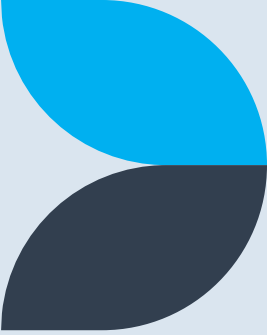


Charles Schwab: Reddit Analysis



Agenda



01

Introduction and
purpose of
social media
analysis

02

Subreddits
Utilized

03

Processing

04

Schwab
Sentiment
Analysis

05

Merger
Sentiment
Analysis and
Competitors

06

Overall
Recommendations



Purpose of Analysis

Why is this important?

- ✓ Real-time feedback
- ✓ Customer needs and preferences
- ✓ Public perception
- ✓ Crisis management
- ✓ Target marketing
- ✓ Community engagement
- ✓ Competitive analysis
- ✓ Product development
- ✓ Sentiment analysis



Subreddits Utilized

General Finance:

- r/PersonalFinance – 19M
- r/amex – 444k
- r/Fire – 451k
- r/digitalnomad – 2.2M

General Investing:

- r/investing – 2.6M
- r/InvestmentClub – 97K
- r/investingforbeginners – 47k
- r/boggleheads – 3.5k
- r/schwab – 33k
- r/charlesschwab – 2.6k
- r/fidelityinvestments – 119k
- r/tastytrade – 5.6k

Stock Trading:

- r/Stockmarket – 3M
- r/Stocks – 6.9M
- r/Robinhood – 1M
- r/Robinhoodtrade – 31k
- r/WallStreetBets – 15M
- r/superstonk – 935k

Financial Planning:

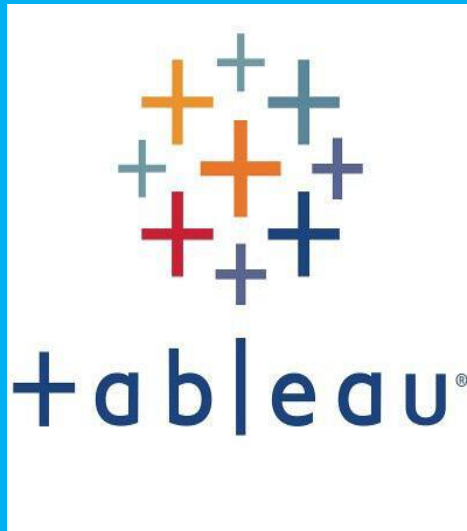
- r/FinancialPlanning – 837k
- r/cfp – 24k
- r/jpmorganchase – 371
- r/tdameritrade – 24k



