

Influence of social media on the stock market: Part 1. A brief analysis

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Abstract: The world of the stock market is an intricately complex financial ecosystem that demands years of dedicated study to comprehend fully. It relies on risk mitigation practices and fundamental theoretical techniques to engage in speculation regarding stock and cryptocurrency fluctuations. However, this realm is progressively becoming more inclusive, with accessibility expanding beyond traditional educational barriers. Technological advancements, coupled with the ease of entry into this domain and the information-disseminating power of social networks, contribute to a rising number of individuals participating in this financial movement. What makes this evolution disruptive is that the same tools facilitating accessibility also exert influence on the way market trends unfold. This paper delves into the escalating impact of social media within the financial sphere, emphasizing the heightened accessibility to information and market involvement facilitated by platforms like Twitter and Reddit. It sheds light on how social media plays a pivotal role in market manipulation, as evidenced by phenomena such as the r/wallstreetbets subreddit, where meme-based strategies were employed to inflate the prices of stocks like GameStop. The study explores the utilization of social media by influential figures, exemplified by Elon Musk, who leverage their platforms to sway market movements. Additionally, this paper addresses instances of misinformation, such as the confusion surrounding Virgin Galactic's shares following a SpaceX failure and the introduction of "AGUA" in the Mexican stock market, leading to widespread misunderstandings. The paper extends its examination to the effects of social media on cryptocurrencies, highlighting how comments from public figures can significantly impact the prices of Bitcoin and Dogecoin. Overall, it underscores the imperative need for adaptation to these changes in the digital financial paradigm.

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1. Introduction

When discussing the stock market, the typical mental image involves individuals in suits, dynamic charts representing transactions worth billions of dollars, and a well-established industry [1]. What often goes unnoticed is the significant number of people participating in these markets without a thorough understanding of their functioning. Social media has drawn millions into this financial realm, enticing them to pursue "financial freedom", seeking the ability to maintain a desirable lifestyle, by encouraging them to "invest" their money in stocks or cryptocurrencies as a purported solution to life's challenges. [2,3].

The impact of social media on the stock market has emerged as a significant and timely subject due to the profound influence these platforms wield over financial markets

and investment behavior. Social media platforms facilitate the rapid dissemination of financial information, news, and market trends. Investors can access real-time updates and analysis, democratizing access to market-related information. This accessibility has reshaped the speed at which market news is incorporated into trading decisions. The surge in retail investor participation, often organized through online forums and communities, has disrupted traditional market dynamics. Social media platforms like Reddit, Twitter, and others have empowered individual investors, leading to instances where collective retail actions have influenced stock prices, challenging the dominance of institutional investors. Social media transcends geographical boundaries, creating a globally interconnected market. Events, discussions, and trends on social media can have swift and widespread repercussions, highlighting the interconnected nature of modern financial markets.

Beginning in 2020, the onset of the COVID-19 pandemic prompted a digital surge, compelled by the restrictions it imposed. With the necessity to stay productive and maintain a semblance of normalcy, people turned to the internet and information systems. This marked the initiation of a global digital transformation. By 2021, Mexico witnessed a notable increase in its digital landscape, with 88.6 million Internet users, encompassing 75.6 percent of the population aged six years or older. This figure reflected a substantial rise of 5.6 million from 2020, indicating a growth of 6.75 percent [4].

According to a survey conducted by INEGI in collaboration with the IFT, the average daily internet usage in Mexico for 2021 was 4.8 hours, a significant uptick from the 3.2-hour average recorded in 2017. Notably, young individuals between 18 and 24 years old exhibited a higher usage, clocking in at 6.3 hours per day. This data underscores the profound impact of the digital push triggered by the pandemic, shaping new patterns of connectivity and online engagement.

Due to the surge in internet usage, particularly on social networks, information systems have been accumulating vast amounts of data across these platforms. This has led to the development of increasingly specific algorithms tailored to users, actively encouraging them to continue consuming specific content and products. According to AMVO (2022), the number of active users on Mercado Libre in Mexico alone witnessed an 88% increase from 2019 to 2021, indicating a substantial addition of 65.3 million new users and a growing demand through these online platforms [5,6].

