APPLICATION OF SUPPORT VECTOR MACHINE (SVM) METHODS ON STOCK PRICE FORECASTING OF PT TELEKOMUNIKASI INDONESIA TBK.

(Case Study: Stock Price of PT Telekomunikasi Indonesia Tbk. Period
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ABSTRACT

PT Telekomunikasi Indonesia Tbk. (PT Telkom Tbk.) is a Badan Usaha Milik Negara (BUMN) engaged in telecommunications and network services in the territory of Indonesia. PT Telkom Tbk. is claimed to be the largest telecommunications company with 15 million costumer of telephone and 104 million costumer of cellular telephone. PT Telkom Tbk. is one of the BUMN's whose shares are currently owned by the Government of Indonesia (52,56%), and 47,44% owned by the Public, Bank of New York, and Domestic Investors. In the 2017, PT Telkom Tbk. experienced satellite interference that triggers stock price changes. Thus, forecasting is needed to help capital market players to determine the basis for strategic decision making that can give them an advantage. The forecasting method used is Support Vector Machine (SVM). SVM is one of many methods that can be used to solve various types of problems including forecasting. By using the Grid Search method, the best training data parameter optimization results are obtained to predict data testing. Based on the results of forecasting stock prices are in the range of Rp3152 up to Rp3615 for the period 01-15 August 2018. Based on the MAPE value the variables open, high, low and close obtained very good forecasting results with a value of <10%.

Keywords: PT Telkom Tbk., SVM, Grid Search and MAPE