



Behavioural Finance Psychology and its Biases

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Abstract

Research approaches from psychology, sociology, and other disciplines have been included into the topic of “behaviour finance” so that a deeper understanding of how humans absorb information and come to conclusions can be attained. The literatures that are offered in this study are reviewed in order to provide a theoretical response to the market anomalies that are noticed in mainstream economics texts. Research on behavioural psychology is carried out with the use of the survey data collected from Indian security market investors. It has been found that investors do not always act rationally, contrary to what was assumed by traditional financial theory. Rather, investors frequently make illogical decisions based on their own cognitive biases and personal preferences. Research that is carried out with the behavioural finance theory as its guiding principle will be more anchored in reality and will provide more relevant insight into the choice of investment strategy and psychological attribute that is used to define market defects.

Keywords: Behavioral finance; Efficient market hypothesis; Heuristics bias; Cognitive bias; Overreaction; Overconfidence

Introduction

The traditional view of finance operates under the assumption that the decisions made by investors in securities are rational. On the basis of this principle, a number of other ideas and theories, such as the Capital Asset Pricing Model (CAPM), the Two-Fund Separation Theorem (MM), and the Portfolio Theory (PT), amongst others, have been established. On the other hand, in the most recent years, consistent support has emerged, and it has been accompanied by a wide range of arguments. In spite of the fact that most investment theories emphasise the significance of diversifying an investor’s assets, many investors only have a few companies in their portfolio [1]. A number of empirical studies and anomalous phenomena, such as the making significant, the winner-loser effect, the Friedman-Savage Puzzle, and the riddle of bonus, challenge the assumptions of conventional economic principle, which maintains that rational investors can use the opportunities presented by irrational investors to survive and dominate the entire security market. These studies and phenomena include the making significant, the winner-loser effect, the Friedman-Savage Puzzle, and the riddle of bonus. As a result of the increased involvement of social scien-

tists and psychologists in the financial sector over the course of the previous decade, it would appear that market participants can no longer be believed to be realists [2]. In reality, they are no different than the rest of us; they are flawed humans whose psychological responses, reference points, overconfidence, positive impression, loss aversion, framing, confirmation bias, outcome bias, and hindsight bias, among other things, led to the development of behavioural finance [3]. It was widely held that Shiller’s demonstration of economics from a more holistic human and social perspective, one that included sociology and psychology, ran counter to a significant amount of conventional economic theory. Since the 1990s, the traditional asset pricing model has been pushed to the background in favor of a variety of other models, one of which being psychology.

Many authors have made the observation that, in contrast to the more traditional optimal economic principles, behavioural finance places a greater emphasis on making use of information that is easily accessible as well as empirical assumptions [4]. This serves to highlight that training, exchanging ideas, and evolutionary processes are not sufficient to erase human limitations and complexities.

It is more crucial to use behavioural finance theory as a reflection to expose defects in one's own character than it is to merely use it as a magnifying glass to examine the prejudices of others [5]. This is because studying the prejudices of others is easier than studying one's own. Irrational investor behaviour is accentuated not only as a result of the immaturity of the Indian security market but also of the country's distinctive regulatory structure [6]. This pattern will have a significant impact on the market as a whole in the foreseeable future. Because of this, the theory of behavioural finance cannot be utilized to analyse the conduct of individuals who are involved in the Indian stock market.

Literature Review

It through examination of psychological biases, behavioural finance theory has spawned a number of seminal theories that can be used to the investigation of economic oddities.

Heuristics bias

The behavioural finance theory has resulted in the development of a number of well-known notions as a result of the study of the psychology of purchasers. These concepts may be used to explain certain peculiar occurrences in the economy. Representativeness, availability, adjustment, and anchoring are the four common heuristics that Kahneman and Tversky found to be the cause of systematic mistakes that occur when people make judgments on investments. According to Patrick and Charles, when people do not have a lot of information on a topic, they often rely on general principles or heuristics rather than logical argument to determine how dangerous something is. Irrational market actors are unable to effectively manage the powerful internal states, according to Trivers, who also made this claim [7]. When two entities, A and B, are compared to one another in terms of the alternatives that are being assessed, the degree to which the two entities, A and B, are comparable to one another is what is meant to be described by the word "representativeness."

One of the two fundamental mistakes that Tversky and Kahneman identified to be caused by representative biases is disregarding the prior probability from which a sample is picked. Overemphasis on a particular characteristic leads to ignoring the prior probability from which a sample is selected. Rabin coined the phrase "Gambler's Fallacy" to explain the effect that happens when a limited sample size is used to make sweeping generalizations about a larger population [8]. People have a tendency to buy more often when prices are low and sell more frequently when prices are high, as suggested by the gambler's illusion, which Andreassen and Kraus discovered to be accurate. Data that Andreassen and Kraus presented to support this assumption provided more evidence that persons who like following trends are less likely to utilise this method [9].