In response to the circumstances imposed by lockdowns and increased online activity, advertising promotion companies diligently strategized to capitalize on the burgeoning influx of new internet users. This period not only saw a surge in individuals entering the realm of e-commerce but also marked the emergence of an entire financial ecosystem promising substantial opportunities.

This study aims to dissect the transformative impact of social media on the stock market, unraveling its multifaceted influence on global information exchange and cultural dynamics. It navigates the evolving landscape, emphasizing the democratization of information, investor empowerment, and the imperative for regulatory adaptation. By projecting the trajectory of social media's impact, the study offers a comprehensive guide to understanding and navigating the intricate dynamics of the stock market in the current digital age.

2. Method

This paper delves into the escalating impact of social networks on the stock market, emphasizing the heightened accessibility to financial information and market participation propelled by platforms like Twitter and Reddit. It underscores the pivotal role of social media in market manipulation, exemplified by the *r/wallstreetbets* subreddit, whose meme-based strategies influenced the prices of stocks, including the well-documented case of GameStop. Additionally, the paper examines instances of disinformation circulating on social media, such as the confusion surrounding Virgin

Galactic's shares post a SpaceX failure and the introduction of "AGUA" in the Mexican stock market. The impacts on cryptocurrencies, particularly Bitcoin and Dogecoin, are scrutinized, shedding light on how comments from public figures can significantly sway their prices.

While investigating the influence of social networks on the stock market, a comprehensive approach was employed. Initial data gathering involved internet search engines to identify pertinent sources discussing the relationship between social networks and financial markets. Subsequently, reliable sources, including reports from financial institutions, academic studies, and analyses by economics and finance experts, were consulted.

Integral to the analysis was the review of statistics and economic data, incorporating relevant economic data and statistics supporting the claim that social media exerts a significant impact on the markets. Furthermore, an in-depth examination of case studies and specific events, such as the r/wallstreetbets and GameStop episode, was conducted to elucidate the intricate ways in which social media influences the stock market.

Active monitoring of social media platforms was employed to discern patterns related to investment and finance trends. This also included tracking current news and events that might have influenced the dynamic between social media and financial markets. The analysis of comments from influential public figures, exemplified by figures like Elon Musk, played a crucial role in assessing how their statements might have influenced market movements. Specific data on cryptocurrencies, including Bitcoin and Dogecoin, were obtained to facilitate an in-depth analysis of their behavior about social media.

Finally, a meticulous review of official reports and publications from government and financial institutions complemented the information collected, providing a robust foundation for the paper's findings.

3. Results

This section is divided by subheadings. It provides the obtained results, their interpretation, as well as the conclusions that can be drawn.

3.1. The Stock Market

Stock markets, in their formalized structure, trace their roots back to 1602 when the first official stock exchange was established in Amsterdam. This marked the inception of the stock market system, with the Dutch East India Company being the inaugural listed entity [7]. However, it wasn't until the crash of 1929 and the subsequent depression that the world experienced the profound repercussions of stock market movements. Another significant global financial crisis transpired in 2008, leaving lasting impacts not only on consumption and saving habits but also permeating popular culture and the collective mindset. The aftermath of the 2008 financial collapse was evident in various forms of media, including cinema, television, and journalism, all of which captured and conveyed the magnitude of the crisis [7,8]. The repercussions of this event have not faded away entirely and seem poised to resurface under the right conditions. The potential for recurrence within a relatively short timeframe can be mitigated with the availability of necessary tools and means, offering a prospect for prevention and proactive intervention.

In today's landscape, social media plays a pivotal role in the rapid and dynamic dissemination of information. The communication capabilities fostered among users enable timely and accurate awareness of numerous events. Social media encompasses diverse types, ranging from massive platforms to those hosting smaller, niche communities. The latter typically include blogs or forums, fostering discussions on specific topics without inundating users with excessive advertising or content solely promoting consumerism [9,10].

