FACTORS INFLUENCING THE INDIVIDUAL INVESTOR DECISION MAKING BEHAVIOR IN INDIA

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Introduction

Classical investment theories are based on the assumption that investors normally act in a manner that maximizes their return. Yet researches show that investors do not always behave so rationally. Human become puzzled when the uncertainty regarding investment decision engulfs them. Neither People always remain rational nor the markets always remain efficient. Behavioral finance explains why individual do not always make the decisions they are expected to make and why markets do not reliably behave as they are expected to behave. Recent researches show that the average investors make decisions based on emotion, not logic; most investor’s buy high on speculations and sale low on panic mood. Psychological studies reveal that the pain of losing money from investment is really many times greater than the joy of earning money. Emotions such as fear and greed often play a pivotal role in investor’s decision; there are also other causes of irrational behavior. It has been observed that stock price moves up and down on a daily basis without any change in fundamental of economies. It is also observed that people in the stock market move in herds which influence stock price. Although, markets are efficient theoretically, but in practice, they never move efficiently. For example, a reputed company announces a mega investment in an emerging area over next few years, the stock price of the company starts moving up immediately without looking into the prospects, return or the amount of investment to be made in this project. This is the reason; the behavior of investor moves the stock price.

Theoretical Foundations of Behavioral Finance

Meaning of Behavioral Finance

Behavioral finance is a branch of finance that studies how the behavior of agents in the financial market and influenced by psychological factors and the resulting influence on decisions made while buying or selling the market, thus affecting the prices. The science aims to explain the reasons why it’s reasonable to believe that markets are inefficient. Some of the key definitions of behavioral finance are discussed below.

According to Sewell (2007), “Behavioral finance is the study of the influence of psychology on the behavior of financial practitioners and the subsequent effect on markets.” The science deals with theories and experiments focused on what happens when investors make decisions based on hunches or emotions.

Shefrin (2000) defines Behavioral finance as “a rapidly growing area that deals
with the influence of psychology on the behavior of financial practitioners”.

Belsky and Gilovich (1999) prefer to call behavioral finance as ‘behavioral economics’ and says that “Behavioral economics combines the twin disciplines of psychology and economics to explain why and how people make seemingly irrational or illogical decisions when they spend, invest, save, and borrow money.”

According to Barber and Odean (1999), “Behavioral finance relaxes the traditional assumptions of financial economics by incorporating these observable, systematic, and very human departures from rationality into standard models of financial markets. The tendency for human beings to be overconfident causes the first bias in investors, and the human desire to avoid regret prompts the second”.

Thus, Behavioral finance can be defined as a field of finance that proposes explanation of stock market anomalies using identified psychological biases, rather than dismissing them as “chance results consistent with the market efficiency hypothesis” (Fama, 1998). It is assumed that individual investors and market outcomes are influenced by information structure, and various characteristics of market participants (Banerjee, 2011).

In fact, Behavioral finance is the study of psychology and sociology on the behavior of the financial practitioners and the subsequent effect on the security market. It helps to understand why people buy or sell stock without doing fundamental analysis and behave irrationally in investment decisions. It may be explained as a Figure 1.

![Figure 1. Evolution of Behavioral Finance (Schindler, 2007)](image)

Thus, it may be said that behavioral finance is the application of scientific research on the psychological, social and emotional contributions to market participants and market price trends. It also studies the psychological and sociological factors that influence the financial decision making process of individual groups and entities.

**Fathers of Behavioral Finance**

In the 1960s Daniel Kahneman and Amos Tversky, Fathers of Behavioral Finance, were focused on different lines of research and came together in the 1970s to create what were to be the benchmarks in the field. The initial step was to adapt psychological experiments in decision theory to real-world scenarios. They also started to differentiate normative solution to a problem from the real life subjective answers they gathered through experiments. Tversky’s mathematical work on the normative theory and Kahneman’s ‘psychophysical emphasis on the difference between objective stimulus and subjective sensation’ blended perfectly to serve the purpose.
2007). The first paper they authored together, “Belief in the Law of Small Numbers” was published in 1971, in which they report that “People have erroneous intuitions about the laws of chance. In particular, they regard a sample randomly drawn from a population as highly representative” (Kahneman and Tversky, 1973).

