 APPROACH OF MIXTURE MODEL IN OPTIMALIZATION PORTOFOLIO MODELING OF TELECOMMUNICATION COMPANY STOCKS USING BAYESIAN MARKOV CHAIN MONTE CARLO

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Abstract

Portfolio prepared with the aim that the risks that might occur on a single investment instrument can be offset by advantages other investment instruments. Mixture model is a special model that is able to model the multimodal nature of the data that reflects the composition of several sub-populations or groups which is a constituent component of the mixture model as well as having varying proportions for each component. With the high difficulty in the estimation of parameters, then used a Bayesian analysis Markov Chain Monte Carlo (MCMC). Measurement of risk in this portfolio using Value at Risk (VaR). Final gives the final result will be a proportion of funds invested in telecommunication stocks and the size of the risk will be borne by an investor. The biggest proportion of shares owned by TLKM that is equal to 61.72% is the next largest proportion of shares Excl, ISAT and the last BTEL, that is 13.36%%, 20.71 % and 4.2% while the risk of the portofolio is -17.5254.

Key words : Portofolio, Bayesian Markov Chain Monte Carlo (MCMC), Value at Risk (VaR).