



# AMAZON PHONE REVIEW ANALYSIS

By Priyanshi

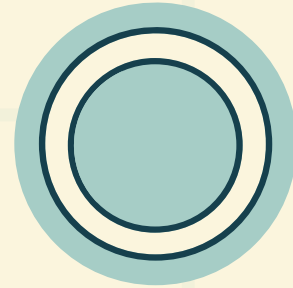
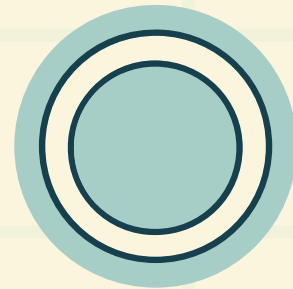
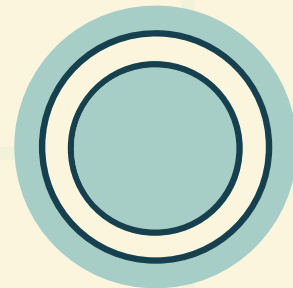


# BACKGROUND



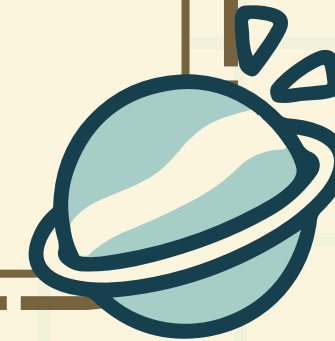
The **mobile phone** market is very competitive, and customers depend on online ratings and reviews before buying a device. Using the Kaggle dataset, which includes **brand, price, ratings, and reviews**, we can easily study trends, compare brands, and understand customer preferences. This structured data allows clear and systematic analysis.

# PROBLEM STATEMENT



Although the dataset is structured, brands lack clear insights into customer satisfaction, rating patterns, sentiment distribution, and price–rating relationships. The challenge is to analyze ratings, reviews, and brand-wise performance to identify **strengths, weaknesses, and improvement areas**. Understanding customer sentiment is essential for making informed business and product decisions.

