COMPREHENSIVE REVIEW OF LITERATURE ON BEHAVIOURAL FINANCE

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Abstract: As per the standard finance, the investors are considered as rational in their investment decision making and they consider all the information available in the portfolio investment decision process. It is also assumed as per the standard finance that the markets are efficient, hence the market always give the proper information. However over the years, these assumptions have been challenged by the psychologists and they argue that the investors are not rational while taking the investment decisions and they are often influenced by the some emotions. And this has resulted in new field of finance known as Behavioral Finance. It explains how the emotions play an important role in making any investment decisions. In this paper, the literature review of various papers have been studied, so as to get the proper understanding of the subject and to see how important it is for financial decisions making. This paper has been divided into four chapters- the first chapter gives the introduction of the paper, followed by the second chapter which gives the objective behind taking this paper. The third chapter gives the detailed literature review from various papers. The last chapter concludes the paper.

IndexTerms - **Behavioral finance, Heuristic decision process, Prospect theory, perception, belief, attitude.**

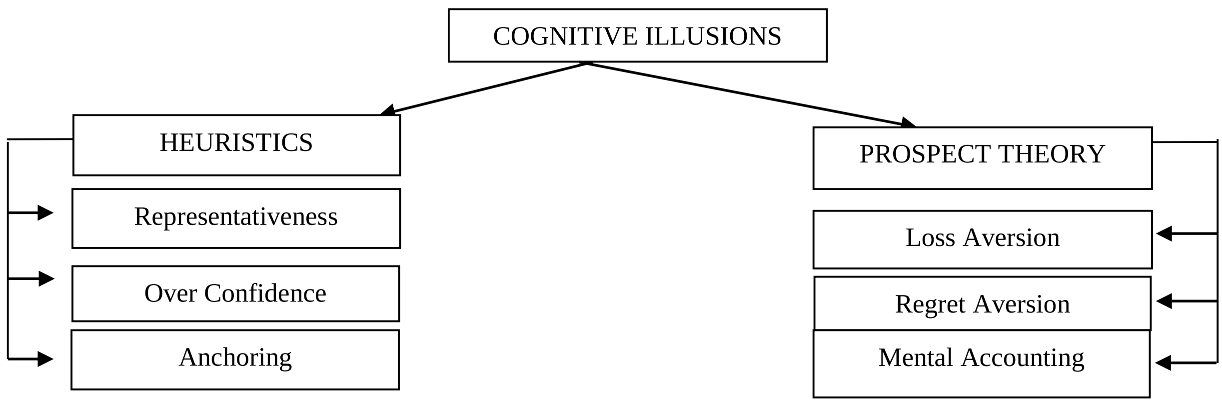
I. INTRODUCTION

"People in standard finance are rational. People in behavioral finance are normal."- Meir Statman

Investors are considered normal as per the behavioral finance theory. The theory states that the investors are normal in the decision making approach, i.e. they are usually affected by the emotions. Investors are led by sentiments and are affected by the cognitive errors. They lack self control, tend to be overconfident about their own abilities while investing in the stock market, usually misinterpret the information about the stock market. They tend to follow the crowd while taking any financial decisions in the stock market. These errors can be seen in the form of market irregularities.

Behavioral Finance
Behavioral finance is a branch of finance that studies how the investors behave in the financial markets. The behaviors of the investors are influenced by psychological factors. 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 behaviour 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."*
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).

Behavioral Finance Principles and Its Implications-
CLASSIFICATION OF COGNITIVE ILLUSION



Heuristic Decision Process

Tversky and Kahneman identified heuristics decision process as the process by which an investor finds out the solutions with the help of trial and error method. The investor's decision making are often influenced by the mental and emotional factors, which is quite difficult to separate. Sometimes it may be good, but many times it may result in poorer decision outcomes. It includes:

- Representativeness: It is basically taking the decision based on the past experience. It is known as stereotypes. The decisions taken are biased because the investors do not consider the present situation and rather rely on the past experience. For example- an investor may feel that the recent success may continue in the future also.
- Overconfidence: It is the most common and powerful psychological bias. It can be defined as "beliefs in oneself and one's abilities with full sincerity". Overconfidence could lead to risks, like overestimating one's capabilities of doing a task, and/or underestimating possible risk.
- Anchoring: It describes the human tendency to rely too heavily, or 'anchor' on one trait or piece of information when making decisions. This anchoring is a mental error and is often done without any logic or reason. When the investor are presented with the new piece of information, they tend to be slow to change anchored by recent observation.
- Gamblers Fallacy: It arises when the investors incorrectly predict that tend will reverse. It may result in anticipation of good or poor end. For example- if a person gets head for five consecutive tosses, and he is asked the probability of the next toss, the prediction may be tail. This prediction is because of Gamblers fallacy. However, the sixth toss may again be head. This is because each toss of the coin is independent and all the previous tosses do not bear any bearing on the future.
- Availability Bias: According to availability bias, people tend to take their decisions based more on recent information rather than any detailed study of past events and thus become biased to that latest news. The investors take decision based on the most available information.

