UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

A COMPARATIVE ANALYSIS OF UNIT TRUST PORTFOLIO USING VALUE AT RISK

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ABSTRACT

There are many type of investment available in Malaysia such as stocks, property, fixed deposit, gold and unit trust. By investing, it has been the most efficient ways for investors to increase their wealth. Risk and return elements are the important criteria to be considered in constructing an optimal portfolio before making an investment. Previously, Beta and standard deviation are two common methods to calculate risk. Beta uses historical data to calculate risk and because of this it is not accepted by the investors. They believe that historical performance is not an indicator for future returns. As for standard deviation, it ranks the risk from 0 to 1 indicating lowest to highest. Most of the investors failed to relate it with the return of investment. Thus, Value at Risk (VaR) concept was introduced. This study used three basic method of VaR which are Delta Normal, Historical Simulation and Monte Carlo Simulation to calculate risk at 95% confidence level. The main objective of this research is to calculate the monthly risk in unit trust portfolio. Next is to compare risk value by using the three basic approach which are Delta Normal, Historical Simulation and Monte Carlo Simulation. Lastly to determine the best method in calculating risk of unit trust by comparing the VaR with the actual VaR. Results show that Monte Carlo Simulation is the best method to estimate risk as the average Mean Absolute Percentage Error (MAPE) is the lowest compared to the other two method. Finally, the investors would be in better position to invest in unit trust after knowing the risk involved by applying concept of VaR.