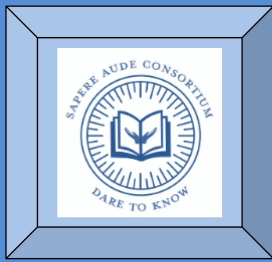

FinTech: The Effects of Social Media and Gamification on Financial Education and Investing

Opinion Snapshot

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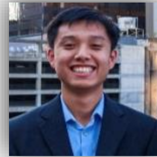

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Introduction

With the turn of the twenty-first century, Generation Z (born between 1996 and 2009) is the first generation to grow up with technology such as laptops, phones, and tablets and internet tools such as Google at their disposal. For Gen Z, the physical world has a digital equivalent for building relationships, completing assignments, and sharing information with others. Members of Gen Z use technology as an extension of themselves, where they can switch between the physical and digital worlds.[1]

Access to technology has certainly influenced Gen Z's lives. A 2018 survey by Pew Research found that 95% of Gen Z has access to smartphones and 45% is online "almost constantly."[2] With the heavy use of technology, Gen Z downloads different gaming, productivity, and entertainment applications (apps) to connect with the virtual world.[3] Gen Z also uses social media apps (TikTok, YouTube, Reddit, Facebook, Twitter, and Instagram) as platforms to communicate, collaborate, and share content.[4] Furthermore, technological advances allow Gen Z to learn through gamification techniques. Gamification teaches individuals about a subject through game playing, point scoring, and providing a social aspect to increase engagement among users. Current technology allows education apps such as Duolingo, Kahoot!, and Quizlet Live to teach users about different subjects and engage them with game-like features. Investment apps such as Robinhood have adopted gamification to engage new users and to make investing quick, cheap, effective, and simple for Gen Z and fellow investors to use. Gen Z consumes their investment information through social media and gamified education platforms to make financial investments with real-world implications.

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Technology allows Gen Z to gain easier access to investment advice. With increasing interest in investing, and to avoid irresponsible investments, Gen Z should have access to well-developed financial education. Investing irresponsibly means investing recklessly without considering the potential consequences of actions. To make long-term gains, successful investing requires diversification of assets and time to compound. Lack of research and ill-informed decisions can hurt new investors who look for quick returns. An example of investing irresponsibly is laid out by the "greater fool theory," where investors buy an overvalued asset, hoping another "greater fool" purchases the asset at a higher price.[5] Under the greater fool theory, irresponsible investors can create a "bubble" that trends upward and eventually pops when nobody will pay an excessive price for an overvalued asset. As a result, the market for the asset collapses, and everyone holding onto the asset loses their profits and potentially their initial investment.

An example of the greater fool theory dates to 1637 in the Netherlands, where at one-point individual rare tulips held more value than luxurious houses.[6] The new market created during this "tulip mania" spread throughout Europe as tulips' skyrocketing prices increased demand and convinced even novice investors to engage in trading tulips. With investors ranging from commoners to affluent traders, the tulip bubble kept rising in value as people continued to acquire wealth through tulips. Although selling a house for a tulip may sound counterintuitive, investors' enthusiasm, the promise of new tulip varieties, and the continual rise in tulip prices kept investors believing they could make quick returns. At some point, people realized a tulip is a common flower and not worth a house, leading to the collapse of the tulip market. Tulip mania was an example of irresponsible investing and illustrates how speculation in the value of "assets" (in this case, tulips) corrupts the market. While tulip mania happened nearly 400 years ago, the greater fool theory of investing irresponsibly holds true today. Contemporary examples include the dot-com bubble, the 2008 housing market crash, and the short squeeze of GameStop and AMC stocks. However, the hazards of irresponsible investing can be avoided if educated investors research and understand the valuation of assets and securities to develop healthier long-term investment strategies.

Online financial information for consumption by Gen Z is being created by professional asset managers (such as BlackRock, Invesco, and Fidelity) as well as by financial influencers and content creators. In the context of the introduction of gamification to investing apps and the rise in social media as a place for individuals, especially Gen Z, to consume financial information, it becomes increasingly important to explore the question:

Has technology created a path to irresponsible investing, and, if so, can it also be used as a path to engage Gen Z to take responsibility for their financial futures?

To address this question, we assess how technology influences financial education and investing for Gen Z, specifically through social media and gamification. In detail, we investigate issues such as the widespread lack of financial education on investment apps, herd behaviors, and the struggle of professional asset managers to engage young audiences on TikTok (in comparison to influencers and individual investors, who have much more solid followings on social media.)

Following the analysis, we ultimately evaluate different proposals for asset managers to educate investors, especially Gen Z, about well-informed and responsible investing. These proposals include creating social media content that is more likely to engage Gen Z and developing educational platforms with gamification features.

