

## Abstract

Stock option is a contract that give entitles, but it is not an obligation to the option buyer to buy or to sell shares at specified price (strike) or at the time the contract has been agreed to expire (exercise). There are two types of options, call options and put options. The put option is a contract that gives the owner the entitles to sell some assets, while the call option is an option contract that give the owner the entitles to buy the asset. In this research will be discussed how to forecast price option using Monte Carlo simulation with Brown Motion method. Future price movement options are assumed by following the Brown Motion model, after future price options are obtained, will be returned at the starting point of the option price. Before performing the simulation, the volatility value (standard deviation from return) and return of stock price must be known at the first. The test results obtained with the option pricing method using Brownian motion for shares of Unilever Indonesia after processed six times running, gained an average that is 16492, and for shares of Bank Central Asia gained an average that is 6411.

**Keywords:** Stock Option, Option, Monte Carlo, Brown Motion, Volatility.