These smaller communities serve as spaces where individuals, whether specialists or general enthusiasts, converge to engage in conversations about specific subjects, sharing and debating ideas [11]. Importantly, these platforms not only facilitate discussions but also provide a space where groups can unite with a shared purpose, collaboratively working toward common goals.

This paper mentions the use of internet search engines and active monitoring of social media platforms, it is important to note that information is collected and discussed with that presented in Mexico. For more demographic information it is possible to see <https://www.inegi.org.mx/temas/directorio/>. It is important to know that. *Social media sentiment can be volatile and influenced by various factors, including viral trends, which might not necessarily reflect accurate or reliable information about market movements.* On the other hand, this paper discusses qualitative information about the cryptocurrency market from the point of view of the information presented on the web, giving a global vision and perception by internet.

3.1.1. Stock Market Manipulation on Social Media

In 2021, the r/wallstreetbets Subreddit, known for its bold stock market trading strategies, gained unprecedented attention for orchestrating a groundbreaking move. Initially comprised of individuals without formal financial expertise, this forum engaged in speculative activities involving stock call and put options, characterized by high-risk maneuvers [12]. Despite the lack of foundational investment knowledge and risk management techniques, participants relied on following trends and memes as the basis for their approach.

What began as a space for amateur financial speculation gradually rose to prominence on Reddit, ultimately attaining global recognition. This phenomenon gave rise to a community of young investors guided by emerging trends on social media. [Figure 1](#) showcases the isotype symbolizing the Subreddit, an emblem of this innovative wave of investors.

The distinctive aspect of this group lies in its unconventional methods and deviation from traditional investment practices. The influence of r/wallstreetbets extended beyond the confines of Reddit, spotlighting the increasing convergence between the dynamics of social media and financial markets. This episode not only signifies the transformation of online communities into consequential players in finance but also underscores the substantial impact that trends and memes can have on the investment decisions of a new generation of market participants. [Figure 1](#) illustrates the isotype representing the subreddit [13].



Figure 1. Understanding WallStreetBets and Its Impact on Stock Market Companies. Source: (Braddick, 2021)

On January 22, 2021, r/wallstreetbets agreed to inflate GameStop's stock prices, creating buy orders with all followers of this subreddit. This came after a comment made by Citron Research predicting that the stock's value would fall. By January 26, the stock had grown 600% [14]. That same day, Elon Musk tweeted a link from the r/wallstreetbets

subreddit causing millions of people to join the project. The subreddit went from having 2 million followers on January 24 to having 13.6 million on January 29, 2021. Days later, people in the community who had become very wealthy from having joined the movement early on, began paying for billboards to promote the movement throughout the United States, thus creating an even larger community.

Bloomberg News commentator Matt Levine drew parallels between the recent situation and the 2012 short squeeze, wherein the Securities and Exchange Commission accused Philip Falcone and Harbinger Capital of orchestrating an illegal short squeeze to manipulate bond prices. It's important to note that Levine's view is subjective and may not necessarily align with the objective reality or the stance of Bloomberg News. The surge in share prices resulted in substantial financial losses for investment funds that had taken short positions (betting against the stock's value) [15].

Amidst the Gamestop event, various U.S. media outlets characterized it as a rebellion against the established system. Even Jaime Rogozinski, the creator of r/wallstreetbets, remarked that the movement achieved what the Occupy Wall Street movement could not [16]. This latter movement had aimed to protest against the perceived exclusion of ordinary individuals from participating in the stock market

Under these conditions, many influencers joined this type of trend. As mentioned before, Elon Musk was one of the main indirect drivers of these movements. With a few simple tweets he was able to manipulate the pulse and direction of these movements, especially that of GameStop, since in the past Elon Musk had been the target of large firms seeking short positions against his electric vehicle company Tesla.

