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HEURISTIC BEHAVIOR OF THE INVESTORS

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ABSTRACT

The object of this study is to provide more information to the various investors' regarding their decision behavior system is influenced by heuristic factors in the stock market. By way of adopting good strategies, they have to take better decisions' and minimize their risk.

***Keywords**: Decision Behavior; Heuristic factors; Investors'; Bias;*

1. Introduction of the study

The Investment Decisions are based on *market sentiments.* In Behavioral Finance, "sentiment" is synonymous with "error". Several studies have identified influence of psychological factors on stock market. Daniel Kahneman (2000), reports that market has a psychology or a character. It has thoughts, beliefs, moods, and sometimes stormy emotions. The main characteristic of the market is extreme nervousness. The market sways with the moods and powerful emotional preferences of investors.

The mood of an investor changes from Exuberance to Complacency and Panic in the Emotional Life cycle. This is also reflected in market sentiments. The upheaval of Enthusiasm and Over Confidence due to recurring gains may decline drastically on a huge loss, causing repeated biasness in consecutive decisions. This Emotional cycle repeats again after a short span, on recuperation of the market.

The Investor's Emotional Lifecycle

It is full of hope one moment and full of anxiety the other day. The market may seem to be disturbed by the economic news such as inflation, global prices, change in government policies, RBI interest rates, and other related commercial news. The market at one point of time lifts the share value of a particular sector of economy and another day it may become hostile with that sector completely pulling it down, displaying an 'irrational exuberance' behavior. This volatile behavior of excessive optimism may push the stocks abnormally high, relative to its fundamental values. One of the predominant reasons for this stock market

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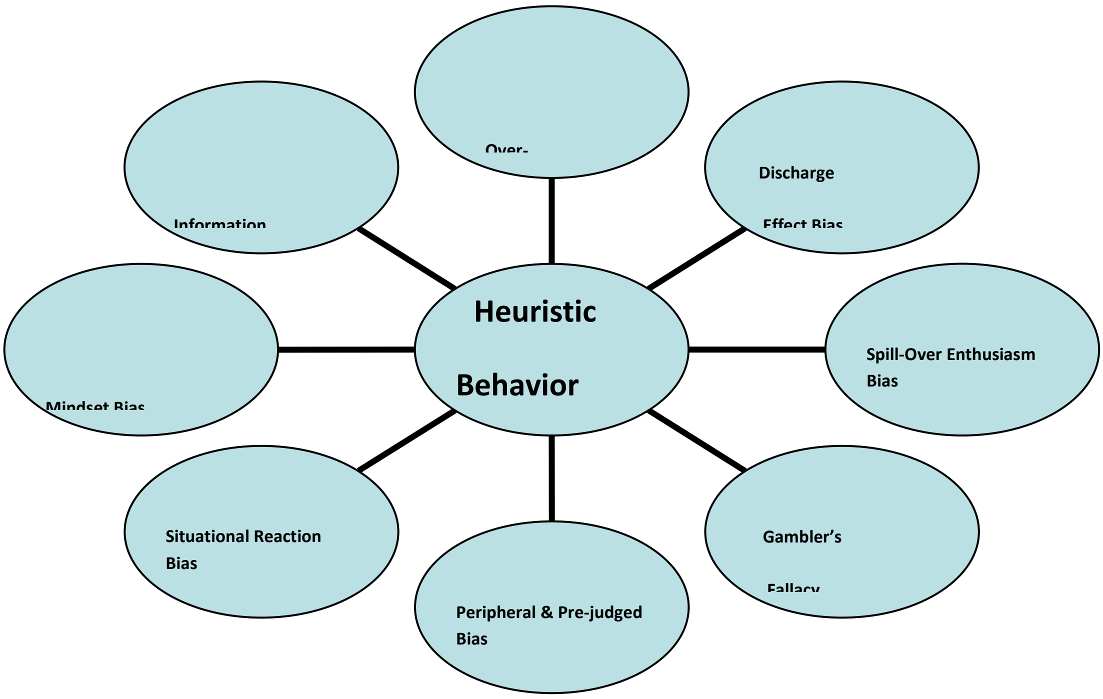
behavior is the reflection of the cognitive biases of Individual investors with different states of mind driving their decisions in capital market investments. Thus the fundamental errors of investors may cumulatively manifest in the security prices, and what is known as 'market sentiment'.

