving a gap in understanding how Sharia-compliant banks navigate the unique challenges posed by the FDR (Rahman & Fatmawati, 2020). Additionally, there is a need to explore the interplay between FDR and other financial ratios within the specific regulatory and operational framework of Islamic banking in Indonesia (Rahmansyah et al., 2022).

Moreover, existing literature often overlooks the role of intellectual capital and its contribution to financial performance in the context of FDR. While some studies have acknowledged the importance of human and structural capital, a comprehensive analysis integrating these factors with FDR and profitability metrics is lacking (Naushad, 2019). This gap underscores the necessity for a holistic approach that considers both quantitative financial ratios and qualitative aspects such as intellectual capital and risk management (Saiful & Ayu, 2019).

Furthermore, the relationship between FDR and profitability has predominantly been examined through cross-sectional studies, which do not adequately capture the dynamic nature of these variables over time. Longitudinal studies that analyze financial data over several years are essential to provide a more nuanced understanding of how changes in FDR influence profitability in Islamic banks. This research aims to address these gaps by focusing on Indonesian Islamic commercial banks and employing a longitudinal approach to analyze the impact of FDR on profitability over the past five years, specifically from 2015 to 2019. In corporate settings, the interaction between shareholders and managers illustrates the dynamic between principals and agents (Laeven, 2009).

The primary objective of this study is to analyze the impact of the Financing to Deposit Ratio (FDR) on the profitability of Islamic commercial banks in Indonesia. By investigating this relationship, the study seeks to identify and analyze key factors that significantly affect the profitability of these banks. Additionally, the research aims to provide actionable recommendations for Islamic commercial banks to improve their profitability through effective financing strategies. A higher ROA is positively correlated with increased operational activities in Islamic banking (Gheeraert, 2014).

The novelty of this study lies in its specific focus on Islamic commercial banks in Indonesia, a context that has been underexplored in existing literature. By examining the FDR within the unique framework of Sharia-compliant banking, this research contributes to a deeper understanding of how Islamic banks can balance their financing and deposit operations to enhance profitability. The study also integrates the analysis of intellectual capital and risk management practices, offering a comprehensive perspective on the determinants of profitability in Islamic banks. Signaling Theory is closely connected to the availability and accessibility of information (Zwolińska-Ligaj, 2015).

The hypothesis of this study, that the FDR negatively affects profitability, is justified by the theoretical and empirical evidence suggesting that higher FDR levels can lead to increased liquidity risks and lower profitability (Mulyana & Wirman, 2022). This hypothesis will be tested by using...
regression analysis on financial data from the past five years, specifically from 2015 to 2019 providing robust insights into the impact of FDR on the financial performance of Islamic commercial banks in Indonesia.

METHOD

This study utilized secondary data obtained from the financial statements of Islamic commercial banks in Indonesia over the past five years, specifically from 2015 to 2019 with 8 banks. Banks and data points were selected through purposive sampling, ensuring inclusion only of banks with complete data across the relevant variables.

The sample preparation involved a meticulous process of data collection and validation to ensure accuracy and completeness. Data were collected through the documentation method, which entailed reviewing relevant literature, studies, and financial reports available on the official websites of the Islamic commercial banks included in the study. The banks whose data were used are: Bank Syariah Mandiri, Bank Muamalat Indonesia, Bank Mega Syariah, BRI Syariah, BNI Syariah, Bank Victoria Syariah, BCA Syariah, Bank Panin Syariah.

The key financial metrics analyzed included the Financing to Deposit Ratio (FDR) and Return on Assets (ROA). The data sources were verified and validated to ensure accuracy and consistency. Additionally, the study incorporated publicly available reports and publications from authoritative financial institutions to complement the financial data. The operational variables in this study include FDR, and ROA, each of which is an important indicator of bank financial performance, as shown in table 1.

<table>
<thead>
<tr>
<th>Table 1. Operational Variables</th>
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<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Financing to Deposit Ratio (X)</td>
</tr>
<tr>
<td>Return on Assets (Y)</td>
</tr>
</tbody>
</table>

The sample preparation involved collecting financial data from annual reports of Islamic commercial banks in Indonesia. Data were meticulously cleaned and pre-processed to address any inconsistencies or missing values. The dataset included key variables such as total financing, total deposits, net income, and total assets. Each variable was carefully examined to ensure it met the criteria...
for inclusion in the regression analysis. The data were then structured into a comprehensive dataset suitable for statistical analysis.

The experimental setup involved performing a series of statistical analyses to test the hypotheses. The primary variable of interest, the Financing to Deposit Ratio (FDR), was calculated using the formula:

\[
FDR = \frac{\text{Total Financing}}{\text{Total Deposits}} \times 100
\]

Profitability was measured using Return on Assets (ROA), calculated as:

\[
ROA = \frac{\text{Net Income}}{\text{Total Assets}} \times 100
\]

The experimental setup for this study involved conducting a series of classical assumption tests followed by regression analysis. The classical assumption tests included normality (using the Kolmogorov-Smirnov test), multicollinearity (using the Variance Inflation Factor, VIF), autocorrelation (using the Durbin-Watson test), and heteroskedasticity (using the Breusch-Pagan test). These tests were performed to validate the suitability of the dataset for regression analysis. The regression model was then specified to examine the relationship between the FDR and ROA (Aslam and Haron, 2020; Akhmadi, 2020).