The Evolving Impact of Technology on Financial Education and Investing

The invention of the computer fostered waves of technological advances, leading to a new medium of trading for financial institutions. The first computerized trading terminals in the 1960s significantly improved the availability of securities information. The 1970s rise of electronic stock

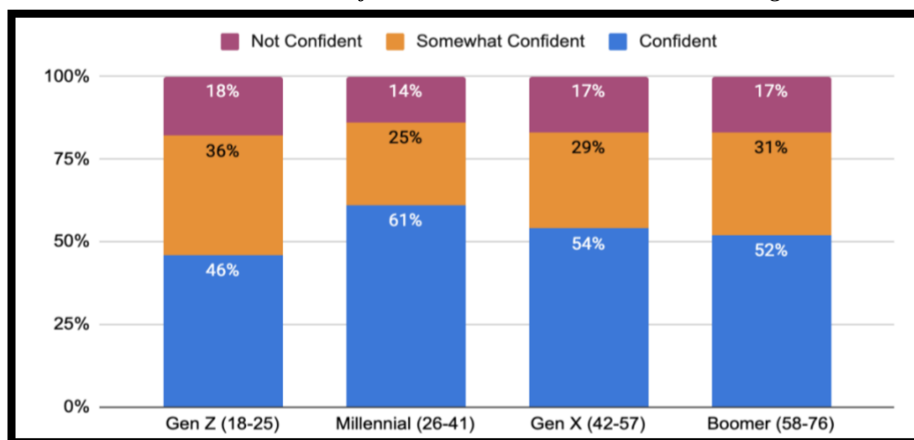
exchanges reduced the need for fast-paced trading floors. By the 1990s, online trading revolutionized the role of brokers and directly allowed investors uninterrupted access to buying and selling financial instruments. Today, with the rise of smartphones, investment apps such as Robinhood allow users unrivaled access to information and trading tools at their fingertips.[7]

The growth and expansion of technology has catalyzed new financial frontiers. In the last decade, the fall of barriers to accessing financial education and investment information has led to greater inclusion of individuals from diverse socioeconomic backgrounds.[8] The aim of financial technology (investment apps, payment apps, peer-to-peer lending apps, etc.) is to provide financial services to consumers.[9] This newfound utilization of technology gained recognition in 2014 at the G20, where summit leaders officially recognized the importance of financial technology (fintech) and its role in expanding financial inclusion.[10] Fintech's ability to provide educational material and investment opportunities to underdeveloped communities makes it a "promising vehicle [in] closing the gap between unbanked, under-banked, and developed societies."[11] Financial companies such as Ameritrade and Fidelity began reducing and removing commission fees to expand access to a broader range of people. As a case in point, Robinhood's mission "to democratize finance for all" led to an increase in investors as the company incentivized consumers with free stocks, a zero-commission trading policy, and a gamified education system within the app.[12] In 2020 alone, 15% of all current investors entered the market.[13] The newly low barriers to entry and increased financial information on social media contributed to this spike in investors.[14]

Gen Z and Social Media

As Gen Z turns to TikTok, Instagram, and Twitter for financial information, social media becomes a vital element of financial education. With 80% of investors using social media regularly, social media has the power to influence many potential investors.[15] More specifically, in 2021, 35% of 18-to-34-year-olds report that social media directly impacts their financial decisions.[16] Furthermore, with the increased emphasis on ESG (environmental, social, and corporate governance) investing, 48% of investors said that "social media prompted them to do additional research on an industry issue or topic."[17] Social media platforms highlight ethical concerns in conjunction with company values, helping investors understand the impact of their financial contribution. However, while social media facilitates access to a variety of information, only 46% of members of Gen Z feel confident about their financial knowledge, as Exhibit 1 shows.

Exhibit 1:
Gen Z is Least Confident about their Financial Knowledge

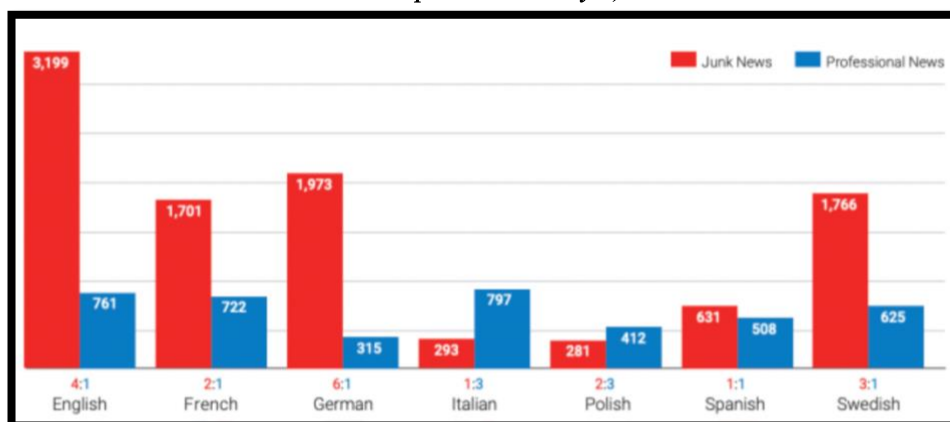


Source: Investopedia.[18]

