A Virtue Ethics Analysis of Robinhood's GameStop Short Squeeze Scandal

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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Introduction

During the 2021 Robinhood-GameStop scandal, the financial world witnessed an unprecedented event that challenged the established norms of the stock market and raised critical ethical questions. At the center of this scandal was the surge in GameStop's (GME) stock price, fueled by a collective effort from retail investors on Reddit (Malz, 2021). This effort triggered a short squeeze, a phenomenon where the stock's rapid price increase forces short sellers to buy shares to cover their positions, escalating the price further. However, the situation took a controversial turn when Robinhood restricted the buying of GME shares, inducing a mass market panic and the subsequent fall of GME stock prices. Current literature attributes this to collective behavior from individual investors or cursorily implicate Robinhood's moral conduct for the incident. Without a clear ethical framework to structure their evaluations, Robinhood's ethical obligations cannot be fully assessed or held accountable. This could lead to huge consequences for the market as investor confidence and trust are undermined. Should such companies go unpunished and distrust allowed to fester, the aftermath can result in a disastrous market collapse, on par with the 1929 stock market crash that catalyzed the Great Depression (Guiso et al., 2008).

In the following sections, I will explain how the lack of virtuous characteristics demonstrated by Robinhood, cofounded by Vlad Tenev, resulted in the aftermath of the GME short squeeze. I will utilize virtue ethics, a theoretical framework that evaluates the character of the moral actor based on learnable cardinal virtues. Specifically, I will provide evidence that Robinhood's conduct lacked the three engineering virtues of commitment to quality, objectivity, and transparent communication. To support my argument, I will draw upon reputable news articles, published academic analyses, court documents, and interviews.

Background

The Robinhood trading app is a groundbreaking technology in the financial brokerage industry, and has disrupted traditional models with commission-free trades and a mobile-first business approach. Robinhood aims to target younger investors by making investing accessible through digital innovation and incentivizing high frequency trading (HFT) in an attempt to "democratize" finance, thus eliminating traditional barriers and simplifying stock market participation.

In the context of the GME short squeeze, various hedge funds attempted to short the share price of GME, but lost billions of dollars in the process. The practice of short selling (shorting) is a strategy where investors bet on the share price to fall so they borrow shares to sell at the current market prices. Once the share price falls to the desired level, investors will buy the shares back to earn a profit off the difference.

Literature Review

Several scholarly sources have investigated the ramifications of fraudulent stock-broker activity and their impact on market equity. While these analyses highlight the broader economic, social, and ethical implications on retail investors and the financial market, they overlook the impact of individual virtue and character. This oversight diminishes the importance of nuanced ethical responsibilities in intricate scenarios like the GameStop scandal.

In the research paper "*Social informedness and investor sentiment in the GameStop short squeeze"*, Kwansoo Kim et al. investigated the influence of social media on individual retail investors' trading patterns during the 2021 short squeeze. Additionally, it examined the role of social sentiment in driving collective trading behaviors and the information effects of social media on market dynamics. Kim et al. found that social media communication on Reddit, an interest-based and common-topics discussion platform, "steered" collective behavior and "triggered momentum trading based on daily stock returns and trade volumes during the short squeeze" (Kim et al., 2023). Investors felt they were informed by prudent and judicious individuals and could trust the information provided on Reddit to safely trade the volatile GME stocks. Kim et al. offer an informative answer to characterize the apparently irrational stock trade-related decision-making behavior of individual investors. Unfortunately, their research fails to delve deeper into the ethical side of the incident and thus no moral responsibility is placed on Robinhood.

Taking a different approach, Denis Kelleher et al. does actually scrutinize Robinhood's behavior through an ethical perspective. Kelleher et al. claimed Robinhood "employed a suspect business model" through a payment scheme known as "payment for order flow" (PFOF) which essentially looks like "legalized bribery" (Kelleher et al., 2022). To extrapolate, Robinhood was able to offer commission-free trading by utilizing the PFOF scheme and enticing users with gamified features that encouraged HTF, subsequently selling these trade orders to firms like Citadel Securities. To further cast doubt on Robinhood's ethical credibility, Citadel Securities was paying for more than half of Robinhood's customer order flow while funding Citadel LLC, the leading hedge fund that was shorting GME at the time, making it incredibly suspicious when Robinhood issued a trading halt for GME when its stocks were causing Citadel LLC to lose billions of dollars. This analysis offers some insight into the morality of Robinhood's actions, but no ethical framework is mentioned or assigned in the analysis.

