

Behavioural Finance –A study on its Bases and Paradigms

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Abstract:

Traditionally rational models have been chosen in the field of economics and finance. Experimental psychology has provided the behavioural insights in finance and economics. Behavioural finance is a new field which explains the economic decisions of people. It is a field which combines behavioural and cognitive psychological theories with conventional economics and Finance. In this paper efforts have been made to provide a framework for the concept related to the behavioural finance. Review of literature is carried out so that different dimensions and views regarding behavioural finance can be understood. Theories, models and studies which try to complement behavioural finance studies are also discussed. New frontiers and approaches that can be adopted for further studies are discussed and it may help to provide a conceptual framework for future studies.

Key Words: Behavioural Finance, Theories, Models, Conceptual Framework

Introduction:

“One of the funny things about the stock market is that every time one person buys, another sells, and both think they are astute.” – William feather.

The rationality of investors is the central idea around which the traditional finance paradigm revolves around. According to Nofsinger(2001), the evolution in the field of finance has taken place based on the premise that people make rational decisions and they are unbiased in the forecasting about the future.

Rationality of the investors is depended on the premise that they can (i) Update their beliefs correctly on time on the receipt of fresh information. (ii) Choose options those have normative acceptance (Thaler, 2005).

According to Jensen and Merckling(1994), the “Rational Man” is the central idea behind the concept of traditional finance, a person who is very different from the individual.

Montier(2002), discusses about a construct where assumption is made that investors can make comprehension of complex puzzles and process endless instantaneous optimizations. Such assumptions lead to the conception of market efficiency.

According to fama(1965), An efficient market is a market where investors are rational, they can maximize profit by predicting future market values of securities, where they can update their information which is freely available to all the participants. In other words, a market where the actual price of a security is a good estimate of its intrinsic value is an efficient market.

The foundations of the world economy were questioned due to the financial crisis of 2008, which resulted in global recession. The traditional economic and financial theories labeled it as an “anomaly”(R Subash, 2012).

Bernstein(1998) discusses about the choices and decision of ‘Rational Man’ who showcases repeated patterns of irrationality, inconsistency and incompetence when faced with uncertain situations.

Nofsinger(2001) discusses about the drubbing of rationality as a central idea and unbiasedness of investors. The theoretical and experimental propositions by psychologists Daniel Kahneman and Amos Tversky in 1970s, served as the foundation for development of new horizons in 1980s called as Behavioural Finance, which elaborates about people’s behavior in any financial setting. Specifically, it elaborates on the impact of psychology on financial decisions, organizations and financial markets.

Hirschey and Nofsinger(2008) defines behavioural finance as an analysis of cognitive errors and emotions in financial decisions. It is also characterized by an inquiry which helps to find out the impact of psychology on the financial behavior of incumbents and the market as a whole (Sewell, 2007).

Schindler (2007) enumerates the three principal areas of study in behavioural finance. They are:

1. Sociology: It is a structured study of social behavior of individuals and groups and impact of society on attitudes and behavior.
2. Psychology: It is the study of human behaviours and cognitive processes which underlines the behaviours, which are result of human’s physical, cognitive and external surroundings.
3. Finance: It is the subject related with determination of allocation of capital, its accession and distribution.

Pompian(2006) lists two sub topics under behavioural finance:

1. Behavioural finance Micro (BFMI) - It is a study of the behaviours and biases of investors who distinguish themselves from the investors who are seen as rational actors in traditional economic theories.
2. Behavioural Finance Macro (BFMA)- It tries to detect and describe the found anomalies in the EMH(Efficient Market Hypothesis), behavioural models may provide explanation to the found anomalies.

Pillars of Behavioural Finance:

In the 1960’s Kahneman and Tversky were carrying out their individual research on different lines, 1970s was the decade they created the benchmark in the area of behavioural finance. They started with the experiment related with psychology and decision theory and its implication in the real world scenarios. Tversky’s expertise was mathematical work in the area of normative theory and Kahneman’s ‘Psychophysical emphasis on the difference between objective stimulus and subjective sensation’ came together perfectly to serve the purpose (Heukelom, 2007).

