

ABSTRACT

Indonesia as one of the favorite vacation destinations of domestic and foreign travelers made the value of investment in the tourism industry continued to grow significantly. This was created more Online Travel Agent business in recent years. MediaWave as monitoring social media measurement enterprise and analysis platform in cooperation with TAMA Tours & Travel built a platform named TourismWave. TourismWave was different from the Online Travel Agent (OTA) business in general because it worked in real-time using the hotel room sales data in TAMA Tours & Travel. Hotel room sales data were processed using data mining to generate descriptive and predictive models.

The objectives of this study was able to discover a descriptive model of hotel room sales data in TAMA Tours & Travel in 2014. In addition, the purpose of this research was to determine the recommendation chose the hotel from a predictive model.

Data which has been obtained will be through a preprocessing stage that is, data cleansing, data integration, data selection, and data transformation. The process can be performed simultaneously based on the needs of researchers. The result obtained 4912 data. Furthermore, the data is stored to be processed by using Tableau for a descriptive model and Orange Canvas for a predictive model by decision tree and C5.0 algorithms.

The result obtained six descriptive models and six predictive models. Descriptive model aims to determine the true condition of the sales data belong to TAMA Tours & Travel by 2014 in the form of charts and tables that can be easily read and understand. While the result of predictive models are used as basic algorithm for programming in TourismWave's search engine feature whom designed by MediaWave for hotel recommendation to customer.

Researcher discovered difficulties when processing data for descriptive and predictive model building so that researchers suggested TAMA Tours & Travel to improve standardization of data in order to easily and quickly processed further. Then for further researcher were expected to perform modeling sales data from a travel agency company was different, using decision trees with different algorithms, and other data mining techniques.

Keywords: Big Data; Data Mining; CRISP-DM; Classification; Decision Tree