

ABSTRACT

The sharia rural bank industry in Central Java Province boasts the largest number of entities in Indonesia, with positive growth in assets, financing, and third party funds from the first semester of 2023 to the second semester of 2025. However, the rising BOPO ratio indicates issues with sharia rural banks performance efficiency that require evaluation. The limitations of financial ratio analysis in measuring overall efficiency prompted the use of the Two-Stage Data Envelopment Analysis (Two-Stage DEA) method. Specifically, this study aims to analyze the efficiency level of BPRS in Central Java while examining the influencing factors (determinants): Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR), and Return on Assets (ROA).

This study is quantitative, using a sample of 16 BPRS in Central Java selected through purposive sampling. The data analysis method used Two-Stage DEA. In the first stage, efficiency was measured using the DEA method with an intermediary approach, encompassing input variables such as third party funds, operating expenses, and fixed assets, as well as output variables including total financing and operating income. In the second stage, the analysis of efficiency determinants was tested using a Tobit regression model, with the DEA efficiency value as the dependent variable and the NPF, FDR, and ROA as independent variables.

The results of the first-stage DEA estimation indicate that the BPRS industry in Central Java is generally inefficient, as evidenced by an average efficiency score of 0.877, with the average efficiency score also showing a downward trend throughout the observation period. The results of the Tobit regression estimation in the second stage indicate that the NPF variable has a significant negative effect on the efficiency level of BPRS. Conversely, both the FDR and ROA variables have a significant positive effect on the efficiency level of BPRS in Central Java.

Keywords : *Efficiency, Sharia Rural Banks, Data Envelopment Analysis, Tobit Regression, Two Stage Analysis*