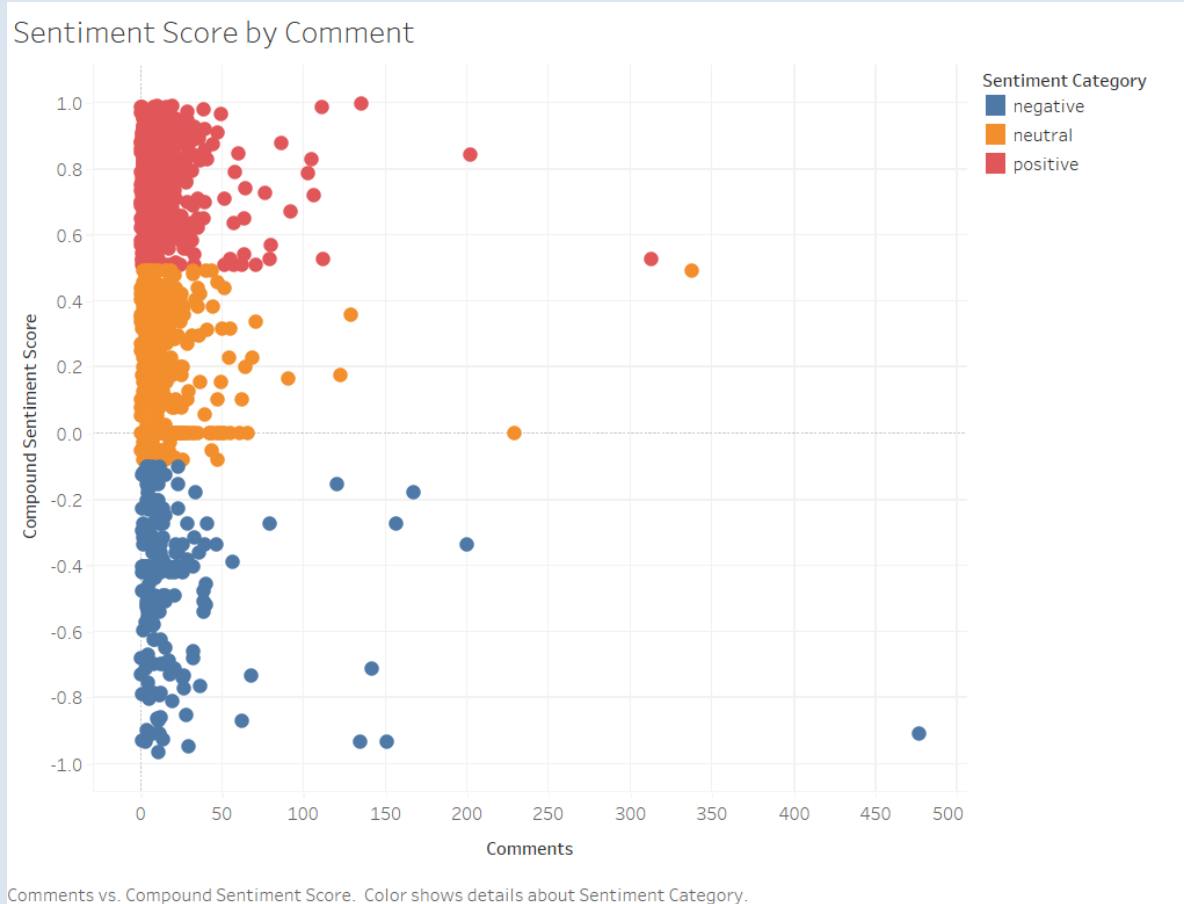
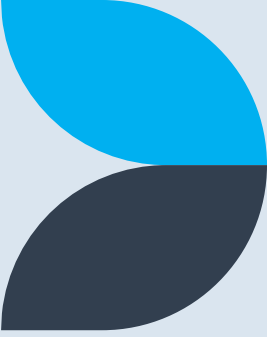
Data Processing & Schwab Analysis



Software Utilized



Sentiment Analysis on Schwab



