

ABSTRACT

Companies or individuals with excess cash funds can optimize the use of these funds to generate profits by investing. Which is by investing in stock market, however by doing an investment in shares there is risk of loss that they need to measure. One of risk measurements that can be used is Value at Risk. Value at Risk (VaR) summarizes the worst loss over a target horizon that will not be exceeded with a given level of confidence. VaR can be calculated by Historical simulation method, variance covariance, and Monte Carlo simulation. This research used monte carlo simulation that is simulating the value of return by generating 1000 random numbers.

The purpose of this study is to determine the risks in shares of construction with 95% confidence level, then test the accuracy by using Backtesting.

This research is a descriptive study, with secondary data, and purposive sampling techniques. The analysis unit of this research is shares of subsector construction period of January 2013 – August 2016.

The result showed that all models of VaR for each share is Valid and can be use to predict the risk of loss. DGIK (VaR -0,04233) as the share with the highest VaR and PTPP (VaR -0,03759) as the share with the lowest VaR.

Key Words: *Investment, Risk, Value at Risk (VaR), Monte Carlo Simulation*