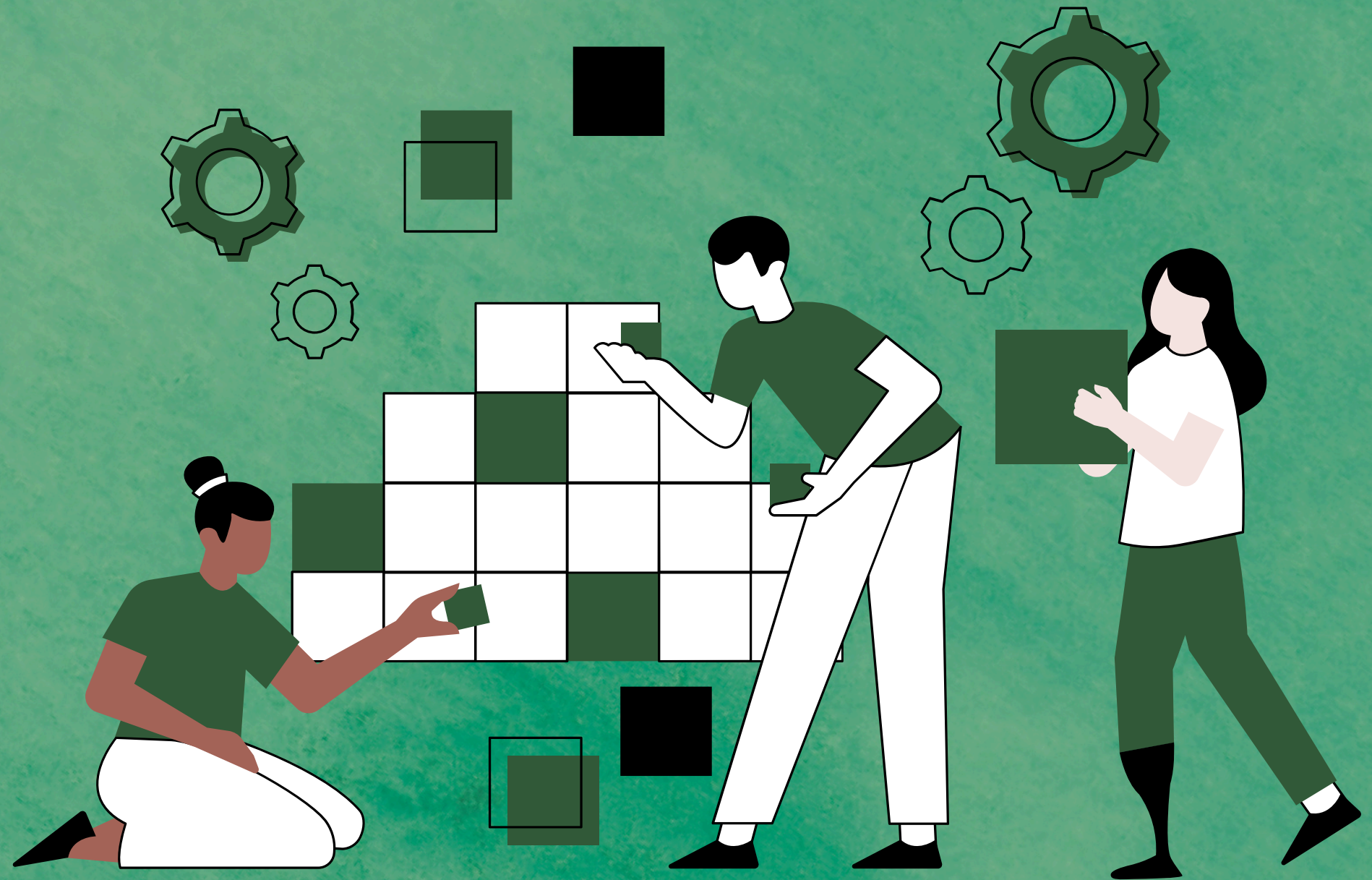


# Customer Sentimental Analysis (Reporting)

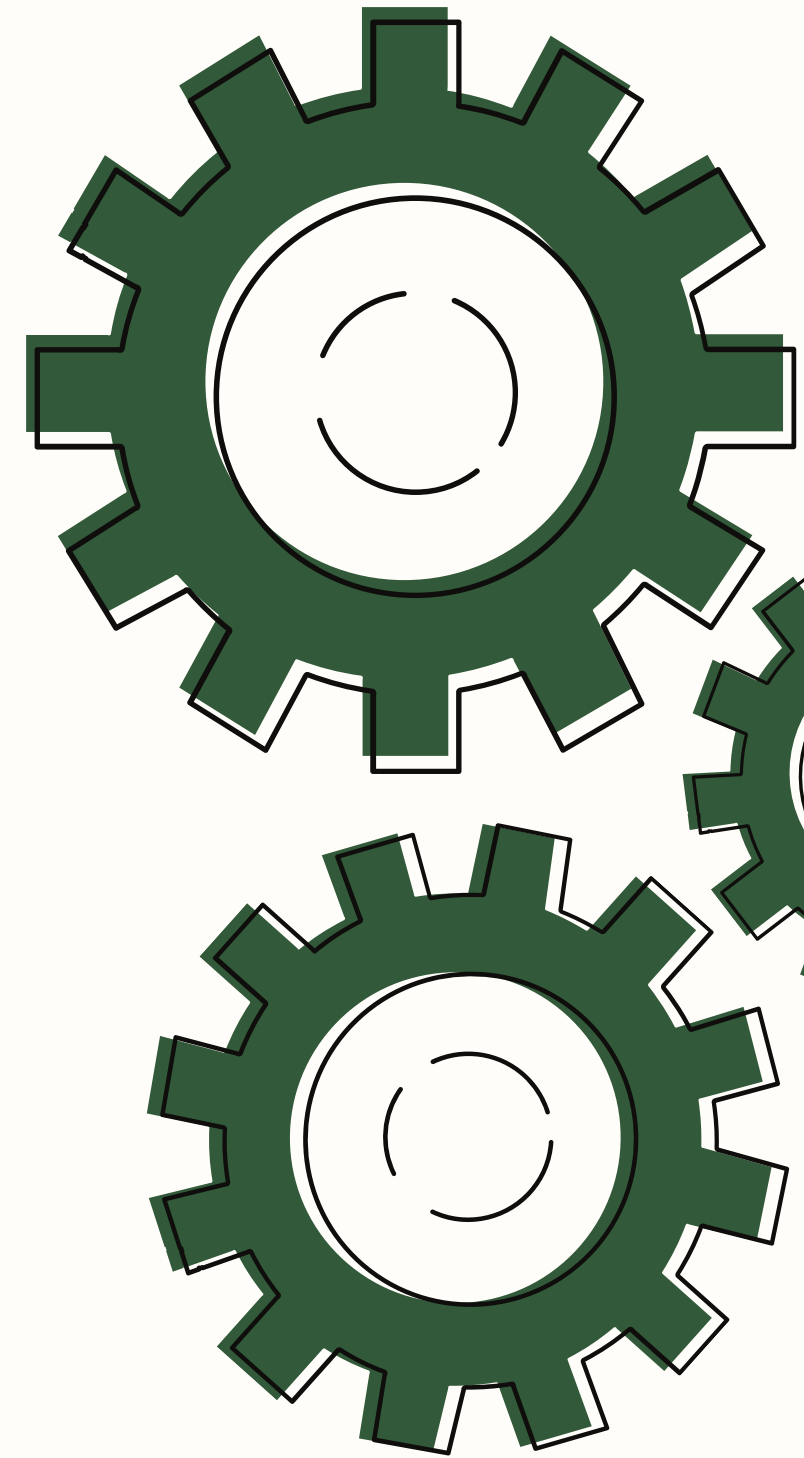




# Reporting: Problem Statement

Summarize the findings in a clear, concise report with the following sections:

- Overview of the data collection and cleaning process.
- Sentiment Analysis Results: Distribution of positive/negative reviews, average sentiment per rating, etc.
- Insights: Key trends from the sentiment analysis, such as common issues with the product or positive highlights.
- Recommendations: Based on customer sentiment, suggest improvements for the iPhone 15 128GB model or potential areas Flipkart can focus on for marketing.