On August 7, 2018, Elon Musk tweeted that he was considering taking Tesla private at \$420 a share. This after speculation was being made of his intention to make it private. However, this tweet was just a joke alluding to the "4/20" which is a popular day for cannabis enthusiasts as that day celebrates marijuana culture, which Elon Musk openly claimed to be a part of. Shares rose 11% today, although the SEC fined Elon Musk \$20 million on fraud charges and Tesla on another \$20 million. He then tweeted again that the fine had been worth it. [17] Figure 2 shows an image of the famous businessman [18].



Figure 2. Elon Musk paid \$20 million to the U.S. regulator for a complaint about his tweets.
Source: (Ortín, 2021)

Elon Musk, by openly endorsing the world of cryptocurrencies, has introduced a level of uncertainty and volatility into their share prices. According to BBC (2021), Bitcoin experienced a 9% surge in 2021 following Tesla's announcement of a \$1.5 billion investment and the decision to accept cryptocurrency payments for their cars [19]. Subsequently, Bitcoin's value increased approximately 33%, only to plummet from its peak of over \$60,000. This decline occurred amid regulatory actions in China and a perceived waning enthusiasm for the currency from Musk. Tesla's stock, following its bitcoin purchase, saw a decline of around 30% in 2021 [20]

The democratization of access to financial information through social media platforms like Twitter, Reddit, and StockTwits has been instrumental. Investors now have the ability to share news, analyses, and opinions in real-time, accelerating the pace of information dissemination. This, in turn, can directly influence a company's actions, and the viralization of news has the potential to cause unexpected fluctuations in stock prices. However, the ease with which information is shared also brings inherent risks. Misinformation and manipulation campaigns can distort the financial reality, leading to investments based on rumors rather than solid fundamentals. This can result in heightened volatility and, in some instances, significant financial losses.

In the realm of businesses, social media provides a direct insight into the lives of their shareholders and customers. Reputation management, in this context, has attained heightened significance, given that a mere post can wield considerable influence over brand perception and, consequently, its market value. Leveraging social media platforms, companies have not only honed their reputation management but have also found a more effective means to communicate their business strategies and financial results. This proactive engagement establishes a direct and interactive channel with investors, fostering a more transparent and communicative relationship between businesses and their stakeholders.

3.2. Misinformation on social media

The Virgin Galactic case serves as a stark example of the impact misinformation on social media can have on businesses. Founded by Richard Branson in 2004, Virgin Galactic emerged as a spin-off entity of the Virgin Group—a conglomerate boasting 400 companies across diverse industries. Branson, initially a music entrepreneur, achieved notable success in online record sales, ultimately leading to the establishment of Virgin Records. Subsequently, he divested from the record label to concentrate on the tourism sector, which subsequently became the cornerstone of his business endeavors [21].

The influence of misinformation on social media is evident in its ability to distort the public perception of a company, as witnessed in the case of Virgin Galactic. Figure 3, showcasing a concept for a Virgin Galactic commercial spaceplane in 2019, illustrates the company's commitment to innovation and its aspirations in the space tourism sector [22].

However, social media can be fertile ground for the spread of misinformation. In the context of Virgin Galactic, misinformation could manifest itself in the distortion of achievements, technical capabilities, or future expectations. The rapid spread of erroneous data can influence the perception of investors and the general public, leading to market volatility and affecting the company's reputation. This case underscores the importance of information management in a digital environment. Companies should be proactive in correcting misinformation and transparently communicating their achievements and goals to counteract potential adverse effects on their valuation and market positioning.



Figure 3. Virgin Galactic unveils its spaceport for commercial suborbital flights Source: (Transponder 1200, 2019)

Both Elon Musk's SpaceX and Jeff Bezos' Blue Origin are actively pursuing space tourism, a vision shared by Virgin Galactic, which has made significant strides in this direction. Notably, Virgin Galactic achieved its first manned civilian trip to space on August 11, 2023, resulting in a notable positive impact on its stock value. According to Investing.com (2023), shares of Richard Branson's company surged by 29.7% to \$5.3, reaching their highest level since early March of the same year [23]. This surge was attributed to the live launch broadcast of its first manned spaceflight, shared on Twitter and YouTube. It's noteworthy that these events occurred during the trading hours of the New York Stock Exchange on a Friday.