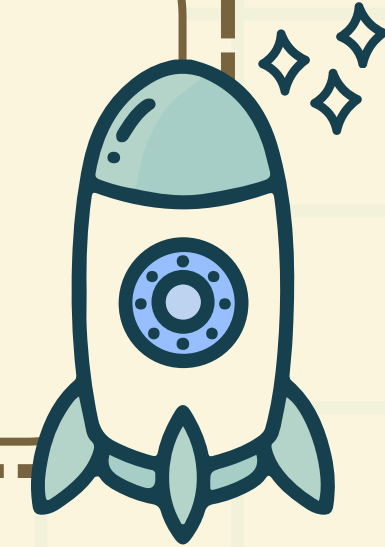
# OBJECTIVE



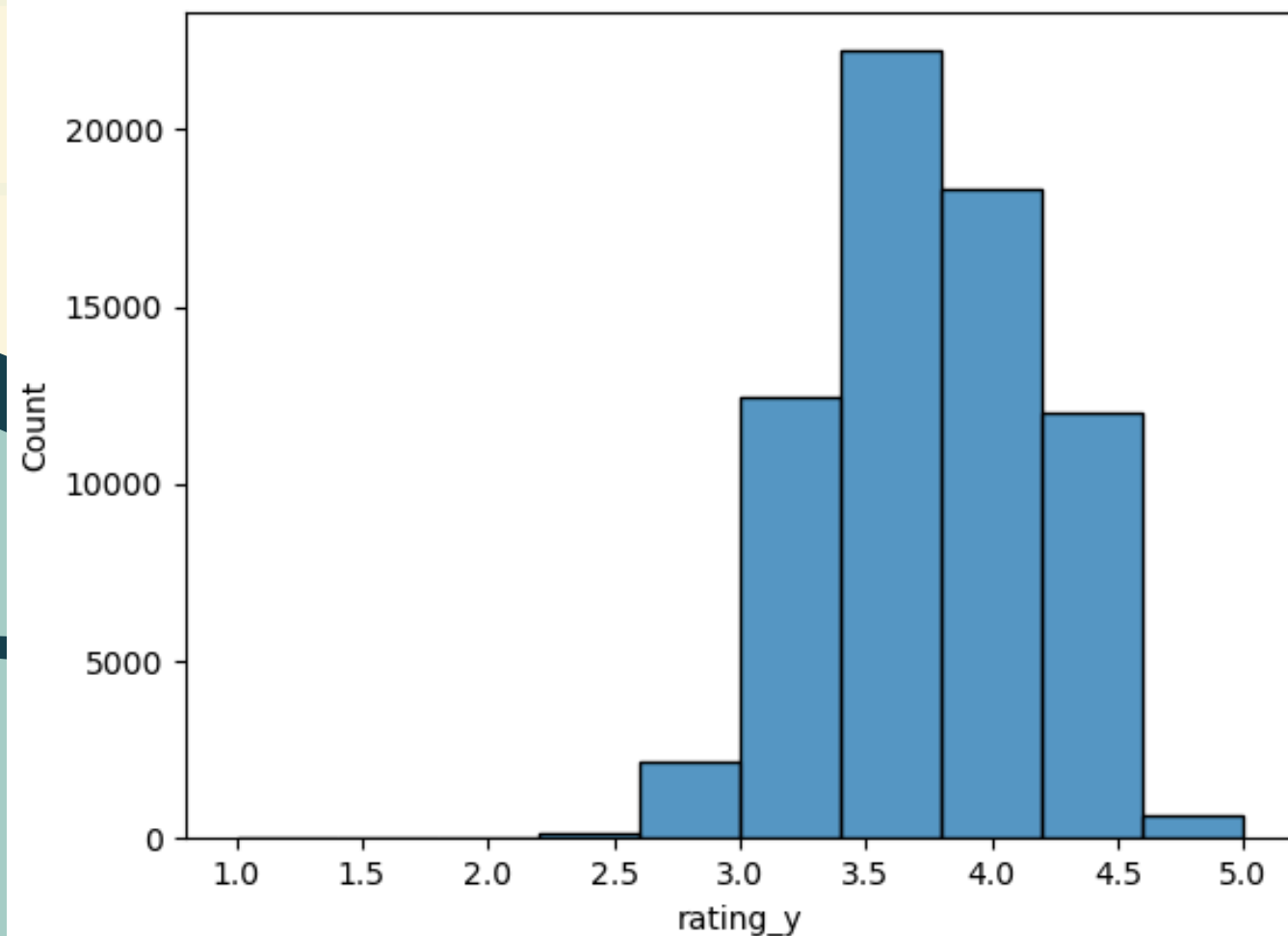
The objective is to perform complete **exploratory data analysis, visualization** and **sentiment analysis** on mobile reviews. This includes understanding **rating distribution**, **analyzing brand performance**, **examining price-rating relationships**, **identifying customer sentiment**, and finding trends over time. The goal is to deliver actionable insights that support business and product decisions.

# INSIGHTS

## RATING DISTRIBUTION



Rating Distribution



The most common rating people gave this phone was **3.5 stars**. A lot of people were pretty happy too, giving **4 stars**. It seems most customers feel just okay to good .