“Belief in the law of small numbers” was the first paper they authored together in 1971, where they reported 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).

They published a paper titled “ Subjective Probability: A judgement of Representativeness”, where they discussed about the representative bias and then they carried out another publication in 1973 called “ On the psychology of prediction “, which discusses about the representativeness and its key role in the predictions of intuitions made by individuals (Kahneman and Tversky,1972,1973).

In the year 1974, they published a paper “Judgment under Uncertainty: Heuristics and biases “. In this paper they discussed about three heuristics- Representativeness, Availability and Anchoring. They described that “a better understanding of heuristics and of biases to which they lead could improve judgments and discussions in situations of uncertainty”.

In the year 1979 they published their most important work titled “Prospect theory: An analysis of decisions under risk” which criticized expected utility theory and they developed a model called Prospect theory. Nobel Prize in economics in 2002 was awarded to Kahneman, for his work in Prospect theory.

They introduced the effect known as Framing in another paper published in the year 1981. It was illustrated in this paper that when the same problem was framed in different ways, the choices are influenced with respect to the different wording, settings and situations (Tversky and Kahneman, 1981).

Human Behavioural Theories:

Prospect Theory:

This theory is developed by Kahneman and Tversky(1979). According to this theory, there are two distinctive phases in the choice process:

- i. Framing Phase
- ii. Evaluation Phase

They developed this theory and showcased the management of risk and uncertainty by individuals. It tries to explain the irregularity in behavior of humans while they assess risk in uncertain situations (Subash, 2012). Kahneman and Tversky (1979) introduced an effect called as “Certainty effect” which explains how people put less weight on the outcome that are mere probable and place more weight on the outcomes that are considered to be more certain.

Heuristics Theory:

This theory states that heuristics are simple and efficient thumb rules which are helpful in explaining how people can make decisions come to conclusions and solve problems when they face complex problems or face situations of incomplete information. These thumb rules generally work under most circumstances, but in certain cases it induces systematic cognitive biases (Parikh, 2011).

Tversky and Kahneman recognized that the decision making process gets influenced by the human heuristics. According to Tversky heuristics is a strategy that can be used to solve many complex problems but it does not always result in a correct solution. It is a simple tool to reach easy conclusions (Tversky and Kahneman ,1981).

Brabazon(2000) states that heuristics is a decision process in which investors use trial and error method to find things out for themselves, which leads to the evolution of a structure for rules of thumb. This is especially relevant in modern day trading, where there is enormous amount of information and increasing number of instruments. Heuristics speeds up the process of decision making in comparison to rational processing of information.

One of the most important aspect of using heuristics is the time that can be saved but the dependence on past experiences is its main drawback while traditional finance models do not have any provisions for using heuristics and decision making is completely based on rational tools(Shefrin,2000).

Johnsson,et al.(2002), proposes following theories under heuristics and prospect theory.

Table: 1 Behavioural Finance theories

Heuristics	Prospect Theory
Anchoring	Self Control and Regret
Overconfidence and Over Under reaction	Loss Aversion
Herd Behaviour	Mental Accounting

Source: Johnsson,et al.(2002)

Behavioural Biases:

Studies in the field of Psychology have identified a variety of behavior regarding decision making called as Biases. The impact of such biases is all pervasive but it has its particular implications in the area of finance particularly in investments. The association of biases is with how does people process information and reach decisions and choices (shefrin, 2000).

Specific studies in the particular field try to categorize the biases on the basis of some meaningful framework. Some scholars classify biases along the cognitive and emotional lines, others call biases as heuristics and others refers to them as beliefs, judgments or preferences. The taxonomy of bias is although helpful in carrying out a specific research but there is lack of a theory of investment behavior which is universally accepted. Behavioral finance studies are based on collection of evidences which explains the ineffectiveness of human decision making in economic decision making situations (Pompian, 2006).

