

Analysing the Impact of Discounts and Promotions using Data Analytics and Machine Learning

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Abstract: *Promotions and discounts play a significant role in influencing consumer purchasing behavior. This study aims to analyze how various promotional strategies impact customer decision-making using classification techniques. This research investigates the impact of promotions and discounts on customer behavior using classification techniques. By analyzing customer data, this study aims to identify key factors influencing purchase decisions and to develop predictive models for understanding how different promotional strategies affect customer responses. The classification models employed include Linear Discriminant Analysis, Decision Tree Classifier, K-Nearest Neighbors Classifier, Random Forest Classifier, and Support Vector Classifier. The results provide insights into optimizing promotional campaigns and enhancing customer engagement.*

Keywords: Discounts, Promotions, Customer Behavior, Machine Learning, Regression Analysis, Supermarket Sales, Shopping Trends, Customer Engagement.