

ABSTRACT

Sharia-based investments are increasingly in demand as investors awareness of Islamic financial principles increases. However, the optimization of Islamic stock portfolios is still a challenge, especially in the selection of sharia-compliant assets and effective risk management strategies. This study aims to form an optimal sharia-based portfolio by applying the Sharia Compliant Asset Pricing Model (SCAPM), where PBS017 Islamic bonds is used as a substitute for the risk-free rate in the model calculation. Stock samples were selected from IDX Sharia Growth by considering normality test, highest expected return, low correlation, and different sectors to ensure optimal diversification. From the selection results, three stocks were selected, namely MAPA, TINS, and MIKA, with an analysis period of January 7, 2020 - January 6, 2025. Portfolio weighting is performed using the constrained Newton-Raphson method, which overcomes the prohibition of short-selling in Islamic investments. The optimization results show that the optimal investment proportion in this portfolio is 32.15% for MAPA, 33.87% for TINS, and 33.98% for MIKA. Evaluation of portfolio performance using the Sharpe Index produces a value of 0.0126. In addition, the Value at Risk (VaR) analysis with an assumed capital of Rp50,000,000 for one week shows a potential loss of Rp3,814,854 or 7.6%. The results of this study are expected to provide insight for investors in developing an optimal Islamic investment strategy, as well as a reference for the development of sharia-based portfolios.

Kata Kunci: Sharia Portfolio, SCAPM, IDX Sharia Growth, Newton-Raphson, Short Selling Handling, Sharpe Index, Value at Risk