In their 1972 publication titled “Subjective probability: A judgment of Representativeness”, they study the Representativeness bias - which is explained later in this study – and followed it up with a 1973 publication titled “On the psychology of prediction” which says that Representativeness play a key role in intuitive predictions made by individuals (Kahneman and Tversky, 1973). In 1974 “Judgment under Uncertainty: Heuristics and Biases”, one of their prominent works, was published. They described three heuristics – Representativeness, Availability and Anchoring. They said that “a better understanding of these heuristics and of the biases to which they lead could improve judgment and decisions in situations of uncertainty”. In 1979 their most important work titled “Prospect Theory: An analysis of decision under risk” appeared in Econometrica, which was ‘a critique of expected utility theory as a descriptive model of decision making under risk’ and the alternative model developed was called Prospect Theory. Kahneman was awarded the Nobel Prize in Economics in 2002, for his work in Prospect Theory. In another important paper introduced by Daniel Kahneman and Amos Tversky shown that when the same problem was framed in different ways, the psychological principles that governed the perception of decision problems and evaluation of probabilities and outcomes produced predicated shifts of preference.

Traditional Finance Vs Behavioral Finance

In traditional theories of finance investment decisions are based on the assumption that investors act in a rational manner. It means that investors behave rationally so they earn returns for the money they put in stock markets. For becoming successful in the stock market it is essential for investors to have rational behavior patterns. Rational behavior is also required to overcome various tendencies.

But, Modern theory of investors’ decision-making suggests that investors don’t act rationally at every time while making decision for an investment. They deal with several cognitive and psychological errors. These errors are called behavioral biases and are exists in many ways. Behavioral finance has been growing specifically over the last two decades as we find difference between the assumptions made in traditional finance theory and actual behavior of investors.

Literature Review

Literature can remind us that not all life is already written down: there are still so many stories to be told - By Colum McCann.

Research is made in order to inform people with new knowledge or discovery. Every piece of ongoing research needs to be connected with the work already done, to attain an overall relevance and purpose. The review of literature thus becomes a link between the research proposed and the studies already done. It tells the reader about aspects that have been already established or concluded by other authors, and also gives a chance to the reader to appreciate the evidence that has already been collected by previous research. Usually every individual research project only adds to the plethora of evidence on a particular issue. Unless the existing work, conclusions and
controversies are properly brought about, most research work would not appear relevant.

DeWeaver and Shannon (2010) argue that existing explanations for the stock-market investor’s disposition to “ride losers too long” are unsatisfactory because they abstract from any role for information processing. They propose instead that the disposition effect is a special case of “waning vigilance” investors pay less attention to new information and analysis when making decisions about loss makers and are therefore slower to sell them when arguments in favor of holding cease to be valid.

Shukla (2010) contains the findings of a survey conduct by NCAER and Max New York Life Assurance company, reveals that this phenomena is not just confined to poor or middleclass households, but is prevalent in rich households too. The survey reveals that most Indians prefer keeping 65 percent of their savings in liquid assets like bank or post office deposits and cash at home, while investing 23 percent in physical investments like real estate and gold and only 12 percent in financial instruments. The survey also revealed that Indian households have a strong saving habit – income level is an important factor in influencing the saving patterns of households: - variations in savings behavior are equally decided by education level and occupation: - 81% of Indians save: - the average household savings are Rs.16,139: - the top income – quintile saves 44% of income: - graduate households save 30% of income: - non-graduate families an average of 18% - salaried earners save around 7% of income: - laborer households save about 4%.

Merikas et al. (2009) adopted a modified questionnaire to analyze factors influencing Greek investor behavior on the Athens Stock Exchange. The results indicated that individuals base their stock purchase decisions on economic criteria combined with other diverse variables. The author did not rely on a single integrated approach, but rather on many categories of factors. The result also revealed that there is a certain degree of correlation between the factors that behavioral finance theory and previous empirical evidence identify as the influencing factors for the average equity investor, and the individual behavior of active investors in the Athens Stock Exchange influenced by the overall trends prevailing at the time of the survey in the Athens Stock Exchange.

