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INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/19625
DOI URL: http://dx.doi.org/10.21474/IJAR01/19625

RESEARCH ARTICLE

BEHAVIOURAL FINANCE AND INVESTMENT DECISION MAKING

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Manuscript Info

Manuscript History
Received: 05 August 2024
Final Accepted: 09 September 2024
Published: October 2024

Abstract

Introduction:-

In an ideal market, decision makers are assumed to act rationally and make logical choices, based on the perfect information they have. However, in practicality, most of these decisions are influenced by the decision markers' mental wellbeing, emotions, and behavioural biases, which has an impact on their investment decisions, therefore influencing the outcomes produced by markets. There are several anomalies in the market which can be explained due to behavioural finance, such as sudden rise or fall in stock prices despite strong financial performance, and panic selling during market downturn. Market anomalies have led to an increasingly popular field of financial research, which recognises that investors are impacted by psychological influences like fear, hope, optimism, and pessimism. These emotional drivers have significantly shifted the focus of research in behavioural finance. Pioneering studies by Daniel Kahneman and Amos Tversky ,Richard Thaler, and Robert J. Shiller have explored market efficiency and sought to understand stock market fluctuations through the lens of these behavioural factors.

The traditional theory holds that well informed investors are not swayed by emotions and are rarely impacted by the way information is presented to them. While logical investors chart a plan of action before investing, in practice, it is nearly impossible to be as perfect as assumed theoretically. The impact of human behaviour on investment decisions has thus given rise to studies on the matter for the last two decades, as new areas of research prompt new explanations to challenge traditional theories.

Implications and principles of behavioural finance-

Modern- day investors make inconsistent decisions when it comes to investments. Cognitive illusions, which can be characterized by a mix of heuristics and prospect theory, are illusions based on an individual's perception of the world. Information is perceived based on prior knowledge or experiences and assumptions.

While an investment may look attractive based on solely quantitative factors, the presence of cognitive illusions in practice can distort different induvial investors' view of the same investment, leading to different investment decisions.

Heuristics are mental shortcuts that help individuals make quick decisions based on limited information, allowing solutions for complex problems to be made in a limited time frame. By using this approach, decisions may just be sufficient instead of optimal, but are useful to avoid cognitive overload. Financial investors and analysts usually have to process large amounts of information in very short periods of time, thus making heuristics a way to speed up decision making, and avoiding stopping and thinking about each decision.

