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# Forcasta:

# Predicting Future Customer Transaction Trends

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# ABSTRACT

Analyzing consumer transactional data is crucial for businesses to strengthen customer relationships and attain sustainability in a volatile market. Customer transaction predictions currently heavily depend on human intuition and are considered an intellectual task, formulating and implementing this intuition as a data-driven approach can be valuable for companies in improving customer satisfaction and retaining their customer base. Although there are techniques available to analyze transaction trends, predicting the next transaction day has not been achieved to a satisfactory level. In this study, the author propose a novel machine learning-based algorithm to predict the next transaction day of customers based on their customer lifetime value (CLV).

The algorithm proposed in this study combines unsupervised learning for CLV derivation and supervised learning for predicting the next transaction day. This hybrid approach aims to maximize the utilization of historical transactional data and produce a precise prediction mechanism, thus addressing the identified gap.

Several models were trained using the dataset and the results indicated that the hybrid approach performed better than the individual models. This study is scalable and can potentially make a significant contribution to the field of business intelligence.