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INVESTMENT BEHAVIOR & BIASES OF INVESTOR: AN EMPIRICAL RESEARCH AGENDA IN INDIAN PERSPECTIVE

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ABSTRACT

Purpose- The purpose of this paper is to develop a conceptual understanding and presenting a framework in the field of behavior finance & biases. The paper has draw outline of theory as well as practical implication in the field i.e. financial decision making process and the factors affecting the behavior.

Design/Methodology/Approach- the existing body of academic literature pertinent to the domain of behavior finance & biases reviewed so as to develop a integrated portrayal of the current level of knowledge in this domain of finance. This paper covers insights on the subject for developing a deeper understating of the behavior of investor

Finding- behavior finance is emerging area of research in field of finance. It works under real scenario of decision making as far financial product or service is concern. Most of the researches in this domain of behavior finance focus on individual investors. Few research papers focused on institutional investors as well. It would be interesting to explore the working factors for investment decision making process as institution in India.

Originality and value- Behavior finance is emerging as an important field of study and practice and this paper is an attempt to look at the development of behavior finance & biases and its role in developing a better understanding of the investor behavior.

Keywords- behavior finance, Behavior biases, investment, Efficient market hypothesis, Financial decision making process, Prospect theory.

Paper Type- Theory Development

I INTRODUCTION

Traditional economics and financial theories are built on the key assumption that Human being are Rational, they take all available information into consideration while making investment decision. Proponents of efficient market hypothesis and modern portfolio theory believed that all known information is priced into a stock or investment product. Regardless of disciplined investment, it is found thought different research that people often makes errors

when pick their stocks and not made portfolio choice based on three criteria of MPT i.e. expected return, standard deviation and correlation.

A bulk research indicates that real investors behavior differ from their hypothetical rational investors. Many investors either hold under-diversified portfolio or trade frequently to avoid the risk without taken into account Transaction cost, tax, hidden charges etc. behavior fiancé use insight from psychology to explain why people behave the way they do. People do not always make choice in a rational way. Most investor's decision making use through process that is intuitive and automatic rather than deliberative and controlled. Behavior finance identified investors financial decisions are imparted by human psychology and use the term "Quasi-rational" to describe how, when and why we sometime behave irrationally. Behavior finance identifies two primary reasons which make investors behavior quasi-rationally:-

i. Investors are human beings and experienced a range of emotion while make an investment decision.

ii. Human cognitive factors: while investing we compel to take more risk to avoid losses than to achieve gain.

Traditional finance theories explain what we should do whereas behavior finance explain what we really do. Tversky and Kahneman (1992) explained that behavior finance and tradition finance are complementary to each other.

India is a growing economy and it attracts the investment in various sectors and stock. Regardless of growth rate, still only very few people are financially literate and out of this figure very less are having knowledge about financial product and instrument. Therefore people rely on Institutional investors/ financial advisors/ Analyst/ Asset managers for taking investment related decision. Financial analysts are considered to be important intermediaries in financial market. Their earnings forecast, stock recommendation and research reports are widely used by investors as input for their investment strategy and stock valuation. It is believed that these groups have more access to private & public information available in different domain, therefore more accurate for return perspective.

II RESEARCH DESIGN

Research design deals with the method and the procedure of the study. The need, scope objectives, universe & sample, period, source of data, applying appropriate tools and techniques, and limitations of the study are the major aspects covered under it.

This research would be empirical research as various behavior finance theory and parameters have been studied , factors affecting the investment decision have been identified from previous years research. Further this empirical research would be conducted broadly on two surfaces:

✓ Exploratory research: thought initiated the study to gain better deeper understating of subject matter i.e. Behavior finance & Biases and its impact on investment decision taken by individual or institutional investor.

III THEORETICAL FRAMEWORK

Efficient Market Hypothesis

"An 'efficient' market is defined as a market where there are large numbers of rational, profit-maximizers actively competing, with each trying to predict future market values of individual securities, and where important current information is almost freely available to all participants. In an efficient market, competition among the many intelligent participants leads to a situation where, at any point in time, actual prices of individual securities already reflect the effects of information based both on events that have already occurred and on events which, as of now, the market expects to take place in the future. In other words, in an efficient market at any point in time the actual price of a security will be a good estimate of its intrinsic value." (Fama, 1965)

The Efficient Market Hypothesis (EMH) has been a central finance paradigm for over 50 years. (Fama, 1970) defined an efficient market as one in which security prices fully reflect all available information, and hypothesis states that real world financial markets are efficient. Fama goes on to say that it would be impossible for a trading system based on currently available information to have excess returns consistently.

