

# Prediction of Customer Purchase Intention using Social Media Data

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**Abstract:** *Predicting customer behavior in the context of e-commerce is becoming increasingly important as people shift from visiting physical stores to shopping online. By facilitating a more personalized shopping process, it can boost consumer happiness and sales, resulting in higher conversion rates and a competitive edge. Models for forecasting consumer behaviors can be constructed using and supplementing customer data. This research looks at how a prominent German apparel shop uses machine learning models to forecast purchases, which is a significant use case. Following that, by doing a descriptive data analysis and individually training the models on the distinct datasets, this study provides insight into the performance differences of the models on sequential and static customer data. Three different algorithms are used.*

**Keywords:** Machine Learning, Customer Purchase Intention, SVM, KNN, Random Forest

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