Customer Satisfaction Survey Dataset Research Paper

Title & Collection Method

This dataset was created to measure and predict customer satisfaction levels based on service quality, product quality, support responsiveness, delivery speed, and price fairness. The data was collected through a customer survey form distributed to potential respondents. Each participant was asked to evaluate different aspects of service using a Likert scale (1–5) and finally indicate their overall satisfaction (Satisfied / Neutral / Dissatisfied).

Description of Features & Labels

Features (X):

- Service_Quality – Rating of service quality (1–5).
- Product_Quality – Rating of product quality (1–5).
- Support_Response – Speed & helpfulness of customer support (1–5).
- Delivery_Speed – Time taken to deliver (1–5).
- Price_Fairness – Fairness of product/service price (1–5).

Label (y):

Overall_Satisfaction – Customer’s overall judgment of their experience (Satisfied / Neutral / Dissatisfied).

Dataset Structure

The dataset contains 100+ survey responses with 6 columns (5 features + 1 label).

Service_Quality	Product_Quality	Support_Response	Delivery_Speed	Price_Fairness	Overall_Satisfaction
5	5	4	5	4	Satisfied
3	4	3	3	3	Neutral
2	2	1	2	2	Dissatisfied
4	5	5	4	4	Satisfied
3	3	2	3	3	Neutral

Quality Issues

Like any real-world survey data, the dataset may have some quality challenges: Missing values (participants skipping questions), typos or inconsistent entries (e.g., 'satisfied' vs 'Satisfied'), duplicates (multiple responses from the same person), and class imbalance (majority of customers are satisfied compared to few dissatisfied). Cleaning and preprocessing are required (handling missing values, standardizing labels, balancing classes).

Use Case in Machine Learning

This dataset can be applied to multi-class classification problems: - Goal: Predict whether a customer will be Satisfied, Neutral, or Dissatisfied. - Techniques: Logistic Regression (multi-class), Decision Trees, Random Forests, KNN, or Neural Networks with softmax output. - Applications: Companies can use predictions to identify dissatisfied customers early, managers can improve weak areas of service or product quality, and marketing teams can focus on customers with neutral satisfaction to increase loyalty.