Positive, negative, and neutral sentiment score indicates the amount of text that expresses that kind of emotion

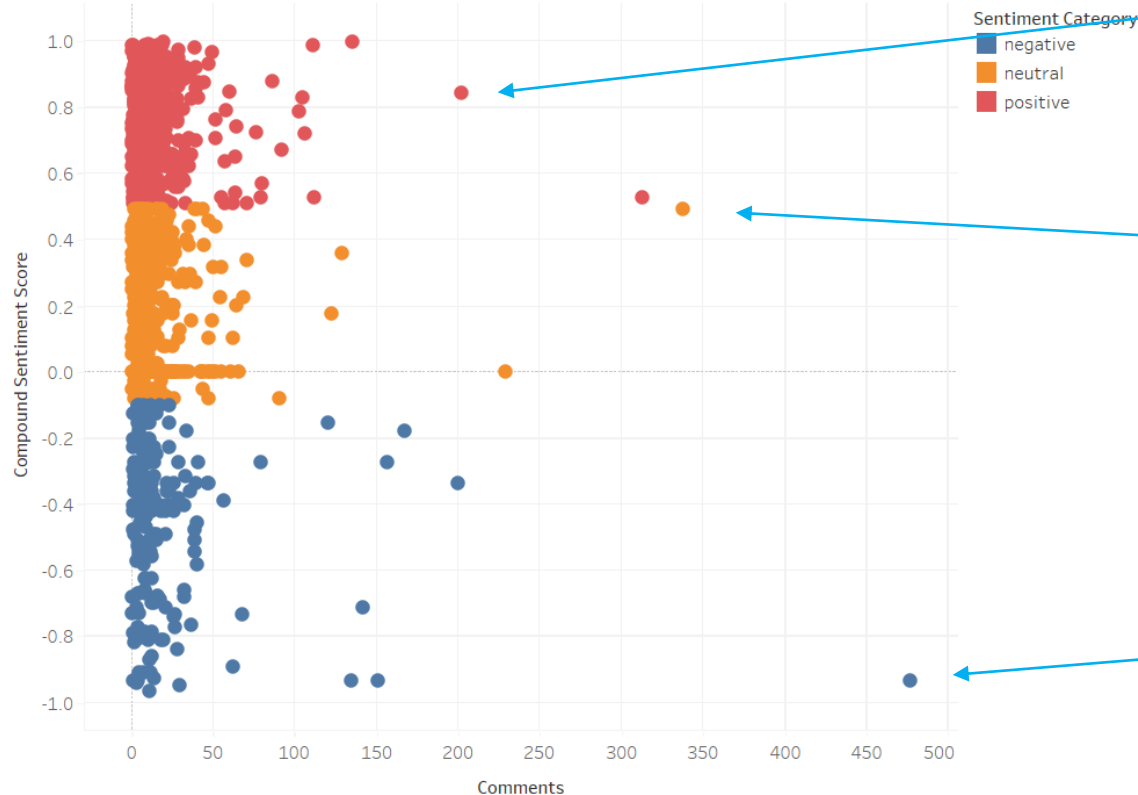
These scores combined will always equal 1

