

INTISARI

Penelitian ini bertujuan untuk menerapkan Algoritma Apriori dalam memprediksi penjualan suku cadang mobil di Bengkel Mobil Dian Abadi Jaya. Menggunakan 5070 data penjualan dari Agustus hingga Desember 2021, penelitian ini menganalisis hubungan antar produk yang sering dibeli bersamaan. Tahapan penelitian meliputi pengumpulan data, pengolahan data mining, pemilihan data, preprocessing, transformasi, penerapan Algoritma Apriori, serta interpretasi dan evaluasi.

Hasil analisis menunjukkan suku cadang seperti “OLI”, “EFI”, “Ganti Oli BS”, “SPOORING”, dan “TUNE UP” selalu dibeli dalam setiap transaksi, sementara suku cadang seperti “sok”, “baut”, “scan”, “cek rem”, dan “ganti busi” kurang populer. Aturan pertama dan kedua menunjukkan tingkat *support* dan kepercayaan 0,84, menandakan bahwa dalam 84% transaksi, *item-item* tersebut dibeli atau tidak dibeli bersama. Nilai *lift* sebesar 1,0 menunjukkan tidak ada hubungan signifikan antara pembelian suku cadang. Algoritma apriori diterapkan dengan parameter *min_support* 0,2, *min_confidence* 0,2, *min_lift* 1, dan *min_length* 2. Hasilnya menunjukkan bahwa pembelian suku cadang di Bengkel Mobil Dian Abadi Jaya bersifat mandiri dan memiliki pola pembelian yang khas.

Kata kunci: Algoritma Apriori, Penjualan Suku Cadang Mobil, Bengkel Mobil Dian Abadi Jaya, Data Mining, Frequent Itemset, Manajemen Persediaan, Strategi Pemasaran, Prediksi Penjualan.

ABSTRACT

This study aims to apply the Apriori Algorithm to predict the sales of car spare parts at Dian Abadi Jaya Car Workshop. Using 5070 sales data from August to December 2021, this research analyzes the relationships between products that are frequently purchased together. The research stages include data collection, data mining processing, data selection, preprocessing, transformation, application of the Apriori Algorithm, and interpretation and evaluation.

The analysis results show that spare parts such as "OLI," "EFI," "Ganti Oli BS," "SPOORING," and "TUNE UP" are always purchased in every transaction, while spare parts such as "sok," "baut," "scan," "cek rem," and "ganti busi" are less popular. The first and second rules indicate support and confidence levels of 0.84, meaning that in 84% of transactions, these items are either purchased or not purchased together. A lift value of 1.0 indicates no significant relationship between the purchases of spare parts. The Apriori algorithm was applied with parameters of min_support 0.2, min_confidence 0.2, min_lift 1, and min_length 2. The results indicate that the purchase of spare parts at Dian Abadi Jaya Car Workshop is independent and has distinct purchasing patterns.

Keywords: Apriori Algorithm, Car Spare Part Sales, Dian Abadi Jaya Auto Repair Shop, Data Mining, Frequent Itemset, Inventory Management, Marketing Strategy, Sales Prediction.