It is no surprise that the members of the youngest generation, Gen Z, would be the least confident in their financial knowledge. However, with exposure to financial topics much earlier, Gen Z is more "financially sophisticated than any previous generation was at their age."[19] It is imperative that Gen Z fully understands the impact of their financial decisions, because 44% of Gen Z holds some form of investment[20] and will continue to obtain wealth through inheritance from the baby boomer generation.[21]

Two reasons for this lack of confidence are the overwhelming volume of available information and the difficulty of discerning the credibility of investment advice.[22] The 1996 Communications Decency Act protects social media platforms against liability from third-party actions. Therefore, social media companies do not have a legal obligation to filter misinformation. "Extreme content," typically false information, can influence impressionable audiences and consequently can lead to greater consumer engagement. As reported in *Social Media Today* and shown in Exhibit 2, a study by Oxford University found that content from less reputable sources, "junk news," is four times more likely to be reshared on Facebook than content from trusted news outlets.[23]

Exhibit 2:
Average Facebook Interactions, Per Story
(Shares, Likes and Comments)
between April 5th and May 5, 2019



Source: Social Media Today.

This Oxford study classified "junk news" as "sources [that] deliberately publish misleading, deceptive, or incorrect information purporting to be real news about politics, economics, or culture."[24] Companies and individuals face difficulty differentiating between factual and false information because Facebook offers no criteria for what qualifies as "true" information. Without the legal or financial incentives to regulate misinformation, social media platforms present a challenge for individuals from both a consumption and financial education standpoint.

Gamification

Studies show that in a technologically advanced environment, the typical Gen Z attention span lasts only eight seconds on average, compared to millennials (those born between 1981 and 1995) with 12 seconds.[25] The shortened attention span appears to correlate with a dependency on digital devices and social media usage.[26] Furthermore, growing up with digital technologies, Gen Z considers digital gaming an integral part of life.[27] To educate this audience, financial services companies can provide information through gamification. While traditional educational methods have worked in the past, modern techniques such as gamification are more effective with a

technologically literate generation.[28] The Council for Economic Education, a U.S. nonprofit, endorses active learning methods such as gamification, since they promote greater understanding and learning.[29] Gamification as a learning device reduces stress levels and promotes greater engagement.[30] More specifically, gamified elements include "unlockable content," incentivizing learners to fulfill educational requirements before advancing to higher levels. Game mechanics, such as earning points, bartering, and taking turns, promote fun lessons that appeal to students. Badges, social perks, and rewards for "leveling up" provide entertainment value that encourages peer collaboration, resulting in greater academic performance.[31] These aspects of gamification foster engagement by increasing the time individuals interact with educational material.[32] Increased engagement correlates positively with student achievement.[33] This is especially useful by allowing students to practice real-world situations in a safe environment, free from real-world consequences.[34]

Despite the benefits of gamified education, however, it has limitations. Gamification depends on effective game design. Poor game design results in disengagement and significant confusion since it distracts students from the learning objectives.[35] Gamification can also result in addiction and overstimulation, sending students off track.[36] In addition, while many Gen Z students are technologically literate, many prefer audio or hands-on learning experiences over gamified ones. To accommodate the learning habits and styles of various Gen Z students, presenting educational material in mediums that contain visual, audible, or gamified features provides a virtual space where diverse types of learning styles thrive.

In terms of financial education, a study published in the *International Journal of Bank Marketing* found that video games about finance increased consumer confidence and knowledge.[37] The authors support the idea that social media platforms and financial institutions should utilize gamification to promote financial education and implement steps to mitigate potential risks.

How Does Social Media Influence Financial Education and Possibly Lead to Irresponsible Investing?

