

Abstract

Research Title : The Rubber Volume Forecasting to Location Finding the Rubber Industry in Five Years Ahead of the Below Northeast Group 2.

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The aims of this research are to study demand forecasting techniques and to ascertain the optimal location for Processed Para Rubber factory in the next five years(2014-2018). The group 2 of provinces in the northeast region is chosen as a target area which comprises of Ubonratchathani, Srisaket, Amnartcharoen and Yasodhorn. This research is divided into two main processes. The first one is demand forecasting of Processed Para Rubber products in five years time in order to study their exporting trends in global markets. The demand forecasting techniques include Trend Analysis, Moving Average, Single Exponential Smoothing, Decomposition, and Mean Absolute Percent Error (MAPE). These techniques were used as a tool for decision making which related to Location Allocation. The second process is optimal location finding for establishing a factory. Moreover, selection a type of factory did correspond to the result of demand forecasting. Mathematic models were developed for location selection, then the optimal location had been simulated by the computer software: Lingo. The result shows that predictive productivity of Processed Para Rubber products will be 128,383.4 tons in the next five years and export value will be 232,202,738,795 baht in 2018 in average. The optimal locations for Processed Para Rubber factory are in Tambon Nonsomboon, Ampur Dej-udom in Ubonratchathani and Tambon Na-Tae, Ampur Muang in Amnartcharoen.

Key Word: Location allocation, Forecast, Para rubber