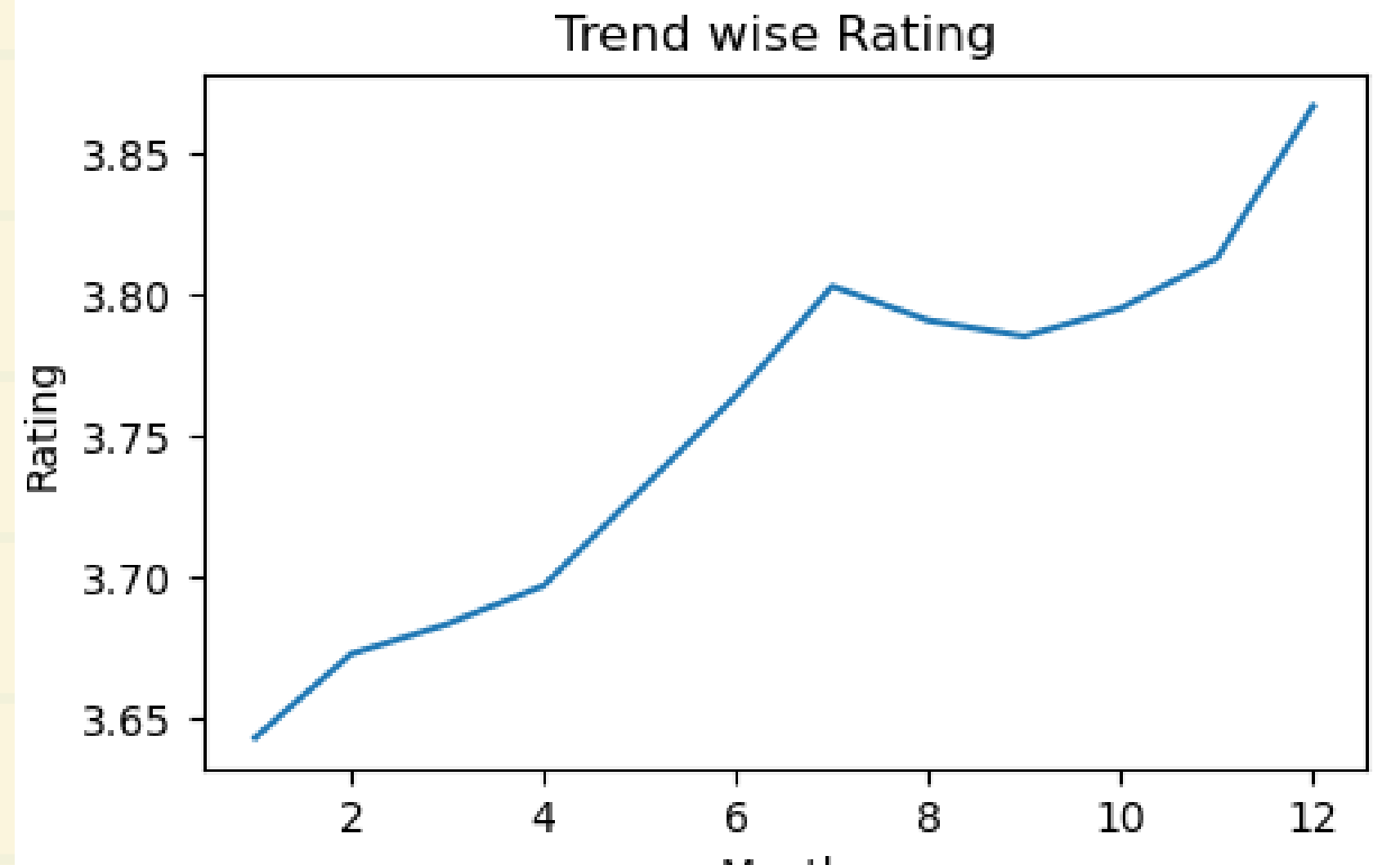