The Compound Sentiment score is the most relevant, representing the overall sentiment polarity of the text

The Compound Sentiment score is used to create buckets for positive, negative and neutral comments

Sentiment Analysis: Schwab

Sentiment Score by Comment



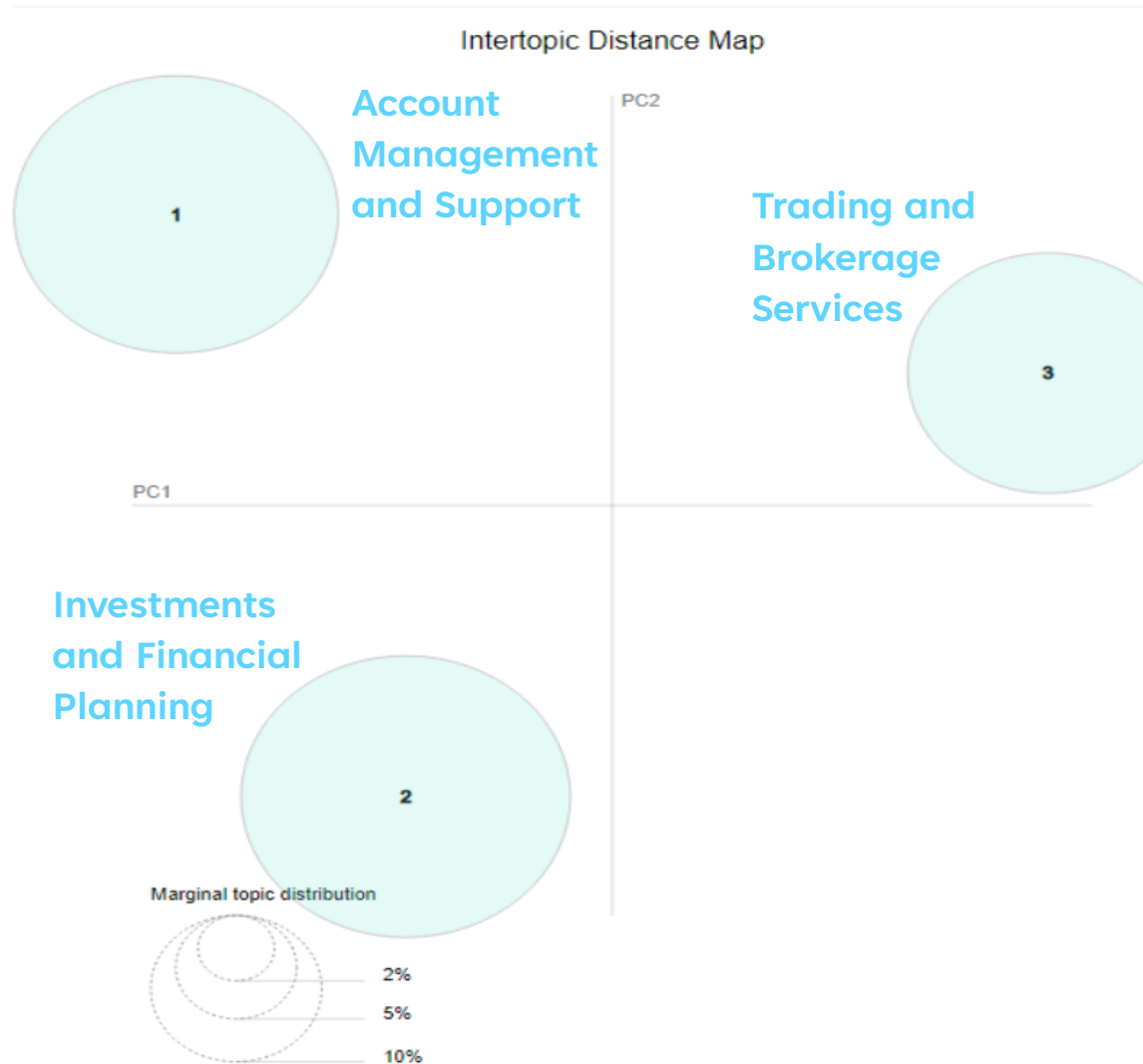
Comments vs. Compound Sentiment Score. Color shows details about Sentiment Category.

