Client Sentiment & Market Volatility Dashboard

Sondor Bayarbat





Agenda

- Technology Stack
- Database Schema
- Demonstration
- Observations
- Gamma Squeeze Reddit Sentiment
- TD Ameritrade Acquisition Reddit Sentiment
- Critical Questions
- Recommendations
- Next Steps
- Q&A

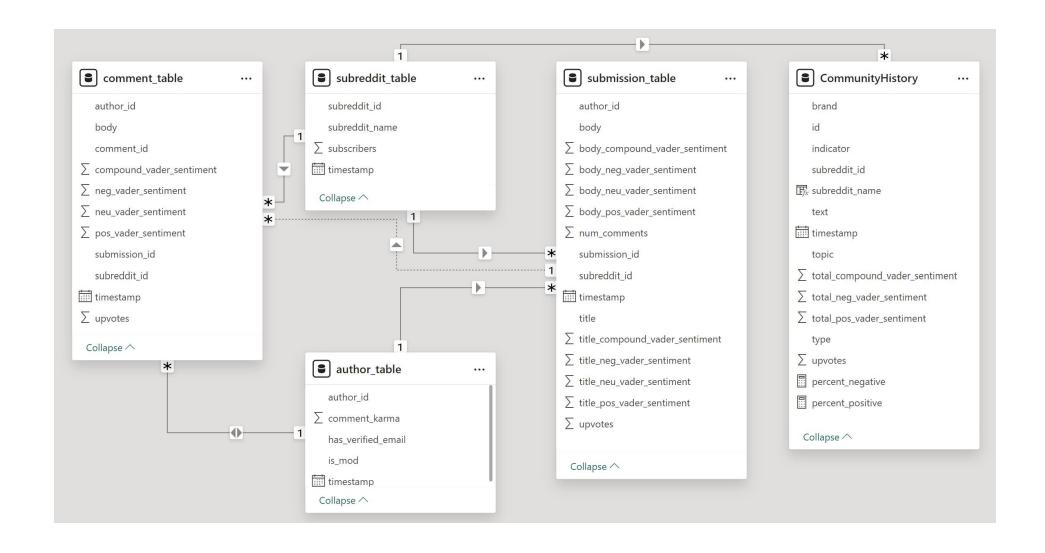


Technology Stack





Database Schema

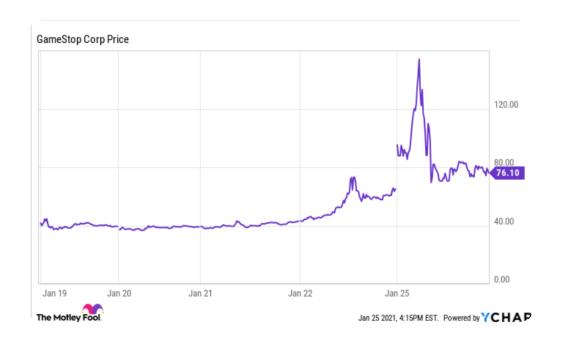




Observations

- What is Schwab's reputation among Reddit users?
 - Average sentiment score of Reddit contributions that mention Schwab is 0.25
 - Robinhood 0.18
 - Fidelity 0.27
 - JP Morgan 0.35
 - Schwab has historically been mentioned in a more positive context than a negative one.
 - Positive sentiment percentage has always been above 50%
- What **topics** are being discussed on Reddit?
 - Financial management
 - Investing strategies and recommendations
 - Company FAQs
 - Customer testimonies and stories
 - Industry commentary





What causes a Gamma \ Squeeze?

- Buying/Selling Calls/Puts: These are derivatives that constantly get determined through a series of math calculations to display a stock's 'gamma'
- Gamma is at its highest level when the derivative is very close to the actual share price.
- "When the traders overwhelm the market by buying or selling a specific asset at a large volume, it can cause the market maker to buy out or sell their positions, leading to a large volume of trade in the market."



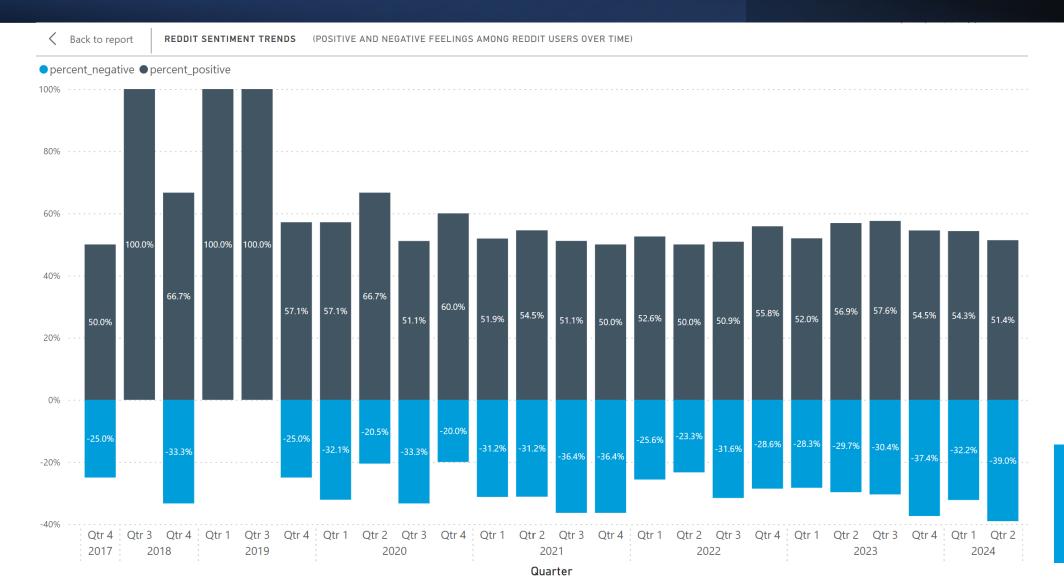
Trading Halt



- Many interactive brokers restricted trading on Gamestop, AMC and KOSS due to high volatility.
- Free Markets were violated in the eyes of the public
- Notable Contributors in the trading halt:
 - o Robinhood, Webull
- Schwab increased marginal requirements on how much and investor could borrow when trading these securities.



