CUSTOMER REVIEW SENTIMENT ANALYSIS

- Analyzing customer feedback to uncover insights and drive improvements
- Project By: Mohsin Khan
- Tools Used: Python, VADER, WordCloud, LDA, Pandas, Matplotlib
- Dataset: Customer Reviews Dataset

PROJECT OBJECTIVES

- Analyze the sentiment of customer reviews (Positive, Negative, Neutral)
- Extract patterns and trends in feedback
- Identify major complaints and key praise points
- Provide actionable business recommendations

METHODOLOGY

- Data Preprocessing: Cleaned text, removed noise
- Sentiment Scoring: Used VADER
- EDA & Visualization: Word clouds, sentiment trends
- Topic Modeling: Applied LDA to negative reviews

SENTIMENT DISTRIBUTION

- Positive: 508 reviews
- Negative: 454 reviews
- Neutral: 38 reviews
- Majority of reviews are positive
- Significant number of complaints identified

WORD CLOUDS

- Positive: wonderful, amazing, recommend, perfect, satisfied
- Negative: awful, broke, worst, poor quality, waste
- Shows what customers love vs. hate

TOPIC MODELING (LDA)

- Topic 1: poor quality, bad experience
- Topic 2: broken easily, hard to use
- Topic 3: overpriced, missing features
- Topic 4: unmet expectations, bad purchase
- Topic 5: customer service issues, waste of money

KEY INSIGHTS

- Customers love the product's features and performance
- Frequent complaints about durability and support
- Topic modeling exposed recurring negative themes
- Word usage aligned with clear sentiment patterns

RECOMMENDATIONS

- Improve product durability and design quality
- Simplify user experience
- Strengthen customer service channels
- Emphasize strong features in marketing
- Track sentiment trends over time

FINAL THOUGHTS

- Sentiment analysis helped uncover what's working and what needs fixing
- Topic modeling revealed deep issues
- This analysis can help boost customer satisfaction

PROJECT DELIVERABLES

- Jupyter Notebook with full code
- PDF report export
- Slide Deck for presentation