Conversely, SpaceX, currently collaborating with NASA, has solidified its position as a prominent private aerospace company. Elon Musk envisions colonizing Mars by 2050, with the ambitious goal of transporting at least one million people [24]. However, the pervasive dissemination of information on social networks has created a climate of confusion and misinformation around these space-focused companies. One such misconception involves the misunderstanding that SPCE (Virgin Galactic) is a publicly traded company, while SpaceX is a private entity. This underscores the importance of accurate information dissemination to ensure a clear understanding of the distinct characteristics and statuses of these pioneering space ventures.

On February 17, 2021, Elon Musk successfully launched a batch of Starlink satellites for his satellite internet network. The launch of the Falcon 9 rocket was successful and the satellites were placed in orbit. As is customary at SpaceX, it was time to land the rocket on a marine platform. For the first time in 4 years, SpaceX failed. SpaceX lost the Falcon 9 booster and failed to land at sea as can be seen in Figure 4. The last time it had happened was in June 2016 [25]. Consequently, Virgin Galactic was affected by a mistake made in a completely different company. Different visions, different shareholders, but with the only common goal of bringing civilians into space. According to Investing.com (2020) on February 17, SPCE (Virgin Galactic) shares opened the market with a maximum of \$38.72 per share, but after the success of SpaceX's Falcon 9, SPCE shares fell 5.65%, closing at \$30.30 per share [26].



Figure 4. SpaceX rocket explodes upon landing, after completing a successful mission. Fuente: (BBC News Mundo, 2016)

3.2.1. Water case

A similar occurrence transpired in Mexico when water became a tradable commodity on the stock exchange. Water has joined the ranks of commodities listed on Wall Street, alongside resources such as oil and gold. This precious natural resource is tied to the Nasdaq Vels California Water Index (NQH2O), serving as an indicator for water futures prices in California.

The water contract came into effect on December 7, 2020, with an initial trade value of \$499.83 in its inaugural month. Remarkably, its value doubled within two years, as reported by Bloomberg in 2023. According to Investing.com (2020), the opening of the

Mexican stock exchange on December 7, 2020, marked the initiation of trading for the stock symbol "AGUA," commencing at 18.81 pesos. By December 8, 2023, the closing positions recorded a notable increase to 21.23 pesos, reflecting a substantial 12.87% growth [26].

However, a significant oversight occurred within the Mexican community, as many individuals failed to recognize that the "AGUA" stock was associated with the company Rotoplas SA de CV [27]. Consequently, a considerable number of investors were influenced solely by the name assigned to the company by the Mexican Stock Exchange, neglecting the association with the Nasdaq Veles California Water Index (NQH2O), which is not even tradable on the Mexican stock exchange. Recognizing this, sales orders for the AGUA share were submitted in January, resulting in its return to 18.95 pesos as of January 29, 2021. Figure 5 provides a visual representation of water's entry into the commodity sector as a futures asset [28].



Figure 5. Water on Wall Street overflows 147% and exceeds \$1,200 Source: (Gámez, 2022)

3.3. Social Media's Influence on Cryptocurrencies

In the case of cryptocurrencies, social media has had an even bigger impact. These platforms have allowed investors to access information about cryptocurrencies and their prices in real-time. This has led to increased price volatility as investors are able to react quickly to news and events.

An example of the impact of social media on cryptocurrencies is the case of Bitcoin. The price of Bitcoin has risen more than 10,000% in the last five years [29]. This rise has been driven in part by the spread of information about Bitcoin on social media. Not to mention the popularity Bitcoin gained from the pandemic. Figure 6 visualizes the popularity of the search word Bitcoin on Google in contrast to the increase in the price of the cryptocurrency, demonstrating how an information system could predict market fluctuations with certain data.