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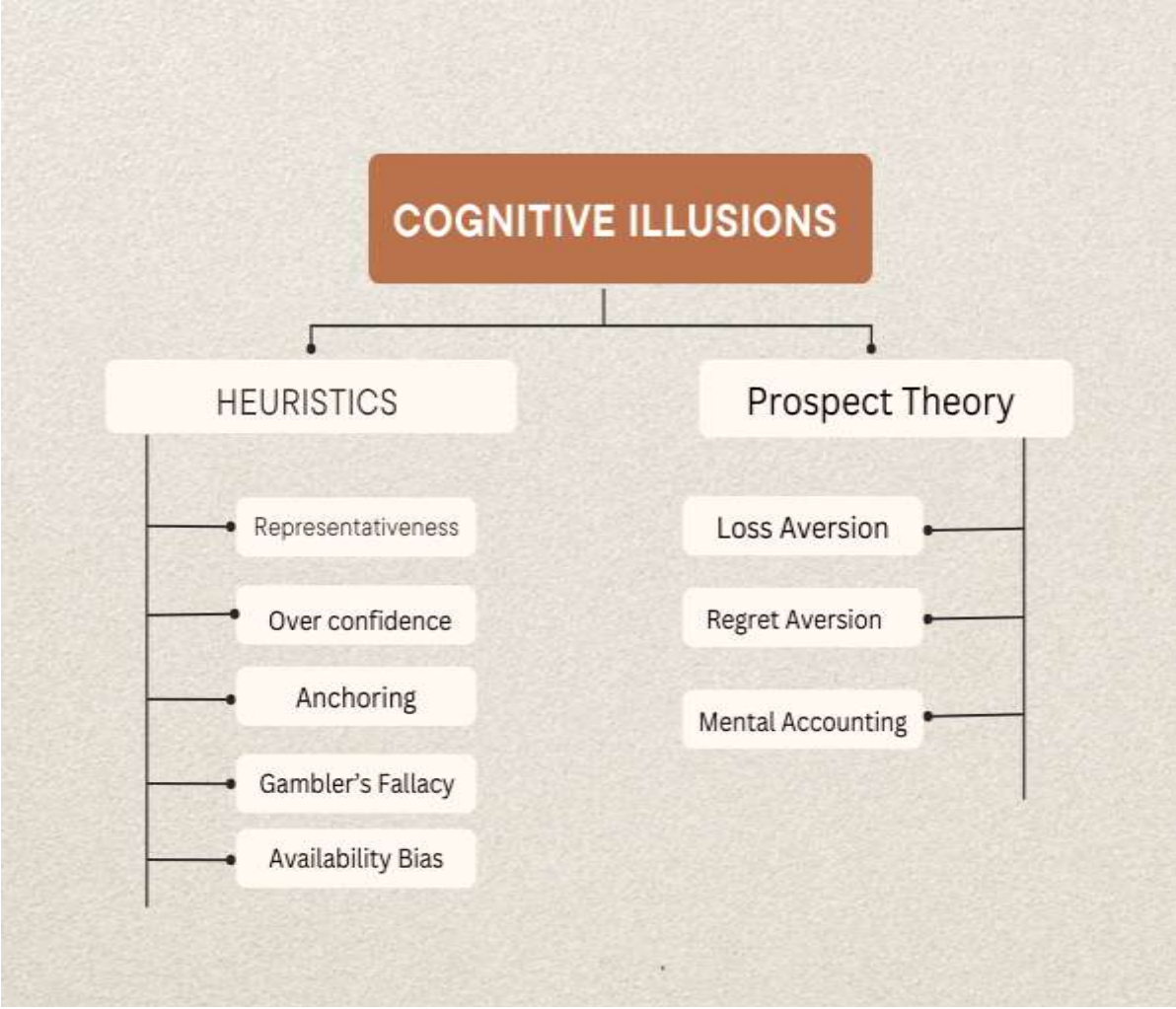
However, decisions may not be optimal and lead to errors in judgement. Individuals are also exposed to biases, leading to irrational economic behaviour, which in turn influence investment decisions made.

The following is a flowchart to depict different cognitive illusions at play-



The different types of heuristics are-

1.Representativeness –

Refers to the cognitive bias where individuals rely on pre-conceived notions and stereotypes when making judgments. For instance, upon seeing someone in a suit and tie carrying a briefcase, one might instinctively assume they are a lawyer, as they fit the stereotype, while overlooking other possibilities, such as them being a businessman, real estate broker, accountant, or banker. This bias demonstrates the tendency to judge the likelihood of an outcome based on how closely it aligns with expectations, rather than objectively evaluating the probabilities or available information.

This cognitive shortcut leads decision-makers to disregard crucial information if the conclusion seems to match their prior beliefs, often resulting in false assumptions about patterns in data. When applied to financial markets, this bias becomes particularly evident. Investors may perceive an investment as profitable simply because similar decisions have yielded success in the past. This creates an illusion of patterns, where short-term price trends are overemphasized, overshadowing long-term performance indicators. Investors irrationally believe that a temporary rise in stock prices will persist, ignoring the fact that, in an efficient market, short-term fluctuations should not dictate future stock performance.

By evaluating stocks based on recent performance rather than fundamentals, investors misjudge future prices, clouding their investment decisions. A study by Bondt (1998) explored this very phenomenon, examining the behaviour of small, self-managed investors who frequently fall prey to this bias.