"Schwab" Sentiment Trends (2017-2024)





"Robinhood" Sentiment Trends (2017-2024)





Gamma Squeeze – Insight

- Praise for the rise of GameStop and rallying retail traders
- Distrust and defiance against the financial sector
- Schwab received constant negative feedback on Reddit in 2021.
 - On average, 32.2% of contributions expressed more negative sentiment than positive.
- Sentiment scores of Reddit contributions mentioning Robinhood averaged -0.03.
 - Several accounts complaining about restricted trading
 - Conversation returns to normal in Q2, 2021

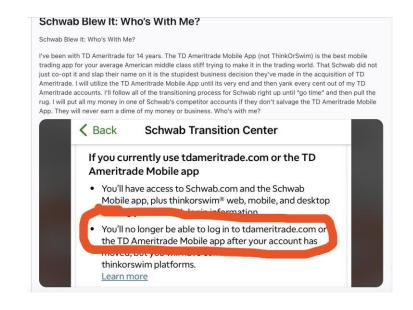


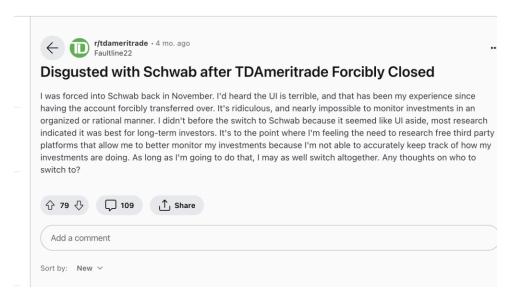
TD Ameritrade Acquisition

- In November 2019, Charles Schwab announced its acquisition of TD Ameritrade for \$26 billion
- Seamless transition from TD Ameritrade to Schwab
- Schwab integrated thinkorswim® and thinkpipes® trading platforms
- TD Ameritrade clients now have access to new products and capabilities (no-transaction-fee mutual funds and Schwab Purchased)

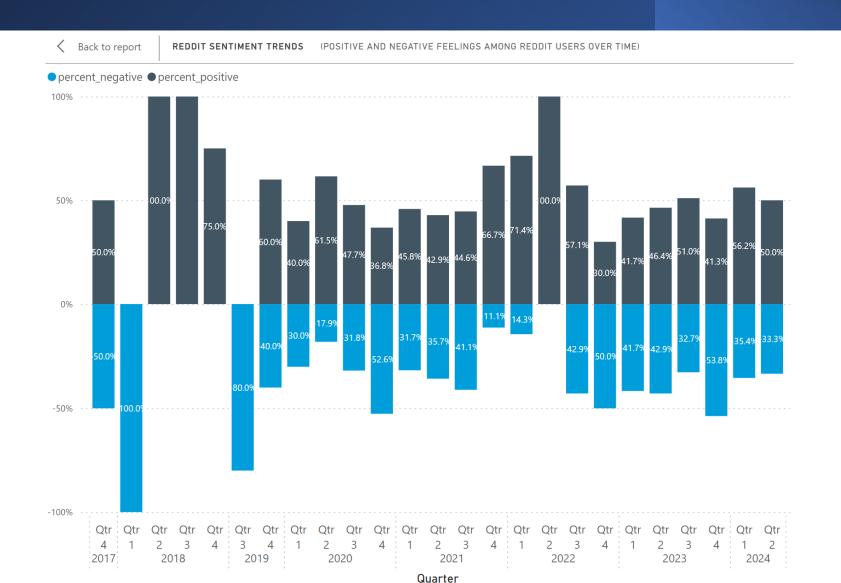


TD Ameritrade Acquisition - Insight





"Ameritrade" Sentiment Trends (2019-2024)



TD Ameritrade Acquisition – Insight

- Negative reactions to the TD Ameritrade acquisition began in mid 2022 and persisted late into 2023.
 - 15.8% decrease in positive sentiment
 - 10.9% increase in negative sentiment
- Several users experiencing technical issues and limited features.
- Additional complaints:
 - Reported bugs that caused losses on trades
 - User interface
 - "old-looking", "clunky", "tough on the eyes"
 - Price inaccuracies and lack of real-time status updates
 - Missing funds



Critical Questions



- Why should Schwab analyze Reddit data?
 - Receive additional feedback from stakeholders
 - Monitor public opinion around market events
 - Low cost, high volume at current stage
- How reliable are contributions from Reddit?
 - Moderators and community guidelines
 - Misinformation and heavy bias





Recommendations

- **Supplement data** from Reddit with market research, customer reviews, and surveys
- Further investigate technical issues
- Participate in Ask Me Anything (AMA) Sessions:
 - Individuals or representatives from organizations answer questions from the Reddit community in real time.
 - Allows companies to openly share information, clarify doubts, and interact with the community in a transparent manner.





Next Steps

- Backend developments
- Adding KPIs
- Loading in more subreddits
 - o r/stocks
 - o r/personalfinance
 - o r/news