This was a large and complex undertaking and I'll give Schwab's transition team credit here. my information and positions moved over with minimal issue. There were some oddities in the way that ledger reflected the move and for some reason my beneficiaries on one of my accounts didn't move over. all and all it could have been 1,000x worse so credit where credit is due.

old td ameritrade website (and mobile app) was nice in that most of pages automatically enabled streaming updates so you could see real-time updates to positions. even quote "frame" at bottom of page would stream real-time updates for anything you wanted to quickly keep an eye on.

Do you hate schwab ?
are you going to move your account to fidelity/etrade/ibkr and want to announce your departure?
This thread is for you! this is official thread to discuss how much you hate schwab, or you can announce your departure from schwab.

Topic Modeling on Schwab



Account Management and Support

- Account
 - Check
 - Transfer
 - Issue
 - Customer
 - Service
- 431 Records

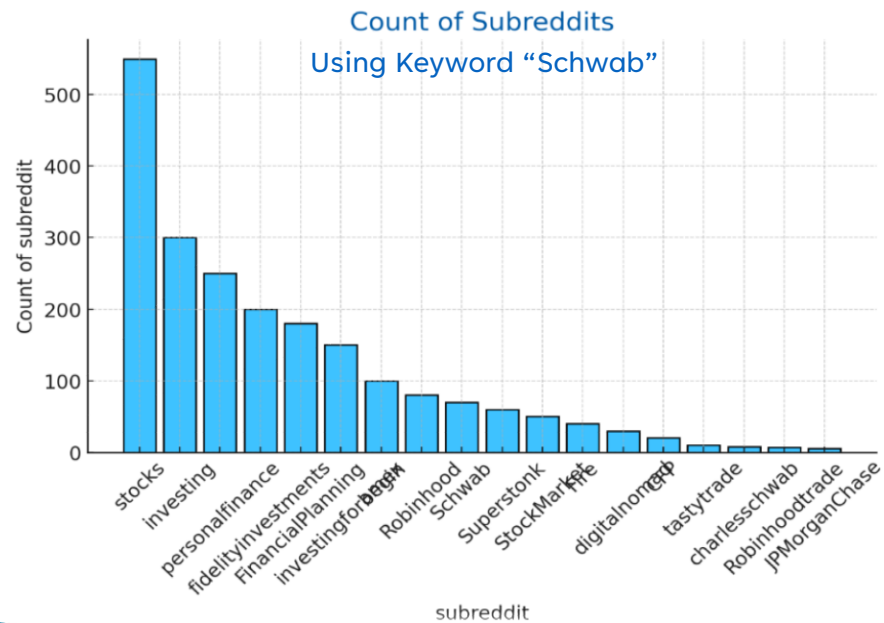
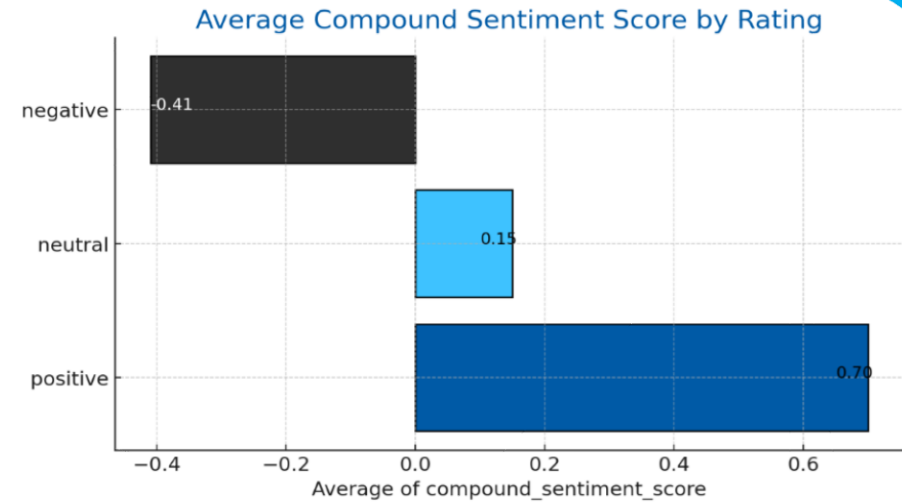
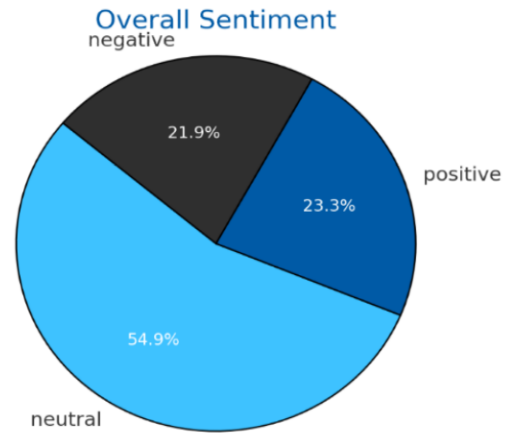
Investments and Financial Planning

