CASE STUDY

Planning Robinhood's Response to the GameStop Debacle

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Background

GameStop Corp. (GME), founded in 1984, is a Fortune 500 omni-channel retailer that offers games and entertainment products in its 4,816 stores and its online sites, spread across 9 countries. The bulk of its sales comes from the U.S (3,192 stores in the US) (1). Until January 2021, not too many investors paid attention to this stock. But by January 27, 2021, GameStop's stock price had risen by 1,500% in 2 weeks mainly driven by interest from small inexperienced investors (2). This big rise in the stock price started around October 2020 and was driven primarily by a short squeeze[1] initiated by users of Reddit forum r/wallstreetbets. Many young investors on the Robinhood mobile app (www.robinhood.com) had joined in the hope of profiting from the rise in GameStop's stock prices. At the same time, the sudden rise in GameStop's stock price hurt Wall Street hedge funds like Melvin Capital who had heavily shorted GameStop in the expectation that the share prices would fall because of the overall shift towards online sales (3).

On the morning of January 28, 2021, Robinhood announced that it would restrict the buying of GameStop (and a couple of other shares) on its app citing "deposit requirements with clearing houses." The GME share price fell more than 45% on that day ($347 per share to $194) and fell further to $51 in subsequent days. This led to severe backlash against Robinhood on social media, along with public criticisms from prominent people like Rep. Alexandria Ocasio-Cortez and Mark Cuban (4,5). Users flooded Google Play store with 1-star ratings for Robinhood (6). The U.S. House Financial Services Committee announced that it would convene a Congressional hearing on February 18 titled "Game Stopped? Who Wins and Loses When Short Sellers, Social Media, and Retail Investors Collide?" Robinhood CEO Vlad Tenev along with the CEO of Reddit and the CEO of Melvin Capital were expected to be at this hearing (7,8).

At an internal company meeting on February 12, 2021, at its headquarters in Menlo Park, CA, CEO Vlad Tenev and the Robinhood management team discussed the potential for using Twitter data to draw insights about the issues they should address regarding the GameStop-related events, and what themes are likely to resonate with the public in any PR campaigns they initiate to improve Robinhood's image. They also believed that the content of Tweets might point them towards the likely questions that may come up at the Congressional hearing. Twitter was one of the major social media platforms to which Robinhood users went to express their views about Robinhood and the GameStop fiasco.

Company History

Robinhood was founded in 2013 by Vlad Tenev and Baiju Bhatt, who met as undergraduate students at Stanford University. The co-founders saw it as an app that would democratize finance by bringing investing within the reach of non-professionals, first-time investors, millennials, and younger customers (9). At the end of Q1 2020, Robinhood had thirteen million users, with a median age of thirty-one and half the users were first-time investors (10). To grow its customer base, Robinhood used various referral programs that offered both the referrers and their friends up to $500 in free stock for joining Robinhood. Since its founding, the company has also been expanding its footprint in different areas, including options and gold investing, fractional shares, digital banking, and cryptocurrency trading.

[1] Short sellers borrow shares of a stock (e.g., GME) because they believe the stock price will drop in the future, at which time they can buy the shares at a lower price and pay back their lenders. In some situations, however, a stock's price increases suddenly and unexpectedly (e.g., for a meme stock on social media), which in turn, could cause further price increases as short sellers scramble to purchase shares to pay back their lenders and cut their losses.

Before Robinhood came on the scene, brokerages used to charge up to $10 per trade even though it cost them next to nothing to execute a trade. Robinhood introduced commission-free trading embedded within an app designed for mobile phones. Robinhood founders argued that putting investment tools in the hands of non-professionals would reduce inequalities among traders, and therefore, the name "Robinhood." The Robinhood app is designed to be easy to use and fun, unlike apps from competitors that were a bit stodgy, which made it a challenge for Robinhood users to switch to other apps (10).