Prospect Theory

This theory is developed by Kahneman and Tversky, which explains the irregularity in the human behavior when they assume risk under uncertainty. He discussed several states of mind that help in influencing an investor in their decision making process. The key concepts which he discussed are as follows:

- Loss Aversion: Loss Aversion is an important psychological concept which states that the investors are risk seeker when they are faced with losses and on the other hand, the investors became risk averse when they are faced with gains. The psychological pain of losing an amount is approximately double than the pleasure of gaining the same amount. For example if the investor is losing some amount of money, in that case he will become risk taker because he knows that he is losing a part of his money. Whereas on the other hand, if the investor is gaining some amount of money, he becomes a risk averse because he is getting some money and he will not take any risk for that.
- Regret Aversion: It is a psychological error that arises out of an excessive focus on feelings of regret, if the decision turns out to be poor. The main cause of this type of error is the tendency that the investors hate to accept their mistakes. For example, investors are often reluctant to sell losing stocks. They hold on to the stock because they feel that selling the stock would amount to admission of a bad investment decisions.
- Mental Accounting Bias: Mental accounting is the tendency of people to separate their assets into different groups, and assigning different function to each group. This separation and assignment is often irrational and at times detrimental to their decisions and behaviors. Thaler (1999) defined mental accounting as the *"set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities."* It refers to codes people use when evaluating an investment decision. There are three components of mental accounting. The first component of mental accounting captures how the outcomes are perceived and experienced, and how the decisions are further evaluated. The second component involves the assignment of activities to specific accounts. It takes into consideration both sources and uses of funds. Third component is concerned with the frequency with which accounts are evaluated. Accounts can be evaluated daily, weekly, and yearly and so on. A classic example was presented by Ritter (2003). He cites the example of people having separate home budget for food and entertainment. Using the food budget people seldom eat expensive items, like lobster and they would prefer to have ordinary fish. However, in a restaurant, despite being expensive, they will prefer lobster to an ordinary fish. The reality is that had they eaten lobster at home and the simple fish in a restaurant, there is the possibility of considerable savings. This does not occur due to the operation of mental accounting. People consider that restaurant meals and food at home are separate.

II. OBJECTIVE OF THE STUDY

The following are the objectives of the study-

- To review the literature on the topic.
- To study the various biases that investors face while investing in the stock market.

III. REVIEW OF LITERATURE

An attempt has been made to review relevant literature on the studies that have been carried out in the field of behavioral finance. Several researchers have studied different factors that affect the investment decision in the behavioral finance field. However, due to scarcity in time and other resources, it was not possible to review all the studies. Therefore, only certain studies have been taken into consideration.

The list of factors that affect the investment decisions along with author name has been summarized below in the table-

List of Factors affecting Investment Behaviour & Authors

S. No	Factor affecting Investment Decision	Paper Title	Authors
1	Perception	➢ Psychological Study of Human Judgment: Implications for Investment Decision Making ➢ How basic are behavioral biases? Evidence from capuchin monkey trading behavior.	➢ Paul Slovic, 1972 ➢ Lakshmi C, 2005
2	Belief	➢ Exploring the ‘‘planning fallacy’’: Why people underestimate their task completion times.	➢ Buehler, R., Griffin, D. & Ross, M.
3	Attitude	➢ Psychology of Stock Market ➢ The effects of behavioral factors in investment decision-making: a survey of institutional investors operating at the Nairobi Stock Exchange.	➢ G.C. Selden ➢ Wurgler, J. and K. Zhuravskaya.
4	Learning and Motivation	➢ Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing ➢ The Stock Market and Corporate Investment: A Test of Catering Theory.	➢ Shefrin, Hersh ➢ Polk, C. and P. Sapienza
5	Value	➢ Behavioral Finance	➢ Ritter Jay
6	Friends & Family	➢ Catching Up with the Joneses: Heterogeneous Preferences and the Dynamics of Asset Prices	➢ Yeung Lewis Chan
7	Demographic factors	➢ Saving and investing over the life cycle and the role of collective pension funds ➢ Identifying Investor Group Segments Based on Demographic and Psychographic Characteristics	➢ Bovenberg, Lans; Koijen, R.S.J.; Nijman, Theo; Teulings, C.N ➢ Kiran and Rao
8	Media	➢ “Psychological biases of investors”	➢ Kim, K.A., and John R. Nofsinger.

