ABSTRAK

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Judul	: *Smart Delivery Analyzer*: Sebuah Model *Machine Learning* Untuk Menentukan Analisa Tingkat Kepuasan Pelanggan Terhadap Ketepatan Waktu Pengiriman Barang

Penerapan teknologi informasi memainkan peran penting dalam kehidupan sehari-hari, terutama dalam meningkatkan efisiensi pengiriman barang. Pada penelitian sebelumnya telah melakukan evaluasi kepuasan pelanggan terhadap ketepatan waktu pengiriman barang dengan menggunakan machine learning. Akan tetapi, pada penelitian tersebut hanya melakukan evaluasi terhadap *Delivery Man* (Kurir) tanpa mempertimbangkan beberapa aspek penting lainnya seperti moda pengiriman dan jenis kelamin. Dalam penelitian ini, kami mengusulkan sebuah model machine learning-based technique yang dinamakan *Smart Delivery Analyzer* (SDA). Dimana, tujuan dari model yang kami bangun ini adalah untuk melakukan evaluasi terhadap tingkat kepuasan pelanggan dengan mempertimbangkan beberapa aspek diatas. Hasil dari penelitian yang kami lakukan, memberikan gambaran bahwa model *machine learning* yang kami bangun efektif dalam melakukan evaluasi kepuasan pelanggan.

Kata Kunci : ketepatan waktu pengiriman, *machine learning*, evaluasi pengiriman, kepuasan pelanggan

ABSTRACT

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Title   : *Smart Delivery Analyzer*: Analysis of Customer Satisfaction Levels Regarding Timeliness of Goods Delivery Using Machine Learning-based Techniques (Case Study: PT. Satyasapta Primatunggal)

The application of information technology plays a vital role in everyday life, including determining the timeliness of goods delivery. Several previous studies have evaluated and determined the timeliness of delivery of goods using questionnaires. However, the calculation process using a questionnaire takes a long time. To overcome this problem, in this research, we propose a model based on machine learning to analyze the level of customer satisfaction in the accuracy of goods delivery. By applying machine learning models, logistics companies can be more efficient and accurate in managing the goods delivery process to increase customer satisfaction regarding delivery services. This research consists of several stages. First, we collect goods delivery data, which includes information on delivery time, distance, and other attributes from logistics companies. Then, the collected data is processed to remove irrelevant data, fill in missing values, and normalize if necessary. Next, we created a machine learning model that can link existing attributes with the timely delivery of goods. It is hoped that the results of this research can provide solutions to increase customer satisfaction regarding the timely delivery of goods.

Keywords: on-time delivery, machine learning, delivery evaluation, customer satisfaction