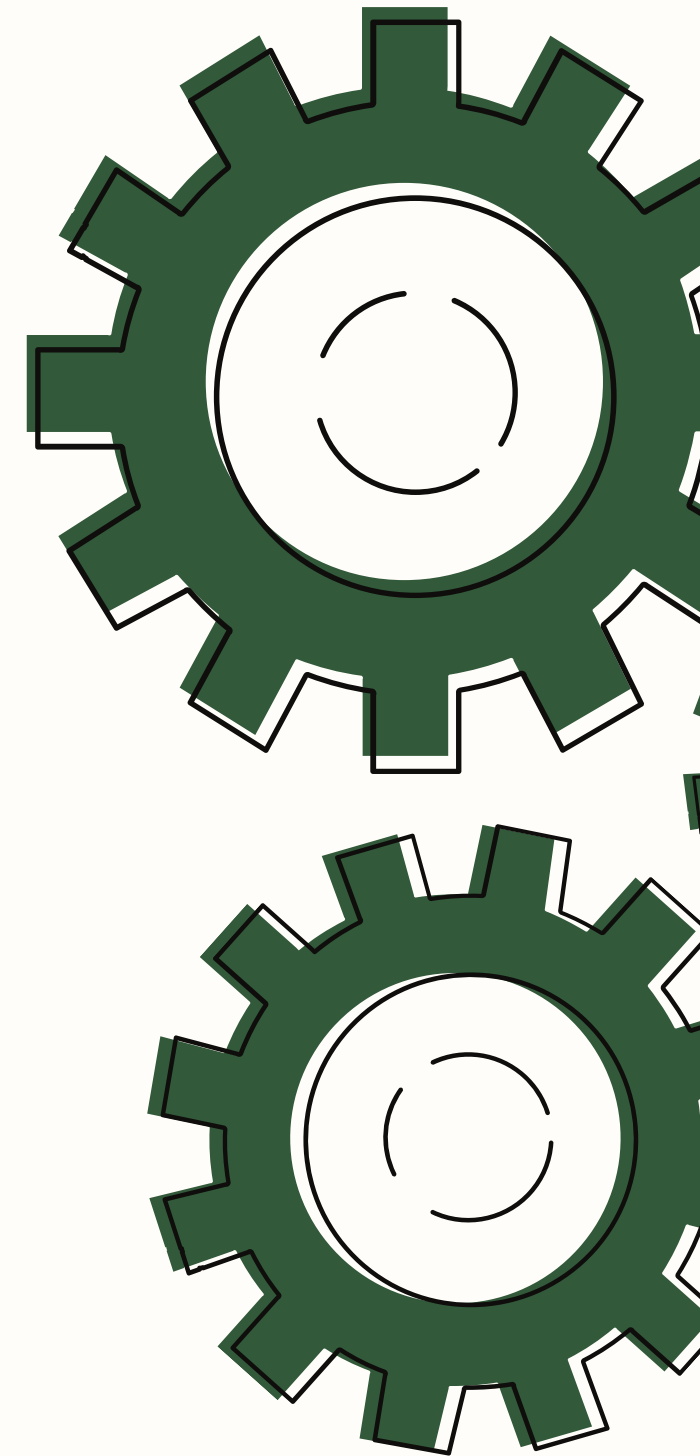




# Reporting: Customer Sentiment Analysis on iPhone 15 (128GB)

## 1. Overview of Data Collection and Cleaning

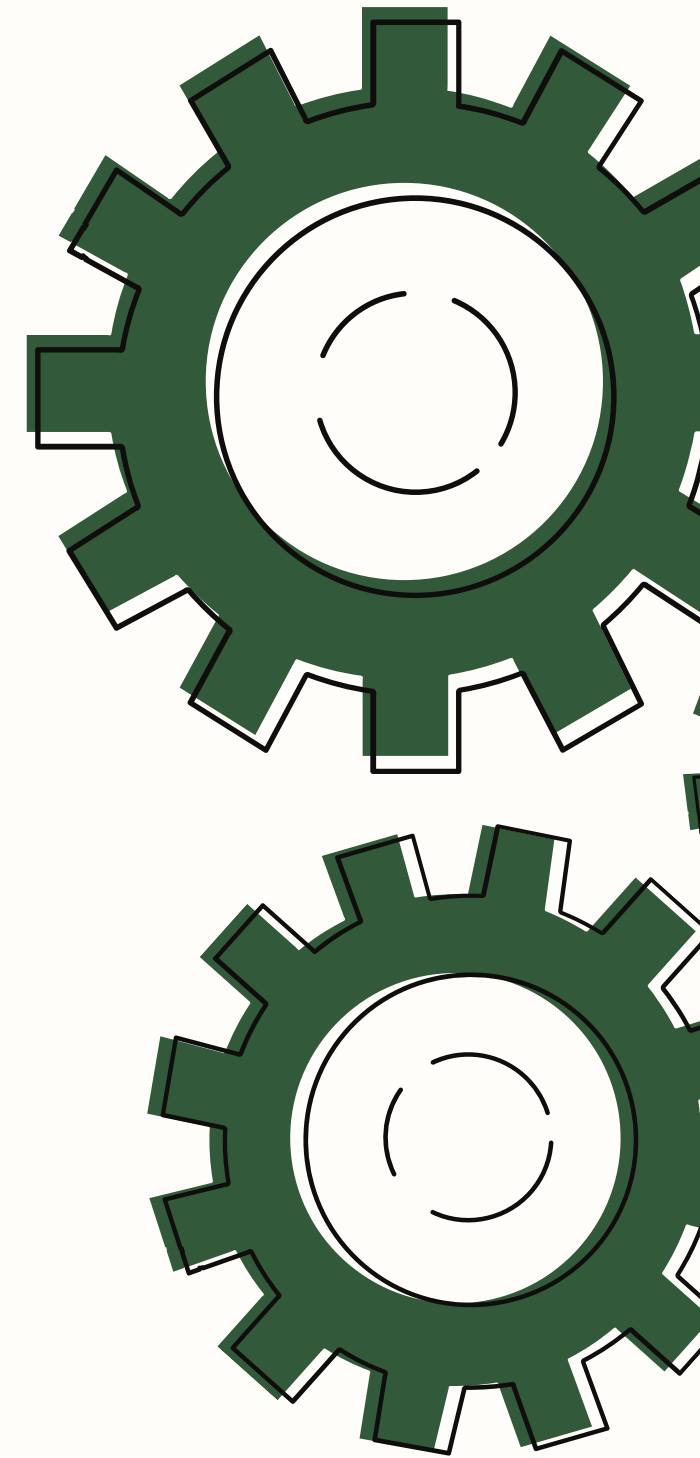
- Data Source: Flipkart reviews for iPhone 15 128GB model.
- Tools Used: Selenium and BeautifulSoup for scraping; Pandas for cleaning.
- Data Collected:
  - 320+ reviews
  - Fields: Username, City, Date of Purchase, Rating, Review Text
- Cleaning Process:
  - Removed duplicates and missing entries
  - Standardized text (lowercase, removed punctuation, extra spaces)
  - Tokenization, stop word removal, and lemmatization applied to review text