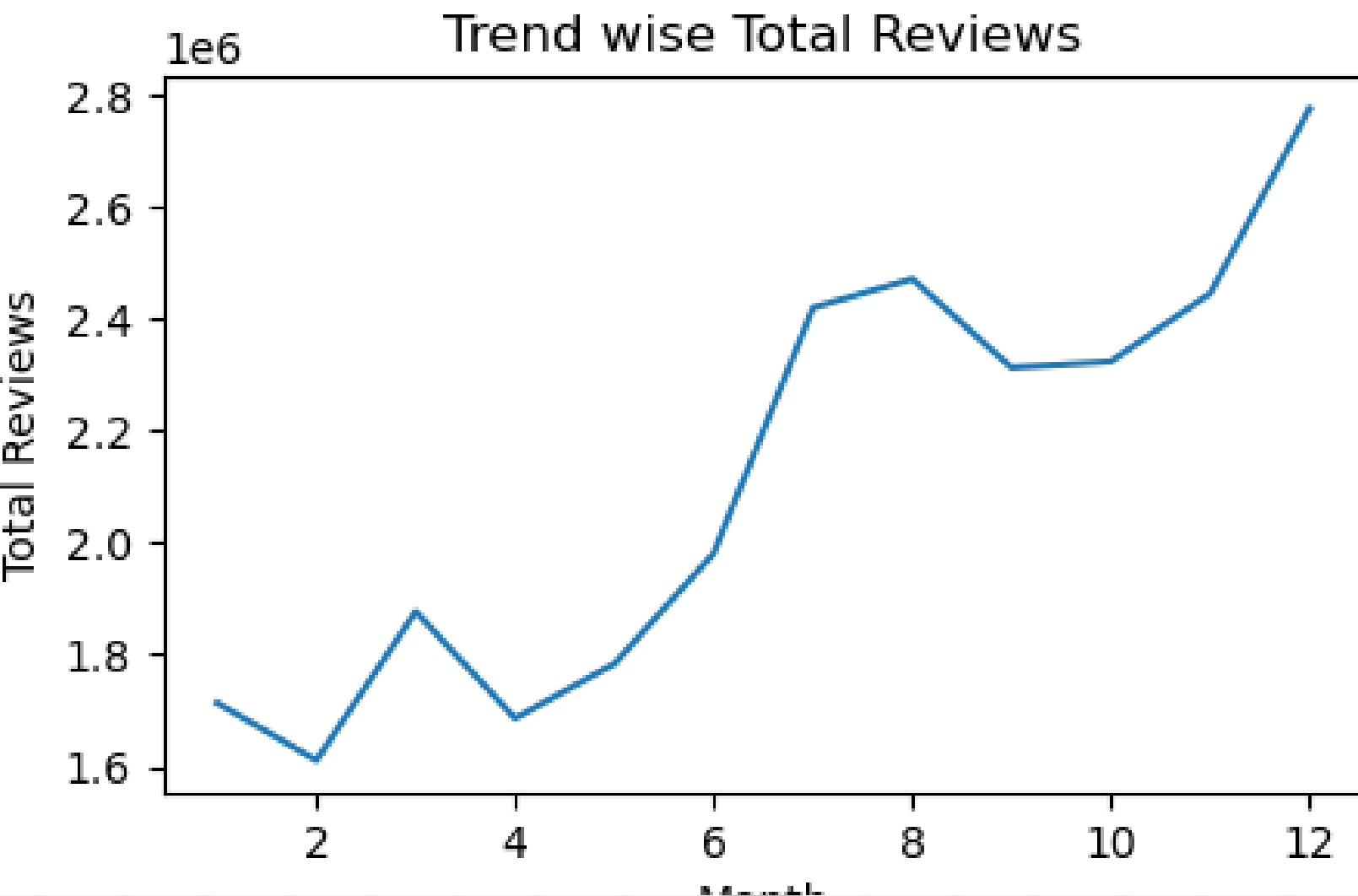
# PRICE VS RATING