The theoretical foundation of EMH is based on three key arguments

i. investors are rational and value securities rationally
ii. in case some investors are irrational, their trades are random and cancel each other out without affecting prices
iii. Rational arbitrageurs eliminate the influence of irrational investors on market.

Behavioral Finance

Behavioral finance emerged in 70's is a relatively new paradigm of finance, which seeks to complement the standard theories of finance by introducing behavioral aspects to the decision making process.

Behavioral finance is a branch of finance that studies how the behavior of investor 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.

Some of the key definitions of behavioral finance are discussed below:

"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" (Barber and Odean,1999).

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 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.

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)

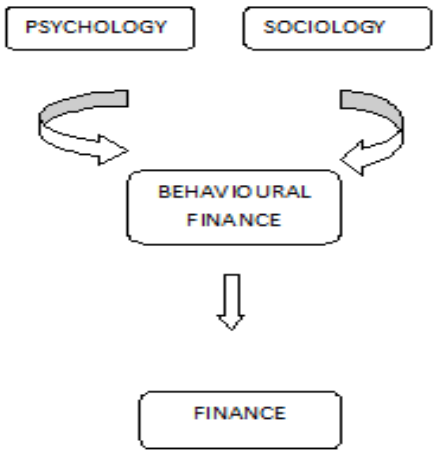

Figure 2.1 Evolution of Behavioral Finance, *Source: Schindler (2007)*

Emergence of Behavioral finance

Daniel Kahneman and Amos Tversky, recognized as the Fathers of Behavioral Finance. Tversky's mathematical work on the normative theory and Kahneman's 'psychophysical emphasis on the difference between objective stimulus and subjective sensation' documented in different research paper , few of them are quoted below:-

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, 1971).

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, 1972, 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, Tversky and Kahneman (1981) introduced the effect famous as Framing. It was 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.

In order to explain the irrationality in decision making process, behavioural economist and researchers focused on two major research theory:-

- Prospect theory
- Heuristics

Prospect theory

The theory distinguishes two phases in the choice process: the early phase of framing and the subsequent phase of evaluation. Tversky and Kahneman, by developing the Prospect Theory, showed how people manage risk and uncertainty. In essence, the theory explains the apparent irregularity in human behavior when assessing risk under uncertainty. It says that human beings are not consistently risk-averse; rather they are risk-averse in gains but risk-takers in losses. People place much more weight on the outcomes that are perceived more certain than that are considered mere probable, a feature known as the *"certainty effect"*. (Kahneman and Tversky, 1979).

Investor valued perceived gain and perceived loss differently. Investor laid more stress on perceived gain rather than perceived loss while taking investment decision. This theory put forward the propositions that amount of gains have lesser emotional and psychological impact on investors than amount of losses. Actual gain cause a feeling of Joy and actual loss cause feeling of pain.

Heuristics

"Heuristics are simple efficient rules of the thumb which have been proposed to explain how people make decisions, come to judgments and solve problems, typically when facing complex problems or incomplete information. These

rules work well under most circumstances, but in certain cases lead to systematic cognitive biases" – Daniel Kahneman (Parikh, 2011). People often use heuristics (or shortcuts) that reduce complex problem solving to more simple judgmental operations (Tversky and Kahneman, 1981). Heuristic decision process is the process by which the investors find things out for themselves, usually by trial and error, lead to the development of rules of thumb.

Investor behavior often deviates from logic and reason, and investors display many behavior biases that influence their investment decision-making processes. Few most frequently found behavior biases are explained below which affect the rational thinking of investor:-

A. THE DISPOSITION EFFECT: Investors tend to retain losing securities for too long a period. On the contrary, they tend to sell off profitable securities too soon.

B. MENTAL ACCOUNTING: Investors often ignore the fungibility of money. They irrationally and illogically assign different values to money obtained from different sources and also on the basis of intended use. Investors often save money in low-interest bearing accounts for a purpose they perceive to be more important while they are still having loan to repay and thus reduce their wealth. Money received from gift, windfall gains or bonus is considered to be cheaper than earned money. Thus such ―unearned‖ money is spent more than earned money.

C. HERD INSTINCT: Investors often blindly follow the action of a larger group without judging the rationality of such an action. This behavior is inbuilt in human nature. Such an instinct is attributable to the natural inclination in human beings to be desire to be better accepted by a group he / she belongs to. Leon Festinger (1957) opined that when dependence on physical reliability is low, the dependence on social reliability is high. Ben McClure (2002) observed that when the ‚market undulates, investors are subject to a fear that others have more information and as a consequence, they generate a strong tendency to do what others are doing. This experience is usually observed in investors having limited experience in investing. Banerjee (1992) has formulated a model of herd behavior.