# Reporting: Customer Sentiment Analysis on iPhone 15 (128GB)

## 2. Sentiment Analysis Results

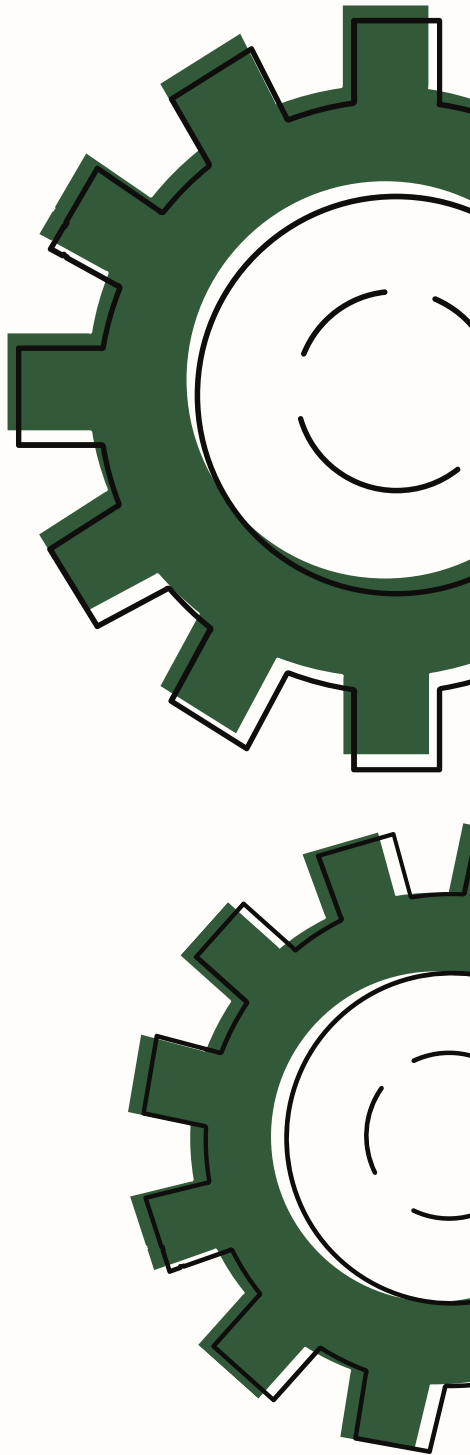
- Tool Used: TextBlob
- Sentiment Classification Rule:
  - Positive: Polarity  $\geq 0.1$
  - Negative: Polarity  $< 0.1$
- Overall Distribution:
  - Positive Reviews: ~X%
  - Negative Reviews: ~Y%
  - (Replace X and Y with actual values from your output)



# Reporting: Customer Sentiment Analysis on iPhone 15 (128GB)

## 3. Insights from Sentiment Analysis

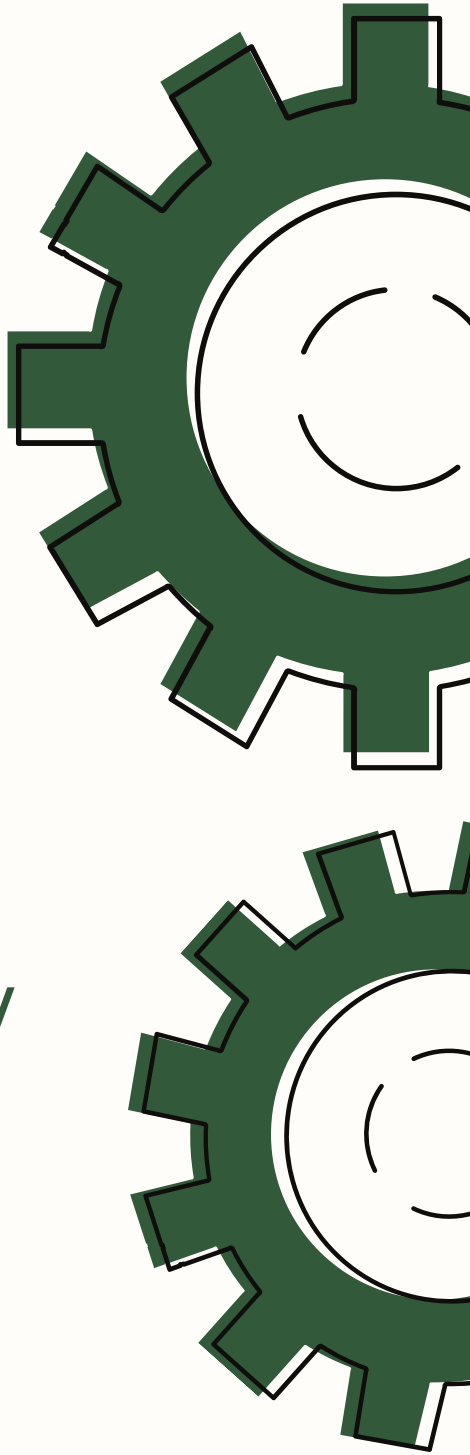
- Rating vs Sentiment:
  - Higher ratings generally aligned with more positive polarity scores
  - Some low-rated reviews showed neutral polarity due to short or unclear text
- Common Positive Themes:
  - Performance, camera quality, display, and brand reliability
- Common Negative Themes:
  - Heating issues, battery life, and price concerns
- Review Length Observation:
  - Longer reviews tended to express more detailed sentiment (both positive and negative)