The phenomenon that people have a propensity to evaluate the probability of an event based on their recall of an earlier instance that was comparable to the current one rather than on objective evidence is referred to as "availability bias". Tversky and Kahneman found that purchasers had a tendency to anticipate that the value

of an item would continue to increase because of the attention it receives in the news. According to the findings of Fischhoff, Slovic, and Lichtenstein, people have a tendency to put less importance on the chance of an event that takes place indirectly or is unnoticed. It is simple to lose one's composure and go into a state of fear when something unexpected takes place.

According to Shiller, investors have a fickle attention span that is easily distracted by others, especially those who consider themselves to be experts. When investors frequently employ a small number of critical reference points to assist them in sorting through uncertainty and then proceed to make the required modifications to their initial assumptions, it is stated that they are vulnerable to anchoring and adjustment bias [10]. Patrick and Charles say that those who have this bias have a tendency to accept the approximate accuracy of the current price of shares. Lovric made the observation that there would never be a sufficient adjustment for this heuristic mistake, which would result in an excessive dependency on the anchor price [11]. According to Shefin, those who work in the security industry are too cautious and need an excessive amount of time to integrate recent data into their research. According to the findings of Tversky and Kahneman's study, people have restrictions imposed on them by an empty "initial anchor."

Cognitive bias

The most common cognitive biases include overconfidence, overreaction, and the herd effect. Individuals who are overconfident tend to embellish both the accuracy of their own personal knowledge and the capabilities they claim to possess. People have a tendency to overestimate their degree of competence, according to a significant amount of research that has been conducted. According to the evidence presented, the confidence range for 98% may only encompass the real value to a maximum of 60%. When evidence is unclear and making predictions is tough, Griffin and Tversky claim that experts are more prone to lay their confidence in their own judgement than regular investors are [12]. According to study that was backed by Kahneman and Reiepr, overconfident investors need a narrower margin of error when making stock index forecasts about the future. Overconfidence, which results in distorted appraisals of unknown events, may be one of the human psychological qualities that is the most constant over time, according to the research of De Bondt and Thaler, who made this observation [13].

Overreaction, which is the practice of putting too much significance on a single piece of evidence, is one of the most common expressions of irrational bias among investors. It is also one of the most dangerous forms of prejudice. Russell estimates that at least ten percent of investors engage in illogical decision-making. In their research paper titled "Does the stock market react negatively?" De Bondt and Thaler conducted extensive research on over-reaction and suggested that investors are not as rational as is commonly believed. Instead, investors tend to exaggerate recent information while ignoring information that is more long-term in nature. On the other side, institutional investors are under-reactive, which means

that they often have confidence in their own judgement and are resistant to change [14]. A prime example of herd behaviour is the mindset of individuals who mindlessly follow the herd in their investment decisions and place too much weight on the mainstream consensus without doing their own research. These people are a prime example of the mentality of individuals who engage in herd behaviour [15]. According to Lakonishok, Shleifer, and Vishny's definition of the "herd effect," this phenomenon refers to the propensity of investors to buy or sell securities at the same time as other investors. In their investigation, Scharfstein and Stein came to the conclusion that the herd effect lowers the efficiency of the securities market, which in turn results in swings in the price of stocks.

Objectives and Methodology

Objectives: The behavioural finance theory has been able to account for a number of the psychological blunders that are made by traders, which has assisted in explaining a number of the anomalies that are found in the traditional finance theory. The research decides to focus on four prevalent biases in behavioural psychology in order to analyse them in more depth and evaluate their prevalence as well as their influence. The cognitive biases that investors have and the accompanying advice on how to overcome such prejudices are analyzed in this article. The study may be useful to individual investors as well as institutional investors.

This article provides a complete explanation of the issue at hand by making use of statistical analysis of the data presented. In his argument, Sekaran suggested that the results of the survey analysis would provide some insight on the qualities of the components. In addition to that, we took use of a study equipment that had already been created. Using a method known as stratified random sampling, a total of one thousand participants are selected at random, and it is ensured that the collected responses are on time (professional and regular participants are separated by transaction amount). The remaining 5% of surveys are reserved for institutional investors, while the remaining 95% are given to individual investors (623 to 37 pieces). Data gathering is made easier for the investigators by the use of identity forms with pre-written questions. This saves both time and work for the investigators. According to Sekaran, it is best to carry out a local poll by personally distributing questionnaires to those who are interested in participating. Using a survey as a research technique has a number of advantages, two of the most important of which are its cheap cost and its short turnaround time.

