

ABSTRACT

Stock is one of securities traded in the capital market that is evidence of ownership of the company's statement. Investors who allocate assets in the stock trading should consider the level of return and risk when selecting stocks. The rate of return in the form of dividends and profits if the sale price exceeds the purchase price of its stocks. While the stock of investment risk due to fluctuations ups and downs of stock prices.

Forecasting stock price can be done in many ways, one of them by using Hidden Markov Models (HMM). In this research, by using continuous observation densities HMM with multivariate Gaussian distributions and multiple observation sequences . This study uses two scenarios that predict the stock price over an interval of 10 days the number of states = 4 and 20 days with a number of state = 6. Stocks used are stocks of Bank BCA, Jasa Marga, and Bank Mandiri. The best results are obtained at BCA stock prediction in scenario 2 with MAPE 3,6743 %.

Keywords : *stock, Hidden Markov Models (HMM), continuous observation densities, Gaussian multivariate distributions, multiple observation, MAPE.*