CHAPTER - 1

BEHAVIOURAL FINANCE: AN OVERVIEW

1. Introduction:

Since the mid-1950s, the field of finance has been dominated by the traditional finance model developed by the economist of the University of Chicago. The Central assumption of the traditional finance model is that people are rational. Standard Finance theories are based on the premises that investor behaves rationally and stock and bond markets are efficient. As the financial economist were assuming that people(investors) behaved rationally when making financial decisions, psychologists have found that economic decision are made in an irrational manner, so they challenge this assumption of standard finance. Cognitive error and extreme emotional bias can cause investors to make bad investment decisions, thereby meaning that they act in irrational manner. Over the past decade, field of behavioural finance has evolved to consider how personal and social psychology influence financial decisions and behaviour of investors in general.

The finance field was reluctant to accept the view of psychologists who had proposed the behavioural finance model. Behaviour finance was considered first by the psychologist Daniel Kahneman and economist Vernon Smith, who were awarded the Nobel Prize in Economics in 2002. This was the time when financial economist started to believe that the investor behaves irrationally. Human brains process information using shortcuts and emotional filters even in investment decisions.

It is an attempt to explain how the psychological dimensions influence investment decisions of individual investor, how perception influences the mutual funds market as a whole. It is worth exploring whether field of psychology helps investor to make more reasonable investment decisions.

1.1 Introduction to Behavioural Finance:

Traditionally, economics and finance have focused on models that assume rationality. The behavioural insights have emerged from the application in finance and economics of insights from experimental psychology.

Behavioural finance is relatively a new field which seeks to provide explanation for people’s economic decisions. It is a combination of behavioural and cognitive

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2 Ibid 1
psychological theory with conventional economics and finance. Inability to maximise the expected utility (EU) of rational investors leads to growth of behavioural finance research within the efficient market framework. Behavioural finance research is an attempt to resolve inconsistency of Traditional Expected Utility Maximization of rational investors within efficient markets through explanation based on human behaviour. For instance, Behavioural finance explains why and how markets might be inefficient.3

An underlying assumption of behavioural finance is that, the information structure and characteristics of market participants systematically influence the individual’s investment decisions as well as market outcomes. Investor, as a human being, processes information using shortcuts and emotional filters.4 This process influences financial decision makers such that they act seemingly in irrational manner, and make suboptimal decision, violate traditional finance claim of rationality. The impact of this suboptimal financial decision has ramifications for the efficiency of capital markets, personal wealth, and the performance of corporations. Irrational decision could be either due to processing of wrong information or interpretation with inconsistent decisions.

Behaviour finance focuses upon how investors interpret and act on information to make informed investment decisions. Investors do not always behave in a rational, predictable and an unbiased manner indicated by the quantitative models. Behavioural Finance places an emphasis upon investor behaviour leading to various market anomalies.

The emergence of behavioural finance has presented a new realm for analysing the ways in which investors make decisions that includes psychological factors as well as providing new grounds upon which it question conventional methods of modelling investor behaviour. The challenge that behavioural finance assembles is aimed particularly in the direction of the efficient market hypothesis (EMH), which is the model that Statman refers to standard finance Model. Behavioural finance challenge hypothesis that standard finance model of on ‘how investor decision is inaccurate’, as it fails to include psychological and value expressive preferences in calculations(Statman, 1999)5.

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1.1.1 Standard (Traditional) Finance

Standard finance is the body of knowledge built on the pillars of the arbitrage principles of Miller and Modigliani, the portfolio principles of Markowitz, capital assets pricing model (CAPM) of William Sharpe, Linter and Black, and option pricing model of Black and Scholes, and Merton. (Statman, 1999). This approach considers market to be efficient using models in which agents are ‘rational’. Rationality means two things:

- First when they receive new information, agents update their beliefs correctly, in the manner described by Bayes’s law.
- Second, given their beliefs, agents make choices that are normatively acceptable, in the sense that they are consistent with Savage’s notion of Subjective Expected Utility Theory (SEU).

