

Paper Summary 5

Paper number	5
Read by	Atman Hapani
Title of paper and author details	Machine Learning Techniques for Customer Retention: A Comparative Study Authors – Sahar F. Sabbeh
Publication year, publication body	2018 International Journal of Advanced Computer Science and Applications (IJACSA)
Domain of paper [sentiment analysis/ ontology construction...etc]	Customer Retention in CRM (Customer Relationship Management)
Dataset used/ Data sources [if any]	The study uses a dataset from a telecommunication company, containing 3,333 records and 17 explanatory features related to customer service usage, including variables such as account length, international plan, voice mail plan, and service usage statistics.

Implementation tools/ technologies used [if any]	<p>Logistic Regression</p> <p>Decision tree(CART)</p> <p>Naive Bayesian</p> <p>Support Vector Machine (SVM)</p> <p>k-Nearest Neighbor (KNN)</p> <p>Ensemble Learning(Random Forest,AdaBoost, Stochastic Gradient Boosting)</p> <p>Artificial Neural Network (ANN)</p> <p>Linear Discriminant Analysis (LDA)</p>
Results given and evaluation parameters used	<p>Random Forest and AdaBoost: Achieved the highest accuracy at 96%.</p>
Highlights/summary of paper in your words	<p>The paper provides a comparative analysis of various machine learning techniques to predict customer churn.</p> <p>The study concludes that ensemble methods like Random Forest and AdaBoost outperform other methods in terms of accuracy.</p>
Future enhancements suggested	<p>The paper suggests further exploration into hybrid models and deep learning techniques to potentially increase prediction accuracy and performance in real-world applications.</p>