Table: 2 Types of Biases

Cognitive Biases	Emotional Biases
1. Hindsight bias	1. Loss Aversion Bias
2. Framing Bias	2. Regret Aversion Bias
3. Availability Bias	3. Status Quo Bias
4. Self Attribution Bias	4. Confirmation Bias
5. Overconfidence Bias	5. Self control bias
6. Representativeness Bias	6. Optimism Bias
7. Illusion of control Bias	7. Endowment Bias
8. Recency Bias	
9. Mental Accounting Bias	
10. Anchoring and Adjustment Bias	
11. Conservatism Bias	
12. Ambiguity Aversion Bias	
13. Cognitive Dissonance Bias	

Source: Pompian(2006)

Individual investors might have inclination towards a wide variety of behavior biases, which leads them to make cognitive errors. Difficult and uncertain situations make people to go for choices which are predictable and non-optimal because of its heuristic simplicity. Behavioural biases are explained in the same manner as systematic errors are in the case of judgment (Chen et al, 2007).

Montier(2002), broadly categorizes biases in three different types.

Table 3: Taxonomy of Biases

Social Interaction	Self Deception(Limits to learning)	Heuristics simplification(Information processing errors)	
cascades	Confirmation Bias	Representativeness	Emotion/Affect
contagion	Overconfidence	Categorization	Ambiguity Aversion
Herding	Self Attribution Bias	Framing	Mood
Imitation	Over optimism, Illusion of control, Illusion of Knowledge	Anchoring/Saliency	Self control
	Hind sight Bias, Regret Theory, Cognitive	Availability Bias, Cue competition, Loss Aversion,	

	Dissonance	Prospect theory	
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Source: Montier(2002)

Definitions Of Behavioural Finance:

1. Behavioral Finance is an area of research in which human interpretation is studied and how do they act on information with the help of interpretation to make informed investment decision (Linter G, 1998).
2. Behavioral Finance studies are unique area of finance that tries to explain stock market anomalies with the help of biases rather than simply trying to dismiss them as a chance factor consistent with the market efficiency hypothesis (Fama, 1998).
3. Behavioral finance is a field of finance which tries to depart from traditional assumptions of economics by using observable, systematic and human departures from rationality. The humans tend to be overconfident which cause first bias and human desires to avoid regret which leads to second bias (Barber and Odean, 1999).
4. Behavioral finance is a fast growing field of finance which deals with the psychological influence on the behavior of the practitioners of finance. It is also a study which deals with how psychology affects finance related decision making and financial market as a whole (Shefrin, 2000).
5. Behavioral finance is a close combination of individual behavior and market occurrences and the knowledge which is taken from the field of psychology and finance(Fromlet,2001)
6. Frankfurter and McGoun (2002) defined behavioral finance as apart of behavioral economics and it gets help from theories of psychology and sociology which tries to discuss occurrences which are inconsistent with the theories of expected utility of wealth and rationality of people. Behavioral economics is generally experimental in nature which uses research methods that are not used in traditional mainstream finance studies.
7. W. Forbes (2009) defines behavioral finance as a scientific study which describes about how psychology affects financial market. This view points out about the affect of psychology and cognitive biases on the decision making abilities rather than the affect of rationality and wealth maximizing behavior of investors.

Table 4: Behavioral Finance Theories and Models

Sl. No	Researcher Name	Year	Theory/Model
1.	Herbert Simon	1955	“Models of bounded rationality”.
2.	Leon Festinger	1957	“Theory of cognitive dissonance”.
3.	Tversky and Kahneman	1973, 1974	“Introduced heuristic biases: availability, representativeness, anchoring, and adjustment”.
4.	Kahneman and Tversky	1979	“The prospect theory introduced loss aversion bias”.
5.	Tversky and Kahneman	1981	“Introduced framing Bias”.
6.	Shefrin and Statman	1985	“Introduced Disposition effect”.
7.	Richard Thaler	1985	“Introduced mental accounting bias”.
8.	De Bondt and Thaler	1985	“Theory of overreaction in stock markets”.
9.	Barberis, Shleifer, and Vishny	1998	“Investor sentiment model for underreaction and overreaction of stock prices”