Individuals often tend to use cognitive heuristics (or mental shortcuts) due to the difficulties experienced in assigning probability to the outcomes that are uncertain. There are errors that may occur in the exhibition of heuristic behavior of investors that may be described as decision bias.

Kahneman and Tversky have explained the influence of investors' emotions in the decision-making process and what fallacies lead to judgmental errors resulting in financial loss or wrong decisions, as it is found that investors place different weights on gains and losses. They are willing to remain in a risky stock position by holding on the losing stock anticipating the prices to bounce back because they are more distressed by prospective losses than they are happy by equivalent gains.

In the light of the above discussion, this study is to identify the major heuristic behavioral factors that influence the Investors' decisions.

the most effective eight factors have been considered in this study through which this study has attempted to explain the heuristic behavior, commonly found on Investors in Stock Market, and these 8 heuristic factors are defined and named as follows;



1. Information Bias on Investor's Behavior

Availability Bias refers to how people use familiar events and information to assess the probability of a future outcome. Rather than thoroughly researching a topic and weighing the information objectively, people turn to the most accessible and convenient sources for guidance. This bias was identified through the following variable and they go together to explain the factor "Information Bias" that influence the Investors in decision-making.

2. Over Confidence Bias in Investor's Behavior:

Over Confidence bias pertains to the pervasive tendency of people to think that they know more than they do, over-rating their own abilities, on subsequent gains in the market (Kahneman & Riepe, 1998). They also over-estimate the precision of their knowledge, relative to others. Over-Confidence and Irrationality are adaptive psychological traits that help one to survive in this world. Earlier studies have also reported that people are over-confident in their judgments (Barberis and Thaler, 2003). Over-Confidence again is an effect of irrational exuberance which results in excessive trades, with its trading costs denting profits.

3. Discharge Effect Bias in Investor's Behavior:

This bias has been identified through the variables, that go together to explain the factor "Discharge Effect Bias" that influence the Investors in decision-making.

4. Mindset Bias in Investor's Behavior:

The investors' mindset is 'fixed and keep' holding stocks based on the market value and their investment behavior is adjusted through the mental accounting according to the current market situation coupled with the external opinion. This Mindset bias appears to influence on heuristic behavior. The effects of anchoring or mindset are likely to be lower when investors are warned in advance that they will be required to justify their choices

5. Spill – Over Enthusiasm Bias:

Behavioral Finance has received increasing notice as investors more openly acknowledge the impact of emotion on their investment decisions. Contagious Enthusiasm is a mentality characterized by a lack of individuality, causing people to think and act likes the general population. This term is used in the investing world to refer to the forces that cause unsubstantiated rallies on sudden sell-offs and buying of stocks.

6. Situational Reaction Bias:

The premise of investor overconfidence and the variations in confidence arising from biased self-attribution is derived from a large body of evidence from cognitive psychological experiments and surveys which shows that individuals overestimate their own abilities in various contexts. The situational reaction bias can be either over or under reacting to the current news, positive / negative which is reflected in the sudden increase or decrease of the stock prices far away from their fundamentals.

The stock market 'overreaction' hypothesis asserts that stock prices take temporary swings away from their fundamental values due to waves of optimism and pessimism (DeBondt and Thaler(1985, 1987), Lehmann (1990), Shefrin and Statman (1985).