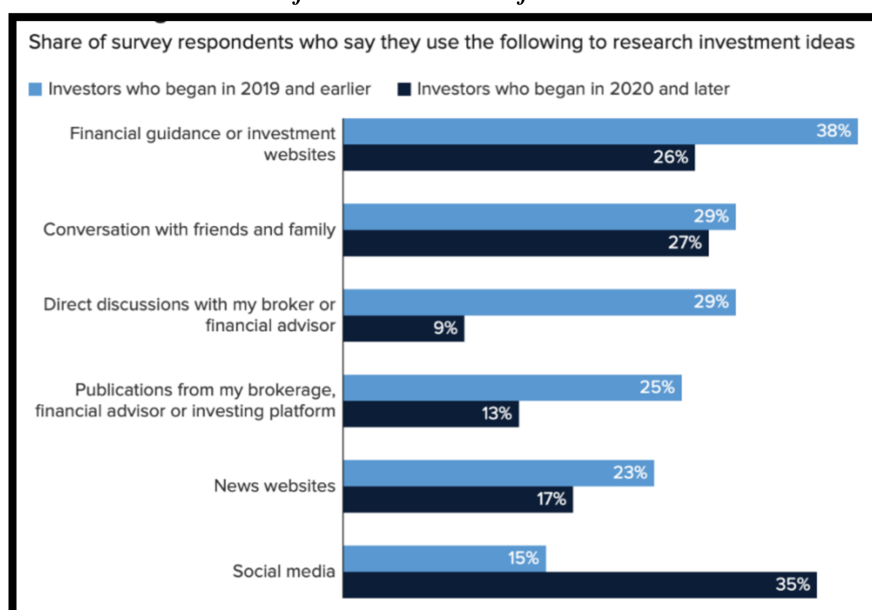
Gen Z dominates social media, averaging more than four hours a day on apps.[38] With so much time devoted to social media, Gen Z takes a determined interest in learning about finance from a younger age. They align themselves with the goals of being "financially free" and diversifying who participates in the investing world. Investment apps leverage the heavy usage of social media by marketing their services on different apps. As Exhibit 3 shows, to capture users' attention on social media, the online brokerage firm Robinhood provides non-investors a visual of the potential gains they could have if they just start with "$100 a month."

Exhibit 3:
Sample Investment Projection on Robinhood App

This ad fails to consider that viewers might not read the fine print, since it emphasizes only the positive effects of investors' money compounding in a theoretical manner. While the fine print states "hypothetical example for illustrative purposes only," a reader can presume that investing is as easy as putting in $100 a month without mention of compounding, diversification, or market conditions to reach $10,000 over nine years or $31,000 in 26 years. But even a person who invests $100 a month can potentially lose part of their principal over nine years, because $100 * 12 months * 9 years is actually $10,800, without compounding, far more than the $10,000 that appears in the advertisement. The fine print, likely included for legal reasons, is very difficult to read and appears as if the company hopes people don't read it. Robinhood's intended message may be received inaccurately by potential clients, especially with Gen Z members with short attention spans (eight seconds on average)[39] and preference for quick information. The company markets itself as helping the average person reach a specific monetary goal without providing effective financial education for first-time investors.

Given the limited help and resources that Robinhood and other brokerage platforms provide, Gen Z investors often turn to social media in search of financial education. CNBC found that investors who began trading in 2020 or later were 20% more likely to use social media to research investment decisions than investors who started in 2019 or earlier, as Exhibit 4 shows.

Exhibit 4:
Sources of Investment Advice for New Investors



Source: CNBC / Momentive Invest in You survey. Momentive surveyed 5,523 U.S. adults between August 4, 2021 to August 9, 2021; of those, 45% are investors.

These new investors are also less likely to utilize their relationship with investment websites, friends or family, financial advisors, and news websites, highlighting a demographic shift in investing.[40]

While Gen Z's connection to social media can improve their investment experience, there are still several risks to these fast-paced digital environments. Investors who use social media to make financial decisions could fall victim to the herd mentality. According to the Corporate Finance Institute, herd mentality bias refers to investors' tendency to follow and copy what other investors are doing, based on the assumption that the other investors have done their research.[41] Behavioral finance theory attributes this conduct to the natural human tendency to be swayed by societal

influences that trigger the fear of being alone or missing out. People are more likely to follow the masses, believing that the majority are correct. "Herding" is very prominent on social media, where there is a "distorted perception of reality" because of its fast-paced nature.[42] A good case in point is the herding behavior exhibited during the meme stock phenomenon, when a company's shares quickly rose in price due to the attention of a dedicated online following, instead of due to the company's performance. Meme stocks have gained popularity starting in 2020 through discussion threads on community forums such as Reddit and social media platforms. For example, in January 2021, a Reddit thread with more than three million subscribers set off a dramatic increase in GameStop's stock price. According to Sprout Social, there were 1.6 million tweets on Twitter, 82,000 Reddit mentions, and 1,465 YouTube videos about GameStop between January 20, 2021 and January 27, 2021.[43] While "trending" investing topics like meme stocks make people aware of what is happening in the stock market, they also encourage irresponsible investing behaviors.