The GameStop crisis was not the first hiccup Robinhood experienced along the way. Earlier, there were other mishaps and controversies:

1. Lawsuits due to outages: On Monday morning March 9, 2020, stock market trading was suspended as the S&P 500 index plummeted 7 percent. The Dow Jones Industrial Average dropped as much as 2,046 points as an oil price war broke out amid growing concerns about the coronavirus. There is a failsafe in place that suspends trading for 15 minutes if there is a fast drop in the S&P 500 index. Robinhood app also went offline on Monday (March 2, 2020) from 9:30 a.m. until around 2 a.m. ET and on Tuesday (March 3, 2020) from 10 a.m. to 12 p.m. Both days were volatile, record-setting days. These outages affected roughly 10 million people. Users could not view their accounts, make trades, or access the help center (11). The company responded, "We know this has been frustrating and we will work diligently to provide the level of service you deserve," and they offered "goodwill credits" to affected customers on a case-by-case basis if they agreed not to file a lawsuit against the company (12).

2. Payment for order flow: To earn revenue even with free trades, Robinhood engaged in a controversial practice called "payment for order flow" or "PFOF." This involved aggregating and redirecting customer orders to "high frequency trading firms" and getting commissions in return. The high frequency trading firms skim a little off the price the customer obtains on trade execution and keep the difference for themselves. The skimming is invisible to the customer placing the order (i.e., the customer gets the quoted price). This arrangement incentivizes Robinhood to direct its trades to market makers who offer the highest bid-ask spread. About 75% of Robinhood's total revenue in 2020 came from this arrangement with market makers. PFOF is restricted in countries such as United Kingdom, Australia, and Canada, but is allowed in U.S. provided the broker discloses that they are engaging in PFOF and it ensures that their customers are getting the best prices (10). In December 2019, Robinhood was fined $1.25M by the industry regulator because it failed to obtain the best price for the trades made during 2016 to 2017 (13).

3. Suicide of a 20-year-old trader: Alex Kearns, a 20-year-old, had been using Robinhood for two years by spring 2020. While doing an options-spread trade, Alex saw his account showing a net negative balance of seven hundred and thirty thousand dollars (14). This was so much greater than the sixteen thousand dollars he owned. He frantically emailed Robinhood about whether the amount would be covered if he exercised the puts he owned. However, he was met with automated emails. Alex sent two more emails to Robinhood's customer service only to be met with autoreplies again. Soon after, in June 2020, Alex committed suicide with a note saying, "How can a 20-year-old with no income be able to get assigned almost a million dollars' worth of leverage? The amount of guilt I feel as I commit this is unbearable – I did not want to die." Vlad and Baiju expressed condolences to Alex Kearns' family, outlined steps to make options trading safer, and donated two hundred and fifty thousand dollars to American Foundation for Suicide Prevention (10).

When Short-Sellers, Social Media, and Retail Investors Collide

Melvin Capital, a Wall-Street hedge fund specializes in the consumer and technology sector, which includes such companies as GameStop, AutoZone, and Expedia. When their extensive research suggests that the price of a stock will go up, the hedge fund may decide to take a long position. When research suggests that the stock prices for a particular company will go down in the long run, the hedge fund might decide to short the stock, even possibly as a long-term investment. Research at Melvin Capital suggested that GameStop's business model of physical video game stores would be overtaken by digital downloads, convincing Melvin Capital to short GameStop stocks (3).

In January 2021, members of a Reddit group started posting about Melvin's specific investments (using information from their SEC filings) and encouraged retail investors to trade in the opposite direction (3). In the retail investing frenzy that followed, GameStop stocks rose from $17 to $483 in a matter of days as short sellers scrambled to cut their losses and exit their positions by buying the stock. This indicated a fundamental change that was taking place in the financial investment space. Retail investors could now use mobile apps such as Robinhood and Reddit to communicate efficiently, work collectively, and move markets in real time.

Problems Related to GameStop Situation

Through January 2021, users of Reddit forum r/wallstreetbets encouraged each other to buy GameStop shares and bid up the price, so that Wall Street hedge funds who shorted its shares would face a short squeeze. The price of GameStop shares was $19.94 on January 11 and climbed to $76.79 on January 25. The share prices rose even further from $76.79 on January 25 to $147.98 on January 26 (i.e., a single day jump of +92.71%). On January 27, it jumped another 134.84% to $347.51, with a cumulative jump of more than 350% in just 2 days.