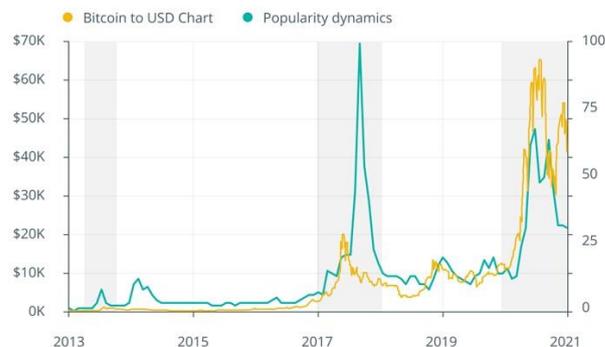


Figure 6. Bitcoin: Price Action vs Google Search Volume Source: (Coingraph, 2022)

While Bitcoin lacks a physical presence, it shares similar functions with traditional forms of currency. Unlike physical bills or coins, bitcoins do not bear serial numbers or other mechanisms for tracking buyers and sellers involved in transactions with this virtual currency. This attribute makes Bitcoin particularly appealing to individuals seeking privacy in their financial dealings. Operating as a cryptocurrency, Bitcoin is generated and distributed through peer-to-peer networks, commonly referred to as P2P (peer-to-peer). These networks facilitate the direct exchange of information without reliance on fixed servers.

The process of creating Bitcoin, known as cryptocurrency mining, involves solving highly complex mathematical problems through computer processors [30]. This decentralized and algorithmic approach sets Bitcoin apart, allowing for direct transactions and fostering a degree of anonymity for those engaging in the digital currency.

Unlike any other currency, Bitcoin is not fiat money. That is, it is not backed by the confidence of a central bank, by a government, or by a material. Instead, they do use a proof-of-work system to avoid double-spending and reach a consensus among all nodes operating on the network. This consensus is known as blockchain.

The main function of cryptocurrencies is to create an environment of certainty when it comes to not needing an intermediary when making transactions. The only disadvantage to this principle is that there is no solid support that argues the price of Bitcoin in this case, since there are other cryptocurrencies such as Ethereum or BNB that do have projects focused on technologies that drive this trend and that base the prices on which they fluctuate. Bitcoin is the perfect example of supply and demand.

On December 6, 2013, Billy Markus, a programmer, and former IBM engineer, created Dogecoin as a satirical response to Bitcoin. Simultaneously, Jackson Palmer, a marketing professional at Adobe Systems in Sydney, Australia, and the conceptualizer of Dogecoin, was urged on Twitter by a student at Front Range Community College to transform the idea into reality. This led Palmer to collaborate with Markus [31].

Dogecoin stands out as the first meme coin and the inaugural dog coin in the cryptocurrency realm. Within less than two weeks of its launch on December 17, 2013, 6% of the total 100 million DOGE had already been mined. By December 19, the value of Dogecoin surged by over 300%, from \$0.00026 to \$0.00099. This occurred at a time when Bitcoin and various other cryptocurrencies were grappling with the impact of China's decision to ban its banks from engaging in Chinese yuan trades with Bitcoin.

Elon Musk utilized the Twitter platform to express his opinions on Dogecoin, facing accusations of market manipulation as the coin's price exhibited significant movements following Musk's comments. As cryptocurrencies are not regulated like traditional financial assets, such actions are not deemed illegal. Musk's initial tweet on December 20, 2020, simply stating "One word; Doge," resulted in a 50% surge in Dogecoin. In February 2021, Musk posted, "Dogecoin is the people's cryptocurrency," which later became the official slogan of the cryptocurrency. Subsequently, the price rose by another 40%. On April 15, 2021, Dogecoin's value soared by over 100% after Musk tweeted an image of Joan Miró's painting titled "Dog Barking at the Moon." On May 20, 2021, the price surged by 11% following Musk's posting of a Dogecoin-related meme. On December 14, 2021, Dogecoin's value increased by 10% after Musk announced that Tesla would accept Dogecoin for certain purchases [32]. As of Coinmarketcap data in 2023, Dogecoin holds the ninth position in cryptocurrency market capitalization. [Figure 7](#) shows the image posted on Twitter by Elon Musk by author Joan Miró [33].