Price does not strongly influence rating.

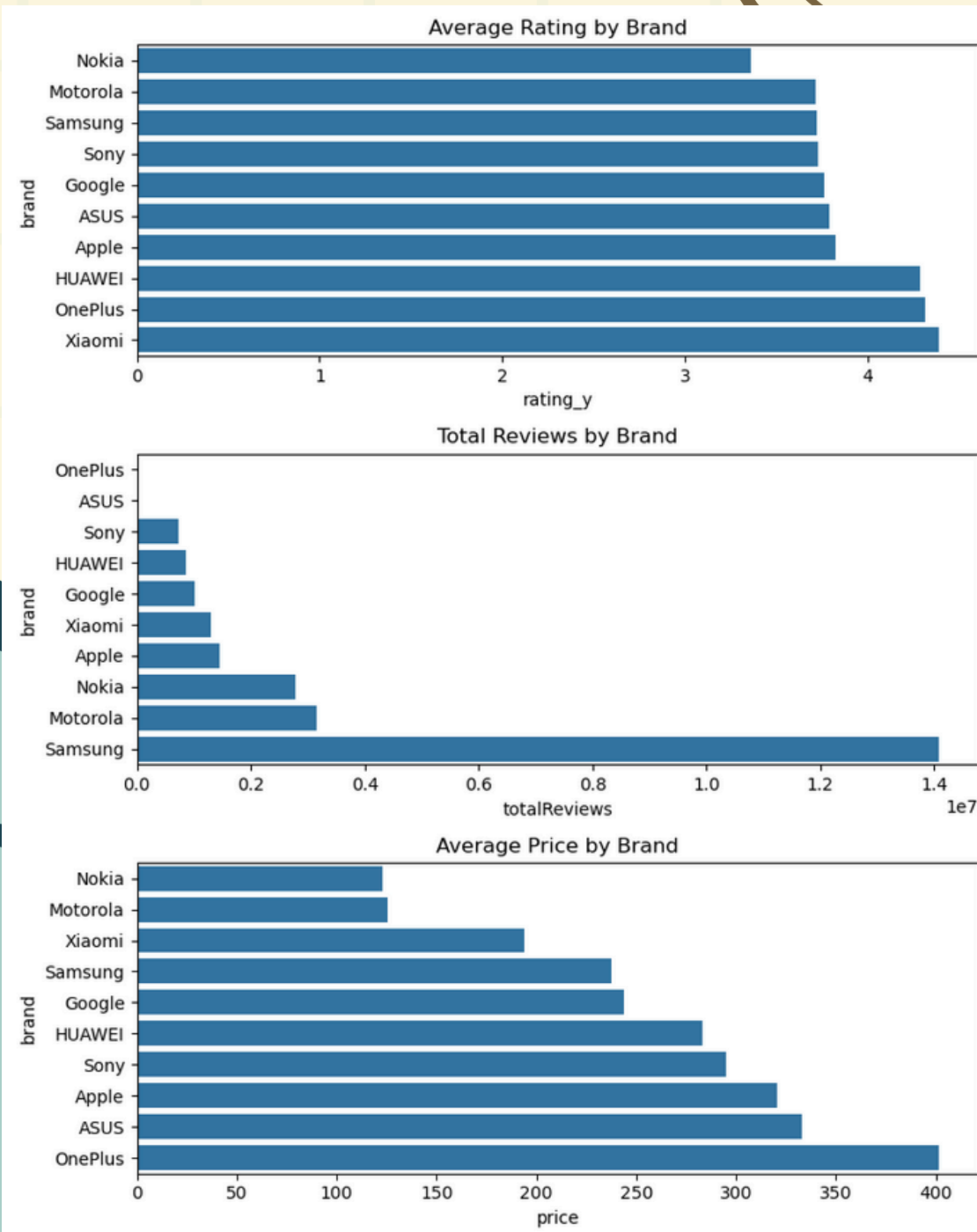
Both **low-cost** and **high-cost** phones can achieve high ratings. Customer satisfaction depends more on features, performance, brand trust, and user experience rather than price.

## TREND WISE RATING AND TOTAL REVIEWS



- Both **rating & reviews rise sharply in December**, indicating high customer satisfaction and high purchase volume.
- The **mid-year period (May–August)** is also strong for reviews but shows **mixed satisfaction** (small rating dip).
- Early-year (Jan–Apr) is the **slowest period** for both customer engagement and satisfaction.