10.	Meir Statman	1999	“Behavioral asset pricing theory and behavioral portfolio theory”.
11.	Andrei Shleifer	2000	“Linkage of behavioral finance with the Efficient Market Hypothesis to find that stock markets are inefficient”
12.	Barberis, Huang, and Santos	2001	“Incorporation of prospect theory in asset prices”
13.	Grinblatt and Keloharju	2001	“Role of behavioral factors in determining trading behavior”
14.	Hubert Fromlet	2001	“Importance of behavioral finance, emphasis on departure from homo-economicus’ or traditional paradigm to more realistic paradigm”
15.	Barberis and Thaler	2003	“Survey of behavioral finance”
16.	Coval and Shumway	2005	“Effects of behavioral biases on stock prices. The price reversal for biased investors is quicker than unbiased investors”
17.	Michael M. Pompian	2008	This model was developed in 2008; it identifies four Behavioral Investor Types (BITs).
18.	R.Subash	2012	In his thesis “Role of behavioral finance in portfolio investment decision –Evidence from India” he found out that behavioral biases affects both the younger and experienced investors in a similar manner but with varying degrees.
19.	Neelakantan .P.R	2015	The study found out that demographic factors and risk taking capacity of the investors are not correlated. Investors having Cognitive bias are likely to give satisfactory outcome while emotional bias will negatively influence and may give negative or least return outcome to an investor.

Source: Jaya Mamta Prosad(2014), R. Subash (2012), Neelakantan .P.R (2015)

Review of Literature:

According to Lord, Ross and Lepper (1979) once investors form their own opinion they would cling to it for long. They would not look for evidences that can contradict their belief and if they somehow find contradicting evidence they would be skeptic about its authenticity.

Weinstein (1980) identified that majority of people displayed unrealistic beliefs in their abilities and prospects in the financial market.

According to Bell (1982),Loomes and Sugden(1982) the theory of regret aversion discusses about the behavior of people when they face a decision, they might anticipate regret and hence they try to eliminate or reduce the possibility of regret in their choice.

Gilovich, Vallone and Tversky(1985) in their study found that many a times representativeness heuristics plays an important role for investors, but sometimes it also proves to be counterproductive as it leads to sample size neglect i.e., when people are not aware of the data generating process, they come to conclusion very quickly on the basis of few data points.

Shefrin and Statman (1985) found out that investors generally do not want to sell assets at a loss with comparison to the initial price at which it was purchased. This phenomenon is called as “Disposition effect”.

Chopra, Lakonishok and Ritter(1992) and La Porta, Lakonishok, shleifer, and Vishny (1997) provided the evidence that the investors tend to make irrational forecasting of future cash flows.

In the study conducted by Buehler, Griffin & Ross (1994) majority of people, around 90% of them who were surveyed, predicted about the completion of task much sooner than they actually are.

Gali J (1994) Studied that investors generally tend to copy the investment decisions of their friends having sound investment knowledge. It has been found out that this tendency of copying friends is generally high among first time and new investors of capital market.

According to Chung, Jo, and Statman(1995) Analyst and brokers’ role can be comprehended when we see them as marketing agents for their respective brokerage organization. Jo specifically points out that investors prefer companies which act responsibly in society and analysts plays a role as instruments that help brokers in selling stocks.

Shanmugam and Muthusamy (1998) in their article “Decision process of individual investors, Indian capital markets: theories and empirical evidences” identified that demographic factors such as education and occupation has a greater impact on ownership of risky assets. Investment decisions were dependent on decision making tools such as fundamental analysis and technical analysis.