- Fund
 - Invest
 - Market
 - Roth
 - Dividend
 - IRA
- 408 Records

Trading and Brokerage Services

- Trade
 - Stock
 - Order
 - App
 - TDA
 - Position
- 335 Records

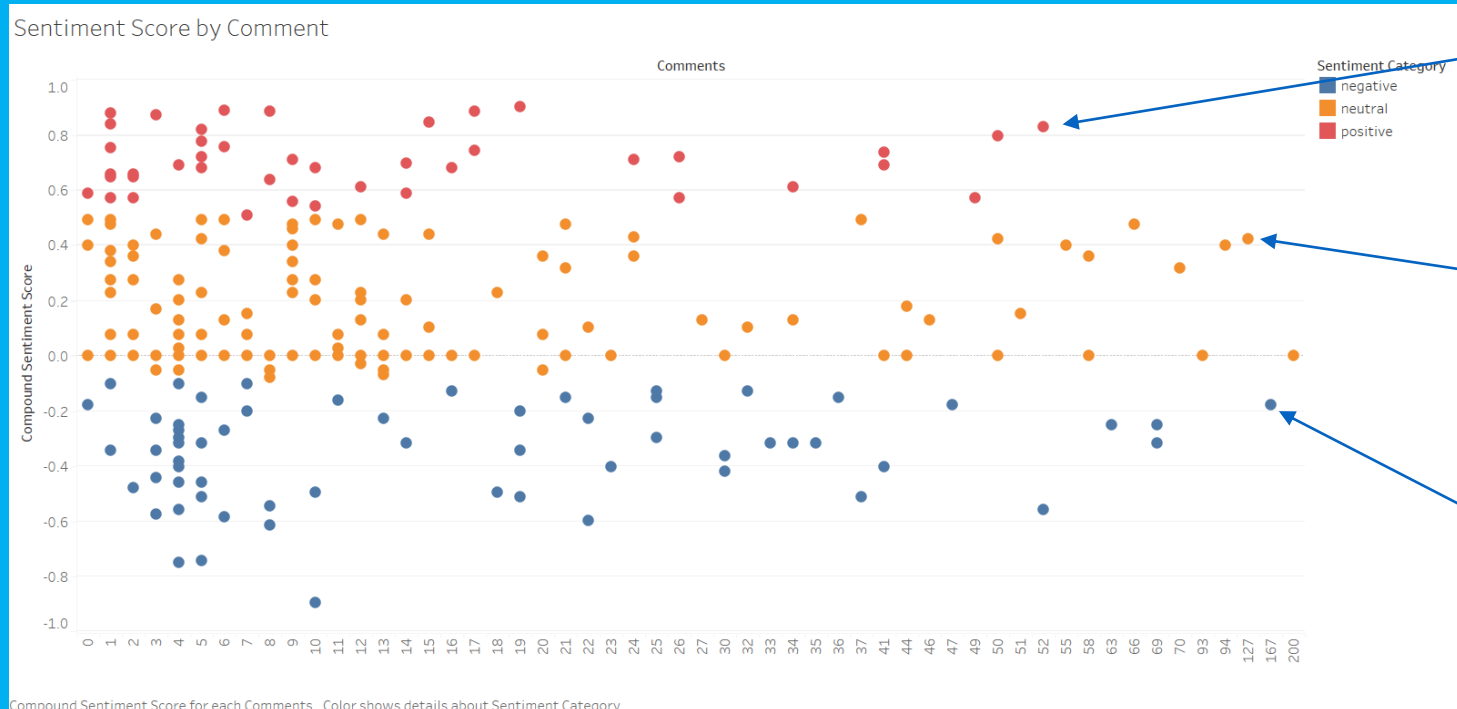
Data Analysis: Schwab



Merger Sentiment and Competitor Comparison



TD Ameritrade Merger Sentiment

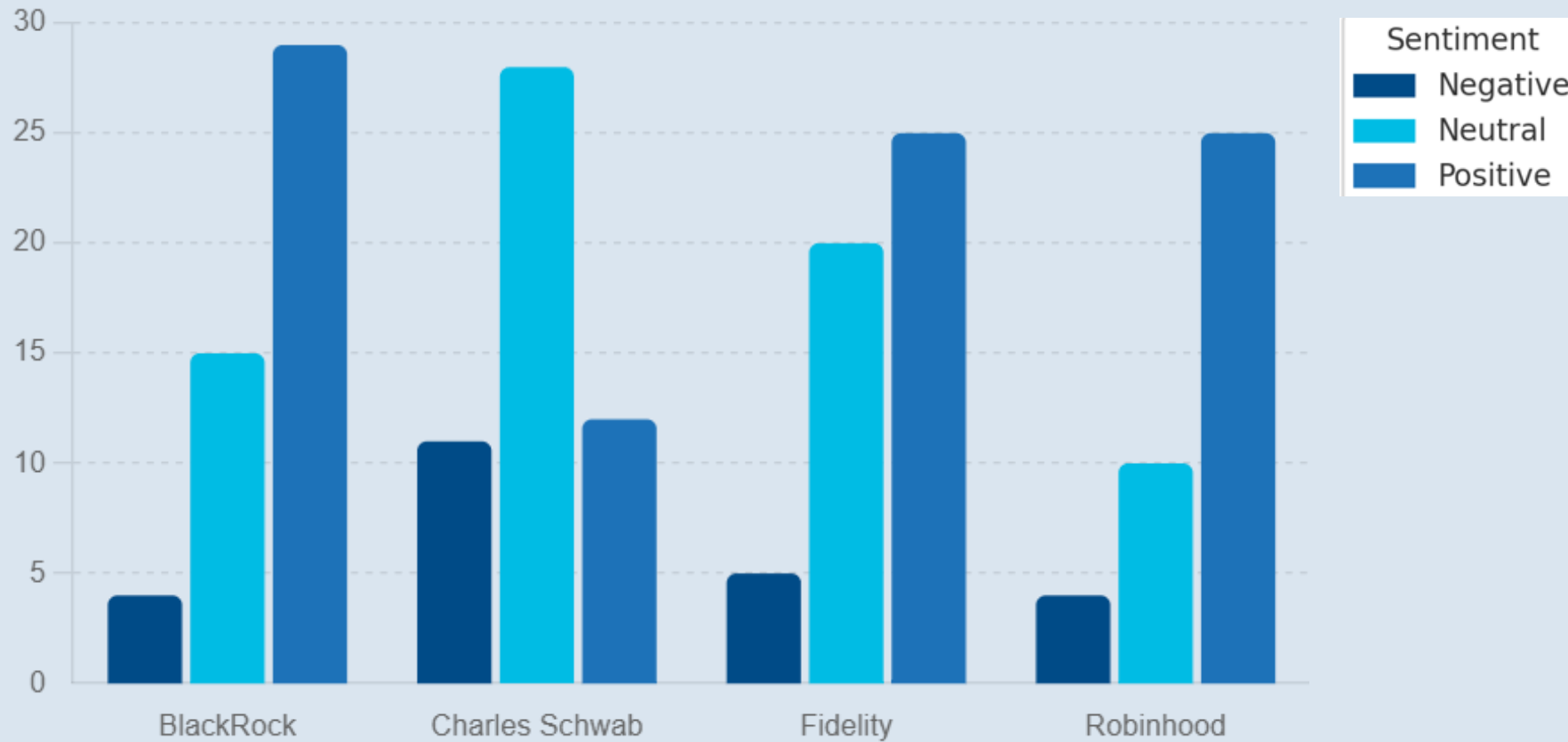


Migrate TD ameritrade and Schwab weekend use to Schwab app honestly don't think it's a learning curve thing. Good, easy, quick buying and selling.

I've had TD Ameritrade for a year, TD Ameritrade mobile app thinkorswim is a trade app that helps the average American middle class stiff trade. The Schwab app is far from perfect but I'm glad they carried this over.

Funny how a week ago old school schwab people flame TD, the Schwab app sucks

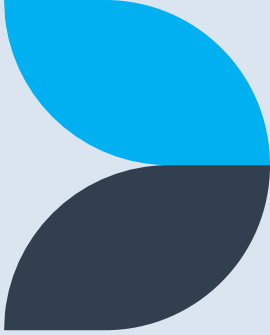
Competitor Comparison



BlackRock has
the highest
positive
sentiment

Charles Schwab
has the highest
negative
sentiment

Overall Recommendations



Charles Schwab should prioritize their social media presence

Allows for understanding of customer needs and preferences

Identify current issues and enhance loyalty

Maintain positive public perception (can be improved from current)

Helps gauge the overall opinions of customers to guide improvements



Implementation of constructive criticism for Schwab mobile app, applying well received TD Ameritrade features

