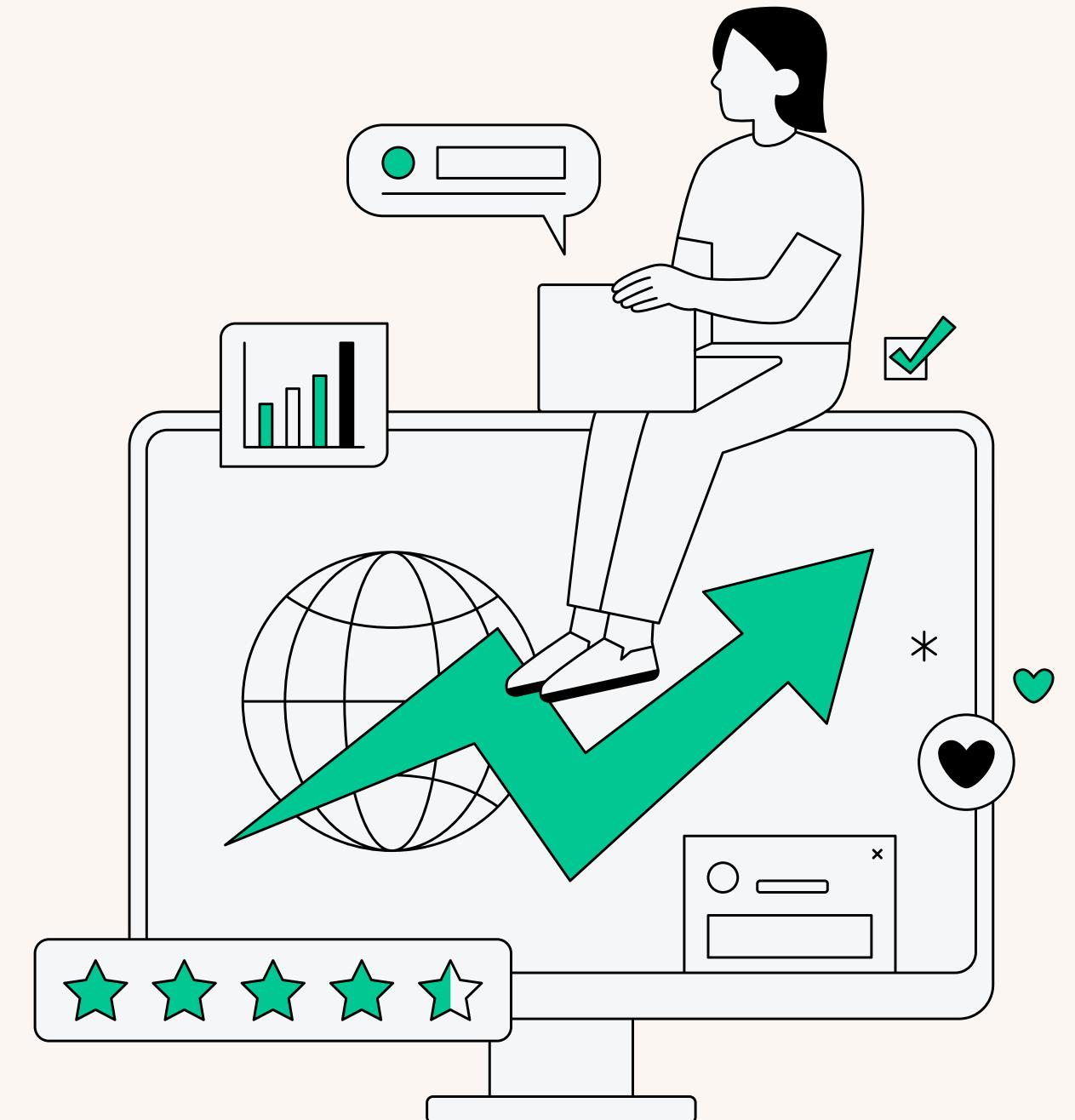


Presented by Group 8

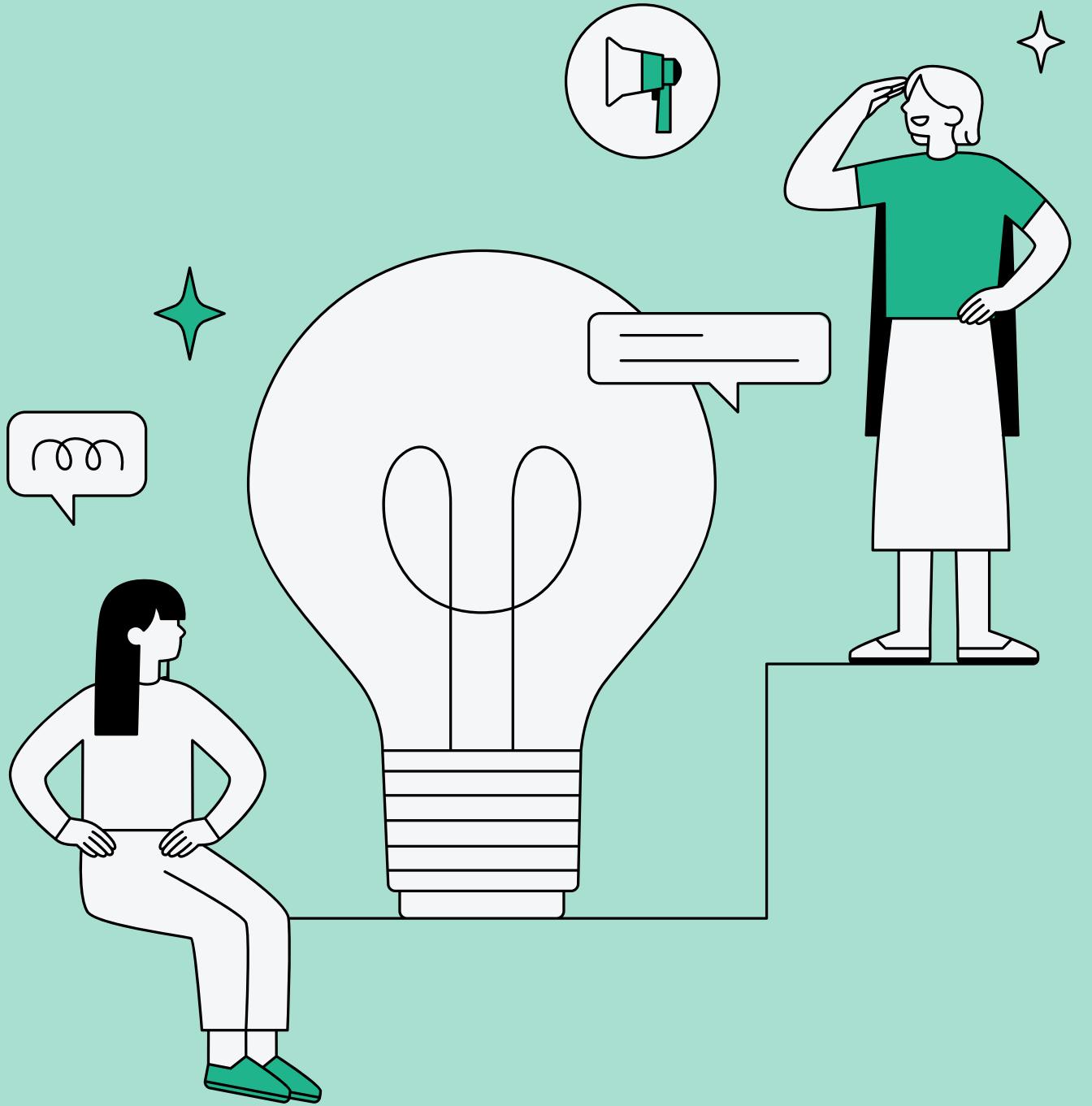
# Twitter Sentiment Analysis: Apple vs Google

## Understanding Customer Emotions Through Social Media



# Why Listening to Customers Online Matters

- People express strong opinions about tech brands online.
- Sentiment analysis helps us listen and act on these voices.
- Goal: Turn public opinion into actionable business insights.





# The Challenge: Managing Online Brand Perception



- Companies like Apple and Google get tons of tweets daily.
- Understanding whether people are happy or upset helps improve products and reputation
- Negative social media sentiment can harm brand image quickly.
- Manual monitoring isn't scalable.
- We need an automated system to identify trends and issues early.

# Our Objective: Turning Tweets into Insights

01.

Build an NLP model to classify tweets as Positive, Negative, or Neutral.

02.

- Classify tweets as positive, negative, or neutral.
- Compare how Apple and Google are perceived by their customers

03.

Translate social chatter into actionable business intelligence.

# Key Questions

01.

What's the overall sentiment toward Apple and Google?

02.