Rajarajan V (1999) in his article “stage in life cycle and investment pattern” observed that the stage in life cycle of retail investor determines their investment size in the financial assets.

Law of small numbers is the belief of people that even very small samples of parent population can mirror its properties. This law does generate a fallacy effect known as Gambler’s fallacy where in such situations people knows the data generating process in advance (Rabin, 2002).

Diacon S (2002) in his study found out that retail investors are of belief that long term objectives can be fulfilled by equity investment and short term goals can be fulfilled by investing in fixed income bearing shares..

Chan Y and L kogan (2002) concluded that normally friends are the source from where they draw inspiration and motivation, especially in case of investment decision. Investors approach friends to get mental support from them by getting their consent regarding investments which makes them feel that they have taken the right decision.

Jay R Ritter (2003) uses the behavioral finance to negate the assumptions made by traditional theories of finance which believed in expected utility maximization by a rational investor. Discussion on the dimensions of behavioral finance such as cognitive psychology and the limits of arbitrage is carried out.

Matthews J (2005) in his article “A situation based decision making process” concludes that investment life cycle of an investor plays a major role in investment decision making process; it is all about making an investment in the present and reaping the reward in the future. He focuses on the importance of time and risk management in investment decision making process.

Mittal Manish and Vyas R.K (2007) in their research paper “Demographic and Investment choice among Indian Investors” found out that investment choice made by investors is influenced by demographic factors. People with income less than 1 lakh usually preferred low risk investment for e.g. post office deposit etc, and investors of age around 26-35 years preferred investing in mutual funds and investors aged between 36-45 preferred investing in bonds and debentures.

Kannadhasan K & Nandagopal, R (2008) in their research studied behavioral finance and its role in investment decisions. They found that investor decisions are effected by cognitive illusions. They suggested

that an investor has to minimize or mitigate illusions by taking steps which would curb the factors which has influence on their investment decision making process.

Dhananjay Rakshit(2008) in his finding “Capital market in India and abroad-A comparative Analysis”, concluded that Indian capital market is one of the preferred markets for foreign investors and their only concern regarding investment is increased volatility.

Mittal M and RK Vyas(2008) in their paper “Personality Type and Investment Choice: An empirical study” found out that decisions regarding investments are effected by cognitive and emotional biases. While processing the information for making a decision, these behavioral errors lead investors to make systematic errors; they also observed that investment decision of an individual is effected by demographic factors like age, income, education and marital status.

Kiyilar and Acar (2009) believes that we humans are social creatures and all of us have separate value systems, values are formed by any individual’s behavior and emotions. Behavioral finance is an extension of traditional finance. It is said that behavior,emotions, and mood plays an important role in decision making process of any individual.

According to Wernet DeBondt et. al. (2010), the three important psychological factors that are inseparable components of behavioral finance are the cognitive, the emotional response and the social psychology.

Shanmuga Sundaram V & Balakrishnan V (2010) in their study on impact of behavioral dimensions of investors in capital market have found that Psychological factors created by fear of losing money, market crash and lack of confidence in one’s decision making ability influences investors’ decision.

Brahmana et. al. (2012) in their research study found out two major psychological biases- affection biases and cognitive biases. They identified biases which are major determinants of the ‘Day of the week Anomaly’(DOWA). DOWA contradicts the assumptions of the traditional finance which focuses on rationality of the people. Anomaly of the market is caused by investors and these results into irrational behavior of the investors.

Subash R (2012)in his thesis “Role of behavioral finance in portfolio investment decision –Evidence from India “ found out that behavioral biases affects both the younger and experienced investors in a similar manner but with varying degrees.

Daiva and Olga (2013) found out the correlation between household financial decisions and behavioral finance.They observed that decision of household finance is affected by psychological traits just like corporate finance decisions. It is also found out that the loss aversion bias found in the literate households are same to those set by the experts in behavioral finance while the characteristics like the absence of the market impact are found uniquely only among the households.