Provides a competitive advantage with adoptive feature

Smooth transition for merged customers

Shows innovation and community engagement

Real time streaming updates "frame" and automatic price alert notifications from app

Thank you!

Any Questions?



Appendix

```
#Let's get all the URLs and threads for the a certain subreddit with Schwab as a keyword over the last year, sorted by top
top_Schwab_posts <- find_thread_urls(subreddit="WallStreetBets", keywords="Schwab", sort_by="top", period="year")
threads_contents <- get_thread_content(top_Schwab_posts$url[1:2]) # for the sake of simplicity, otherwise will take quite a while
str(threads_contents$threads) # thread metadata
str(threads_contents$comments)

#What if we want to see all the subreddits that have the word "Schwab"?
Schwab_subreddits <- find_subreddits("Schwab")

#Lets do some sentiment analysis now
sentimentTitle <- analyzeSentiment(top_Schwab_posts$title)
sentimentText <- analyzeSentiment(top_Schwab_posts$text)

#then let's convert the sentiment from the QDAP dictionary to a valence and plot it
freqcounts <- convertToDirection(sentimentText)$SentimentQDAP
plot(freqcounts)

#want to write your data to a .csv for analysis in another program?
#I referenced the top_Schwab_posts instead of thread_contents to make the comments be more schwab related.
write.csv(top_Schwab_posts, "WallStreet2.csv")
```