Traditional or Standard Finance assumes that investor at large viz. participants, institutions and markets are rational. They make unbiased decisions to maximise their self-interest. Meir Statman, notable proponent of behavioural finance, pleaded for “accepting market efficiency in the sense of beating the markets” however, rejecting the definition in the sense of rationality, by which “rational prices reflect only utilitarian characteristics, such as risk, not value expressive characteristics, such as sentiments” (Statman, 1999)

According to Jensen and Merckling “Traditional finance theory stands directly on the notion of the ‘Rational man’, a person who is much different from individual. “(Jensen and Merckling, 1994)

According to Montier “The rational construct assumes that individuals, both investors and managers are capable of understanding vastly complex puzzles and conduct endless instantaneous optimizations” (Montier, 2002)

Due to such thinking, concept of market efficiency and arbitrage, with major theoretical and practical implications for the investors and corporate financial decision makers, come into existence. This Rationality of market participants feed into one of the classic theories of standard finance, the efficient market hypothesis (EMH). The efficient market hypothesis (EMH), developed in the 1960’s independently by Paul

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7 Ibid 5  
Samuelson and Eugene F Fama, posits that market prices fully reflect all available information.

In other words Rational Market participants have impounded all information and probabilities concerning uncertainty about the future into current prices. Therefore, market prices are generally right, and changes of price are reflecting short term realization of information. And in long term, these price changes or returns reflect compensation for taking risk. Another fundamental and traditional concept is the relationship between expected returns and risk. Risk-averse rational market participants demand higher expected returns for higher risk investments. Although the standard finance sounds promising, it entails an unrealistic burden on human behaviour. These lead to behavioural finance which seeks to understand and predict systematic financial market implications of psychological processes.

According to standard finance pricing model, people value wealth, the presumption is that investor act carefully and objectively while making financial decisions. Financial economists assumed that people behaved rationally, when making financial decisions. Researchers in psychology discovered that economic decisions are often made in a seemingly irrational manner. Over past decade, the field of behavioural finance has evolved to consider how personal and social psychology influence financial decisions and the behaviour of financial market. According to Hirschey and Nofsinger\textsuperscript{10} “\textit{Behavioural finance is study of cognitive errors and emotions in financial decisions}”.

Three basic argument of EMH:

- Investors are rational and by implication securities are valued rationally.
- Investor takes careful account of all available information before making investment decisions.
- And decision makers always pursue self-interest.

The EMH is based on the notion that people behave rationally, maximize EU accurately and process all available information\textsuperscript{11}. In other words, financial assets are always prized rationally, given what is publically known. Stock price approximately describe random walk through time: the price changes are unpredictable since they occur only in response to genuinely new information, which by the fact that it is new and unpredictable (Shiller,2000)\textsuperscript{12}.


Traditional models in finance can be caricatured as follows: “If investors are rational, and if markets are efficient, then investors ought to be behaving as follows.” Almost all investors have been shown these models, for example in the risk return trade off of an efficient frontier, which assumed that markets are efficient. This model is useful but investor should have understanding of their potential weaknesses. (Peter Stayner, 2007)\textsuperscript{13}

Since the publication of the two seminal work of Kahneman and Tversky (1971, 1979)\textsuperscript{14} and that of Slovic (1972)\textsuperscript{15}, there has been a major challenge to the rationality assumption that has served as the foundation for modern finance theories. Such challenges from behavioural finance scholars argued against traditional finance’s theoretical and empirical construct which failed to explain occurrences in financial market. Further, researcher continues to publish rigorous theoretical and empirical arguments against the notion of expected utility (EU) and EMH in mainstream finance journals.

\subsection{1.1.2 Evolution of Behavioural Finance}

Standard finance theory is accepted world-wide from market level perspective. But in 1960s and 1970s, new wave in field of finance has been started by psychologist, study of heuristics found many biases and limit to cognitive resources, through examining economic decisions.