7. Peripheral and Pre-judged decision Bias:

Efficient markets, risk management, asset class diversification are some of the key areas in financial planning that drives the investors to make rational choices with their money. While rational behavior appears to rule in the entire stock markets, it often falters at the individual level. It seems that, many investors act on impulse, emotion and illusion and are forced to pay a high price for their mistakes. When investors act on impulse, they fall prey to market myths, false hopes and financial illusions.

The Peripheral and Pre-judged biases are investor's illusions and beliefs about the recent events happened in the stock market presuming to have expected to happen. These cognitive biases affect the rational decisions of investors. In Peripheral bias, importance is given to the recent events rather than the fundamental values of the stocks.

8. Gambler's fallacy bias:

Gamblers' fallacy can be considered to be an extreme belief in regression to the mean. Regression to the mean is found in many human systems and implies that an extreme trend will tend to move closer to the mean over time. For example, an upward trend must be followed by a downward trend in order to satisfy a law of averages.

However, there are some of other minor factors, which may have little significance in decisions but the above eight factors are found to be having profound influence in irrational investment decisions of Indian Investors based on sentiments, emotions and cognitive biases as explained in the above eight heuristic factors.

The predominant eight factors have been put to further analysis to find out if they have any influence on the types of investors and also on their average returns earned from the investments in stock market.

2.TYPES OF INVESTORS AND HEURISTIC BIASES

Investors have been classified into three categories for the purpose of this study. This study has also identified eight dominant heuristic behavioral factors. It is assumed that these heuristic behavioral factors have strong influence on the types of investors. These decision biases in each of the heuristic factor varies from investor to investor depending on what category the investor fall ie., Risk Avoiders, Risk Takers and Risk Neutralists. The levels of these decision biases based on each of the above eight factors may cumulatively and individually affect each of the type of investors. Hence, an attempt is made to examine the relationship between the type of investor and the heuristic bias in the following paragraphs.

Investor Types

Psychologists have become increasingly involved in attempting to classify investors. Barnwell classifies investors as a two-way model, (i) Passive investors and (ii) Active investors.

Passive investors are characterized as individuals who have become wealthy passively - by inheriting, by a professional career, or by risking the money of others rather than their own money. To these investors, security of money is more important than risk, hence are more risk conscious and likely to follow the investment herd. **Active investors**, are those who have achieved significant wealth, or earned well, during their own lifetime. They are more likely to take risks in investing because they have previous experience of taking risks in their previous wealth creation. These individuals have a high-risk tolerance and less of a need for security.

Paul Krugman, detects the behavioral traits of investors as, 'the seven habits of highly defective investors', namely;

- Think short-term
- Be Greedy
- Believe in the greater fool
- Run with the herd
- Over-generalize
- Be Trendy
- Play with other people's money

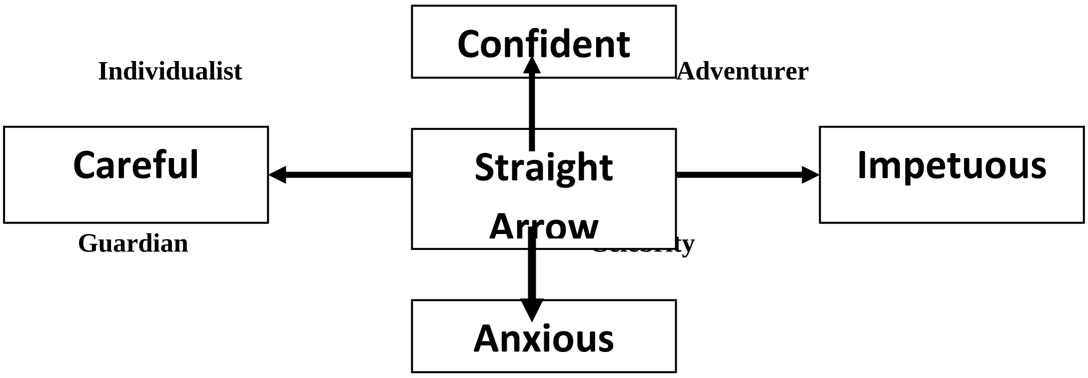
And identifies some of the characteristics of an irrational investor as;

