Advances in Economics, Business and Management Research, volume 215
Proceedings of the 2022 7th International Conference on Social Sciences and Economic Development (ICSSED 2022)

Research on Young Investors' Behaviors --Taking the Gamestop Short Squeeze as an Example

Siteng Wu[1,*]

[1]NYU Shanghai, Shanghai, China, 200122
[*]Corresponding author. Email: sw4351@nyu.edu

ABSTRACT

Young investors often demonstrate irrational behavior in the finance market, which causes losses to themselves. Previous studies have identified several factors influencing investors' decisions. However, these factors are not able to explain the behavior of young investors. This paper will take the Gamestop short squeeze as the case to analyze the underlying factors of young investors' behavior. This case study will address the question on their illogical decisions through two main categories: internal factors and external factors. The result shows that it was a combination of social media, online trading platforms and investors' sentiments that contributed to influencing young investors' decisions. The result also presents advice for young investors and regulators to better avoid illogical decisions of investors that would prevent incidents like the Gamestop short squeeze from happening in the future. This research helps explain young investors' behaviors and explores new factors influencing their investment decisions. It provides a unique insight into what needs to be improved for both investors and regulators.

Keywords: *Young investors, Gamestop, Behavioral finance, Short squeeze*

1. INTRODUCTION

Behavioral finance has been a popular subject as it is capable of explaining patterns that traditional framework and assumptions failed. Most of our current financial models are built on the assumption that all participants are rational. In reality, individual investors, especially the young ones, often make poor, illogical investment decisions [1]. They often trade unnecessarily excessively and take opposite positions against their best [2]. Study on investor behaviors may explain such phenomenon. Robert Nagy and Robert Obenberger have successfully identified factors that influence individual investor behavior through questionnaires and a factor analysis [3]. Nowadays, more and more young individuals join the investors team. Their lack of experience added additional uncertainty to the market. Most of the research before did not take into the effect of new young investors entering into the market and their attitude towards trading. New and inexperienced investors are more vulnerable to illogical decisions and yield worse losses. Yet, traditional factors in today's environment may not be the influential ones to their decisions. The Gamestop short squeeze in January 2021 was notorious as the stock price experienced high volatility that deviated from any pricing models. It was referred to as a battle between the retail investors and the institutional investors. Interestingly, many of them who participated in this craze were young investors through the help of social media and online trading apps. The whole incident was deemed as a divergence to the based assumptions behind our current finance models.

This research will serve as a reference to study young investors' behaviors by using the Gamestop short squeeze as the case to analyze on. Through identifying several key elements at play, this paper will conduct a characteristic analysis on young investors' behavior and analyze how these factors affect the investors of the new generation. By studying the underlying factors, we will have a deeper understanding of their decisions and can help young people make rational decisions with their investment. At the same time, we have the opportunity to check the external contributors to the situation within our current finance system and offer practical advice to both investors and regulators.

Copyright © 2022 The Authors. Published by Atlantis Press International B.V.
This is an open access article distributed under the CC BY-NC 4.0 license -http://creativecommons.org/licenses/by-nc/4.0/

2. CHARACTERISTIC ANALYSIS ON YOUNG INVESTORS' BEHAVIORS

2.1. Internal Factors

2.1.1. Lack of Experience

Young investors are typically inexperienced in trading stocks. Their lack of experience may contribute to their poor performance in diversifying risks and portfolio management. Inexperienced investors demonstrated more likelihood of being susceptible to biases that lead to return chasing and purchasing overpriced stocks [4]. In addition, they are unlikely to have their own criteria on purchasing the stock. Therefore, they often rely on their own feelings about a stock rather than a thorough analysis that combines statistical aspects and macro-environment. It is common sense that inexperienced investors in most cases have the wrong feeling about the market. Even when the GME stock price already increased drastically, some young investors still chose to purchase shares because they thought it was the correct decision, resulting in inevitable losses in the end.

