

Abstract

Stock investments in financial markets are carried out to increase assets in the future. In investing, you must consider the results that will be obtained or commonly called return. Every investor will try to get the maximum return from the investment he does. Therefore, it is necessary to predict changes in the stock market increase or decrease. Some methods for making predictions are Bayesian Network and Naive Bayes Algorithms. In this Final Project, a network of Indonesian financial market sectors is modeled using Bayesian Network, then making predictions based on the increase or decrease in closing prices of each sector. The method used is using the Discrete and Continuous Naive Bayes Algorithm. After that, determine the best method for calculating the predicted increase or decrease by looking at the accuracy of each method with confusion matrix. The financial market sector used is the exchange rate of USD/IDR, IDX Composite, and Bonds. Calculations are made based on the dependence between the USD/IDR exchange rate on IDX Composite, and the USD/IDR exchange rate on bonds. The Naive Bayes Discrete method shows more accurate results with an accuracy of 84% for IDX Composite and 76% for Bonds. While the calculation using the Continuous Naive Bayes method has an accuracy of 52% for IDX Composite and 48% for the Bonds. The USD/IDR exchange rate sector has more influence on IDX Composite, because the level of accuracy obtained by IDX Composite is higher compared to Bonds.

Keywords: exchange rate, idx composite, bonds, bayesian network, naive bayes