Bikas et. al. (2013) stated that decision in financial markets are not only based only on the available information from the market but also the psychological factors play a huge role influencing the investment decision making process.

Mitroi and Oproiu (2014) in their research found out that emotional intelligence and investment performance are positively correlated. According to them in financial decision making process psychological factors plays more important role than the rational factors.

According to Neha Aggarwal(2014) herds seem to form often in those markets where there is inferior aggregation of information and poorer accuracy of the public information. Moreover, it is found that herds exist on the buy side of the market than on the sell side. Buy herding is more intense than the sell herding.

The study by Jaya Mamta Prosad(2014), captures the order of prevalence of biases in the Indian equity market. On the basis of ranking, it is seen that overconfidence has the highest prevalence followed by optimism (pessimism) and herding while; the disposition effect has the lowest rank.

Lubis et. al (2015) stated that emotional intelligence, defense mechanism, and personality trait are three major elements that influence the investors' risk-taking behavior.

Neelakantan .P.R (2015) found out that demographic factors and risk taking capacity of the investors are not correlated. Investors having Cognitive bias are likely to give satisfactory outcome and while emotional bias will negatively influence and may give negative or least return outcome to an investor.

Swati Vishnoi(2015) found the effect of behavioural factors namely Herding, Prospect and Heuristics on investment performance. It revealed that market factors have negative effect ,heuristic and herding have positive effect and prospect factor have no impact on investment performance.

Yamini Gupta(2016) found that less experienced investors of the market were tend to be less impacted by loss aversion bias,regret aversion bias, anchoring bias and cognitive dissonance bias as compared to more experienced investors.

According to Ayaat Fatima(2016) investors are subjected to psychological biases and cognitive biases which impacts decision making process. The results exhibits the absence of overconfidence bias in the individuals of Kashmir and they showcased impression of being underconfident, sensitive to other's reactions and opinions and very hesitant.

Darshita Ganatra(2016) in her study collected responses from sample respondents about their decisions when they are put under fifteen different hypothetical situations so as to measure fifteen types of irrationalities among them. The proportion of responses exhibiting rationality was higher in case of nine types. It shows that more sample respondents are not irrational in their approach so far as loss aversion, sunk cost fallacy, endowment effect, mental accounting, optimism, overconfidence, gambler's fallacy, herd behavior and representativeness bias are concerned. More sample respondents are irrational in their approach in the context of anchoring, disposition effect, regret of omission and commission, availability bias,confirmation and regret aversion.

According to Amlan Jyoti Sharma(2016) behavioral finance is a descriptive and advisory study of ideas and thoughts which are not exhaustive. To be a good theory it needs to be refined after holding discussions and conducting more studies. Till then it should be accepted as a theoretical framework and rigorous and refined analysis is required to replace a concrete theory like EMH.

In the study conducted by A.Pankajam(2017) the behavioural factors such as Locus of Control, Emotional Intelligence, Risk Attitude , Herding, Heuristics and the Prospect factors were analysed with the help of canonical correlation to investigate the relationship between each and every factor of the behavioural factor and the investment decision making factor as a vector analysis. From the analysis it was found that both the sets were having a high correlation to the extent of 85.4% shows a high relation between the behavioural factors and the investment decision making behaviour of the investors. The correlation between the input variables such as the risk attitude, Emotional Intelligence, Locus of control, Herding, Heuristics and the Prospects and the decision making variables such as the Performance, Satisfaction and the Strategy for Decision Making shows a high correlation between 70 and 92 percent.

According to Nidhi Kumari (2017) the combined effect risk tolerance bias, herd behavior bias and overconfidence bias, strongly explains the variation in the extent of investment in the capital market. This reveals that investors are not rational in terms of their investment decisions. They deviate from the theory of rationality and are affected by psychological factors. Therefore, it can be said that capital market investors in Odisha, West Bengal, Jharkhand and Bihar overall reflect the investors' behavior of the Eastern India.