- Too self-confident - exaggerates their own skills and its importance
- Too Bold - an 'optimistic bias', believing that their chances are better than others
- Too Timid - makes bold forecasts but rather makes timid decisions, also risk-averse
- Too afraid of loss - reluctant to admit that they were wrong, hence hold on losing stock

Another Authority has identified investors' profile as: The "I Can't Stop Worrying Investor", The Power Investor, The Inheritor, The Impulsive Investor, The Gambler, "The Make Me Safe Investor", and The Confident Investor (John Schott, 1998).

Bailard, Biehl and Kaiser propounded a five-way model in describing the types of investors. This model as depicted in the graphic representation the following Figure, projects the level of confidence an investor has in any decisions taken which is reflected in the emotional choices, ranging from Confident to Anxious and careful to Impetuous. The 'Adventurers' are strong willed and ready to take risk; 'Celebrities' want to be in limelight in choosing the latest investment, but least idea about control of finances; 'Individualists'

Five-way Model by Bailard and et al



are highly confident, methodical, balanced and analytical 'Guardians' older in age, cautious, shunning excitement or volatility; ' Straight Arrows' not on any extreme, balanced and moderate approach taking moderate risk.

"Money attitudes influence our behavior, aspirations and emotional reactions to ourselves, our families and our friends. Understanding your money style will help you gain insight into how and why you react emotionally to money"- Kathleen Gurney (2005). The nine money personalities, stresses the money style and how individuals react emotionally to financial decisions.

Michael M. Pompian (2006), identified six investor types in his *psychonomic approach* based on their risk propensity and innate such as Cautious, Emotional, Technical, Busy, Casual and Informed.

These above classifications are mainly based on the heuristics or the judgment errors influencing the capital market investments. The application of psychology to financial behavior helps to avoid many of the investment pitfalls caused by human error. Hence this study endeavors, to associate the decision biases based on the degree of risk taken by the investors.

For the purpose of the study, the respondent investors have been classified into three categories on the basis of their ability to take risk in the market. There are also other criterion, such as, analytical skills and other attributes which also goes with risk-taking ability. The identification of investors into the above three categories are based on their own responses.

Risk Avoiders:

Investors, who are risk averse, normally are very conservative. They seek low risk growth of capital and return, investing for long-term financial security, and to achieve retirement benefits. They normally decide on their own or seek guidance from money managers or financial analysts. They tend to choose a diversified portfolio which would ultimately generate a consistent annual return ranging between 3% to 8%, a much satisfactory return for them. Their asset class normally will be interest bearing savings accounts, money market accounts, Mutual funds, Government Bonds, and Certificates of Deposit, etc. Their risk taking level is very low and henceforth gets low returns. They are often dejected for they have to wait a long time before they have the opportunity of financial freedom. These investors entering the capital market, play cautious in their investments, and choose holding their stock picks for a longer period of time. They are selective in picking stocks, and in most instances their decisions are based on the guidance from financial analysts. They become very dejected when their choice has gone wrong and affected at a great extent by investing in losing stocks.

Risk Takers

Risk Takers are normally the hard core Speculators, who choose to take control of their investments. They always look for an investing edge taking a chance of getting rich at a fast pace. Normally they tend to forego the relatively low returns of a portfolio in order to achieve a much higher returns on their Aggressive or 'hot' stock picks, and some may opt for investing from borrowed funds expecting a broad leap in returns. Their decisions are highly risky where if it proves correct the returns are huge and if it is biased, to earn little or no profits, ultimately leading to a large erosion of funds, after paying brokerage commissions, taxes and other investing fees. He is very much a gambler, who recognizes the potential gains more often from smart investing based on the experience gained in the stock market.