When a customer buys a stock on a platform such as Robinhood, the trade is not settled immediately. Settlement occurs when the stock is delivered to the buyer and the funds are delivered to the seller. There could be a lag of up to two days between the transaction and the settlement. A single central custodian, the Depository Trust and Clearing Corporation (DTCC), is responsible for facilitating the settlement (15). Clearing firms facilitate trades by holding the actual stock certificates, settling the trades, collecting and maintaining margin money, etc. Robinhood (and other brokers) must fund each trade until the transactions are cleared. The collateral costs became too expensive for clearing firms to front these cost on behalf of their clients, and they asked all their brokers to maintain a cash margin, so they have enough cash on hand to settle the trades.

On the morning of January 28, 2021, Robinhood received a request for three billion dollars in additional collateral requirement. This was a huge amount for Robinhood to produce on short notice -- the collateral was thirty times Robinhood's requirement just three days prior (10). Robinhood eventually decided to restrict purchase of GameStop stock along with a couple of other stocks citing "increased collateral requirement from the clearing houses." At 2:56pm on January 28, the company tweeted, "In light of current market volatility, we are restricting transactions for certain securities to position closing only, including $AMC and $GME. Read more here. https://t.co/CdJMjGAeFH." However, by the evening of January 28, Robinhood was able to activate its credit lines, and the company resumed limited buy trades on GME stock on January 29th.

What Next?

Although Robinhood had stated the reasons for putting restrictions on purchase of GameStop shares, its users took to social media to vent their anger against the company. Users claimed Robinhood was no longer working for the benefit of small investors, and that they took the action to restrict trades at the behest of the "big Wall Street guys." Some users urged their followers to give the Robinhood app the lowest rating (1 on a scale of 1 to 5).

In an interview with CNBC on the evening of January 28, CEO Tenev offered a different reason: "In order to protect the firm and protect our customers we had to limit buying in these stocks. We want to put ourselves in a position to allow our customers to be as unrestricted as possible in accordance with the requirements and the regulations." He also claimed that Robinhood's decision was not at the direction of a market maker or hedge fund. On February 1, the company tweeted: "We want to share with you what Robinhood believes and stands for. Here's the full story from our CEO, Vlad. https://t.co/K4DvZrQMmK."

There were differing views within the company regarding how best to respond to the debacle. Some believed that this was mainly a public perception issue that could be addressed via a carefully crafted advertising and PR campaign, supplemented with additional educational videos for first-time investors. Other business leaders in the company were less sanguine. They felt that there was a real risk that the debacle could erode customer trust in Robinhood, and be a boon to Robinhood competitors Fidelity, Charles Schwab, and TD Ameritrade who also offered commission-free trading via apps that were designed for traditional investors. Some Robinhood executives suggested that the company make changes to the app to reduce inappropriate use by novice investors like Alex Kearns. Potential modifications to consider include additional guardrails to minimize poor trading and investment decisions, reducing the "game-like" features of the app, etc. Some board members were concerned about the regulatory threat to Robinhood's business model if Congress and/or regulators pushed for additional compliance controls and restrictions on the use of PFOF.

During these on-going discussions about what actions to take in the short- and long-term, there was also an immediate need for Vlad Tenev to prepare for the Congressional hearing. Robinhood management wanted to explore whether the insights contained in the numerous tweets about the company in the previous couple of weeks (posted by Robinhood users and the public at large) could be useful in preparing for the Congressional testimony and for planning future course of action in response to the GameStop debacle.

Case Study Questions

Answer Question 1 without using the "Advanced" analysis features at Enginius.

Question 1

(a) Summarize the insights you draw from the ***word clouds***, **sentiment analysis**, **emotion analysis**, and **parts-of-speech tags** from the Twitter data obtained in the "during" phase of the GameStop debacle.

(b) How did your insights and conclusions from Question 1(a) change when you compare those insights with the insights you get from similar analyses of the data from the "before" and "after" phases?

(c) Based on your answers to questions 1(a) and 1(b), what recommendations would you make to Robinhood to address the issues raised by the GameStop debacle? Why?

Answer the remaining questions by also incorporating the Advanced analysis features of Enginius.