2.Over confidence-

As Don Moore aptly describes, "Overconfidence is a discrepancy between belief and reality." While confidence is essential for maintaining long-term investments, overconfidence distorts one's perception of risk. Investors who overestimate their skills, knowledge, and judgment are more likely to believe their decisions are infallible, disregarding contradictory evidence. This leads to suboptimal investment choices, as overconfident individuals remain fixated on their beliefs, often ignoring potential risks.

Overly optimistic investors develop an inflated sense of control and underestimate the risks associated with their positions. This bias results in an excessive commitment to investments, even when they are fundamentally flawed, leading to larger-than-necessary market positions and, ultimately, greater exposure to risk.

Consequences of Overconfidence:

Overconfident investors tend to trade with higher frequency, convinced that their investments are superior. This excessive trading incurs higher transaction costs and often yields lower returns. Furthermore, when an investor places undue faith in a specific industry or company while disregarding conflicting information, they risk creating an under-diversified portfolio, thereby increasing the likelihood of significant financial losses.

Subfields of overconfidence, such as miscalibration and optimism bias, exacerbate the gap between an individual's perceived abilities and their actual performance, distorting the precision of their investment decisions.

To mitigate overconfidence bias, it is crucial to adhere to a disciplined investment strategy that incorporates both qualitative and quantitative analysis. Investors must ground their decisions in objective data, rather than overestimating their predictive abilities. Setting realistic expectations and preparing for potential losses are also vital steps in avoiding overconfidence. Additionally, staying well-informed by seeking diverse perspectives and continually updating one's knowledge of market trends can prevent emotional attachment to any single company or investment, thus curbing the tendency toward overconfidence.

Anchoring-

Anchoring bias occurs when people place a higher weight on the first piece of information they recieve, which then serves as an "anchor" against which all subsequent information is compared. This bias can distort objective decision-making, particularly in investment scenarios.

For instance, when asked, "Where do you see Microsoft's stock in five years?" the immediate follow-up may be, "What is its current market price?" Relying on the current price as a benchmark may lead to assumptions that are overly influenced by that initial data point. However, if the stock's future price was predicted based solely on Microsoft's financial performance without first referencing the market price, the conclusion might differ significantly, as the current stock price would no longer serve as an anchor influencing future projections.

The primary risk of anchoring is its tendency to foster rigidity in thinking. Continuously comparing new information to the original anchor can lead to filtering out evidence that contradicts initial assumptions, making it difficult to adapt even when circumstances change. Over time, this inflexibility can cause investors to either overreact or underreact to new data, due to a lack of a systematic approach to decision-making. Anchoring can also exacerbate market volatility, contributing to investor euphoria or panic selling, which in turn drives unpredictable swings in stock prices.

Addressing anchoring bias requires a distinct approach compared to overcoming biases like overconfidence or representativeness. The more one fixates on the initial piece of information, the more susceptible they become to its influence. A more effective strategy is to critically evaluate the pros and cons of the first information presented and actively seek multiple sources to ensure accuracy and context.

One effective method to mitigate anchoring is "red teaming," where a separate group is tasked with challenging the assumptions and ideas presented by others. This creates a balanced argument, exposing potential risks that might

otherwise be overlooked. It encourages more cautious, well-rounded decision-making, ensuring that individuals are not swayed by overly optimistic or one-sided information.

4. Gambler's fallacy-

This cognitive bias arises from the mistaken belief that small sample sizes are indicative of larger trends. Individuals assume that because certain outcomes have occurred repeatedly, future outcomes will be the opposite, even when each event is independent.

A famous example of this fallacy occurred at Casino de Monte-Carlo in 1913. Gamblers noticed the roulette ball had landed on a black square multiple times consecutively and began to bet heavily on red, believing that the streak would soon reverse. However, the ball continued to land on black for a total of 26 times before finally falling on red, costing gamblers millions of dollars in losses.

