ABSTRACT

Fama-French Three-Factor Model is an expanded model of the Capital Asset Pricing Model (CAPM) that adds firm size and Book-to-Market (B/M) factors in addition to market factor, which offers a more comprehensive explanation of stock returns. This study analyzes IDX BUMN20 stocks from January 2022 to December 2023, which are classified into six portfolios based on size and B/M. The classification shows that there are four portfolios that can be modeled, which are S/M, S/M, B/L, and B/H. The S/H and B/L models satisfy the regression assumption test and the regression coefficient hypothesis test at 5% significance level. The S/H model has the highest adjusted R^2 value of 72,42%, indicating its capability of explaining variation in returns the best. Its intercept is the closest to zero, indicating a more accurate estimate of the variation in portfolio returns. Optimal weight for the S/H portfolio is determined by maximizing the Sharpe ratio, with the respective weights of PTPP, PGAS, WIKA, and BBTN of 13.11%, 12.95%, 71.39%, and 2.55%. The S/H portfolio's performance with the Sharpe ratio of $-0{,}23605$, is less than 0 and shown to be rather poor, which is caused by its average portfolio return being lower than the risk-free rate.

Keywords: Fama-French Three-Factor Model, Capital Asset Pricing Model (CAPM), IDX BUMN20, Optimal Weight, Sharpe Ratio