Hoffmann (2007) in his study on social Dimensions of Investor Behavior stated that Traditional finance theories assume that investors only evaluate risk and expected returns when making investment decision. The respondents of Hoffmann’s online investment survey that besides financial needs, they also strive to satisfy more socially oriented needs through investing. These investors like to identify themselves with other investors and enjoy participating in investment-related conversations. Moreover, these investors consider investing to be a nice free time activity. Hoffmann also investigates the effects of striving to satisfy these different needs on the decision-making behavior of these investors. It is found that investors for whom socially oriented needs are important also attribute more value to the opinion of others about their investment decisions and also request more information from these others before making their own decisions.

Gillepsie (2006) made a research on mutual fund investors in the United States. It was found out that Investment return is far more dependent on investor behavior than on fund performance. Mutual fund investors who simply remained invested earned higher real returns than those who attempted to time the market.
Gupta (2005) stated that fifty Per Cent household investors, regardless of income or age, have a negative opinion of company managements, and 44 per cent think they cannot rely company auditors to prevent fraud, a survey subscribed by the Investor Education and Protection Fund managed under the Ministry of Company affairs, finds.

Kadiyala and Rau (2004) investigated investor reaction to corporate event announcements. They concluded that investors appear to under-react to prior information as well as to information conveyed by the event, leading to different patterns: return continuations and return reveals, both documented in long-horizon return. They found no support for the overreaction hypothesis.

Raghavan (2000) commented on the risk perceptions and the risk measure parameters. He opined that risk measures are related to the return measurements. While risks can only be contained and cannot be eliminated altogether, there is no doubt that some risks have to be taken to get adequate returns. Returns can be increased or made quicker by taking more financial and operating risks. But the environmental risks typically do not increase returns but serve as constraints on return and risk decisions. He concluded that the process of retaining the levels of risks within the desirable levels must be practiced in the daily operations.

IES Report (2000) states that in spite of some instances of high volatility, the Indian markets have remained stable and safe. It is observed that the Indian securities market has been witnessing a downtrend and instances of volatility. But the downtrend and the fall in the indices of the major capital markets around the world. According to the Report, the downtrend in the SENSEX could be attributed to (1) Rise in the oil prices in the global markets leading to increase in oil pool deficit (2) Downward pressure on the Indian Rupee, (3) Fears of an economic slowdown as indicated by the key economy indicators, (4) Revival of competitive economies such as Malaysia and possibility of shifting some foreign investments to these countries etc.

Choksi (2010) studied the investor’s perception regarding Derivative market in India. He studied the demographic profile, investment preferences among derivative products, and awareness of using derivative products.

Vashishtha and Kumar (2010) proposed that innovation of derivatives have redefined and revolutionized the landscape of financial industry across the world. They have studied the comparison between market trend of cash segment and derivative segment at NSE and BSE. Further they have analyzed the derivative market trend among various derivative products.

Singh (2009) discussed the advantages/disadvantages of using derivatives. Further Evaluate the pay offs from options and their combinations. As far as investment analysis is concerned, appreciate the role of Futures in Portfolio management.

Srivastava et al. (2008) found that high net worth individuals and proprietary traders contribute to the major proportion of trading volumes in the derivative segment. The survey also revealed investors are using these securities for risk management, profit enhancement, speculation and arbitrage. It also emphasized to popularize option instruments because they may prove to be a useful medium for enhancing retail participation.

In this paper, a large body of psychological literature finds that the people tend to be overconfident and overly optimistic. This literature find that the biased managers over-invest their firms cash flows, initiate too many mergers, start more firms and
more novel projects and tend to stick with unproductive investment policies longer. Corrective measures to reduce the effect of manager biases include learning, inflated discount rate and contractual incentives but their effectiveness in curbing over investment appears to be limited.