2.1.2. Fear of missing out

Fear of missing out (FoMO) is defined as "a pervasive apprehension that others might be having rewarding experiences from which one is absent" [5]. It is a feeling that someone is enjoying their life better than you. It has become a common phenomenon among the younger generation, especially on social media like Instagram or Reddit where their peers can post about their lives. It is considered to cause stress among young people as they compare their lives to the highlights of others' lives. FoMO is suggested to influence their decision making process. In a recent research, FoMO-laden appeals were proved to have the ability to "strengthen purchase intentions by boosting consumers' anticipated elation and self-enhancement or weaken purchase intentions by boosting anticipated expense regret" [6]. The fear of missing out feelings of young investors may encourage them to purchase the stock that their peers are making profit on. In the period when Gamestop was one of the most popular topics, some investors were posting their returns on GME on social media to brag about. Videos made by their peers on how to make profit from the stock market, especially GME were uploaded as well. Contents like these on social media were causing the FoMO among the young investors. If they had not invested in GME, they would have lost a great profit opportunity and left behind while their peers were enjoying the benefits of their purchase. They also feared that if not purchased, they would no longer share the topic with their peers as everyone else was talking about it. The investment itself became a way for them to reduce anxiety from their fear of missing out.

2.1.3. Counter-hegemony emotion

Investors' internal emotions also succeeded in influencing their decisions. Long, Lucey and Yarovaya have confirmed that social media posts and their tones had an impact on GME 1-min returns [7]. Additionally, as discussion on the WallStreetBets subreddit intensified, the price variation of GME increased [8]. Of those sentiments demonstrated in the short squeeze, counter-hegemony emotion against institutional investors was the most distinctive sentiment. According to Nagy and Obenberger's research, among 34 factors identified by them that influence individual investors, variables related to emotions did not appear on the lists [3]. The hostility towards institutional investors was never considered as a factor that influenced investors' behavior previously. However, after the 2008 global financial crisis, American society was filled with negative emotions towards institutional investors. Finance institutions were condemned by the public for being hypocritical and accused of market manipulation [9]. The covid-19 pandemic only worsened their image as large institutions enjoyed financial stimulus from the government while the lives of common people were damaged irreversibly. WallStreetBets, a group of individual investors on Reddit, primarily expressed their objection to short selling by institutional investors. Their dissatisfaction quickly led to proposals to purchase stocks that were heavily shorted as a way to cause huge losses to institutional investors. They treated themselves in a zero sum game against the institutions. Their proposal as well as their counter hegemonic emotions spread across social media. Various threads about GME and institutions appeared on social media as well. For young investors, all of them have experienced the world financial crisis and the pandemic and witnessed their impact on their family and community. They could well relate to the emotions demonstrated by WallStreetBets and other investors, thus joining their peers in purchasing stocks in order to make institutions suffer losses.

2.2. External Factors

2.2.1. Institutions' selling positions

In the Gamestop incident, the heavily shorted positions by institutional investors created a great profit opportunity for all retail investors. Taking short positions has been a popular strategy for institutional investors to drive down the price of overvalued companies. In theory, short selling enhances market liquidity and contributes to market efficiency. However, as Hirshleifer et al. pointed out, short selling only succeeded in "eliminating the downside of the accrual anomalies" and can endanger market stability, increasing whole market volatility [10]. The institutional investors held heavy short positions in GME, making it one of the most heavily shorted companies in the US. Its ratio of short shares to stock outstanding even exceeded 100%. Such heavy short positions created a profit opportunity for retail investors. They could purchase large shares of stocks, resulting in a short squeeze and in reality they did. A short squeeze happens when a heavily shorted stock rises in price suddenly. Short sellers borrowed the shares in the belief that they will buy back and return the stock at a lower price, thus earning the price difference. A sudden increase in stock price may force them to forfeit their short position in order to cut losses. As they buy back the stock, the share price rises due to the imbalance of demand and supply. A short interest of over 100% generated a profit opportunity for retail investors to be in long positions as they may enjoy the return of a short squeeze. From a back-looking perspective, a positive relationship between the return of GME and the short volumes was identified, confirming the existence of a short squeeze [11].

