

Decision Tree Algorithms Comparison to Identify Key Factors in Gojek Customer Satisfaction

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Abstract

This research compares the performance of three decision tree algorithms – ID3, CART and C4.5 for classifying Gojek customer satisfaction in Indonesia. Data were collected through online questionnaires using a 5-point Likert scale from 116 active Gojek users, measuring driver service quality, application quality and customer satisfaction feeling. Likert responses were transformed into binary categories that's are satisfied and dissatisfied based on mean values of data. Dataset was split into 80:20 using stratified sampling. Result indicates that C4.5 algorithm achieved the highest accuracy 95.06% with the lowest classification error 4.94% outperforming both ID3 and CART with accuracy 93.83%. The online service emerged as the root node in C4.5's decision tree, indicating its dominant influence for ride-hailing platforms to prioritize service improvements based on empirical feature importance. The classification pattern obtained from C4.5 can be used to predict the satisfaction level for the new customer.

Keywords: Classification Performance, Customer Satisfaction, Data Mining, Decision Tree, Gojek Application