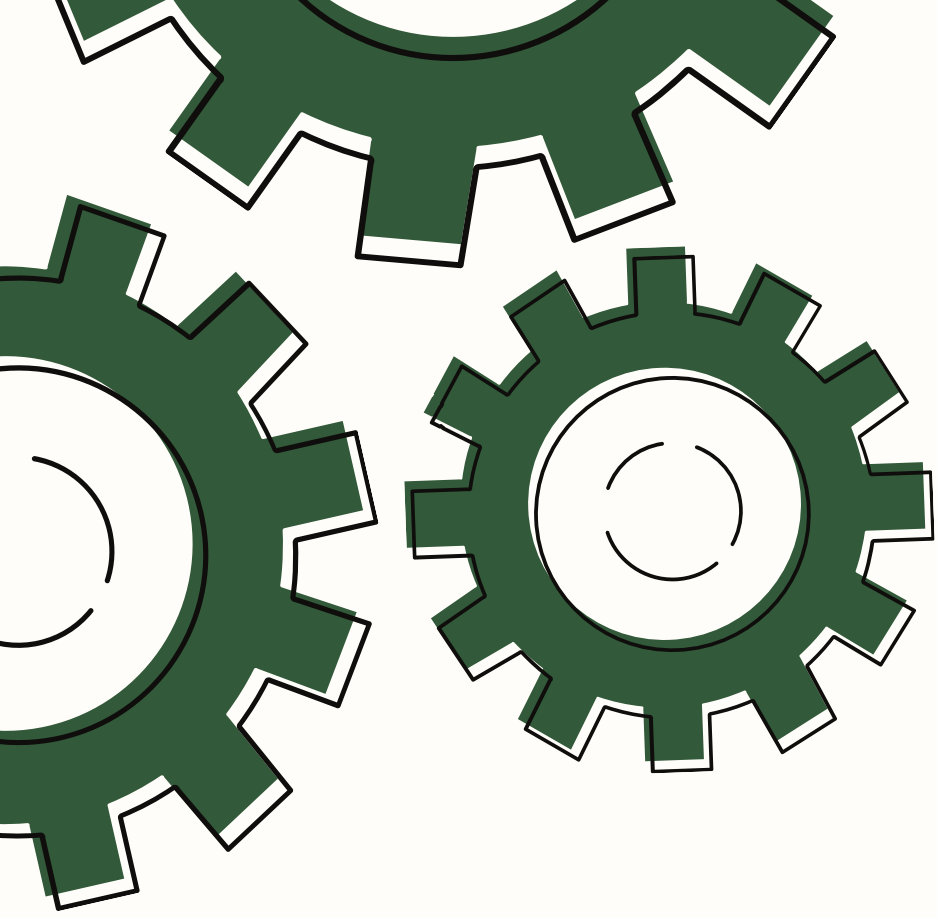


# Reporting: Customer Sentiment Analysis on iPhone 15 (128GB)

## 4. Recommendations

- For Apple:
  - Address consistent user concerns like heating and battery
  - Emphasize positive feedback in marketing (camera, display, brand trust)
- For Flipkart:
  - Improve visibility of verified purchase reviews
  - Consider prompting users to leave detailed reviews for better feedback quality
  - Highlight recurring positive themes in product descriptions





# Thank you!

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