2.2.2. Social media

Social media is the biggest influencer in young investors' decisions. The Younger generation spend hours a day browsing their phones and computers, exchanging all kinds of information online. Inevitably, they encounter information about finance and the stock market as finance became a popular topic after the global financial crisis. Shanmugham et al. pointed out that trading behavior is influenced by social media and interactions and the intention to trade posted online is likely to become real action [12]. In other words, young investors who spend more time on social media are prone to the influence caused by social media. In fact, this isn't the first time social media has the capability to influence firm equity value. Blog posts and rating volumes are successful in predicting future firm equity return and risk [13]. However, people who write blog posts and ratings do not engage in trading. What was unique in this situation is that while they are participating on social media, they are actively engaging in trading at the same time. This leaves a space for social media to affect their decisions.

Social media has been successful in exchanging information for its users. A vast ocean of finance information flows through social media everyday. On platforms such as TikTok, Twitter, Instagram and Reddit, information is uploaded and updated everyday, open to all public, including the young investors. Certainly some information on these platforms are precise and accurate, with basic statistics of share price and official reports and may serve as credible references for investment decisions. However, there is a possibility that the information given was misleading. Anyone can give financial advice openly on social media yet remains anonymous. In other words, they do not need to be responsible for their advice and its consequences. On platforms like TikTok that feature short videos, people can give bite-size investment knowledge to the whole community, however questionable it is. The misleading information had the ability to trick the young generation into believing trading stocks and profiting is an easy task. What is not questionable is its virus-like spreading speed and popularity. An influencer's videos can reach thousands of views within minutes after being uploaded. And Gamestop was one of the most hotly debated topics online at the time, in which everyone was able to share their advice through videos or messages. The numerous suggestions of purchasing GME to make profit flooded social media. And it worked as a platform for young investors to share their opinion on the trading strategy. It was easy for them to reach an agreement on the price they wish to purchase the next trading day and at what volumes at what time, whether the stock market was trading or not. Such action online allowed investors to coordinate their actions, resulting in a collective trading strategy that was impossible without the help of social media.

2.2.3. Online trading platform: Robinhood

Robinhood is a new entrant to the trading platform business. It has been the most widely used trading platform by the younger generation in the Gamestop short squeeze. Robinhood attracted investors through reducing frictions and promoting simplicity, with half of its users (13 million in total as of 2020) actually first-time investors [14]. For the younger generation, Robinhood changed how they perceive trading. The company offers a simple app that makes trading extremely easy. The trading can be completed just by a click on the screen. It also makes trading look like a game. For example, there would be confettis while the user completes certain trading actions and the notifications would be filled with emojis. The simplicity and game-ish feeling may lead the new and inexperienced into the misconception that trading stocks is easy, similar to playing a game. As a result, they may rely more on their own feelings, just like what they do when playing games, which in most cases turned out to be wrong. They neglected the necessity of critical analysis in investment decisions. Unlike other brokerage platforms, it charged no commission fee, which lowered the cost of trading for its users. The low cost and convenience resulted in Robinhood users trading abnormally frequently. According to a research by the research firm Alphacution for *The New York Times*, Robinhood users "traded nine times as many shares as E-Trade customers, and 40 times as many shares as Charles Schwab customers, per dollar in the average customer account in the first quarter of 2020" [15].

Robinhood has its unique way of presenting information as well. It only shows a small portion of stock indicators compared to other trading platforms. The few indicators are likely to guide new and inexperienced investors towards stocks that only pop out in the indicators. Such stocks may not be the best performing stock on the market. Robinhood also has a list called “Top Movers”, which displays the stocks with the most percentage change in price compared to the prior date. The list updates everyday and includes only 20 stocks. Barber et al. pointed out that such features would drive Robinhood users to invest in the same set of stocks and thus result in buy-side herding events and more speculation [14]. In other words, investors’ behaviors are more likely to be correlated, doing the same action together yet not knowing so.