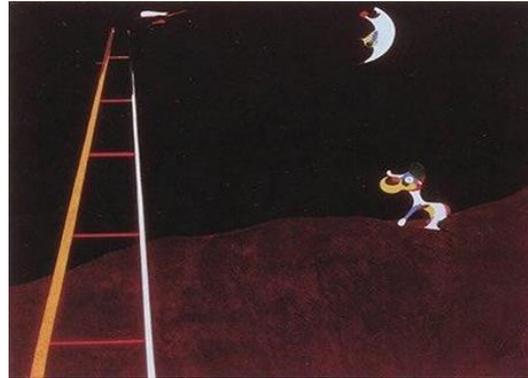


Figure 7. Doge Barking at the Moon. Source: (Miró, 2021)

3.4. Final examples

As final part, some examples and case studies are presents. They illustrate how social media platforms can empower investors while also presenting challenges related to rumors and misinformation:

3.4.1. Empowering Investors

r/wallstreetbets and GameStop (GME):

Example: The r/wallstreetbets subreddit gained significant attention in early 2021 when retail investors on the platform collectively decided to invest in GameStop (GME) stock. Through memes, discussions, and a shared sentiment against hedge funds, they caused a massive surge in GME's stock price, challenging traditional market dynamics.

Empowerment: This case illustrates how a grassroots movement on a social media platform can empower individual investors to collectively challenge established financial institutions and influence stock prices.

Elon Musk's Tweets and Tesla (TSLA):

Example: Elon Musk, the CEO of Tesla, is known for using Twitter to share information and opinions about Tesla and cryptocurrencies. Musk's tweets have had a direct impact on Tesla's stock price and the cryptocurrency market, with significant price fluctuations occurring in response to his statements.

Empowerment: Musk's use of social media allows him to communicate directly with a broad audience, influencing market sentiments and providing investors with insights, albeit with potential volatility.

3.4.2. Challenges of Rumors and Misinformation

Virgin Galactic and SpaceX Incident:

Example: Following a SpaceX rocket failure in 2019, there was confusion on social media regarding Virgin Galactic's stock. Misinformation spread, suggesting that Virgin Galactic was somehow involved in the incident, leading to a temporary drop in the company's stock price.

Challenge: False information on social media can lead to market volatility and misinformed trading decisions, as seen in this case where unrelated events impacted the perception of a company.

"AGUA" in the Mexican Stock Market:

Example: In a hypothetical scenario, imagine false information spreading on social media about a new, groundbreaking technology called "AGUA"

revolutionizing the Mexican water industry. Investors might react without verifying the information, potentially leading to widespread misunderstanding and speculative trading.

Challenge: Rumors and misinformation, even if unintentional, can distort market perceptions and lead to unwarranted market movements, posing risks to investors who act on incomplete or inaccurate information.

Cryptocurrency Pump-and-Dump Schemes:

Example: Cryptocurrencies are particularly susceptible to pump-and-dump schemes facilitated by social media. In such schemes, false information is spread to artificially inflate the price of a cryptocurrency, after which the orchestrators sell off their holdings, causing a rapid price decline.

Challenge: The decentralized and speculative nature of the cryptocurrency market makes it vulnerable to coordinated misinformation campaigns that can exploit unsuspecting investors.

3.4.3. Opportunities

Many important opportunities are present in this context. Some of them are listed below:

a. Information Democratization:

Opportunity: Social media platforms democratize access to financial information, enabling a wider audience to stay informed about market trends, news, and investment opportunities.

Impact: This increased accessibility empowers individual investors, fostering a more inclusive financial ecosystem.

b. Community Collaboration:

Opportunity: Platforms like Reddit and Twitter facilitate online communities where investors can share insights, strategies, and analyses.