In investing, the gambler's fallacy manifests itself into markets when investors assume a stock that has been consistently rising is due for a decline, or a stock in a prolonged slump is bound to rebound. For example, after observing multiple sessions of positive trading, an investor might liquidate their holdings, wrongly believing that the streak will break, even when there is no fundamental reason for a downturn. Similarly, if a stock has been falling for an extended period of time, some investors might believe it's bound to rise simply because it has fallen for so long, even though there may be no legitimate basis for a recovery. These assumptions ignore the fact that price movements are independent events, and past performance doesn't predict future results. The actual rise or fall in the stock's price will depend on the company's financial performance, and not its past trends of price fluctuations, which is a point several investors, especially rookie retailers, fail to recognise.

The key to avoiding the gambler's fallacy is grounding investment decisions in thorough research and sound analysis. Investors should focus on the company's financial health and overall business performance rather than relying on patterns in stock price movement. Maintaining an investment journal can also help by providing clear, fact-based reasoning for each trade. This practice ensures that decisions are based on concrete evidence, not the misguided belief in trends that don't exist.

5. Availability Bias-

People tend to put disproportionately higher weight on new information they gain on a particular topic, which makes them less objective while considering the probabilities of those events in the long run. In financial markets, this disrupts the rationality of investors as they recall recent events and assume future occurrences will more likely be impacted by those events.

During a market crash, investors assume the bear market will continue indefinitely, panic- selling their stocks. However, the bear market may just be a mere one- day correction or market response in fear of recent geopolitical events, which do not continue over a period of time, thus, the investors who sell in panic lose out. Similarly, during asset bubbles when stock prices rise beyond a price fundamentally supported by a company's financials, drawn by the high returns, investors keep investing more in the bubble expecting price to further rise, however, seldom does this rally continue. The buying of rising stocks beyond reasonable levels is also attributable to another cognitive bias- fear of missing out, which makes investors feel compelled to buy into stocks the rest of the market is invested in, blurring their own decisions.

Taking the example of the Adani- Hindenburg case which shook the Indian stock markets, the availability bias is illustrated. In January 2023, U.S- Based research firm Hindenburg, published a report on the Indian multinational conglomerate 'Adani Group,' claiming 'Adani Group: How The World's 3rd Richest Man Is Pulling The Largest Con In Corporate History'

In the aftermath of the report, within 5 weeks investors lost thousands of crores, while the combined market capitalisation of Adani group stocks plummeted by 65% to 6.7 lakh crore. Investors blindly believed the accusation, panic selling their stake in all Adani- group companies. For weeks, this report was all anyone could be seen talking about, and most investors believed this was the end of an era for once the world's 2nd richest person.

The news was recent, and anyone thinking of making an investment in Adani group stocks only considered this report, without any regard for their financials, as they believed the Adani group was involved in a scam, and any

investment into the company would be a guaranteed loss. The availability bias completely clouded their judgement, as the group's history and financial performance were ignored. It took the Adani's 18 months, to slowly and steadily rebuild their empire. Within 500 days, they had recovered their initial loss in market capitalisation to pre- accusatory levels, at 19.2 lakh crore as on the day the paper was published. As the future would have it, the Supreme court of India ruled in favour of the Adani group, claiming the accusations of Hindenburg were lacking 'conclusive proof', and went further to dismiss an appeal to their decision.

In this situation, investors who controlled their emotions and biases and were able to place their faith on the performance of the company and not take a rushed decision by panic selling, would have benefitted immensely as they would have bought more shares of the Adani group during the plunge, and within a year the stock value would have risen back to older levels.

This example makes it clear that avoiding availability bias is a key factor in determining one's investment successes. A useful way to do that is by creating a short term strategy and strictly adhering to it based purely on the company's financial performance, regardless of short term volatility. Controlling impulses to panic sell when there is no guarantee of future course of events may be especially difficult, but increasingly dynamic technologies such as robo-advisor platforms give investors a clear plan of automated investment action, thus removing human emotions form the equation, leading to rational decision making.