Although these sources shed light on the broader causes of the short squeeze, their lack of a definitive ethical framework means they cannot fully capture the reality of the short squeeze.

My following analysis on the GME short squeeze case aims to progress current scholarship on the topic by applying a virtue ethics framework to judge the moral actions of Robinhood.

Conceptual Framework

My analysis of the short squeeze incident draws upon the virtue ethics framework, which allows me to critically examine the decisions and motivations of Robinhood and how its failure to embody certain cardinal virtues affected the outcome of the short squeeze. First developed by Aristotle, virtue ethics is an ethical theory that emphasizes *eudaimonia*, or true happiness and well-being. It promotes living life in accordance with nature and how humans are supposed to live to achieve their full potential (van de Poel & Royakkers, 2011). Aristotle argues that by continuously practicing good virtue, a person can achieve true happiness and well-being because it aligns one's actions with their true nature.

An important feature of this theory is that virtues are not innate but developed through consistent virtuous acts. These learnable virtues serve as the median between extremes to balance between two vices. For example, the engineering virtue of objectivity can be seen as the balance between the extremes of bias and indifference. Unfortunately, implementing virtue ethics, especially in an engineering context, is not straightforward. Every situation may call for a different solution or interpretation of virtue ethics (Pritchard, 2001). Thus, it is critical to have some form of universal virtues that engineers can abided by. The specific set of virtues I will reference was developed by Michael Pritchard and can be used to judge whether a person or entity has been morally responsible (Table 1).

Table 1. Pritchard's List of Engineering Virtues

Professionalism	Cooperation
Transparent communication	Openness to criticism
Self-sacrifice	**Commitment to quality**
Objectivity	Creativity
Stamina	Attention to the big picture and detail
Thorough work documentation	

Pritchard argues that lacking any one of these virtues would signify an irresponsible engineer. But for this paper, I will only explore the three main virtues that Robinhood lacked in its conduct: commitment to quality, objectivity, and transparent communication. I selected these virtues because a significant body of evidence indicated Robinhood's deficiencies in these areas.

Drawing on the virtue ethics framework—specifically the three engineers virtues of commitment to quality, objectivity, and transparent communication—I will highlight how Robinhood deviated from these principles. I will then evaluate how these lapses in virtue led to the turmoil experienced by investors, the ensuing public backlash, and legal consequences faced by Robinhood.

Analysis

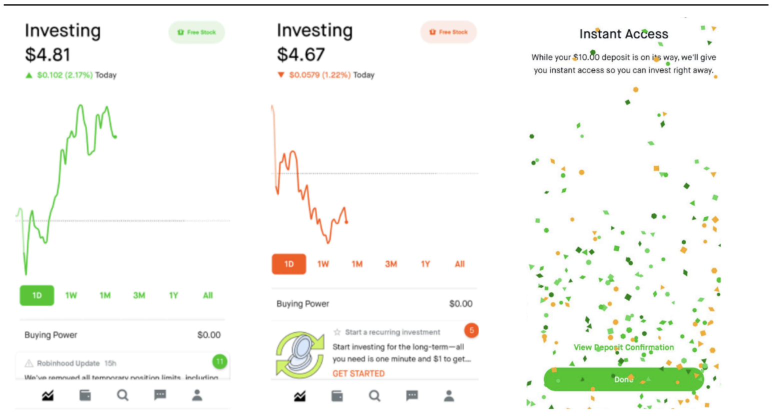
The practice of virtue ethics in the realm of finance and stock trading has always been vital for market sustainability and consumer trust. In recent years, ethical practices in this sector have become more important than ever with the rise of financial technologies (Fintech), such as Robinhood, that have dramatically increased the stock market's accessibility and inclusivity. Because of this, Oliver Vasquez and Leire San-Jose insist that "Fintech firms are obligated to ensure that the tools they are building are trustworthy and safe and that their business models do not abuse customer relationships by selling data, maintaining a lack of security protocols and other inappropriate and unethical practices" (Vasquez and San-Jose, 2022). This prompts the inevitable question: “How can these firms be held morally accountable?” To which the answer is an ethical framework that can both analyze and pass judgment on whether firms have acted responsibility. Pritchard’s morally responsible engineering virtues serve as ethical pillars to uphold as Fintech companies like Robinhood take on crucial leadership roles in democratizing finance. In this section, I will spotlight the three engineering virtues—as laid out by Pritchard (Table 1)—of commitment to quality, objectivity, and transparent communication that Robinhood failed to embody. Each of these unfulfilled virtues will be backed up by particular instances of misconduct taken by Robinhood.