3. CONCLUSION

This research examines the factors influencing young investors in the particular case: Gamestop short squeeze. Their illogical behavior contradicted the basic assumption that investors act rationally to maximize their own utility consumption. Young investors’ behavior was influenced by both internal and external factors, which needs to be paid attention to. Though the factors are analyzed independently, investors’ behavior was affected by the collective forces of them all and we cannot ignore any element at play here. Market inefficiency may arise due to such irrational collective behavior and similar events may happen in the future again. While this happens, young investors themselves may suffer irrecoverable financial losses and the tension between retail investors and institutions would only intensify.

This paper also puts forward several suggestions for young investors and regulators. For young investors, they should actively engage in learning knowledge and gaining experience in the stock market. In this way, they are able to create their own criteria of investment decision, rather than listening to social media. Keeping a healthy mindset is important for them as well. It would help them deal with pressure from their peers, such as FoMO. For regulators, they should convey the right messages and better inform the young investors. In many times, the opacity of information led to dissatisfaction of investors and resulted in misleading messages. The public may link the government to the institutions, which would only worsen the distrust between the retail investors and regulators. Investment education is another key part. Though the responsibility may not lie in the regulators, they have the ability to make it far more attainable to investors. Official websites can be set up to provide basic knowledge of trading and operations of the market.

AUTHORS’ CONTRIBUTIONS

This paper is independently completed by Siteng Wu.

ACKNOWLEDGMENTS

I would like to express my gratitude to the help of Professor Colleen Hoinigsberg, who provided me with the knowledge I need for the research. I would also like to thank my friends and family for their support and understanding during the study.

REFERENCES

[1] J. R. Ritter, Behavioral finance [J] Pacific-Basin finance journal, 2003, 11(4): 429-437.

[2] B. M. Barber, T. Odean, The courage of misguided convictions [J]. Financial Analysts Journal, 1999, 55(6): 41-55.

[3] R. A. Nagy, R. W. Obenberger, Factors influencing individual investor behavior [J]. Financial Analysts Journal, 1994, 50(4): 63-68.

[4] R. Greenwood, S. Nagel, Inexperienced investors and bubbles [J] Journal of Financial Economics, 2009, 93(2): 239-258.

[5] A. K. Przybylski, K. Murayama, C. R. DeHaan, et al. Motivational, emotional, and behavioral correlates of fear of missing out [J] Computers in human behavior, 2013, 29(4): 1841-1848.

[6] M. C. Good, M. R. Hyman, Direct and indirect effects of fear of missing out appeals on purchase likelihood [J] Journal of Consumer Behaviour, 2021, 20(3): 564-576.

[7] C. Long, B. M. Lucey, L. Yarovaya, I Just Like the Stock versus Fear and Loathing on Main Street: The Role of Reddit Sentiment in the GameStop Short Squeeze [J] SSRN, Electronic Journal, 2021: 31.

[8] Š. Lyócsa, E. Baumöhl, T. Vŷrost, YOLO trading: Riding with the herd during the GameStop episode, 2021.

[9] U. W. Chohan, Counter-hegemonic finance: The gamestop short squeeze [J] Available at SSRN, 2021.

[10] D. Hirshleifer, S. H. Teoh, J. J. Yu, Short arbitrage, return asymmetry, and the accrual anomaly [J] The Review of Financial Studies, 2011, 24(7): 2429-2461.

[11] Z. Umar, M. Gubareva, I. Yousaf, et al. A tale of company fundamentals vs sentiment driven pricing: The case of GameStop [J] Journal of Behavioral and Experimental Finance, 2021, 30: 100501.

[12] R. Shanmugham, K. Ramya. Impact of social factors on individual investors’ trading behaviour [J] Procedia Economics and Finance, 2012, 2: 237-246.

[13] X. Luo, J. Zhang, W. Duan, Social media and firm equity value [J] Information Systems Research, 2013, 24(1): 146-163.

[14] Barber, M. Brad, et al. Attention induced trading and returns: Evidence from Robinhood Users [J] Journal of Finance, Forthcoming, 2021.

[15] Nathaniel Popper. Robinhood Has Lured Young Traders, Sometimes With Devastating Results. July 8, 2020. https://www.nytimes.com/2020/07/08/technology/robinhood-risky-trading.html