TikTok Analysis

To gain further insights into the potential impact social media has on young investors, we analyzed TikTok, the most downloaded app worldwide, in the first quarter of 2022.[44] Gen Z makes up 60% of TikTok users. Therefore, this analysis can provide an overall review of how professional asset managers have used the social media platform to connect with the Gen Z audience as well as the broader investing public. To compare two distinct groups (asset managers and non-asset managers), we determined the engagement level for videos posted by summarizing the number of views, likes, and favorites these videos garnered on TikTok. We sampled 50 videos made by non-asset managers (NAMs), who are influencers, content creators, individual investors, and other independent creators, and the entire population of 51 videos created by the top 15 asset managers (AMs) as determined by total assets under management worldwide. We took a small sample of the total number of videos about investment advice from NAMs under the TikTok hashtag #investing and the population of videos created by AMs. As of July 2022, of the world's 15 largest AMs, only three have an active TikTok account and only two have posts: BlackRock and Fidelity (for a combined total of 51 videos). As of this writing, there are over 7.4 billion views of TikTok videos with the hashtag #investing, although there is no evidence of the exact number of videos created using that hashtag. We took a sample of the overall #investing videos on TikTok (50) and compared it to the entire population of asset managers' TikTok videos (51) to compare how each attracted and engaged its audience. We found that asset managers do not engage or create impactful content on one of the most influential social media apps for the next generation of investors. Instead, audiences consume their investing tips and financial education from content creators and influencers—NAMs.

Exhibit 5 compares the differences in views between TikTok videos made by AMs and by NAMs. On average, NAMs have one million more views than AMs. For AMs, few videos reach one million views. Those that reach one million views are considered outliers. However, for independent creators, the median number of views is one million, meaning that 50% of the videos receive more than one million views. Furthermore, the figures for the interquartile range (the middle 50%) for the views of NAMs' videos fall between ~500,000 and ~1,750,000. In contrast, for AMs' videos, the interquartile range is only between 10,000 and 12,000 views. Out of the 7.4 billion views of TikToks with the hashtag #investing, less than 0.5% of videos are created by asset managers. This observation illustrates that TikTok viewers are consistently more engaged with content created by NAMs than by AMs. Additionally, most views of investment advice on TikTok belong to NAMs.

Exhibit 5:
TikTok Views, Asset Managers vs. Non-Asset Managers

Note:

The Y axis is scaled disproportionately due to sizing measures to satisfy the box plots. Another important note is that five outliers from each group (NAMs and AMs) could not be seen on this graphic due to being above four million views. Each group has a horizontal black line on the chart that signifies the median number of views. The black vertical lines signify the length of the box plot whiskers for each group. The black dots for the AMs are outliers, as they fall beyond the interquartile range (IQR) and the box plot whiskers. The formula to find the outliers X is (1.5(IQR) + 75th percentile > X) or (25th percentile – 1.5*(IQR) < X).*

This trend can be seen with other engagement factors, such as likes and favorites. As Exhibit 6 shows, on average NAMs gain more likes from their audiences on TikTok than AMs do.

Exhibit 6:
TikTok Likes, Asset Managers vs. Non-Asset Managers

Note:

The Y axis is scaled disproportionately due to sizing measures to satisfy the box plots. Five outliers above 750,000 views for NAMs could not be included.

This trend can be seen with other engagement factors, such as likes and favorites. As Exhibit 6 shows, on average NAMs gain more likes from their audiences on TikTok than AMs do.

Similarly Exhibit 7 highlights a comparison of the number of “favorites” for AMs and NAMs. On average, independent creators (NAMs) receive more favorites than AMs. This follows the trend of AMs lacking audience engagement with their TikTok videos.

Exhibit 7:
TikTok Favorites, Asset Managers vs. Non-Asset Managers

Note:

Y axis is scaled disproportionately due to sizing measures to satisfy the box plots.

Overall, these three charts illustrate the accessibility of TikTok to Gen Z and the app's potential to educate viewers about investing. The data shows that in general, compared to AMs, NAMs receive far more attention and engagement from users. Regarding the credibility of creators, NAMs often do not specify their credentials, and it is difficult to verify the content of their posts. If AMs reach the same number of viewers as NAMs, their financial education content could reach a larger audience of Gen Z who use TikTok. Additionally, due to the high demand for professional investing guidance on social media, highlighted in this TikTok dataset, this platform shows promise as a way for asset managers to further publicize their financial education content.

With apps like Robinhood encouraging investing, the trust between traditional institutions (professional asset managers) and Gen Z needs to be established. Research shows that stock market investors who trade frequently do so at their own peril since trading frequently can reduce returns. These frequent traders tended to be males and young people (Gen Z), part of the 10% of investors that trade 69 times a year or over five times a month.[45] Furthermore, as a result of the lack of financial education available on mediums dominated by Gen Z, young investors tend to make rash decisions. The steps to educate individuals about the dangers of trading frequently can be taken effectively by directly targeting young investors. It is important that asset managers create content that reaches the next generation, work on implementing accessible financial education services, and become more active on social media to provide credible financial education content. Many online platforms utilize gamification to attract Gen Z since gamification can engage and motivate. With only 28% of people feeling motivated when using non-gamified apps, this can be a key area of focus for asset manager firms seeking to improve their online services.[46]

How Does Gamification Affect Financial Education and Investing Behaviors?

With the development of gamified investment apps and financial education platforms, more people, especially Gen Z, have become more engaged in investing. While game-like features can have negative influences, such as an increase in irresponsible investing behaviors, we believe gamification can be useful in engaging more people to learn about responsible investing and make informed trading decisions.