D. CONFIRMATION BIAS: Investors willfully look for such information which supports his / her idea about any security. They shun or do not look for any information to the contrary. Thus decisions are often taken on incomplete information leading to erosion of wealth.

E. HINDSIGHT BIAS: The investor believes that some past event was predictable though in fact it was not. Such faulty belief or bias may lead to establishing false causal relationships which may end up in incorrect oversimplifications.

F. GAMBLERS' FALLACY: The investors believe that if something has happened recently, the probability of an opposite phenomenon increases and the probability of a similar phenomenon increases.

G. ANCHORING: This behavior is associated with the tendency of the investor to attach his / her thoughts to a particular reference point without any logical explicable cause therefore. Gifting of a minimum amount of

physical gold, to the newly married couple is an age-old tradition in India. This compulsion reduces the wealth of the parents as well as thrusts a cost burden onto the giftees which might take the form of locker rent in banks or wealth tax liability.

H. OVERCONFIDENCE: Investors often overly over-estimate themselves and consider themselves to smarter than other investors. This biased sense and the resultant erroneous stock-picking often reduces the return on their assets. This fact was propagated by Terence Odean (1998).

I. OVER-REACTION BIAS: Investors may react in a more than proportionate way to any information

J. AVAILABILITY BIAS: Investors tend to allot more importance to recent information than on relatively past information. Thus they focus on the short-term perspective and miss out on the long—term picture. Thus they are willing to assume more risks after a gain. On the contrary they are willing to assume les risks after a loss.

K. REPRESENTATIVENESS: Investors may be too quick to detect a pattern which in fact is random. They may also mistake past performance of an asset as the indicator of its performance in future. This bias also induces investors to underweight long-term averages (Jay R. Ritter 2003).

L. FAMILIARITY: Investors are often found to be familiar with securities they are familiar with i.e. their employer companies. Local and domestic companies. This stems from the inherent fear of uncertainties about the unknown.

M. AVERSION TO AMBIGUITY: Investors tend to steer clear of situations about which they have little information. They exhibit a preference for known risks to unknown risks.

N. INNUMERACY: Investors may have a phobia about numbers. They usually want to avoid numerical processing of data. This robs them off the quantitative analytical tools which are so essential for successful investing.

O. NARROW FRAMING: Instead of focusing attention over change of their total wealth over their investment horizon, investors take a parochial approach and end up focusing on a cross sectional as well as a temporal sense.

P. CONSERVATISM: When situations change, some investors under-react due to the natural tendency of being slow to adapt to changes. Thus the bias of conservatism is contrary to the over-reaction bias.

Q. HEURISTICS: Investors often resort to rules of thumb which makes their decision making process easier. Benartzi & Thaler (2001) detected that many investors follow the 1/N rule which encompasses the simple rule of thumb that when there are N alternatives for investment, 1/N amount of money should be invested in each of the alternatives.

R. REGRET THEORY: Regret theory of choice under uncertainty was put forward by Graham Loomes & Robert Sugden (1982). When applied to investor behavior, this theory postulates that in case of losses due to erroneous

decisions, investors regret more if the loss was due to an unconventional decision rather than a conventional decision.

S. COGNITIVE DISSONANCE: This very influential theory of social psychology was put forward by Leon Festinger (1957). Cognition of persons refers to their ideas, notions, beliefs etc. It is human nature to seek consistency among the cognitions. In case any two cognitions contradict, the person feels discomfort and chooses one among the contradicting cognitions by changing the other one. Burkhard Drees and Bernhard Eckwert (2005) cited examples of mispricing of assets due to cognitive dissonance as investors were found to be discarding unfavorable information.

T. SELF ATTRIBUTION BIASES: Investors who suffer from self-attribution bias tend to attribute successful outcomes to their own actions and bad outcomes to external factors. They often exhibit this bias as a means of self-protection or self-enhancement. Investors afflicted with self-attribution bias may become overconfident, which can lead to overtrading and underperformance. Keeping track of personal mistakes and successes and developing accountability mechanisms such as seeking constructive feedback from others can help investors gain awareness of self-attribution bias.

U. TREND-CHASING BIASES. Investors often chase past performance in the mistaken belief that historical returns predict future investment performance. Mutual funds take advantage of investors by increasing advertising when past performance is high to attract new investors. Research evidence demonstrates that investors do not benefit because performance typically fails to persist in the future. For example, using a sample of 1,020 domestic actively managed mutual funds, Soe and Luo (2012) show that using past performance as a strategy fails.