What topics trigger positive or negative reactions?

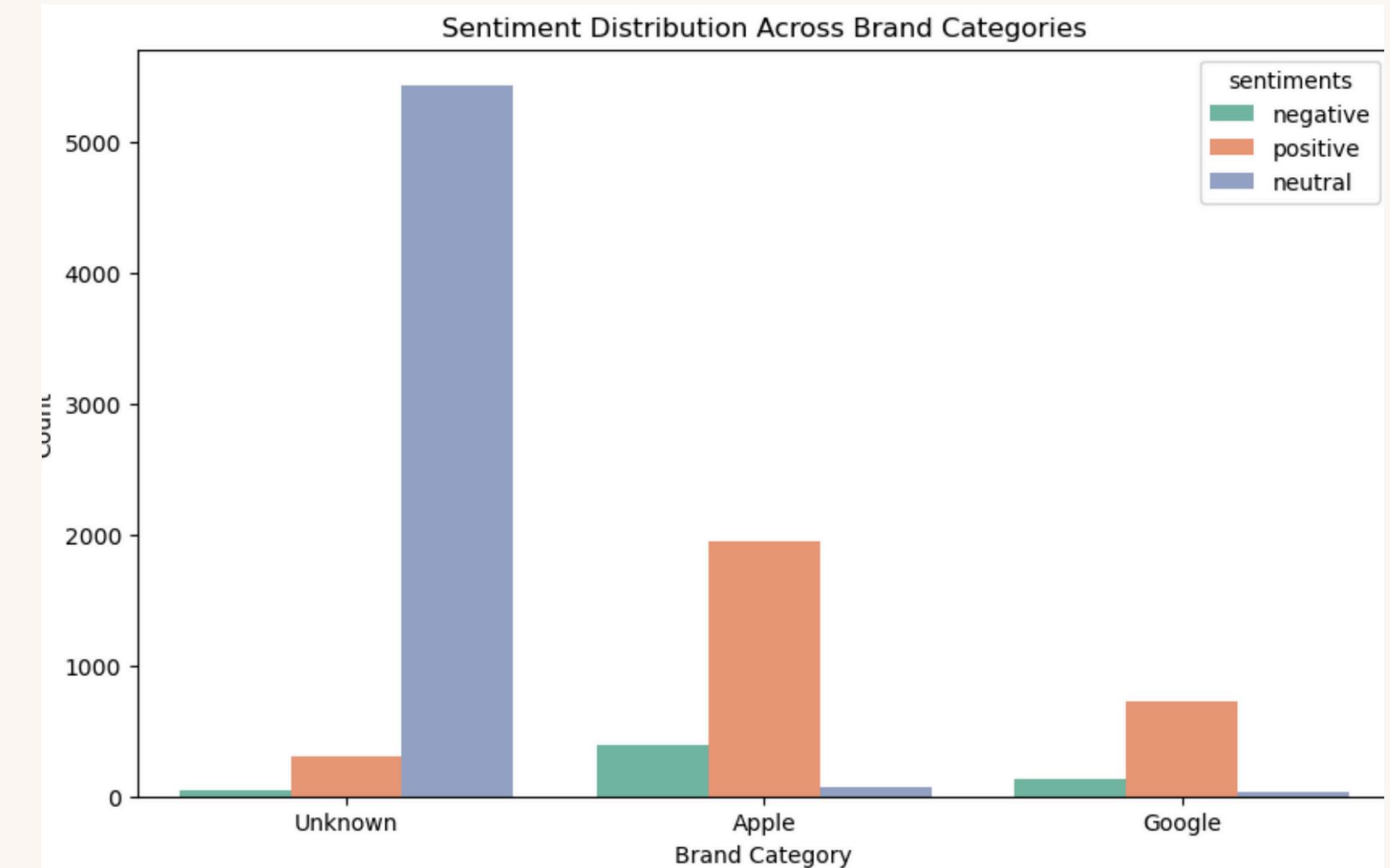
03.

How can these insights support better decisions?

