

App Rating Analysis Framework

1. Quantitative Analysis

Rating Distribution

- Create a histogram or bar chart of ratings (1-5 stars)
- Analyze distribution shape (normal, bimodal, skewed)
- Track changes in distribution over time

Time Series Analysis

- Plot average rating over time (weekly/monthly)
- Identify trends, seasonality, or correlation with app updates
- Compare with competitor ratings if available

User Segmentation

- New vs. returning users
- Platform (iOS vs. Android)
- Version of app used
- User demographics (if available)

2. Qualitative Analysis

Topic Extraction

- Use NLP to identify common topics/themes in reviews
- Categorize reviews by feature discussion (UI, performance, specific functions)
- Create frequency distribution of topics

Sentiment Analysis

- Score reviews for positive/negative sentiment
- Connect sentiment to specific app features or updates
- Track sentiment changes over time

Word Frequency Analysis

- Create word clouds for visual representation of common terms

- Generate n-gram analysis (pairs/triplets of words that frequently appear together)
- Compare positive vs. negative review vocabulary

3. Integration & Actionable Insights

Cross-Analysis

- Map sentiment scores to star ratings
- Correlate topics with rating levels
- Identify features mentioned in highest/lowest ratings

Priority Matrix

- Create a 2x2 matrix of issue frequency vs. severity
- Plot identified problems by impact on user experience
- Determine development priorities based on matrix position

Recommendation Tracking

- Document specific user suggestions
- Quantify frequency of similar suggestions
- Track implementation status

4. Visualization Recommendations

For Executives

- Dashboard with key metrics and trends
- Top 5 issues affecting ratings
- Competitive comparison

For Product Team

- Detailed feature-specific feedback
- User journey pain points
- Prioritized enhancement recommendations

For Marketing Team

- Positive sentiment word cloud
- User testimonial highlights

- Feature popularity ranking

5. Implementation Tools

Open Source Options

- Python with pandas, nltk, matplotlib
- R with tidytext and ggplot2
- Tableau Public

Commercial Options

- AppFollow
- Appbot
- SensorTower