

## Rubric for Consumer Sentiment Analysis

### Purpose of the Assignment

The purpose of this assignment is to analyze consumer sentiment related to a specific product line and evaluate its impact on consumer engagement and satisfaction. This involves investigating how positive and negative sentiments influence perceptions of helpfulness among customers, as well as providing actionable recommendations to guide business strategies.

### Task

Your task is to perform a sentiment analysis on a given dataset, focusing on customer reviews and feedback related to a new product line. This analysis should assess the sentiment (positive, negative, or neutral) and evaluate its influence on the rate of helpfulness. The results should contribute to a deeper understanding of consumer behavior and inform strategic decisions.

### Rubric

Data Collection and Preparation (20%)	<ul style="list-style-type: none"><li>● Scope of Data Sources: Identify and collect relevant data from a variety of sources, such as social media, customer reviews, and surveys.</li><li>● Data Cleaning and Preprocessing: Appropriately clean and preprocess the data for analysis, addressing any inconsistencies, missing values, or errors.</li></ul>
Sentiment Analysis (25%)	<ul style="list-style-type: none"><li>● Sentiment Identification: Utilize appropriate techniques to determine the sentiment of customer feedback (e.g., Natural Language Processing tools, sentiment analysis libraries).</li><li>● Sentiment Categorization: Categorize sentiments into positive, negative, or neutral.</li><li>● Quantitative Sentiment Assessment: Use metrics or indices to quantify the strength of sentiments.</li></ul>
Impact on Helpfulness (25%)	<ul style="list-style-type: none"><li>● Helpfulness Rating Analysis: Assess how positive and negative sentiments affect the rate of helpfulness in customer reviews.</li><li>● Hypothesis Testing: Conduct statistical tests to evaluate the hypothesis that there is no significant difference between the helpfulness of positive and negative sentiments.</li><li>● Interpretation of Results: Clearly explain the findings from the hypothesis testing and their implications.</li></ul>
Recommendations and Insights (20%)	<ul style="list-style-type: none"><li>● Actionable Recommendations: Develop clear recommendations based on your analysis to improve consumer engagement and satisfaction.</li></ul>

	<ul style="list-style-type: none"> <li>● Strategic Insights: Identify broader trends and insights that can guide future business strategies.</li> </ul>
Presentation and Communication (10%)	<ul style="list-style-type: none"> <li>● Clarity and Organization: Present your findings in a clear and organized manner.</li> <li>● Accessibility for Non-Technical Stakeholders: Use layman's terms and visual aids (charts, graphs, etc.) to make the information accessible to a broader audience.</li> <li>● Professionalism and Conciseness: Maintain a professional tone throughout and avoid unnecessary jargon.</li> </ul>

### **Deliverable**

Your final deliverable should be a comprehensive report that includes the following:

- An overview of the data sources and preparation methods.
- Results of the sentiment analysis, with visualizations to support your findings.
- Results from the hypothesis testing, along with interpretations.
- Recommendations for improving consumer satisfaction and strategic insights.
- An accessible summary or executive summary for non-technical stakeholders.

Good luck with your analysis, and remember to be thorough, clear, and focused on delivering actionable insights!