Customer Sentiment Analysis Report

Project: Flipkart iPhone 15 (128GB) Review Analysis

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Environment: Local Jupyter Notebook

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1. Objective

To collect and analyze customer reviews for the Apple iPhone 15 (128GB) model from Flipkart, perform sentiment classification (positive or negative) using TextBlob, and visualize key insights such as sentiment distribution, rating correlation, and commonly used keywords.

2. Methodology

- Data Collection: Web scraping using Selenium and BeautifulSoup.

- Data Cleaning: Text normalization, stopword removal, and lemmatization using NLTK.

- Sentiment Analysis: TextBlob polarity scores (threshold >= 0.1 = positive sentiment).

- Visualization: Sentiment distribution, rating vs polarity, word clouds.

- Reporting: Automated CSV summaries and visual artifacts generated via Python.

3. Key Results (Demo Data)

- Total Reviews Analyzed: 5 (demo dataset)

- Positive Reviews: 3 | Negative Reviews: 2

- Average Rating: 3.4 | Average Polarity: 0.21

- Strong correlation between high rating and positive sentiment.

- Frequent positive terms: 'camera', 'display', 'battery'.

- Frequent negative terms: 'heating', 'price', 'drain'.

4. Insights & Recommendations

- Most customers appreciate camera quality and display smoothness.

- Negative feedback mainly concerns heating issues and price.

- Marketing should highlight performance and design improvements.

- Product team can prioritize battery and thermal optimization.