Commitment to quality

I argue that Robinhood violated the engineering virtue of committing to quality through the gamification of its mobile investment app to prey on new, inexperienced investors. Gamification is a technique that applies game design elements in non-game scenarios to encourage and engage people towards collective behavior (Pal et al., 2021). When logged into a Robinhood account, investors are met with a large screen showing their overall portfolio value. As seen in Figure 1, If the portfolio has a positive gain, every UI element turns green. If the portfolio has a negative loss (the amount could literally be a penny), every UI element turns red. This

Figure 1. Visualization of Robinhood’s Gamified Menu

A. Daily Gain B. Daily Loss C. Confetti



Footer: 1A demonstrates how the UI elements within the Robinhood app turn a bright green, a color often associated with success and positive news. 1B depicts the red color scheme of the UI elements when the user is at any kind of loss for the day. Notice the portfolio values are only 10 and 5 cents, respectively, yet such drastic color changes occur. 1C shows the confetti feature used for many functions within the app.

type of visual validation is used to intentionally provide positive reinforcement and instant gratification. When users see their portfolio turning green, it triggers feelings of accomplishment and success, which reinforces the user to emotionally buy more stock and continue to continue the positive monetary trend. In contrast, the color red, associated with loss or danger, creates a sense of urgency or discomfort, also motivating the user to take action to reverse the negative trend by purchasing more stock. In both these cases, the Robinhood app lacks quality simply because it tries to influence the buyer in a non-neutral manner. Fintech technologies hold a moral responsibility to be neutral and unbiased so users can make the best financial decisions for themselves.

Additional stylistic features, like confetti animations for completing trades or deposits and a simplified user interface, further creates an environment where investing feels like a game, incentivizing younger users to both frequently and impulsively trade stocks (Kelleher et al., 2022). By simplifying complex financial transactions into colorful, game-like experiences, Robinhood essentially prioritized user engagement over ensuring its generally inexperienced user base had a reliable and high quality trading platform. As a direct result, Robinhood's addicting built-in app features are largely responsible for the HFT that happened during the GME short squeeze as new inexperienced users joined Robinhood to invest in GME. By not responsibly designing its app to suit the needs of its users, Robinhood failed to demonstrate the virtue of commitment to quality. Consequently, thousands of clients suffered financial losses and were rightly angry when Robinhood inexplicably halted GME trading on its app.

Some may claim that Robinhood operated within its legal rights to design its app as they saw fit and that the quality of the app lies in its ease of use. However, it's essential to recognize that legal rights and moral responsibilities are distinct, particularly when considering the engineering virtue of commitment to quality service. As outlined by the U.S. Securities and Exchange Commission (SEC), the federal agency that sets the ethical standards for market trading, broker-dealers like Robinhood must uphold the “duty of fair dealing” and “duty of best execution” (SEC, 2009). These principles outlined by the SEC emphasize the importance of financial institutions acting in the best interests of its clients and maintaining fair and orderly markets. Robinhood fell short in both these regards by gamifying its mobile app. The app is inherently unfair as it promotes HTF for amateur users who are not knowledgeable in viable trading strategies. It also stands to reason that the app cannot be well executed if users are not given the full picture of what they are investing in and are mostly influenced by the game-like experience. Of course, these standards can be up for interpretation, but as a financial entity, Robinhood has a responsibility to go above and beyond to ensure its user base is not exploited or taken advantage of. Additionally, in January 2024, Robinhood settled a case over its apps on charges of gamifying its online trading platform for $7.5 million (Kelly, 2024). If Robinhood was not at fault for gamifying its app, as some claim, why did the company feel the need to settle for such a large sum? As I mentioned previously, by prioritizing user engagement through gamification elements that incentivize impulsive trading behaviors, Robinhood failed to uphold its commitment to quality. Instead of designing a platform that facilitates informed decision-making and protects users from potential harm, Robinhood's app design contributed to market volatility and financial losses for inexperienced investors. It is on these counts of negligence and disregard for user well-being that Robinhood were sued. Therefore, while Robinhood may have technically adhered to SEC requirements in developing the mobile app, its actions demonstrate a clear violation of the engineering virtue of commitment to quality and ethical responsibility. Thus, Robinhood was eventually sued for its unethical actions.