Abovementioned are some of the literature reviewed in behavioral finance which highlights how the individual irrational behaviors have impact on investment decisions.

**Common Causes or Biases of Behavioral Finance**

Investors may be inclined toward various types of behavioral causes or biases, which lead them to make cognitive errors. People may make predictable, non-optimal choices when faced with difficult and uncertain decisions because of heuristic simplification. Behavioral biases, abstractly, are defined in the same way as systematic errors are, in judgment.

**Anchoring**

Anchoring is a psychological situation exists when investors give unnecessary importance to statistically random and psychologically determined ‘anchors’ which leads them to investment decisions that are not essentially ‘rational’. When required to estimate a good buy price for a share and investor is likely to start by using an initial value – called the “anchor” – without much analysis, say for e.g. the 52-week low of the stock. Then they adjust this anchor up or down to reflect their analysis or new information, but studies have shown that this adjustment is insufficient and ends producing results that are biased. Investors exhibiting this bias are likely to be influenced by these anchors while answering key questions like ‘Is this a good time to buy or sell the stock?’ or ‘is the stock fairly priced?’ The concept of Anchoring can thus be explained by the tendency of investors to “anchor” their thoughts to a logically irrelevant reference point while making an investment decision (Pompian, 2006).

In fact, People have a tendency to attach or “anchor” their thoughts to a reference point even though that may hardly have any logical association with the decision at hand. Although the company is making more money yet its stock price does not rise because investor assume that the change is earning is only temporary. Thus, the investor remains anchored to their previous view of the companies’ potential profitability because they have under-reacted to the new, positive information. It doesn’t mean that investors will never move away from their initial reference point or anchor. Actually, Investors will realize that the company is likely to continue to be more profitable in the future and that its stock is probably an attractive potential investment.

**Herding Behavior**

This is the common mistake where investors tend to follow the investment decisions that taken by the majority. As a result of this investor will not buy or sell a stock even if that decision is supported by technical or fundamental analysis. Investor is pressurized by the influence by the peers. They are more concerned about what others think of their investment decision. As a result of herding behavior, investors lose their own individuality in the decision making process. In fact, herd behavior is the tendency individuals have to mimic the actions (rational or irrational) of a large group irrespective of whether or not they would make the decision individually. One reason is
that people are sociable and they do not want to be outcast from the group they belong. Another reason is that investors tend to think that it is unlikely that a large group could be wrong. Purchasing stocks based on price momentum while ignoring basic economic principles of supply and demand is known in the behavioral finance arena as herd behavior and that leads to faulty decision. In the late 1990s, Venture capitalist and private investors were frantically investing huge amount of money into internet related companies, even though most of them did not have financially sound business models. This could make him follow the herd under the illusion that the herd may know something he does not.

**Representativeness**

Representativeness is the tendency of investors to associate new event with a purpose of knowing the event and through which only they make investment. If a company makes some announcement, the investor will correlate that announcement with the past announcements and makes decision on the basis of that past announcement without considering the fact that past announcement may not represent the present one so far. It means representativeness is concerned with determining conditional probabilities.

**Cognitive Dissonance**

"Cognitive Dissonance is the mental conflict that people experience when they are presented with evidence that their beliefs or assumptions are wrong" (Montier, 2002). As a result of this conflict, the investor ignores new information that contradicts known beliefs and decision. This behavior of investors leads to reduction in their ability to make rational and fair investments. When an investor faces a situation where he has to choose between two alternatives, it is likely that some conflict will follow after a decision has been reached. The negative aspects of the alternative he chose are likely to be prominently visible while the positives of the discarded alternative will add to the conflict.

**Overconfidence**

“In this most basic form, Overconfidence can be summarized as unwarranted faith in one’s intuitive reasoning, judgments, and cognitive abilities” (Pompian, 2006). Normally, people are generally overconfident regarding their ability and knowledge. They tend to underestimate the imprecision of their beliefs or forecasts, and they tend to overestimate their ability.