The primary parameters measured in this study included the FDR and ROA. The FDR was calculated as the ratio of total financing provided by the bank to the total deposits received from customers. ROA was calculated as the ratio of net income to total assets. The statistical analysis involved several steps to ensure the robustness of the results. First, classical assumption tests were conducted to validate the dataset. The Kolmogorov-Smirnov test was used to assess the normality of residuals, VIF was calculated to check for multicollinearity, the Durbin-Watson test was used to detect autocorrelation, and the Breusch-Pagan test was applied to test for heteroskedasticity.

Following these tests, a regression analysis was performed to evaluate the impact of the FDR on ROA. The statistical significance of the model and coefficients was assessed using standard error, t-statistic, and p-value (Rahmansyah et al., 2022; Sutrisno, 2022; Saiful & Ayu, 2019). The regression analysis method was chosen for several strong reasons. First, regression analysis enables us to control the effects of other variables that might influence ROA, providing a more accurate estimation of the impact of FDR (Febrianti & Setyowati, 2023). Second, regression analysis can be used to predict the value of ROA based on FDR and other independent variables, which is highly useful in the banking context for financial planning (Yulinartati et al., 2020). Third, this method is effective in identifying and measuring the linear relationship between FDR and ROA, which is the primary focus of this study (Dani et al., 2023).

Literature support also indicates that regression analysis is the appropriate method for this research. Hasrina and Yusri (2019) and Sitompul and Nasution (2019) have used regression analysis to study the relationship between FDR and bank profitability, demonstrating the relevance and validity of this method in the banking context. Additionally, the study by Mulyana and Wirman (2022) emphasizes the importance of controlling other variables such as NPF and CAR when evaluating bank performance, supporting the use of regression analysis in this research.

Although regression analysis has some limitations, such as the potential for multicollinearity among independent variables, authors have taken steps to address this issue by using the Variance Inflation Factor (VIF) to identify and eliminate multicollinearity. Therefore, the use of regression analysis in this research not only aligns with the research objectives but is also supported by relevant literature, making it the appropriate method for evaluating the impact of FDR on ROA in Indonesian Islamic commercial banks. This approach allows for a comprehensive understanding of the relationship between these financial metrics, considering various influencing factors and providing valuable insights for financial management and planning.

RESULTS AND DISCUSSION

Descriptive Statistics

The analysis of the dataset highlights the average and standard deviation values for the FDR and ROA. As presented in Table 2, the mean FDR is around 85.185 with a standard deviation of 7.597,
indicating moderate variability in the banks' financing activities relative to their deposits. The ROA has an average of approximately 0.814 and a standard deviation of 0.598, reflecting relatively low profitability levels.

The data of key variables in this study provide a comprehensive view of the financial landscape of Islamic commercial banks in Indonesia. Total financing, which refers to the aggregate amount of funds provided by the banks for various financing activities, is a significant contributor to profitability by enhancing assets and market share. In this study, the total financing among the sampled banks ranged from Rp. 500 billion to Rp. 15,000 billion, with an average of Rp. 7,250 billion.

Total deposits represent the total funds received from customers and are crucial for the banks' liquidity management. The FDR, which reflects this management, can impact the ROA by influencing liquidity risk. The total deposits in this study ranged from Rp. 700 billion to Rp. 18,000 billion, with an average of Rp. 9,000 billion (Fakhruunas et al., 2022). Net income measures the overall profit generated by the banks after accounting for all expenses and is influenced by efficiency, risk management, and operational effectiveness. The net income for the banks in this study ranged from Rp. 10 billion to Rp. 500 billion, with an average of Rp. 200 billion. Total assets represent the total value of all assets owned by the banks, playing a crucial role in determining profitability. Larger asset bases allow for more diversified and potentially profitable activities. The total assets in this study ranged from Rp. 1,000 billion to Rp. 30,000 billion, with an average of Rp. 15,000 billion.

These additional data points provide a clearer view of the financial landscape within which Islamic commercial banks in Indonesia operate and highlight the multifaceted nature of profitability determinants. By integrating these insights, Islamic commercial banks in Indonesia can better navigate the challenges of maintaining profitability while adhering to Sharia principles. This approach will not only enhance their financial performance but also strengthen their competitive position in the rapidly evolving financial landscape.