Risk Neutralists:

The Savvy and Rational Investors fall under this category. They are moderate in taking decisions and most often tend to be risk neutral. They can be categorized as Specialists who have realized that there is a more powerful investing strategy than diversifying across a range of asset classes. They understand that the key to successful investing isn't luck or 'hot tips' but depend upon their education and experience. They generally pick a single investing area, and become experts in that area. They normally act on their plan, forward-looking, and adopt strategy by doing their homework to understand the risk side and where possible to reduce it. They are rational speculators who are understood the key tenets of serious investment success and intelligently predict from their intuitive knowledge. They are more analytical and fast in taking decisions.

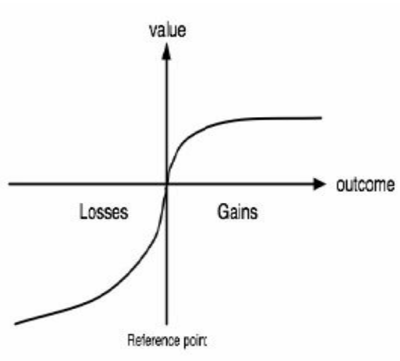
Investor Type and Heuristic-Driven Biases:

This study as already identified eight heuristic factors (refer chapter - IV) which drives the investors in decision-making. These biases are

(1) Information Bias
(2) Over-Confidence Bias
(3) Discharge Effect Bias
(4) Mindset Bias
(5) Spill –Over Enthusiasm Bias
(6) Situational Reaction Bias
(7) Peripheral and Pre-Judged Bias
(8) Gambler's Fallacy Bias

Now attempt is made in the following paragraphs to analyse the relationship between the types of investors and the above dominant biases identified by this study .

The discharge Effect bias (or disposition bias) predicts that investors sell winners too early and ride losers too long (Shefrin and Statman, 1985). Such behaviour complies with Kahneman and Tversky's (1979) prospect theory suggesting that investors are averse to realize their losses. More specifically, under prospect theory investors assess potential losses and gains using an S- shaped value function quantifying gains and losses rather than levels of wealth as in standard expected utility theory.



In other words, the value function displays concavity in the domain of gains and convexity in the domain of losses and is steeper for losses than for gains (i.e. loss aversion).

Institutional traders seem to take more rational decisions than individual investors. Moreover, fund managers are not prone to the disposition bias and seem to cut losses early.

Discharge Effect Bias existence has been confirmed by a large number of empirical investigations, by Ferris et al. (1988), Odean (1998), Barber and Odean (1999), Grinblatt and Keloharju (2001), Boebel and Taylor (2000), Barber et al. (2003), Garvey and Murphy (2004), Kaustia (2004a), Frino et al. (2004), Shu et al. (2005), Locke and Onayev (2005), among others.

In this study the Risk Takers take higher risk for immediate gains by selling the winners and hold on the losing stock expecting it to rise, and finally end up in heavy losses on losing stock.The most effective eight factors which have been considered in this study to explain the heuristic behavior, commonly found on Investors in Stock Market,The predominant eight factors have been put to further analysis to find out if they have any influence on the types of investors and also on their average returns earned from the investments in stock market.

2. Conclusion

Fear of loss is an invisible nemesis undermining the financial success. This financial fear creates anxiety lingering deep into the investor's mind. The economic decisions of a human being are more emotionally based than rationally based. Several money myths, like Money is Freedom, Money gives Power, It is security, It is Life, It is Love and Happiness , triggers intense emotions like fear, obsession, anxiety, greed etc. which makes difficult to handle even simplest of the financial decisions. It is the preparedness required to understand that Money is not the Master, but to use it as a tool to enhance its value requires patience, lesser attachment, and control of mind in making quick money.

Stock Market does not behave in a predictable way. What is interesting about Behavioral finance is that the experiments that are conducted try to explain why this happens and if we better understand how we behave and react to things, then we can reshape our world and systems to match that behavior to improve the situation. The study has beyond doubt established the relationship existing between the heuristic behavioral factors on the investment decisions of the investor.

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