Question 2

What topics/themes characterize conversations about Robinhood on Twitter during the three phases, "Before," "During," and "After"? How should Robinhood respond to these topics/themes if they come up at the Congressional hearing on February 18?

Question 3

Based on the issues facing the company now, and the results from the text and sentiment analysis, what strategy would you recommend to Robinhood? Should they

a. Just "wait and watch"?
b. focus mainly on advertising/PR/education campaigns to address "a perception problem"?
c. make changes to the app along the lines suggested by some of the executives?

Indicate why you recommend one or more of these (or other) strategies, and the specific actions the company should undertake to pursue your recommended strategy (e.g., what should they watch for if they "wait and watch"? what goal and theme should they pursue in an advertising campaign?), and how aggressively they should implement those actions. (In answering this question, stay close to the case context and data available to you.)

Question 4

Some allegations and conspiracy theories about Robinhood are making the rounds online. Should the company respond to specific allegations via Twitter? Should the company use Twitter to proactively defend PFOF, or promote the need for a reduced settlement time for trades, instead of the two days it now takes for DTTC? Explain why.

Appendix

Description of Twitter Data

To understand the conversations about GameStop on Twitter, we have included a data set of tweets that mention 'Robinhood' (data set is found on the Enginius platform). We have classified the data into three categories according to the time of the tweet. Tweets during the peak of the GameStop short squeeze (i.e., between January 22 to February 1) are in the 'During' category. Tweets between January 12 and January 21 are labelled as 'Before,' and tweets for the period February 1 to February 11 are labelled "After." For simplification, in each category, we have randomly selected 5,000 tweets for your analysis (the number of tweets ranged from 27780 "Before," about 2.46 million "During" and 213270 "After.").

For each tweet the following fields are available:

1. ID: Unique ID for tweet
2. Created on: Date stamp from tweet creation
3. Text: Text of tweet
4. Retweet?: Is it a retweet, Yes or No

References

(1) https://www.sec.gov/ix?doc=/Archives/edgar/data/1326380/000132638021000032/gme-20210130.htm
(2) https://www.cnbc.com/2021/01/27/gamestop-mania-explained-how-the-reddit-retail-trading-crowd-ran-over-wall-street-pros.html
(3) https://www.rev.com/blog/transcripts/robinhood-ceo-testimony-transcript-gamestop-hearing-february-18
(4) https://twitter.com/mcuban/status/1354798465994338304?ref_src=twsrc%5Etfw
(5) https://twitter.com/AOC/status/1354830697459032066
(6) https://www.theverge.com/2021/2/1/22261178/robinhood-google-play-store-app-rating-one-star-reviews-stocks-gamestop-reddit
(7) https://www.msn.com/en-us/news/politics/democrats-in-congress-will-hold-at-least-2-hearings-about-wall-street-s-practices-following-the-gamestop-short-squeeze/ar-BB1dbCWi?ocid=ob-fb-enus-1541512262291&fbclid=IwAR0DsQZaVdJnRukWYc4Tzb59Op497RM48ec-Lm1D1xZmaEzhc2hqyszqYSs
(8) https://docs.house.gov/Committee/Calendar/ByEvent.aspx?EventID=111207
(9) https://robinhood.com/us/en/support/articles/our-mission/
(10) https://www.newyorker.com/magazine/2021/05/17/robinhoods-big-gamble
(11) https://www.barrons.com/articles/robinhood-trading-app-returns-only-to-crash-again-on-tuesday-51583249601
(12) https://techcrunch.com/2020/03/03/robinhood-will-offer-case-by-case-compensation-for-its-outage-on-the-day-markets-gained-1-1-trillion/
(13) https://www.bloomberg.com/news/articles/2019-12-19/robinhood-fined-1-25-million-over-how-it-routed-customer-orders
(14) https://www.forbes.com/sites/sergeiklebnikov/2020/06/17/20-year-old-robinhood-customer-dies-by-suicide-after-seeing-a-730000-negative-balance/
(15) https://www.coindesk.com/what-really-happened-when-robinhood-suspended-gamestop-trading

This case describes a real business situation using a mix of real and hypothetical data, and is not intended to serve as endorsement, source of primary data, or illustration of effective or ineffective handling of a managerial situation.