Results and Discussion

Conservative bias

There are two characteristics that demonstrate the conservative tendencies of Indian securities consumers. While 39.57 percent of Indian traders would prefer to enter the market at the optimal period, when shares with average performance suddenly earn significant returns, 61.9 percent of Indian traders would rather cash out. The vast majority of institutional investors are pessimistic, with 70.82 percent wanting to sell their shares and 29.16 percent

preparing to add to their positions in the stock.

(II) Although 21.33 percent of investors would take immediate action on relevant material, 42 percent would first wish to verify the information. 53.33% of professional trader's vs 3.3% of retail traders are the ones most likely to demand more verification. The variation in response rates to these two concerns may be regarded as a reflection of both the emphasis that is placed on preservation and the chance that there would be a prospective benefit. It is clear that huge shareholders in Indian companies are less willing to take risks than ordinary investors. Edwards recognized in 1968 that individuals are not as likely to adjust their opinions as a rational Bayesian would be when provided with new data. He coined the term "conservatives" to describe this phenomenon. Edwards further said that the distance between logical updating and actual updating extended as the utility of the new information increased, but the gap between the two types of updating remained the same. Grether observed that several sorts of conservatism might be shown in terms of the choices that are made based on the specifics of the situation and the evidence that was collected from the tests.

When compared to the number of investors who choose to hold on to their profits, the number of investors who choose to sell following a period of strong quality is more than twice as high. Both traders and investors would rather sit on a gain that is certain to materialize than take a risk on one that may or may not. Individual investors of a smaller or medium size in India are far more likely to engage in rapid investing techniques, which means they will sell their stocks once the prices have increased by a greater amount than they had anticipated. According to Hirshleifer's theory, people may not react adequately to fresh data since it is time-consuming and costly to obtain new facts and change ideas. People may therefore not react adequately. The fact that half of specialists do not want to employ new information in their investing plan because they believe it requires more consideration contributes to the problem of under-reaction among professionals. It's possible that prices don't fully reflect market knowledge because of a tendency toward conservatism; this is an argument against the efficiency of markets.

Over confidence

According to the data, half of non-professional traders put their faith in their own judgement, and 20%.86% of them report a higher rate of return when they take their own recommendations. Only 6.95% of people will openly admit to having done anything wrong, however 22.18% of people will indicate they are doubtful about their own judgments. In point of fact, 52% of investment firms, 40% of individual investors, and 8% of those without a background in finance all evaluate their evaluation as correct, not sure, or incorrect, respectively. The percentage of investors who consider themselves to be competent stands at 79.07%, while the percentage of investors who do not consider themselves to be competent stands at 20.93%. When it comes to asset managers, 96% have a favorable outlook, while only 4% have a pessimistic one. The responses to the two questions that came before this one shed light on the characteristic of excessive trust that is shared by Indian security investors,

with investment firms displaying an even higher level of assurance than ordinary investors do. Investors have a penchant toward overestimating their own talents, according to evidence gathered from a wide variety of sources, which implies that this is a common pattern.

It is interesting to note that half of all fund managers are positive about the efficiency of their strategy, and the reason for this is that they are all convinced that they are talented individuals. According to Scheinkman and Xiong, investment companies prefer to purchase expensive equities while in possession of favorable facts because they feel safe selling the pricey shares to individuals who have more extreme beliefs. However, investment organisations have access to a vast quantity of funds that can influence the path that enterprises take within the financial sector. As a result, excessive confidence in the face of unpredictability may result in an abnormal movement in the stock of a company. According to Bernardo and Welch, who saw the topic from a different angle, the optimism of investors might encourage the development of fresh ideas, which is beneficial for the economy and the financial markets.

Self-attribution bias

In the face of a discrepancy between the facts and their own opinions, the majority of common traders (58.27%) say they require additional information or the opportunity to make a decision. In contrast, 22.18 percent of common traders insist on their initial assessment, and 19.53 percent admit they were wrong. Despite this, 36.4% of people will credit their judgement skills as the reason for the outcome if the actuality is related with judgement. The prevalence of this bias is notably high in the investment industry, with 72% of investment firms attributing their own success and 64% refusing to assign unequal performance to bad judgement. The statistical sample is a good example of the self-attribution personality trait. When it comes to the former, individuals and investment businesses in particular are more likely to take credit for their own achievement and lay blame on outside forces. When people have an excessive amount of faith in the success of their personal investment strategy, it is possible that they are suffering from a combination of self-attribution and overconfidence. In addition, Hirshleifer suggested that self-attribution and overconfidence are dynamic and permanent opposites, with the former leading to the latter rather than to a convergence on an accurate self-evaluation. He said this in his theory that self-attribution and overconfidence are dynamic and permanent opposites.