# Sentiment Distribution

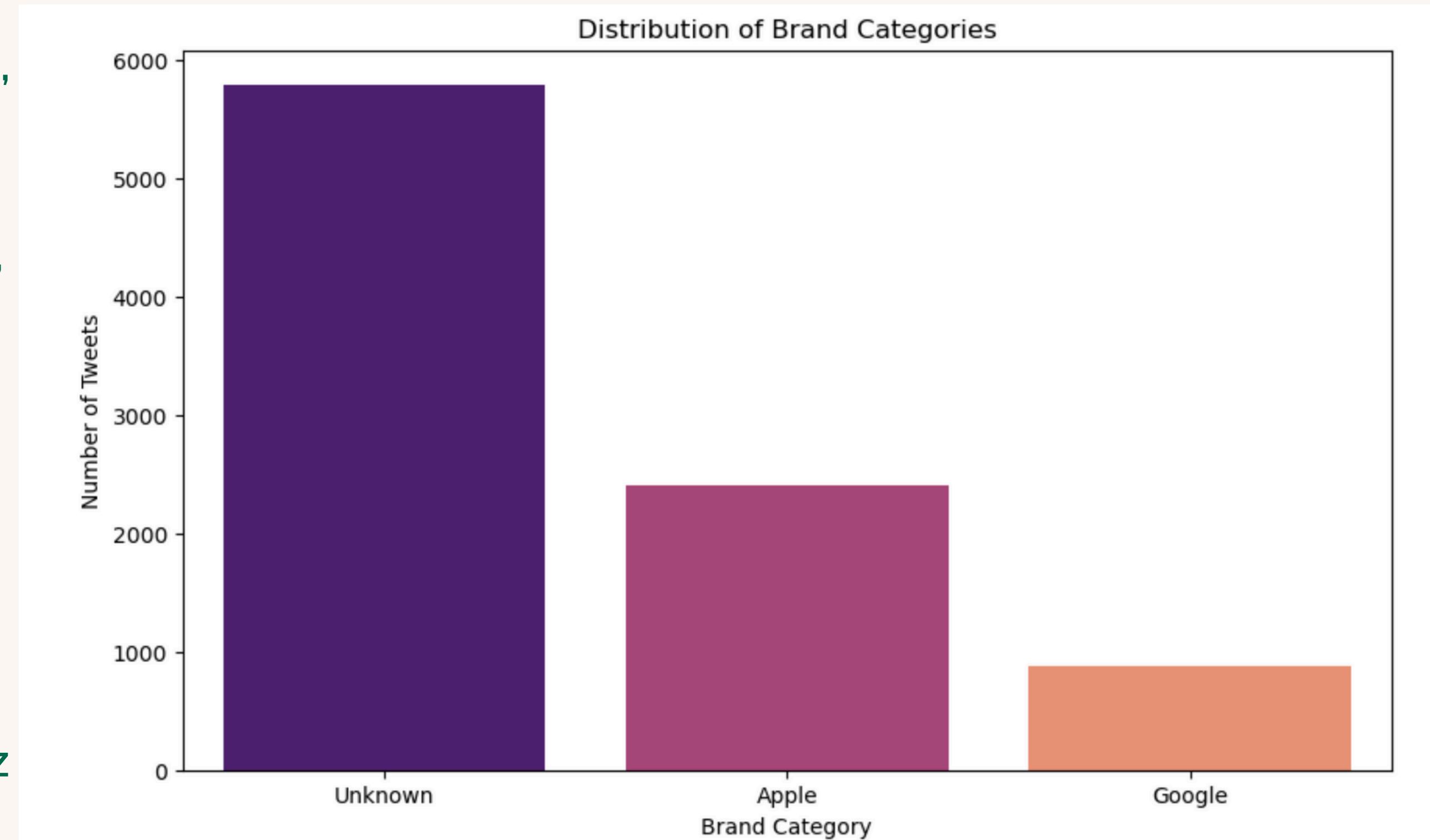
Apple's sentiment skews more positive, while Google's distribution is more mixed.

This helps us pinpoint areas where each company can strengthen customer perception