Prospect theory on the other hand explains how individuals make decisions while grappling with risk, probability, and uncertainty. It's application in finance arises as investors are assumed to place more weight on perceived gains than perceived losses. If an investor is presented with two choices, equal in nature, they will choose the one that is presented in a manner that seems profitable, than the one that is presented in a manner that seems to be making losses. Despite the two options being equal, the choice of investors will not be the same, prompting that psychological influences are at play, primarily characterized by the prospect theory.

Some subfields of prospect theory are-

1. **Loss aversion-**Investors wield an overwhelming fear of losses, perceiving the impact of losses more strongly than the impact of equivalent gains. New investors especially face the disposition effect most strongly. Once invested in a stock, they may hold onto a falling stock no matter the contrary evidence presented to them, as they hope the stock will bounce back, the crippling fear of losses pushing investors to act irrationally. They may even sell a stock too soon, assuming the rally wouldn't continue and sell the stock before the window of loss can be opened. Multiple studies have shown the pain of losses impact the human mind almost twice as much as equal potential gains.

As a result of the market volatility in equity markets, people strongly prefer avoiding losses over acquiring gains, and thus place more importance on negative news about the market than positive news. This is a primary driver behind why many retail investors who have newly joined the market tend to miss out on the bull run, and the second markets take a slight dip, they trigger a panic sell- off.

In a game of poker, when a gambler is faced with two choices- make a bet that will either lead to a gain of $600, or a loss of $550, they will pass up on the bet as the risk of loss seems much higher, despite both outcomes having equal probability. Essentially, if investors are loss averse, by using the law of averages they can purchase more poorly performing stock to recover prior losses.

A well-known real-life example of **loss aversion** in action can be seen in the case of **Kodak**, a dominant player in the photography industry for much of the 20th century. Kodak was slow to transition to digital photography, despite having invented the first digital camera in 1975. They feared that the adoption of digital technology would negatively affect their highly profitable film business. The company was highly focused on protecting its existing film revenue and thus failed to fully embrace digital technology. Fuelled by their fear of losing market share, Kodak was reluctant to push digital photography, as they feared that the losses that would come from introduction of new technology would impact its business more negatively than they could value the potential gains from digital photography. The fear of change fuelled by loss aversion ultimately led to them losing out to competitors who adapted to technology, costing them their dominant market position.

2. **Regret aversion-**

Investors make decisions driven by the fear of later regretting the wrong choice. Functional MRI studies have shown that this phenomenon has a biological basis, with increased activity in the medial orbitofrontal cortex and amygdala. The fear people experience is real, and it can have significant consequences for those involved.

Primarily driven by the fear of missing out, when a stock has been significantly outperforming the market, investors may just invest in it despite irrationally high valuations, as they do not want to 'regret' missing out on the rally. Sometimes, when a stock takes a slight dip, investors may invest in it instantly, thinking the stock has become 'cheaper' than before, not wanting to later regret buying at higher prices. This is a bad investment strategy as a correction may persist for a while, making investments bought at the slightest dips irrational, not allowing a better averaging out of investment.

During the 2008 housing crisis, many new homeowners chose to stick with their mortgage payments even when their property values had plummeted far below the loan amounts. A 2010 study revealed that homeowners typically didn't consider abandoning their mortgages until property values had fallen to less than 75% of the remaining debt. If they had been guided purely by financial logic, many would have walked away earlier. However, emotional ties to their homes, along with a reluctance to accept prior financial losses, led them to hold on longer.

Another example of regret avoidance is the "Concorde Fallacy." Despite clear signs that the Concorde project was no longer economically viable, the British and French governments continued to invest in its development. Politicians were reluctant to face the embarrassment of cancelling the project and admitting that the funds already spent would not lead to a successful outcome.

This gives rise to the sunk-cost trap, where people keep investing more time and money into bad investments, reluctant to admit that money and time has in fact been wasted. Instead of cutting losses, more resources are used to make the investment seem worthwhile, until finally no more resources can be committed. The fear of regretting the initial decision thus leads to further wastage of time and resources, yet, if regret aversion was not at play, investors would admit a decision is poor, and exit immediately once the investment does not seem rational, limiting losses significantly.