Gamified Features and Engagement in Investing

Since investing is becoming much more accessible and affordable, investors, especially Gen Z, are reported to use a wide range of investment apps to engage in trading. The five most used investment apps per month are shown below in a Motley Fool survey of 1,400 people in April 2021,[47] with Robinhood being the most popular, as Exhibit 8 shows.

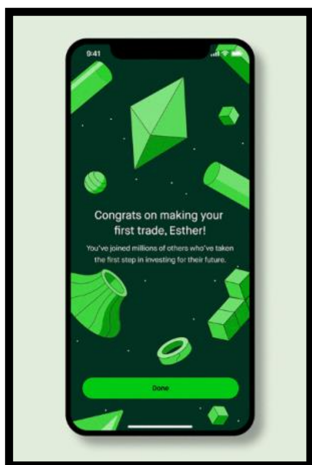
Exhibit 8:
The Five Most Popular Investing Apps

WHICH APPS OR SERVICES DO YOU USE ONCE PER MONTH OR MORE?		
App / Service	Gen Z (ages 18 to 24)	Millennials (ages 25 to 40)
Robinhood	40%	36%
Fidelity	22%	26%
Acorns	25%	23%
Stash	30%	19%
Vanguard	15%	19%

Source: The Motley Fool

The results of this survey raise an important question: how has Robinhood become more popular among retail investors than investment apps from large asset managers such as Fidelity and Vanguard? With a quick sign-up process, offers to "get a free single share of stock," and a "simple, elegantly designed platform,"[48] Robinhood offers far more incentives, ease of use, and accessibility for new investors than traditional providers ever have. Another factor that has largely contributed to the increasing engagement of these investors is gamified features. New users are drawn to invest on Robinhood's app because of the experience. Specifically, they can be entertained and feel a sense of accomplishment when colorful geometric graphics pop up to congratulate them for making a trade, as Exhibit 9 illustrates. In other words, people can become more interested in investing after each trade—similar to completing each level in a video game. More important, it is the user interface that delights investors whenever they open the app. With visually appealing designs including "emojis, push notifications, digital confetti and backslapping affirmation emails,"[49] Robinhood seems more like a "thrill-inducing video game rather than a sober investment tool."[50] Additionally, Robinhood can make users feel more interested in trading through its simple and minimalistic design, which "resembles rating a YouTube video,"[51] unlike, say, the complex appearance of a traditional investment site such as E-Trade, as shown in Exhibit 10.

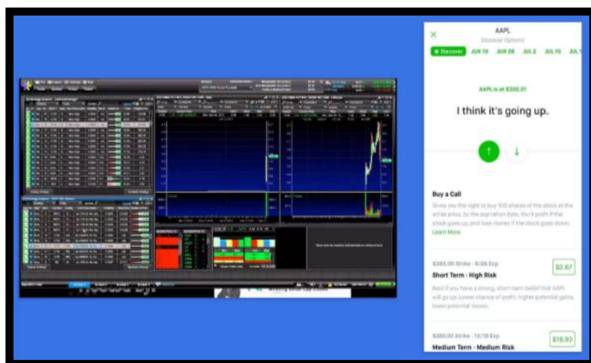
Exhibit 9:
Robinhood App, with Eye-Catching Design



Source: Bloomberg[52]

Exhibit 10:
Comparison of E-Trade and Robinhood Interfaces

The options trading interfaces visible to clients on E-Trade (left) and Robinhood (right).



Negative Effects of Gamification

More frequent investing as a result of the positive experience that gamification provides does not mean that people, especially Gen Z, become educated and informed enough to invest responsibly. In our opinion, irresponsible investing is likely to increase with the use of gamification on investment platforms. Indeed, with the reward system, game-like design, and interface of the app, investing seems to become a game where Gen Z may find investing real money (which can be gained and lost through trading) the same as winning or losing points while playing a video game. The danger is that these young individuals might overlook the real risks associated with investing, such as loss and decline of capital, while they enjoy collecting rewards on the app. Additionally, gamification can allow Gen Z to treat investing as a fun hobby,[53] which can result in trading in a moment of boredom for entertainment without conducting thorough research. To illustrate, whenever a congratulatory pop-up appears following a trade on Robinhood's app, as Exhibit 9 shows, Gen Z investors may be motivated to execute as many trades as possible, which is likely to yield worse returns or even losses, especially after making poor trades.[54] Therefore, gamification on investment apps is likely to allow people to invest irresponsibly.

Gamification and Financial Education—A New Hope?