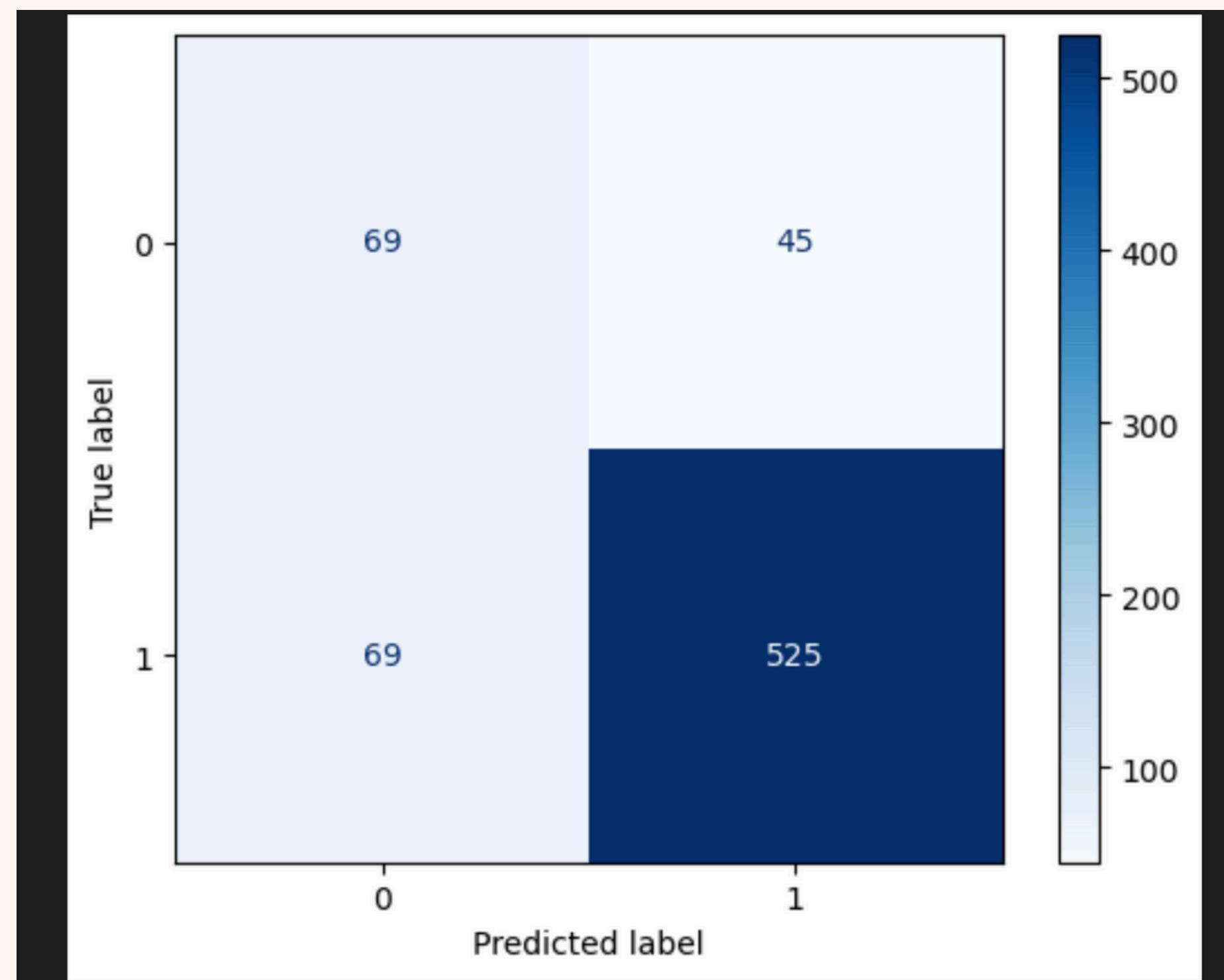
# Comparing Brands

- Most tweets in our dataset focus on Apple, showing higher engagement.
- Google follows closely, reflecting steady interest and active discussions.
- The balance shows both brands dominate online tech conversations, but Apple drives more buzz and emotional reactions.



# Model Performance

After evaluating multiple models for sentiment analysis on tweets, Logistic Regression emerged as the best performing model. It achieved high accuracy, maintained a good balance between precision and recall, and generalized better to unseen real-world tweets



# Key insights

- Apple sparks more conversations and stronger emotions, the brand inspires loyalty and passion online.
- Apple's sentiment is more positive, driven by design, experience, and reliability.
- Google earns praise for innovation but faces frustration over bugs and performance.
- Apple connects emotionally, while Google connects rationally.
- Top pain points: Apple → pricing & battery; Google → consistency & app issues.

# Next Steps

Monitor live brand perception and detect issues as they happen.

Integrate insights into strategy – align marketing, PR, and product teams around customer sentiment trends.

Close the feedback loop – use findings to improve communication, product updates, and customer engagement.



# Conclusion

The sentiment analysis system can help Apple and Google track customer mood in real time.

The best performing model is Logistic regression (Accuracy 84%)

Impact: Quick insight into customer satisfaction leads to better decisions, faster fixes.



Presented by Group 8

# Thank you very much!