Impact: Collaborative efforts empower retail investors to collectively challenge traditional market dynamics and influence stock prices, as seen with movements like r/wallstreetbets.

c. Real-time Market Sentiment Analysis:

Opportunity: Social media provides a real-time gauge of market sentiment through discussions, hashtags, and trending topics.

Impact: Investors can use sentiment analysis tools to make informed decisions based on the collective mood of the market, potentially gaining a competitive edge.

d. Direct Communication from Influencers:

Opportunity: Key figures and industry influencers can communicate directly with the public through social media, providing insights, updates, and influencing market sentiments.

Impact: Investors may benefit from timely information and gain unique perspectives, enhancing their decision-making processes.

On the other hand, some associated risks are identified:

i. Market Manipulation:

Risk: Coordinated efforts on social media, as seen in pump-and-dump schemes, can manipulate stock prices for short-term gains.

Impact: Unsuspecting investors may suffer financial losses if they follow misleading information or fall victim to orchestrated market manipulation.

ii. Rumors and Misinformation:

Risk: False information can spread rapidly on social media, leading to market volatility and misguided trading decisions.

Impact: Investors acting on inaccurate information may experience financial repercussions, and companies may face unwarranted challenges due to misinformation.

iii. Herd Mentality:

Risk: Social media can foster herd mentality, where investors follow the crowd without conducting thorough research.

Impact: Herd behavior can lead to inflated market bubbles or abrupt sell-offs, causing significant market disruptions and impacting both individual and institutional investors.

iv. Overreliance on Influencers:

Risk: Investors may overly rely on information from influencers, leading to a potential lack of critical analysis.

Impact: Blindly following influencers' recommendations can result in poor investment decisions, especially if the influencers have conflicts of interest or lack expertise.

5. Conclusions

The impact of social media on the stock market is undeniable, fostering a significant cultural and global information exchange. According to GBM (2021), a mere 2% of Mexicans currently engage in stock market investments, a percentage closely tied to the average purchasing power of the Mexican population, contrasting sharply with the 50% of the U.S. population that participates in stock market investments. While this currently indicates high investment costs, there is a gradual shift in both interest and the capacity to participate, and social networks serve as a tool that can potentially spark interest for individuals to enter the financial world.

As the popularity of social media continues to grow, its influence on financial markets is expected to further intensify. Investors must remain vigilant, acknowledging the risks and opportunities inherent in engaging with such a volatile and speculative environment. From democratizing information to shaping investment decisions, these platforms are fundamentally altering the way individuals participate in financial markets. Social media's role in facilitating access to information and analysis empowers investors to make informed decisions. However, the downside is the proliferation of rumors and misinformation, contributing to market price fluctuations.

This transformative environment presents a learning curve that, thanks to the internet, is being systematically documented. Aspiring participants in the stock markets are increasingly equipped with information and tools to navigate this complex financial ecosystem. The evolving role of information systems is now focused on segregating disinformation on networks and implementing laws to regulate these dynamic markets at the forefront of technology.

The ongoing financial revolution in the age of social media is a complex phenomenon, and its true magnitude will only become fully apparent over time. The transformative influence of social media on the stock market is profound, fundamentally altering how information is disseminated, shaping market sentiments, and influencing trading decisions. While it brings increased accessibility and opportunities, it simultaneously

poses challenges, such as market manipulation, necessitating vigilant regulatory oversight. As technology and social media evolve, so too will their impact on the intricate dynamics of financial markets

At final part, examples highlight both the positive and negative aspects of social media's influence on financial markets. While it can empower investors with information and democratize trading, the speed at which information spreads also poses challenges in terms of accuracy and reliability. Investors need to exercise caution, conduct thorough research, and verify information before making financial decisions based on social media content. Balancing the opportunities and risks associated with social media's influence on financial markets requires a vigilant and informed approach from investors, regulatory bodies, and industry participants. Ongoing adaptation and responsible use of social media can contribute to a more transparent and resilient financial ecosystem.

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