Objectivity

Robinhood also lacks the virtue of objectivity due to its associations with large hedge funds, which present a conflict of interest with its user base. Robinhood employs a PFOF payment model, from which they are paid by financially backed hedge funds and firms in return for the order flow of retail investors. This payment method specifically seeks out less-informed order flow to purchase from brokers because it is much easier to profit from. HFT firms like Citadel Securities pay for brokers' order flow because the more orders they execute, the more profit they can earn on each transaction. In fact, Robinhood brought in almost $331 million from PFOF in the first quarter of 2021, with Citadel Securities making up almost 40% of the revenue (Robinhood, 2020). With an almost 40% stake in Robinhood, it is glaringly obvious that a conflict of interest existed between Robinhood, who accepted Citadel's payments as a substantial portion of its revenue, and its clients. This implies that Citadel had the financial power to influence Robinhood's decisions, and in turn, its app users. Additionally, the timing of Robinhood's earnings report for the first quarter of 2021 is particularly incriminating. The report was released just before the GME short squeeze incident, during which Citadel Securities faced significant losses from its short positions in GME. It is clear that Robinhood restricted the buying of GME shares to end the short squeeze to bail out Citadel Securities. Therefore, Robinhood could not have acted objectively because of external factors, such as the threat of income loss, which influenced the decision to halt GME trading on its mobile app. It is also fair to reason that by accepting payment for order flow and favoring large finance firms, Robinhood completely goes against its mission statement "to democratize finance for all," a message that heavily implies a stance of objectivity and fairness for its investors (Robinhood, n.d.). Negative sentiment surrounding Robinhood after the halt of GME trading largely stems from users feeling deceived by the company's false narrative.

Transparent communication

Finally, Robinhood did not demonstrate the virtue of transparent communication by intentionally hiding its primary source of income from users. From 2015 to September 2018, it is well-documented that Robinhood omitted mentioning PFOF as its main revenue source through its various customer communication channels (e.g. mobile app, website). In the 2020 cease and desist order filed against Robinhood, the SEC asserted that:

> Robinhood's customer agreements and trade confirmations stated it "may" receive PFOF, and Robinhood disclosed certain information about those payments as required in its … reports. However, in FAQs on its website describing how it made money … Robinhood omitted [PFOF] when it described its revenue sources because it believed that [PFOF] might be viewed as controversial by customers. Robinhood also instructed its customer service representatives not to mention [PFOF] in responding to questions about Robinhood's sources of revenue (SEC, 2020).

First, it is important to note how Robinhood only mentions its use of PFOF in customer agreements and trade confirmations rather than the far more accessible FAQs section of its website. By burying its use of PFOF in the dense legal language of customer agreements and trade confirmations, Robinhood was protecting itself against claims that users were not informed of PFOF before signing up for its app and thus failed to demonstrate transparent communication. Second, Robinhood intentionally directed its customer service agents to avoid referencing PFOF when addressing inquiries regarding the company's revenue streams. This deliberate exclusion of vital information was indicative of a conscious effort by Robinhood to downplay the significance of PFOF in its revenue model and further magnifies Robinhood’s lack of transparent communication with customers. I argue that by intentionally omitting payment information from the most obvious place to look for such disclosures and by purposely instructing service agents to withhold information, Robinhood purposefully sought to downplay the extent to which PFOF contributes to its revenue, thus they acted unethically and without transparency and further angered its user base.

Conclusion

While much for the Robinhood GME scandal is still shrouded in mystery, it is still possible to deduce the impact of Robinhood’s ethical character and how it affected the short squeeze. From the perspective of virtue ethics, I have argued the immoral actions of Robinhood and its implications for the GME short squeeze by demonstrating Robinhood’s deficiency in three crucial engineering virtues: commitment to quality, objectivity, and transparent communication.

As the world gradually shifts towards online financial technology companies, the importance of ethical conduct becomes increasingly important to ensure a safe and equitable trading environment for future investors. Allowing corruption and immorality to spread poses a serious threat to investor trust. Without this trust, investors would hesitate to entrust their money to Fintech companies. The historical example of the 1929 stock market crash illustrates the potential consequences if investors lose faith in their chosen Fintech company and, by extension, the entire stock market. To prevent such a catastrophic event like the Great Depression, it is imperative to prioritize and uphold moral integrity within the finance sector.

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