Sashikala and Chitramani (2018) stated that the investment intention is the prime factor which influences the investment decision of the investor regarding personal and portfolio management. Short term investment intention was impacted by prospect factors and herding factors and long term investment intention was impacted by prospect factors and market factors. It was found out that heuristic factors' impact on both long term and short term investment intention was insignificant.

Joo and Durri (2018) found in their study that investment decision making is impacted by psychological traits like confirmation biases , herd behavior,pessimism, faith,heuristics and overconfidence and optimism.

faith is considered to be the most important bias that significantly impacts investors decision making . Division of investors' portfolio can be done into short term and long term portfolios. Psychological traits play the major role in building a short term portfolio and the long term portfolio could be build depending on the market behavior and the expected returns.

According to the study by Kruti P. Bhatt (2018), Anchoring bias has been found to influence 97.4 percent of the total respondents and Overconfidence bias has been found to influence 97.8 percent of the total respondents. So anchoring bias and Overconfidence bias are the most prominent biases among investors under study. Availability bias, Disposition Effect, Herd Behavior, and Representative bias have been found to influence 70.4 percent, 70.2 percent, 70.4 percent and 56.3 percent of the respondents respectively. So these biases are comparatively less prominent in investors under study. Mental Accounting and Naive Reinforcement Learning have been found to influence 6 percent and 2 percents of the respondents respectively. So, these biases are the least prominent in investors under the study.

New Frontier of Neuroeconomics:

Neuroeconomics is an emerging field of study which could offer insights for private client investment practitioners. Neuroeconomics combines tools from neuroscience such as, Electrophysiology, MRI(Magnetic resonance Imaging), & TCS(Transcranial Cortex Stimulation; from psychology such as Psychophysiology and eye tracking; and from experimental economics to study the neural basis of economic decision making. To understand the choice people make regarding their money the gap between brain science and economic theory is bridged using neuroeconomics. How does emotion affect financial decision making? What about risk and does the risk affect the people's judgment? How do people perceive uncertainty? All these questions are interesting field of research for both asset manager as well as neuroeconomists. The most prominent work in this field is Paul Glimchers's Decisions, uncertainty, and the brain: the science of neuroeconomics (Pompian, 2006).

Research Gap and Problem Identification:

Although the biases and Heuristics are identified but why people operate under bias and what causes different people to have different biases under same situation is again a subject of empirical evidence research in psychology. If answers to these questions are obtained, then again its implication in the area of behavioural finance will open new vistas of research.

Retail investors of stock market are prone to behavioral biases when they are making their investment decisions, evidences could be found from the studies around the world and other parts of India. Criticism of Traditional finance theories has led to a situation where the rationality of the investor is considered less important and effect of behavioral aspects is given more importance.

Some people value possession of physical assets more than investing in stock markets and vice-versa. May be because they are wired differently, different emotions arise and brain juices produced? How to check this aspect? The research and studies in the field of Neuroeconomics can play an important role in unraveling the secrets of brain juices (Pompian, 2006).

Conclusions:

Rationality of investors in case of EMH is interpreted differently by different stake holders. Rationality according to EMH is about following a set of rules while taking decision regarding investment and having information about the market. Principles of Homo-economicus govern the economic decisions by individuals that are a simple model of human economic behavior. So, this is a very basic tenet which is required for being any investor i.e., to have self interest, to be rational and must have perfect information. Evolution of behavioural finance studies have started to add new angle of influence of psychology in finance. Some people value possession of physical assets more than investing in stock markets and vice-versa. May be because they are wired differently, different emotions arise and brain juices produced? How to check this aspect?

Relevance:

This study would help create a framework for different kinds of approaches that can be taken as a base for conducting research in the field of behavioural finances. The approaches could be related to literature based

study about foundations of behavioural finance and its importance in addition to the traditional rational models of finance. It could also be used for studying the Impact of different classes of biases on investment decision making. More literature and studies could be reviewed in the field of neuroeconomics and its recent developments could be traced and hence could be used in empirical research.

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