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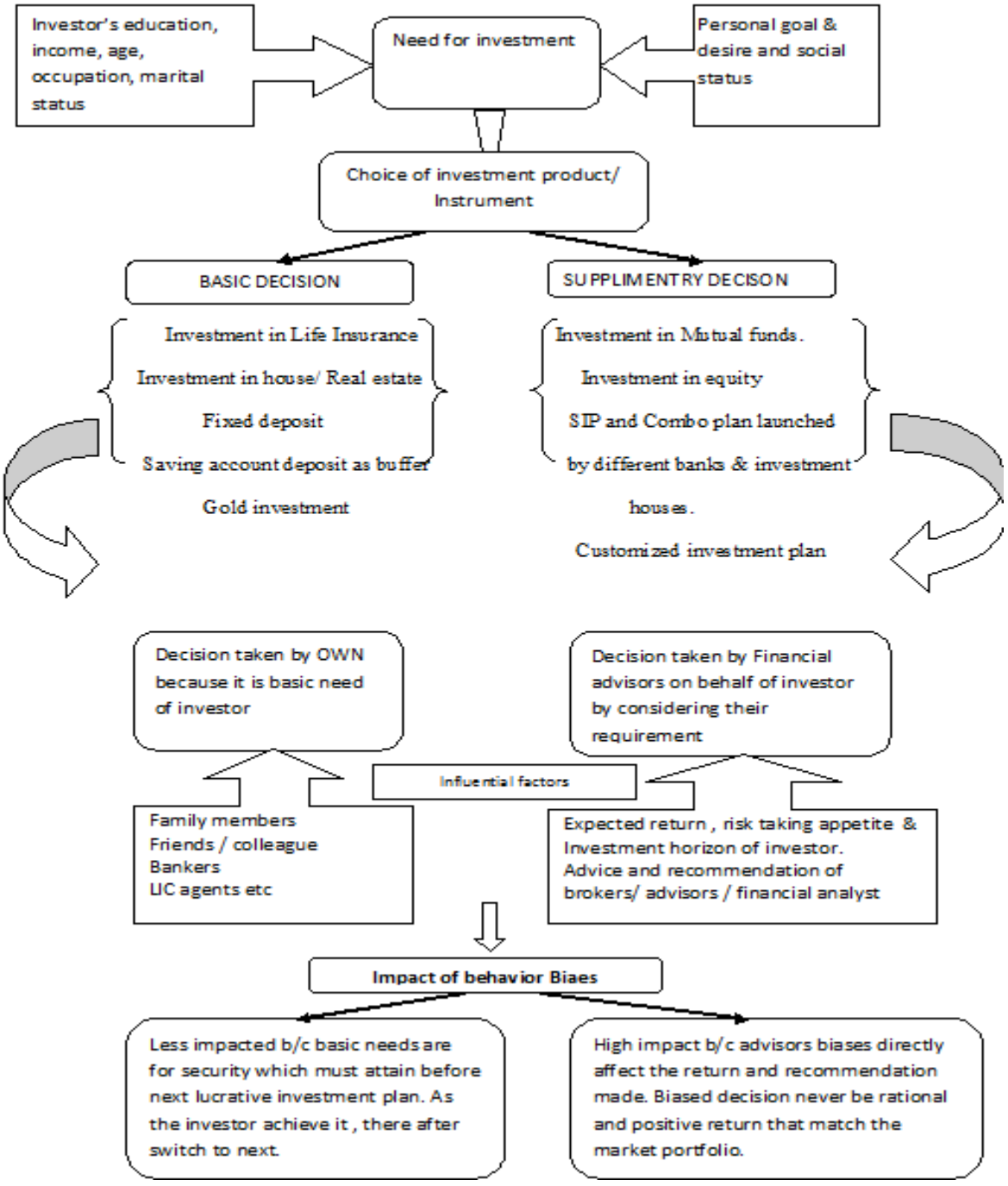
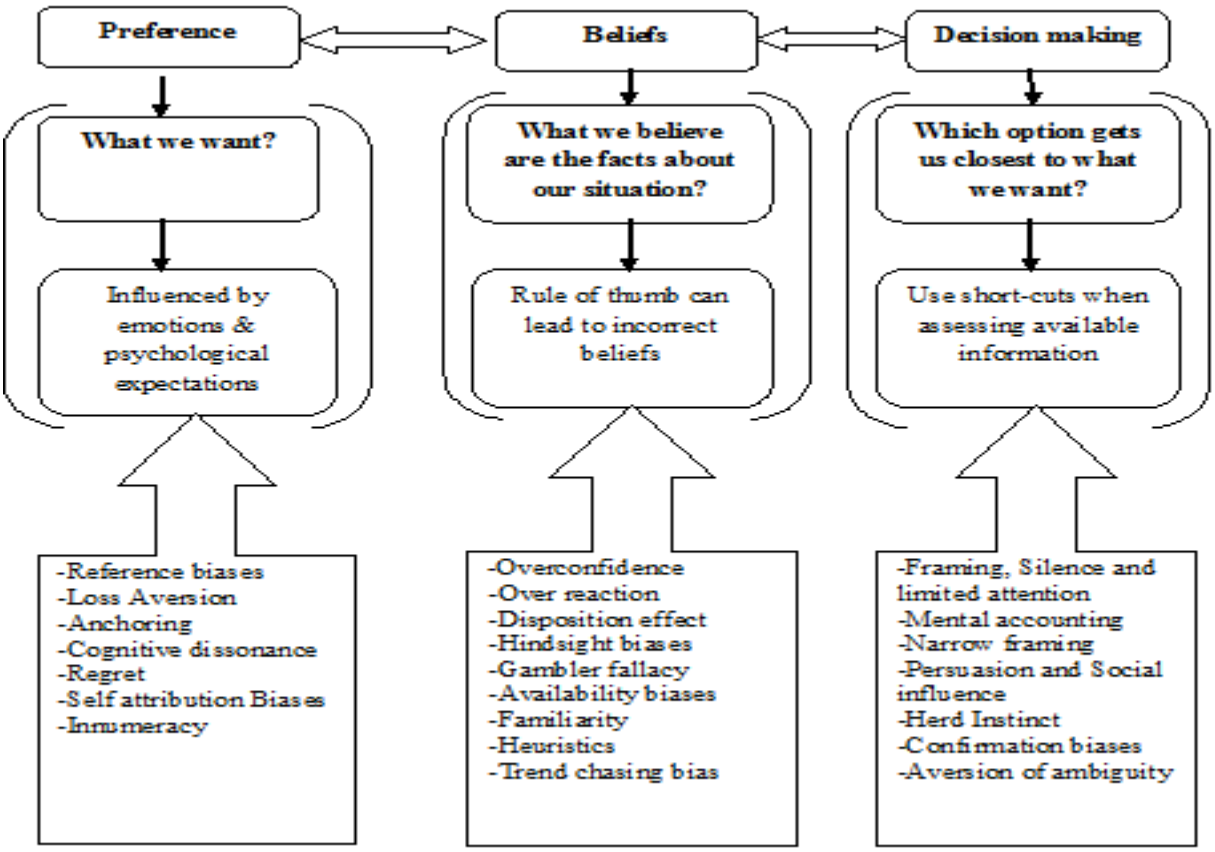
PROCESS & IMPLICATION OF INVESTMENT DECISION AND BIASES:-