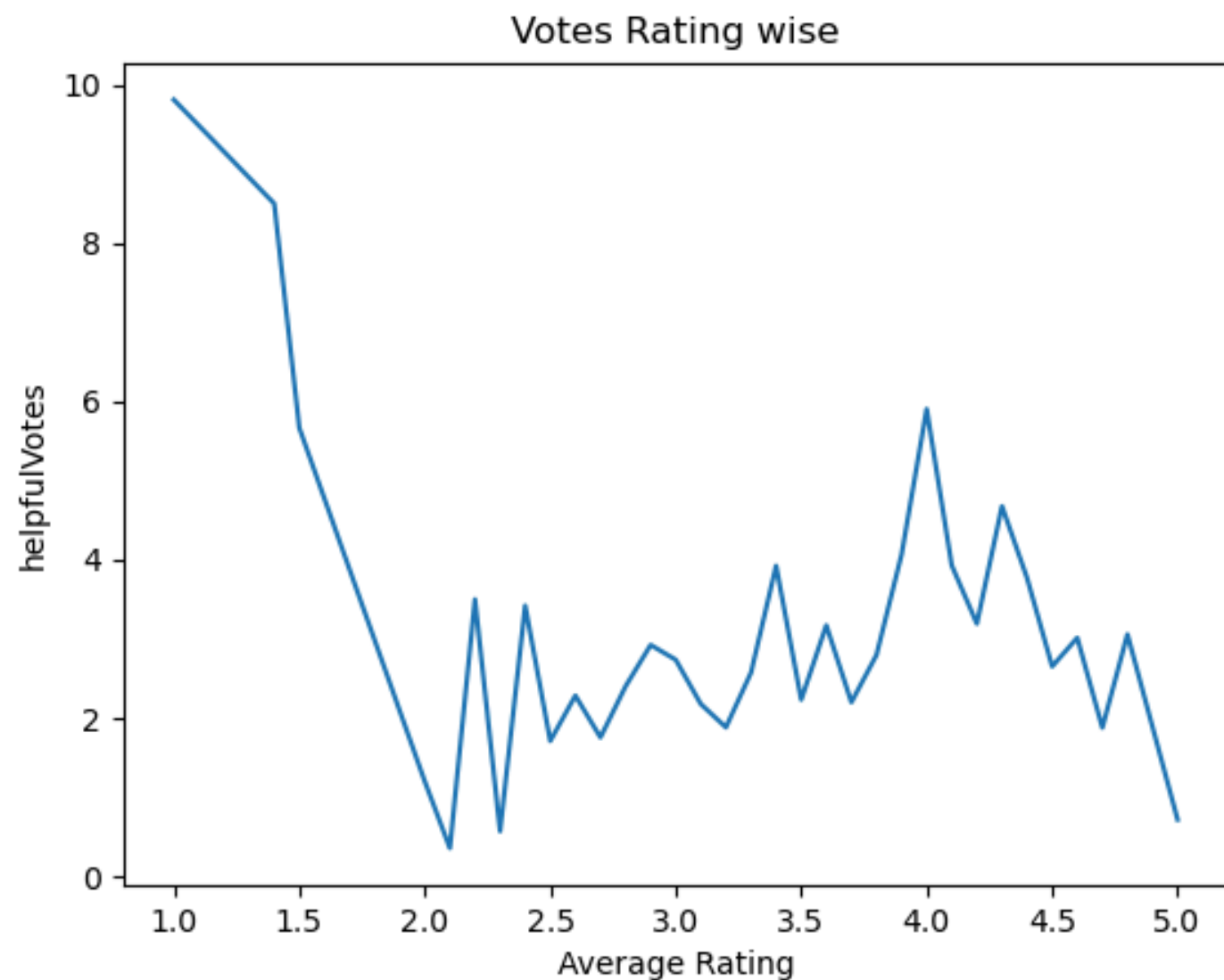
# AVG RATING , REVIEWS , PRICE BY BRAND



- **Samsung** leads the market with the **highest number of customer reviews**, indicating strong sales and brand presence.
- **Xiaomi** provides the best customer **satisfaction** at the **lowest price**, making it the top value brand.
- **OnePlus** and **Apple** are premium brands with high prices and strong ratings but limited customer volume.
- Nokia shows low ratings even at low prices, suggesting quality or feature issues.
- Overall, **brands offering high performance** at competitive pricing (Xiaomi, OnePlus) receive better ratings, while market leaders like Samsung rely on brand trust and wide availability.