3. Mental accounting-

This behavioural bias was studied in great detail by nobel- prize winner Richard Thaler. He defined mental accounting as "the set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities."

One of the core properties of money is that of fungibility, meaning that it is made up of units that are all interchangeable and indistinguishable from one another. Money is fungible because a dollar is worth the same no matter where it came from or how it is spent. Additionally, money doesn't come with any labels; the same dollar that you put towards your morning coffee could also be spent on a bus ticket, or put towards a new dress. If people can view money as being perfectly fungible, mental accounting bias can, thus, be avoided.

For example, when we people get an income tax refund, that money is perceived as a 'gift', or 'found money', essentially something extra the receiver can use to spend on an impulsive purchase, or to satisfy wants. The receiver forgets to acknowledge the fact that the money they got was theirs to begin with, an overpayment of tax, which they simply got back, thus, it should be viewed the same way as the rest of their income.

Many investors split their investable assets into safe portfolios and speculative, high risk portfolio, putting a cap on the speculative portfolio to prevent negative returns from it impacting the aggregate portfolio. Now, Thaler offers an example-

An investor has two stocks, one which is a gainer, one which is a loser. He must sell one stock to gain cash. Mental accounting will push the investor to sell the winner despite the rational decision being to sell the loser, due to tax-loss benefits and because of loss aversion regarding selling the weaker investment.

This phenomenon largely explains why spending is much higher using credit cards than actual cash, mainly due to the separation between the time of purchase and time of payment. Despite the high fee of using the credit card, the actual impact on financials is not felt by an individua when they purchase something, expecting to be able to pay it

when the time of payment arises. Some research has even shown memory related to credit card purchases is much lower compared to cash purchases, as people barely register the fact that they are making these payments. Regardless of the fact that this money is digital and repayable later, it is still money, and by classifying it as a 'credit card expense' instead of only money, individuals tend to overspend.

Implications of behavioural biases on financial markets-

Proponents of the efficient market hypothesis (EMH) contend that biases have no effect on markets and that anomalies are always automatically corrected to return stocks to their intrinsic values. They contend that behavioural biases are not the cause of market fluctuations, which occur for a variety of causes, and it is simple to determine that market fluctuations are merely the result of random events rather than the actions of specific people if we thoroughly examine any stock, study historical trends, and keep up with current events.

The fundamental behaviour of the financial markets, which is predicated on the idea that all investors are logical and sensible, is still being violated by the behaviour of these anomalies. The following can be used to summarise these anomalies: The efficient market hypothesis is entirely refuted by the following concepts:

1. January Effect, which is the supposed seasonal tendency for stocks to rise in the first month of the year.People have generally attributed a rally each January to the rise in buying that follows the price drop that typically happens each December. The price fall in December can be attributed to investors selling losing stocks in December to reap benefits for tax- loss harvesting, and repurchase them in January or later in the year. However, data for this phenomenon over the last several decades has proven elusive.
2. The winner's curse which refers to the tendency of traders or gamblers to bid higher than the asset's actual value at auction. This goes against the Efficient Market Hypothesis (EMH), which posits that investors will bid or pay based on their knowledge of an asset's true value.
3. Equity Premium Puzzle: According to conventional theory, stocks should have an equity premium that is far lower than what is now seen in the market. Behavioural finance, on the other hand, indicates that a substantial premium may be necessary for loss aversion bias in order to adequately offset investors' loss aversion.

While not all investors will exhibit every one of these biases at the same time, proponents of behavioural finance contend that some biases will be pervasive and have an impact on the financial market as a whole. The actual share prices may diverge from their fundamental prices as a result of heuristic biases like representativeness and anchoring, which can cause investors to be overly optimistic about stocks that have performed well in the past andcynical about stocks that have performed poorly in the given time frame. The following is a list of some of the problems that these biases might cause:

- Overreactions or underreactions to any news regarding price fluctuations
- Disregarding the data pertaining to the fundamentals of stock price
- Extrapolating future tendencies from past trends
- Undue preference to hot stocks.