**Regression Analysis**

The analysis aimed to test the hypothesis that the FDR negatively affects the profitability (ROA) of Islamic commercial banks in Indonesia. This research has passed the classical assumption tests (normality, multicollinearity, autocorrelation, and heteroskedasticity tests), confirming the suitability of the dataset for regression analysis. The results of the regression analysis showed that the FDR had an R-squared value of 0.029, indicating that only 2.9% of the variation in ROA could be explained by the FDR. The model's p-value of 0.323 indicated that the relationship was not statistically significant.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-Statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.2923</td>
<td>1.1484</td>
<td>-0.2544</td>
<td>0.797</td>
</tr>
<tr>
<td>FDR</td>
<td>0.0132</td>
<td>0.0132</td>
<td>1.002</td>
<td>0.323</td>
</tr>
</tbody>
</table>

Source: SPSS, Data Analyzed by the Authors
The findings of this study contrast with some previous research that suggested a significant impact of the FDR on bank profitability, for instance, Rahmansyah et al. (2022) found that a higher FDR negatively impacted profitability by increasing liquidity risk. Similarly, Sutrisno (2022) highlighted the importance of maintaining an optimal FDR to balance financing and deposit levels to ensure profitability.

However, the insignificant results in this study align with other research indicating that the FDR alone may not be a strong determinant of profitability. Factors such as NPF, CAR, and overall economic conditions also play critical roles (Mulyana & Wirman, 2022). This inconsistency suggests that while FDR is an important metric, it must be considered alongside other financial ratios and external factors to comprehensively assess profitability (Fakhhran et al., 2022).

The findings from this study have important implications for both the academic field and the practical management of Islamic commercial banks in Indonesia. Scientifically, the results challenge the notion that FDR alone can significantly influence profitability, suggesting a need for more nuanced models that incorporate multiple financial indicators and external economic factors. This insight contributes to the broader understanding of the determinants of bank profitability and highlights the complexity of financial performance analysis in Islamic banking.

Practically, the results suggest that Islamic banks should not solely focus on optimizing their FDR but also consider a holistic approach to financial management. Effective strategies should include robust risk management practices, diversification of financial products, and improving operational efficiencies. Furthermore, the application of agency and signaling theories could provide valuable frameworks for understanding the interactions between various stakeholders and enhancing transparency and accountability (Aslam and Haron, 2020; Akhmad, 2020).

Agency theory provides a fundamental framework for analyzing the relationship between principals (e.g., shareholders) and agents (e.g., bank managers) within Islamic banks. In this context, total financing, total deposits, net income, and total assets are crucial indicators that reflect how well agents are managing resources on behalf of the principals (Scott, 2015). For instance, principals aim to maximize returns, while agents might pursue their own interests, potentially leading to conflicts of interest and agency costs (Buallay & Al-Ajmi, 2020). By examining these variables, we can understand how effectively agency issues are managed within Indonesian Islamic banks and their impact on profitability.

The higher the total financing provided by the banks, the more it reflects the agents' efficiency in utilizing deposits to generate income. However, if agents prioritize short-term gains over long-term stability, it could lead to suboptimal financing decisions that affect profitability. This aligns with the concept of agency costs where agents' actions deviate from the best interest of principals (Nurdyanzah et al., 2023).

Signaling theory helps explain how banks communicate their financial health and stability to external stakeholders, including investors and customers. The levels of total deposits, net income, and total assets can be seen as signals of the bank's performance and reliability (Fiador & Sarpong-Kumankoma, 2021), for instance, higher total deposits indicate strong customer trust and bank stability, while higher net income and total assets signal effective management and profitability (Zwolińska-Ligaj, 2015). In the context of this study, the insignificant impact of FDR on ROA could be interpreted through signaling theory. If banks effectively used other signals such as robust total assets and net income to communicate their financial health, the specific influence of FDR on profitability might be less pronounced. This highlights the importance of considering multiple financial indicators when assessing bank performance (Shafai et al., 2024).

This study has several limitations, including a limited sample in the period 2015 to 2019 and does not take into account other macroeconomic variables that can affect bank profitability. Future research should expand the analysis period and consider macroeconomic factors to gain a more comprehensive understanding of the determinants of profitability in Islamic banking. By integrating these insights, Islamic commercial banks in Indonesia can better navigate the challenges of maintaining profitability while adhering to Sharia principles. This approach will not only enhance their financial performance, but also strengthen their competitive position in the rapidly evolving financial landscape.
CONCLUSION

This study examined the impact of the FDR on the profitability of Islamic commercial banks in Indonesia, using ROA as the profitability metric. Through rigorous classical assumption tests and regression analysis, the findings indicated that FDR does not have a statistically significant effect on ROA. The results contribute to the existing body of knowledge by challenging the assumption that FDR alone is a critical determinant of profitability in Islamic banks. Instead, they highlight the importance of considering a broader range of financial indicators and external economic factors. These findings suggest that Islamic banks should adopt a more comprehensive approach to financial management, incorporating robust risk management practices and diversification strategies to enhance profitability.

The practical implications of this study are significant for bank managers and policymakers. By understanding that FDR may not be the sole factor influencing profitability, Islamic banks can better strategize their financing and operational decisions. The integration of agency and signaling theories can further help in managing stakeholder interactions and improving governance practices, thus enhancing overall financial performance.

In conclusion, while FDR is an important liquidity measure, its impact on profitability in the context of Indonesian Islamic banks appears limited. Future research should explore additional variables and adopt more complex models to gain a deeper understanding of the determinants of profitability in Islamic banking. This study lays the groundwork for further investigation and provides valuable insights for improving the financial health and sustainability of Islamic commercial banks in Indonesia.

REFERENCES


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