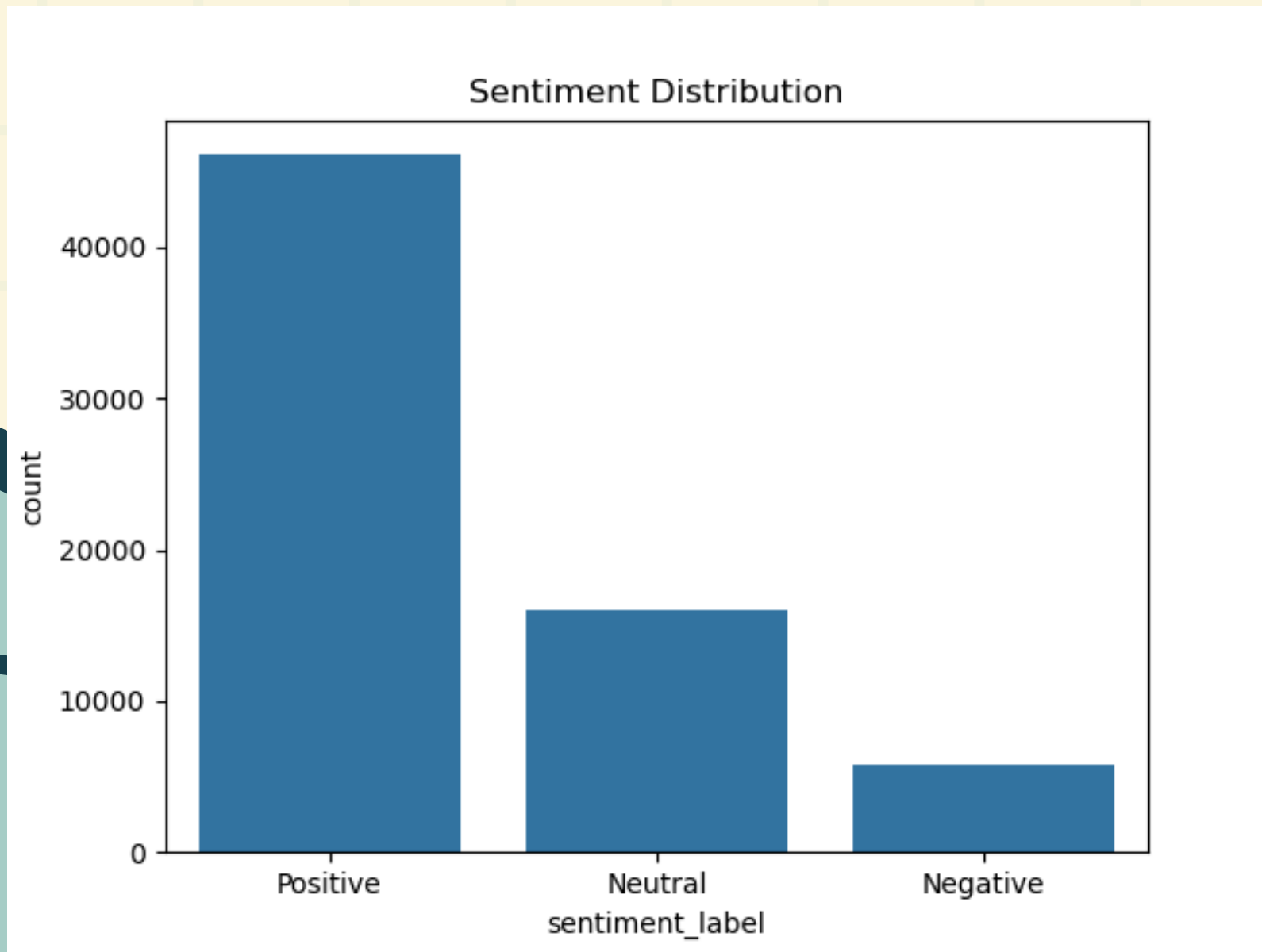
# VOTE WISE RATING



Helpful votes are **highest for low-rated reviews**, indicating customers trust critical feedback more.

This means customers pay more attention to **critical or negative feedback** when making purchase decisions. These reviews highlight key areas such as battery issues, device lag, camera quality concerns, or heating problems — making them highly valuable for both buyers and brands.