Real life case where behavioural finance played an important role-

The GameStop fiasco in 2021 is an important example of the presence of behavioural finance in investment decision making. GameStop Corp. (GME) is a video game retailer which offered its IPO in 2002. With the rise of technology and increased online market for video games, its offline stores struggled to survive by 2021, and triggered by the pandemic's effect, its sales further declined. Their attempts to find a buyer to sell off the company failed.

By 2020, GME became one of the most shorted stocks in the USA, a staggering 140% as measured by the ratio of short interest to shares available for trading. The short positions increased further following a fragile share price recovery in late 2020. Multiple meme stocks also held positions, popular with retail investors. However, due to the largely pled shares, the market was alert of the possibility of a short squeeze.

Starting on January 13, 2021, GME shares experienced a sudden price surge, and increased volatility. This was attributable mainly to a large influx of trades from retail investors using the Robinhood Financial platform, with much of the activity being coordinated through social media, especially the 'WallStreetBets' forum on Reddit.

Robinhood, a newcomer to the competitive retail investing space, has been offering commission-free stock and ETF trades since March 2015. The platform targets a younger audience, attracted by its user-friendly mobile app and

features designed to make trading more engaging, such as its playful branding and celebratory digital confetti displayed for certain customer actions.

On 26 January, 2021 GME closed at $145.60, then increased to $345.00 the next day, peaking at $469.42 on 28 January. GME closed at $193.60 on the NYSE on 29 January 2021.

On January 28–29, Robinhood introduced trading restrictions, prohibiting new long positions in GME and a few other stocks, while still allowing the closing of existing positions. This decision sparked widespread outrage among customers, the media, and politicians alike.

Although GME's stock price dropped sharply after peaking in late January, it eventually rebounded. As of mid-May 2021, the stock remained much more volatile and significantly higher in price compared to its value before January 13

TABLE 1
GAMESTOP CORP. (GME) HIGHS AND LOWS

	Low		High	
		Closing Price		
Prior to 13 Jan 2021	2.80	03 Apr 2020	63.30	24 Dec 2007
13 Jan 2021 to 15 May 2021	31.40	13 Jan 2021	347.51	27 Jan 2021
		Daily Trading Volume (millions of shares)		
Prior to 13 Jan 2021	0.07	18 Jun 2002	77.15	09 Oct 2020
13 Jan 2021 to 15 May 2021	2.73	12 May 2021	197.16	22 Jan 2021
		Return Volatility (daily, percent)		
Prior to 13 Jan 2021	1.21	17 Jun 2011	11.42	09 Oct 2020
13 Jan 2021 to 15 May 2021	9.88	14 May 2021	40.07	02 Feb 2021

SOURCE: Bloomberg LP; author's calculations.

What caused the sudden interest in GME?
GameStop's stock had been on a downward trend for years when Reddit users saw that hedge funds, especially Melvin Capital, were aggressively short selling GME.

In mid-2019, a Reddit user known as Roaring Kitty shared a post about a $53,000 investment in GameStop. While initially ignored, the user kept discussing the stock and the retail chain, which eventually caught the attention of younger traders in January, causing GameStop's stock price to surge to unprecedented levels.

Short sellers suffered huge losses, with an estimated $23.6 billion lost on GameStop alone. Melvin Capital saw its portfolio drop by 30%, losing a significant portion of its $12.5 billion invested in GME. Despite rumors circulating on social media that the hedge fund had gone bankrupt, a company representative refuted these claims.

As hedge funds faced major losses, there was increasing pressure from Wall Street to outlaw short selling, even though it's a widely used strategy. To prevent a market collapse, trading platforms like Robinhood temporarily halted purchases of GameStop shares, which led to further backlash from the public.

Other than GameStop, investors on this subreddit drove up share prices of many shorted stocks, including BlackBerry, which advanced 185% in 2021,and AMC entertainment holdings, a theatre chain, which rose 862.5% the same year.