It has been determined by Psychologists that Overconfidence causes people to overestimate their knowledge, underestimate risks, and exaggerate their ability to control events. This concept of Overconfidence derives from a large body of cognitive psychological experiments and surveys in which subjects overestimate both their own predictive abilities and the precision of the information which have been given. In brief, people think they are smarter and have better information than they actually do (Pompian, 2006).

**Regret Aversion Bias**

Regret Aversion is a psychological error that arises out of excessive focus on feelings of regret at the time of decision making, which turned out to be poor, mainly because the outcomes of the alternative are visibly better for the investor to see. The
root cause of this type of error is the tendency that individuals hate to admit their mistakes. Because of suffering from this bias, investors may avoid taking decisive actions for the fear that whatever decisions they make take will be sub-optimal in Hindsight. One potential downside is that this could lead investors into holding onto a losing position for too long, because of unwillingness to admit and rectify mistakes in a timely manner. Another downside is that it can stop investors from making an entry into the market when there has been a downtrend showing signs of ending and signals that it is a good time to buy. Generally, The Fear of Regret happens when individuals procrastinate while making decisions. Many psychological experimental studies suggest that regret influences decision-making under uncertainty.

**Over and Under-Reaction**

Disproportionate reaction to news, both good and bad has been often seemed in the financial market. It tends to become more optimistic when the market goes up and more pessimistic when the market goes down. Irrational optimism and unjustified pessimism are shown in both - over and under-reaction of investors.

**Mental Accounting Bias**

Mental Accounting is the set of cognitive operations used by individuals and households to organize, evaluate and keep record of financial activities resulting in a tendency for people to separate their money into separate accounts based on a variety of subjective reasons. Individuals tend to assign different functions to each asset group, which has an often irrational and negative effect on their consumption decisions and other behaviors. Mental Accounting refers to the codes of people use when evaluating an investment decision.

**Loss Aversion**

Not only Investor is risk seeker when faced with respect of loss, but also becomes risk averse when faced with the prospects of enjoying gains. Khaneman has said that investors are “Loss aversion” which means that people are willing to take more risks to avoid loss than to realize gain.

**Gamblers’ Fallacy Bias**

“Perhaps the most bizarre argument for being bullish is the belief that markets can’t go down for four years in a row. This is a prime example of the Gamblers’ Fallacy.” Montier (2003). Kahneman and Tversky (1971) describe the heart of gambler’s fallacy as a misconception of the fairness of the laws of chance. One major impact on the financial market is that investors suffering from this bias are likely to be biased towards predicting reversals in stock prices. Gamblers’ Fallacy arises when investors inappropriately predict that trend will reverse and are drawn into contrarian thinking. Gamblers’ Fallacy is said to occur when an investor operates under the perception that errors in random events are self-correcting. For instance, if a fair coin is tossed ten times and it land on heads each time, an investor who feels that the next flip will result in tails can be said to be suffering from this bias.

**Availability Bias**

It suggests that the recent memory i.e., the available example influences more on investor’s decision of investment i.e., if investor has recently seen huge loss in one
investment avenue then he will not invest in that avenue. Investor will be more likely
to be fearful of stock market if he has been recently seen any stock market crisis.

**Conservatism**

It represents that the investor takes decision on the basis of his past information
although faced with the new information or investor only partially adjust his view in
the light of new information i.e., investor who buy shares in a high profile company
may be slow to adjust his view of the company’s prospects even after the company’s
profitability deteriorates.

**Behavioral Finance and Decision Making**

“Behavioral Finance is becoming an integral part of decision-making process
because it heavily influences the investors’ performance”. (Banerjee, 2011) “An
understanding of how our emotions result in irrational behaviour is indispensable for
any investor”. Every investor may educate himself about the various biases they are
likely to exhibit and then take steps towards avoiding it thus improving their
effectiveness. Some common mistakes made by investors are selling too soon while
booking profits, holding too long while facing losses, buying overpriced stocks based
on market sentiments and positive evaluation by all and sundry. (Parikh, 2011).