Loss aversion

There is a fifty-fifty probability that you will win Rs. 200 or lose Rs. Only 37.15% of institutions are interested, while individual investors make up 42.86% of the investors who are uninterested. Nonetheless, between 88.92% and 91.89% of participants exhibit an interest in placing another wager when the frequency of wagers is increased to 100 times. It is also noteworthy that while 35.63 percent of established companies in the market and 32.43 percent of investment firms are willing to take a chance on a triumph or loss of

100 rupees with the same odds, only 18.94 percent and 18.91 percent are willing to take a risk on 10,000 rupees. The psychological idea of loss aversion is made clearer by the comparisons that have been shown thus far. According to Hirshleifer, the tendency for individuals to resist accepting risks that are less favorable than their baseline value is an example of cognitive bias. Samuelson observed that when picking a single bet that is somewhat near to the benchmark, many people chose to decline the bet out of fear of losing 100 rupees despite the fact that taking a risk can have clear benefits. This was true even though taking a risk can be advantageous.

However, the vast majority of people opt to take the risk since the decision is so dissimilar to the standard when the wager is played back one hundred times (Samuelson, 1963). According to the findings of a study conducted by Barberis and Huang, loss aversion is one of the factors that contributes to unnecessary market volatility. According to Barberis, the necessity for a high premium among investors in order for them to make strong purchases of shares is a puzzle that can be addressed by the loss aversion bias. In addition to this, Grinblatt and Han hypothesised that the psychological phenomenon of loss aversion can also be used to explain the momentum effect (Figure 1).

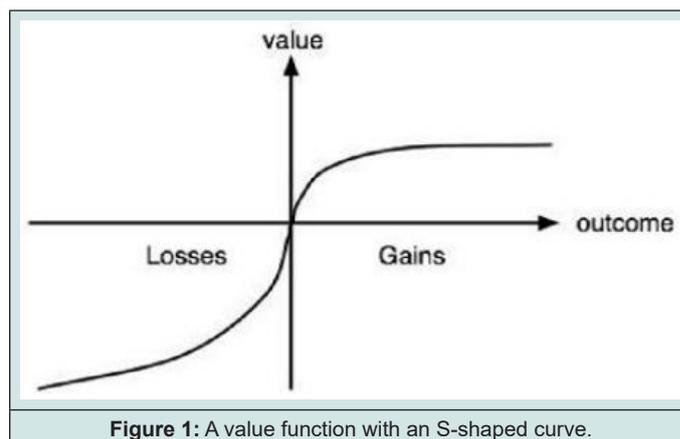


Figure 1: A value function with an S-shaped curve.

The value function is an illustration that shows how traders' perceptions of value shift in reaction to various outcomes. Figure demonstrates that the exact quantity of value that is associated with the losing outcome is higher than the value that is associated with the winning event. This resistance to losing in investing is represented in the fact that the value of gain is lower when the benefit is not especially huge. Traders are now more vulnerable to losses when the quantity of damage is tiny, and the value of gain is less when the gain isn't particularly big. In addition, the degree of sensitivity reduces when a greater quantity of loss is experienced. When making an investment, the disappointment of losing money is almost always worse than the satisfaction of making a profit.

Conclusion

There are several cognitive biases that have been discussed, such as overconfidence, overreaction, and the herd effect. There are also heuristics biases, such as representativeness, availability, and

anchoring. There is a possibility that the explanations to the irrational behaviour of the economy can be found inside these psychological characteristics. In addition, a survey is used to analyse the trading mentality of Indian investors as part of this study. Based on the data provided above, it is evident that Indian investors, and notably Indian institutional investors, tend to make irrational choices when it comes to their portfolios. According to the findings of several studies, the field of cognitive science is home to four primary types of bias: the conservative bias, overconfidence, self-attribution bias, and loss aversion. Confirmation bias is more prevalent in the investment industry, which suggests that these defects in behavioural biases cannot be overcome through learning and experience alone. When it comes to the study of the financial markets, the relatively new field of Behavioral Finance is an extremely fascinating area to investigate. The findings of behavioural finance theory provide us a better grasp of psychology science as well as the peculiarities of the financial markets and the decisions that must be made regarding financial plans.

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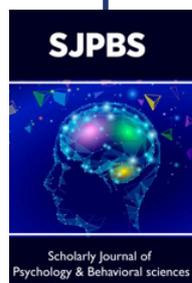


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