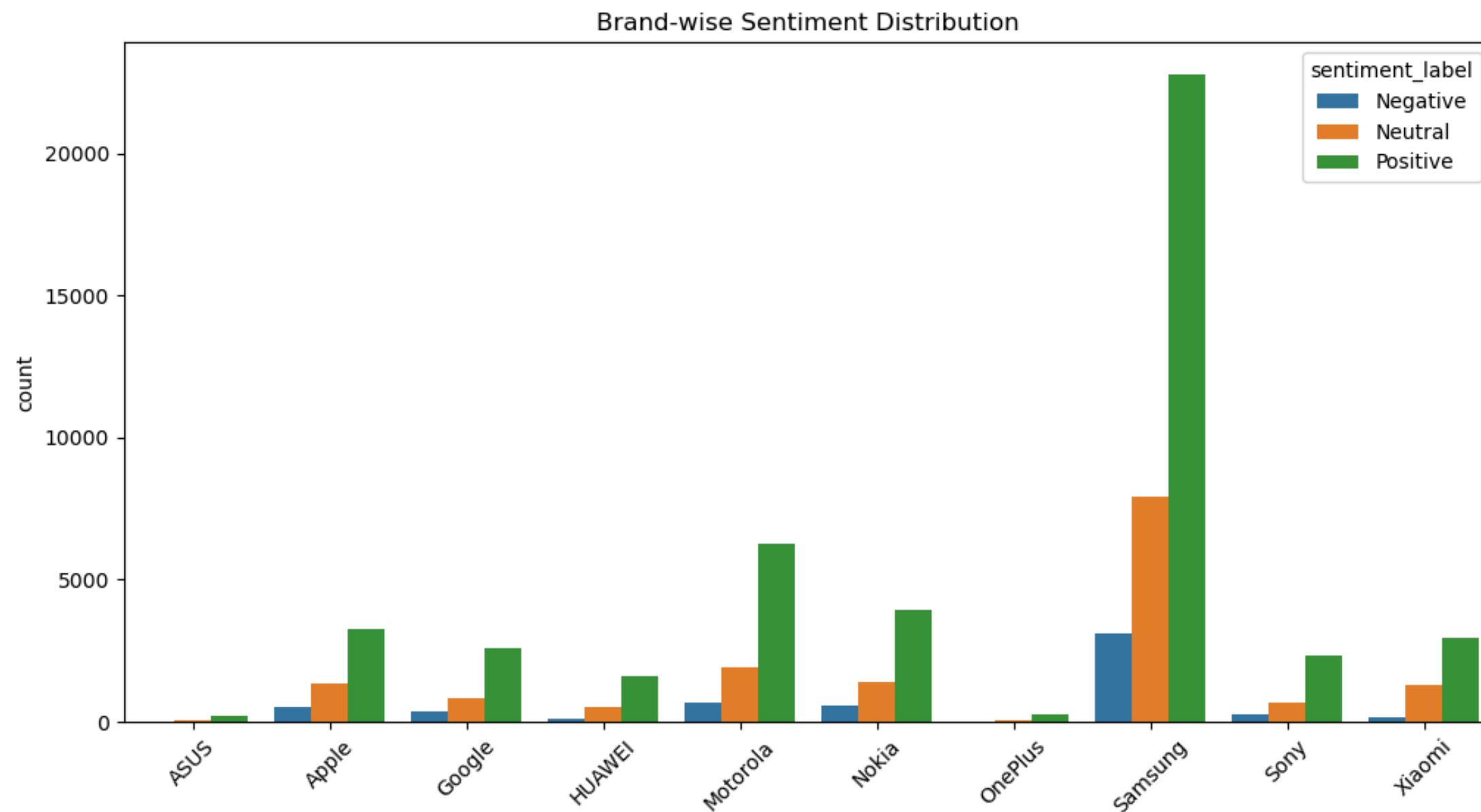
# SENTIMENT DISTRIBUTION



**Positive sentiment** dominates overall, reflecting strong customer satisfaction across brands.

**Negative sentiment** is relatively small but concentrated in certain brands, highlighting areas for improvement.

# BRAND WISE SENTIMENT DISTRIBUTION



**Samsung** shows the largest number of positive reviews, reinforcing its market trust and widespread adoption



## BUSINESS RECOMMENDATIONS

1. **Mid-range phones** get the **best ratings** and highest demand.  
Launch more models in this price segment.
2. If customers praise **camera, performance, or design**, brands should use these strengths in ads to attract buyers.
3. Many **negative reviews** come from poor after-sales service.  
Better service will reduce complaints and increase trust.
4. Months with **high review** activity show **high customer interest**.  
Brands should use these months for promotions or new launches.

# CONCLUSION



This project analyzed smartphone reviews using ratings, prices, sentiments, and brand-level patterns. Insights show that **customer satisfaction does not depend** on price—both budget and premium phones receive **high ratings**. Brands with higher review volume maintain stronger visibility. Sentiment analysis revealed that most reviews are **positive**, reflecting good market acceptance. Monthly **trends** indicate **growing customer engagement**. Overall, product quality, performance, and user experience drive customer satisfaction more than pricing or brand popularity.

**THANK YOU**