Decision-making is the process of choosing a particular alternative from many
available alternatives. It is a complicated multi-step process involving analysis of
various personal, technical and situational factors. There are no exceptions in the case
of making decisions in the stock markets either. Taking investment decisions is the
most crucial challenge faced by investors. Some personal factors are age, education,
income etc. On the technical side, investment decisions can be derived from various
models of finance, for e.g. the capital asset pricing model (CAPM). Decisions should
not be reached without considering situational factors that take into account the
environment, the market psychology in other words. Effective decision making in the
stock market requires an understanding of human nature in a global perspective on top
of financial skills. Thus cognitive psychology should be given importance in the
process of decision-making (Chandra, 2008).

**Strategies for Overcoming Behavioral Finance**

In recent years, behavioral finance is becoming an integral part of decision-
making process due to heavily influences the performance of an investor.
Understanding behavioral finance will help the investor to select a better investment
instrument and he may avoid repeating the expensive error in future. One can improve
its performance by recognizing his biases and errors of judgment to which everyone is
prone. The main issue of studying behavioral finance is how to minimize or eliminate
the psychological biases in investment decisions of the investors. After an extensive
study of the literature on behavioral finance, it is believed that its perfect application
could make a successful investor making fewer mistakes. A disciplined trading strategy
is required to control these mental roadblocks to all types of investors.

**Stock Investment**

There is a need to focus a ‘specific investment strategy’ over the long period to
to control “mental mistakes” by the investors. An Investor should not only keep detailed
records of the specific stock which was purchased for their portfolio but also decide
specific criteria for making an instant decision to buy, sale or hold. He should also keep in mind the answer of the following questions before taking any decision of buying, selling and holding new shares:

- Why investors purchase the stock?
- What is the time horizon of the investment?
- What is the expected rate of return?
- After one year the stock has under-performed or over-performed.
- Do you plan on buying, selling or holding your position?
- How risky is this stock within your overall portfolio?

**Mutual Fund Investment**

Tomic and Ruccuardi recommended that investors select mutual funds with a simple four step process which include the followings:

- Invest in only no-load mutual fund with low operating expense;
- Look for funds with a strong historical track record over 5-10 years;
- Invest with tenured Portfolio Manager with a strong investment philosophy; and
- Understand the specific risk associated with each mutual fund.

The key to successful investing is recognizing the type of investor; you are along with implementing a solid investment strategy. Behavioral factors can help investors to avoid mistakes. Avoiding mistakes is called defensive behavioral finance applications in investment decision making.

**Conclusion**

One word, which has dominated the world of financial stock markets since 2008, has been ‘Volatility’. Extreme movements in global indices and stock prices because of fear and anticipation has, as it is supposed to, made life tough for a rational investor. Market sentiments have been observed to sway wildly from positive to negative and back, in the shortest timeframes like weeks, days and hours. In this context, understanding irrational investor behavior deserves more importance that it has ever had. Behavioral finance - a relatively new field that came into relevance in the 1980s – studies the effect of psychology on financial decision-making. It studies how investors interpret new information and act on it to make decisions under uncertainty. The science does not try to label traditional financial theories as obsolete, but seeks to supplement the theories by relaxing on its assumptions on rationality and taking into consideration the premise that human behavior can be understood better if the effects of cognitive and psychological biases could be studied in context where decisions are made.

In Fact, Behavioral finance provides explanations for why an investor makes irrational financial decisions. It demonstrates how emotions and cognitive errors influence an investor in the decision making process. The various causes or biases that led to behavioral finance are anchoring, mental accounting bias, overconfidence, availability bias, conservatism, gamblers’ fallacy bias, herd behavior, behavioral finance and decision making, over and under reaction and loss and regret aversions.

In essence, behavioral finance approach investigates the behavioral patterns of investors and tries to understand how these patterns guide investment decision.
Behavioral finance offers many useful insights for investment professionals and thus, provides a framework for evaluating active investment strategies for the investors.

References
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Abstract

The paper is devoted to the subject of behavioral finance, it overviews main theoretical foundations as well as touches the practical issues of causes or biases of behavioral finance. The article concludes with the main strategies for different types of investors how to overcome those biases.

Keywords: behavioral finance, bias, investor, financial markets, information