Despite the negative aspects, we believe that gamification on financial education platforms can engage more individuals, particularly Gen Z, to learn how to invest responsibly. In fact, some asset managers have been increasingly involved in providing financial education with game-like features to encourage Gen Z to become more educated about investing. To illustrate, one example is the education program "How Not to Suck at Money" developed by Invesco. he program provides users with a 90-minute interactive learning experience to gain insight into budgeting and investing through game-like features such as "choice-based game play" and "solving various money dilemmas navigating through a 3D semi-surreal college town."[55] Additionally, Invesco has actively promoted the program through social media (such as Instagram[56]) and on the news (through websites such as Forbes[57] and Markets Insider[58]) so new Gen Z investors can quickly find it with a Google search. Indeed, this education platform is a promising model for other asset managers to follow. In this example, Gen Z and others seeking education can be both entertained and motivated to learn how to invest from credible sources of information developed by asset managers.

Exhibit 11:
Invesco's "How Not to Suck at Money"

Source: Markets Insider.

If more asset managers create interesting financial education content with gamified features and publicize it on social media, Gen Z investors are more likely to understand how to invest responsibly.

Recommendations

Social media has become one of the primary places Gen Z investors interact with one another to receive and share information about insights, perspectives, and trends in financial markets. As the influence of social media becomes more pronounced in the investing decisions of Gen Z investors, the repercussions of accessing financial education through social media platforms become clearer: irresponsible investing.

Importance of Financial Education through Social Media

Asset managers have a fiduciary responsibility to provide information and results that put their clients first. Today, these firms have an opportunity to engage with Gen Z investors by becoming increasingly involved in their financial education through social media platforms. Gen Z investors need to seek out credible sources of financial information instead of relying on popular videos created by potentially disreputable sources. Since social media is typically how Gen Z consumes their information, Gen Z approaches personal finance and financial education through social media engagement. This area of technology is evolving rapidly, and asset managers should accelerate sharing information through mediums beyond printed-out brochures or PowerPoint decks. For instance, BlackRock has published numerous articles whose intent is to help people become financially literate. Though a significant proportion of this information appears on BlackRock's main website, BlackRock's social media platforms do not actively promote it. This means that Gen Z investors may not be aware of the breadth of resources BlackRock makes available. Hence, BlackRock could reach the next generation of investors by promoting its content and itself on social media.

Asset management firms are behind in sharing financial information and educational content on social media platforms. They can begin to establish themselves as credible, engaged, and reliable sources of financial education by posting infographics that promote financial literacy and pertain to current economic events. These posts need to be regularly uploaded, and the content needs to be consistently well-researched, lucid, and relevant to the Gen Z audience. Asset

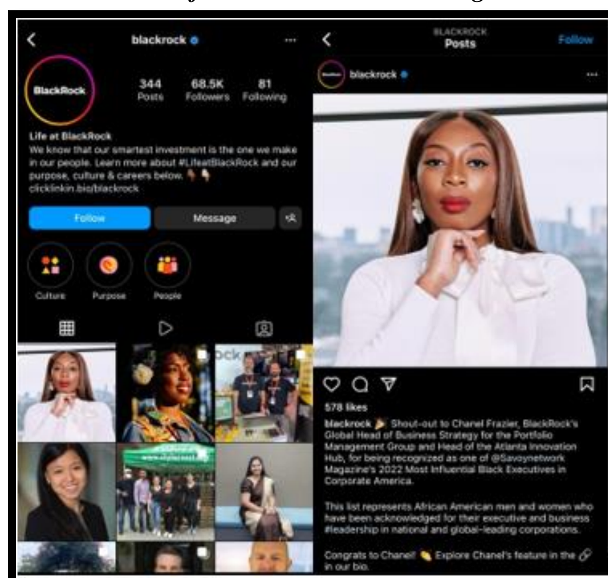
managers can further connect with Gen Z investors while improving their own brand image by keeping up with general social media trends, using hashtags (such as #investing, #personalfinance, #crypto) that attract interested investors, responding to follower comments, and interacting with other creators' posts. Asset managers can also team up with influencers such as athletes, artists, or other financial content creators to promote themselves onto a platform that serves the next generation of investors. This opportunity for collaboration has the potential to engage groups of people who are typically underserved, such as ethnic minorities and those with lower socioeconomic status, while maintaining their existing base of clients.

By promoting their information on social media, asset managers can establish their credibility and brand with Gen Z investors. Asset managers have traditionally focused on serving those who already have wealth, not necessarily those interested in accumulating wealth from a lower base.[59] Gen Z will be their next clientele as their wealth grows over time and as they receive wealth through inheritance.[60] The credibility of asset management firms on social media is necessary due to the disconnect between Gen Z investors and asset managers' traditional focus. Potential clients will continue doing business with the asset managers who help them along their investment journey and those who help with Gen Z investors' financial literacy. Asset managers should take advantage of social media and gamification to educate potential future clients, since this is a prime opportunity for firms to attract and retain new investors.

