

Forecasting International Tourist Arrival to Thailand by Nationality Using Time Series Data Mining Techniques

Pitchayakorn Lake¹

ABSTRACT

This research aim to develop the model of forecasting the number of International Tourists arrival to Thailand. They can expand economic of Thailand. The research provide 3 techniques, which techniques are suited to the forecasting model i.e. Linear Regression, Multi-Layer Perceptron and Support Vector Machine for Regression. The study data was the number of the International Tourists arrival from 2007 to 2015, which they were on the amount of 108 months.

The experimental results show that the forecasting trends the number of ASEAN travelers to visit Thailand i.e. China, Malaysia, Japan and Korea. The forecasting model achieves the highest accuracy rate as follows, 1) the support vector machine for regression forecasting was the most achievable for China, Malaysia and Korea, which the highest accuracy rate were 12.07%, 8.41% and 14.29% of MMRE, respectively. 2) the linear regression forecasting was the most achievable for Japan, which the highest accuracy rate was 8.17% of MMRE.

Keywords: Forecasting, Number of International Tourist Arrival to Thailand, Time Series Analysis, Data Mining Techniques

¹ ภาคคอมพิวเตอร์ธุรกิจ คณะเทคโนโลยีสารสนเทศ มหาวิทยาลัยสยาม

Department of Business Computer, Faculty of Information Technology, Siam University

*Corresponding author: E-mail pitchayakorn@siam.edu