Perception

Paul Slovic, in one of his research work “Psychological Study of Human Judgment: Implications for Investment Decision Making” in 1972 discovered that an investor have an tendency to look for the returns generated by the equity shares of other reputed companies before making any investment decisions. However, the past returns on the equity shares do not guarantee for any future returns.

Lakshmi C, in her paper has stated that the reason for not investing on equity shares and equity oriented securities by Indian investors is the perception that equity investments are risky.

Beliefs

Buehler and Ross, in his paper titled “Exploring the ‘‘planning fallacy’’: Why people underestimate their task completion times” stated that the people who have stronger beliefs tend to have stronger confidence on themselves.

Attitude

G.C. Selden in his book “Psychology of Stock Market” explained that if an investor develops a positive attitude towards the investment, he will always remain committed to that investment no matter how much opposition he faces from anyone.

Wurgler, J. and K. Zhuravskaya. (2002) have stated that people, who do not have positive attitude towards their investment, would usually liquate their holding as soon as something bad happens. On the other hand, people who have positive attitude towards their investment would not immediately liquate their holding when faced with some problems. They would usually try to make some corrections in their investment.

Learning and Motivation

"Learning and Motivation" is one of the most common psychological factors that teach lessons from the past. This trait helps the investors' not only in learning lessons from their own experiences but also from the experiences of others. Due to this trait, it is seen that every year new investors have learned from their observations. (Shefrin, H. and M. Statman1999).

A new dimension was also stated by Polk, C. and P. Sapienza. (2009) in which he stated that people who have zeal for learning will always like to share their knowledge with others.

Value

Ritter Jay (2003) was that most of the investors who are placing value on their investments have certain target price in their mind to enter and exit in the market. Whenever their target value is achieved, they immediately take the action which was predetermined. They do not regret later when they come to know that the price of the security has raised after their sale. Investors who are placing value on their investment spare time to track the performance.

Friends & Family

Chan, Y. and L. Kogan (2002) in his paper examined that investors normally take the advice from their friends and family. So, they are considered as the source of inspiration and motivation for the investors. Whenever an investor is making an investment which has a risk factor involved in it, they tend to take the advice from their friends and family.

Demographic factors

Bovenberg, Lans; Koijen, R.S.J.; Nijman, Theo; Teulings, C.N. in his research work "Saving and investing over the life cycle and the role of collective pension funds", explained how saving and investment are majorly affected by the age of an investor.

Kiran and Rao (2005) in her research paper Identifying Investor Group Segments Based on Demographic and Psychographic Characteristics, examined whether demographic and psychographic variables were effective on risk-bearing capacity of Indian investors by conducting a sampling survey. By analyzing the collected data through multinomial logistic regression and factor analysis (FA) of SPSS, they verified a strong relationship between risk taking attitude and demographic and psychographic variables.

Media

In 2007, Kim, K.A., and John R. Nofsinger in his paper "Psychological biases of investors", have conducted a research in Japan to understand investor behavior. It was found out that Television media plays the most important role in spreading the knowledge about portfolio market. In Japan they are telecasting various investor education programmes that are in turn impacting investor decision making process.

IV. CONCLUSION

An investor has a primary aim to generate maximum returns on his investments, besides also ensuring that the investments are safe and redeemable. A smart investor no doubt does due diligence before investing, but not all investments give the desired results. This may be so because although rightfully due importance is usually given to the investment product which is visible and quantifiable, but the inherent psychological and emotional bias towards any investment decision is generally overlooked, since even the investor is at times unaware of it. It is rightfully said "What the mind doesn't know, the eyes don't see." Investors at times give undue importance to either the psychological bias at the cost of technical aspects of the investment or vice versa and this leads to unfavorable returns. A balance between the two is of paramount importance.

Behavioural finance when understood and introspected correctly will lead to minimise the irrational decisions and lead to maximise the gains from the investments made. It is prudent to understand and exclude the various behavioural biases and thereafter investment decisions made after due diligence.

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