Source:- Compiled from various studies

Categorizing biases like this helps us consider whether people are making mistakes. Errors in beliefs or decision-making can often be clear-cut. For example, people may have beliefs about the likelihood of an event that contradicts objective probabilities. But if people's preferences are inconsistent (and so not fully rational), it can be difficult to say that these preferences are wrong; they are after all what people want, at least at the time. If people are not making mistakes, intervening to prevent them from acting on these preferences can make them worse-off.

CATEGORIZATION OF BIASES BASED ON DECISION MAKING PROCESS:-



Source: - Occasional Paper no.1, April2013, Financial Conduct Authority and Various studies

IV CONCLUSION

This study provides an empirical analysis of the investment behavior of investors in different countries and scenario. The growing earning & safe investment scenario in India provides a huge opportunity for

investment in customized financial products and instruments. This paper researched available literature on behavior finance and biases and how it affects the investment decision making process. Through this literature review we can conclude that Investor either Individual or Institutional affected by various psychological and sociological factors while making investment decision. These factors in finance termed as behavior biases. The degree of deviation depends on expertise, skill, knowledge and experience in the field of finance. If an investor identify these biases in early stage of investment that would help in better investment decision and tends toward market portfolio as described by Fama in Efficient market hypothesis. The financial market is in its reformative phase where the scenario is shifting from product orientation to customer orientation and to customization of products/ services. Even public sector entities are drastically changing their work culture & way and approach to customer with wide range of product specification. It is very important for customer as well as service provide to understand the behavior of each other. As my work is on institutional investor; therefore must quote that "understanding the margin of success and failure of my investment completely depend on the institutional investor investment behavior and biases which surround them vide different channel".

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