The role of behavioural finance-

Aside from ethical concerns, there were various other factors that motivated individuals to invest in GameStop, many of which can be linked to cognitive biases explored in behavioural finance. The actions of GameStop's retail investors highlight significant instances of cognitive dissonance, suggesting that many were not fully informed but were instead driven by irrational tendencies. Key biases influencing their decisions included herding behaviour, overconfidence, and framing effects.

Herd mentality- By emulating other people's behaviour, individuals believe that if a group is following the same path, the value of their mentality is above that of the individuals. Due to a combination of lack of faith in one'-self's decisions, and the general human tendency to follow the crowd, herd mentality leads to a numerous people walking the same path despite the path being wrong.

This gives rise to the notion of 'momentum traders', who simply follow price rises or falls in stocks instead of investing in the fundamentals of a company. If the price is continuously rising, they assume it to be a positive indicator of the stock's performance, attracting attention of a large volume of traders. This was the case with GME, where, thousands of retail investors bought shares for the sake of riding the wave. There was no rational reason to invest in a dying company with plummeting sales, yet, following the subreddit group, retail investors drove up GME's prices, along with the intention to 'eat the rich', i.e, make hedge funds suffer.

Bubbles in the market are primarily caused due to people moving in 'herds': people are attracted by another investor investing in a profitable stock, driving its demand upwards and increasing prices to unsustainably high levels until nobody will be willing to buy, causing the bubble to burst, which was seen in the case of with GameStop.

Framing bias-

Popular personalities such as Elon Musk tweeted about the GME stock which influenced many retail investors' decisions. Following his famous tweet 'Gamestonk!', many were persuaded to join the Wallstreetbets' quest of destabilising the market.

The framing bias presents itself in the form that, as an opportunity is presented to people in a different way, it leads to changing their decision on it. Specifically in finance, when an investor is faced with the choice between a variety of stocks to invest in or between holding or selling one they already hold, and they are lacking sufficient information to infer what their best prospects are, a key differentiating factor is the way the different stocks are "proposed", which influences their investment decisions.

Other biases-

Regret aversion played a key role as retail investors were heavily influenced to the point where they felt a fear of missing out, and invested in GME to avoid losing out on a potential rally and regretting not investing later on. Over confidence also played a key role as a small group of investors were overly confident they could trust the 'investors' who poorly advised them to participate in stock manipulation.

The retail investors irrationally speculating and manipulating stocks failed to recognise once the bubble burst, those who bought GME at the peak would fail the pain. The increased volume of trading activity only further helped make stock broking companies earn a fortune, such as Citadel, as the price movements of stocks does not bother these companies- the trading activity relating to a stock does. By driving up AMC's (bankrupt movie theatre company) prices, unknowingly, retail investors helped a private equity firm Silver lake, which owned convertible bonds in AMC. The short squeeze in AMC caused its stock price to increase by tenfold, helping Silver Lake make $713 million upon converting the bonds to equity.

The conclusion was the same, again. Retail investors, heavily influenced by behavioural biases, made irrational decisions to try and bring big corporations down, and while in the short term they might have seemed to achieve their goal, the ultimate result was that big corporations earnt fortunes from the short squeeze, as did Elon Musk who led the movement. Had these investors combated their biases, they would have invested based on company financials, and stand a chance at building long- term wealth.

This case largely signifies the importance of following a strategic investment plan and basing decisions on research, facts, and figures, rather than expectations, rumours, and trends.

Conclusion:-

The field of behavioural finance is an increasingly expanding one, and research has come a long way since Kahneman and Tversky's groundbreaking theory on Loss aversion. Behavioural financial theories are extremely important for individual investors since biases in behaviour and psychological differences play a vital role in the investment decision making process especially as they are more prone to falling prey to such biases than big corporations which have financial advisors who work very closely in accordance with efficient market hypothesis.

By understanding behavioural finance, explanations for drastic market movements which have no logical cause can be explained, and the concepts can be applied by individual investors to their investments, as a means of avoiding these biases, and making more precise judgements.

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