Increasing Social Media Presence

Currently, the world's five largest asset managers (by AUM) are BlackRock, Charles Schwab, Vanguard Group, UBS, and Fidelity Investments. All five have Instagram, Facebook, and Twitter accounts. Only a small proportion of their followers engage with the content these companies post. Their engagement on these platforms needs to be improved. As Exhibit 12 shows, there is a significant gap between the number of followers BlackRock has on Instagram and the number of likes a recent post received (as of July 21, 2022). Specifically, only 0.8% of BlackRock's Instagram followers liked this post in Exhibit 12. BlackRock has trouble getting engagement on TikTok and Instagram.

Exhibit 12:
Screenshot of Recent BlackRock Instagram Post



Of the five largest global asset management firms, only BlackRock and Fidelity have active TikTok profiles that appear in the top search. Nevertheless, their accounts are irregularly updated, with no consistent schedule of uploads, meaning that months can go by without any new posts. Since TikTok is increasingly becoming a popular destination for Gen Z to consume information, asset managers should increase their presence and impact within this app, and on other social media platforms, to connect with their future clientele. To illustrate the significance of social media platforms, we compared TikTok videos from financial content creators who are asset managers and videos from those who are not. In Exhibit 13, we compiled statistics regarding the engagement these two groups of creators received from viewers. On average, videos from asset management firms lacked the level of engagement of videos sourced from non-asset managers. The drastic differences between the mean and median of the asset managers' TikTok views show that only certain videos have large viewership and engagement, and most other videos have few or no views. This discrepancy in views highlights the lack of consistency in engagement of content due to inconsistent and unengaging content from asset managers. They can increase viewership by hiring and collaborating with TikTok creators, athletes, and other social media creators to get their message out in a professional and engaging way that is understandable to their audience.

Exhibit 13:
TikTok Engagement for Financial Content Videos

WHICH APPS OR SERVICES DO YOU USE ONCE PER MONTH OR MORE?			
		Asset Managers	**Non-Asset Managers**
Views:	Mean	797,356	1,792,308
	Median	**11,600**	**1,200,000**
Likes:	Mean	9,377	246,222
	Median	**178**	**92,450**
Favorites:	Mean	235	10,534
	Median	**9**	**3,761**

It is important for asset managers to have a presence on all social media platforms where Gen Z consumes information as well as to create engaging content to further cement their fiduciary role. Within social media platforms, asset management firms need to tailor their content to the needs and concerns of Gen Z. For instance, asset managers should focus more on creating educational content about environmental and social investing to attract Gen Z's attention, since members of this generation are "intent on ensuring that they invest in sustainable companies."[61] As previously mentioned, asset managers need to contribute to the financial education of Gen Z, whether this is by improving financial literacy or keeping them updated on financial trends. Not only should companies provide this information, but they should also ensure that the content is presented in an engaging manner with easy-to-understand infographics and other means in which information is easily consumable and shared through multiple mediums (social media). Critical for building relationships with Gen Z are consistency and brevity. By regularly contributing and presenting short and consumable insights into relevant topics, firms can increase the likelihood of investors returning to their page to learn more.

Creation of Digital Financial Education Programs

Asset managers can create their own digital financial education programs such as Invesco's "How Not to Suck at Money" learning experience that can further create a connection between asset managers and potential clients. By incorporating gamified features into these programs, asset managers will not only encourage Gen Z investors to learn more about finance and investing but also increase the likelihood that they will be more engaged with the educational content itself. For instance, an education program that combines gamified learning with a rewards system that promotes financial literacy and a stock simulation game where Gen Z investors can practice trading without real-life consequences can give people the confidence and skills needed to start investing. Asset managers can then promote their own education programs on social media to create more well-informed and educated investors. If more asset managers could get involved in this virtual gamification space to provide more in-depth research and learning programs for Gen Z to use, it could open the door for future opportunities to work with and bring in new clients.

Ensuring that Gen Z and other investors receive adequate financial education to make responsible investment decisions requires cooperation from both investors and asset managers. By promoting financial education content on social media as well as creating gamified financial education programs, asset managers can positively impact the financial education of Gen Z and all investors, which should reduce the influence and presence of unreliable financial content on social media. Both parties, as well as society, benefit from well-informed and educated investors, thus promoting financial education is essential. Whether financial education content is provided through social media or through gamified apps, what asset managers need to focus on is evolving with the times. By becoming active in Gen Z's investing journeys, asset managers can become trusted figures for Gen Z investors throughout their lifetimes and beyond.

Authors' Note

We approached this paper from Gen Z's perspective. Gen Z's access to technology will change expectations and implications of future market conditions. Beyond access to markets, technology influences the market in areas such as blockchain and AI. Fintech is constantly improving and very complicated. Therefore, our analysis may change as technology and market conditions adapt. We recommend firms conduct research and provide further financial education on this topic. The authors thank our mentors, Kaitlyn Fischer and Robert Job, for their guidance and support through our internship at Sapere Aude Consortium.

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