It was started by study of Slovic (1969\textsuperscript{16}, 1972) studied stock brokers and investors. Slovic (1972)\textsuperscript{17} states the money Game: “\textit{You are—face it—a bunch of emotions, prejudices, and twitches, and this is all very well as long as you know it. Successful speculators do not necessarily have a complete portrait of themselves, warts and all, in their own mind, but they do have the ability to stop abruptly when their intuition and what is happening out there are suddenly out of kilter. If you don’t know who you are, this is an expensive place to find out.}”

Recognition of the contribution that behavioural analysis is now significant in financial economics was reflected in 2002 with Awards of the Nobel Prize in economics to professor of psychology, Daniel Kahneman, where he detailed the heuristics and biases that occur when making decisions under uncertainty. The most

\textsuperscript{17}ibid. 15.
important change in this direction happened, when their next research came into economics field, which is prospect theory (1979) for which they received Noble Price in year 2002. This work has grown out of a series of experiments that have led to strong conclusions about the biases that affect how individuals take decisions and how they form preferences. Now main stream financial economist realised that investor can behave irrationally. Instead human brain often processes information using shortcuts and emotional filters.

The American Finance Association held its first behavioural finance session at its 1984 annual meeting. In next year, Debondt and Thaler (1985) published a behavioural based paper on investors’ overreaction to news. They explained investor Overreaction Hypothesis opposes to EMH. They rejected ‘regression to mean of price’, operating in extreme highs and lows balance each other. It is followed by Shefrin and Statman (1985) publication of paper on Disposition effect. They put it as Disposition effect that suggeststhat investors relate to past winners differently than past losers. Odean applied the disposition effect in vivo context. In year 2000, Shefrin described how these psychology papers influenced the field of finance.

The beginning of this psychology based finance research coincided with the start of many empirical findings that raised doubt on fundamental of standard finance theory & EMH.

The anomaly studies examined security prices and found that either markets were not as efficient as once purported or that the asset pricing models were inadequate. However, later studies examined behaviour and decisions of market participants. Odean (1998,1999) and Barber and Odean(1998) found that individual investors are loss averse, exhibit the disposition effect, and trade too much. Research Scholars also discovered that employees making pension fund decisions (Madrian and Shea,2001) and asset allocation (Benartzi, 2001) (Benartzi and Thaler 2001) and

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trading (Choi, Laibson, and Metrick, 2002) are largely influenced by psychological biases and cognitive errors. Others are DeBondt and Thaler 1990 and Hilary and Menzly, 2006 who found that even analysts behave consistent with psychologist view of human behaviour.

Behavioural finance encompasses research that drops the traditional assumption of expected utility maximization with rational investors in efficient market. The two building blocks of behavioural finance are cognitive psychology and limits to arbitrage (Ritter, 2003).

1.1.3 Concept of Behavioural Finance

**Definition of Behavioural Finance**

Lintner G. (1998) has defined behavioural finance as being study of how human interprets and act on information to make informed investment decisions. (Lintner, 1998)


“Behavioural finance, as a part of behavioural economics, is that branch of finance that, with the help of theories from other behavioural sciences, particularly psychology and sociology, tries to discover and explain phenomena inconsistent with the paradigm of expected utility of wealth and narrowly defined rational behaviour. Behavioural economics is mostly experimental, using research methods that are rarely applied in the traditional, mainstream finance literature” (Frankfurter and McGoun, 2002)

Brabazon suggests that the finite aspects of Behavioural finance can be split into two different classification groups (Brabazon, 2000). The first group is the heuristic decision processes, where an individual investor through instinctive psychological

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27Lintner, G. What are the distinctive features of behavioural finance as applied to individual investor’s decision making. available at www.ipedr.com/vol21/19-icif2011-10015.pdf
processes can result in decisions that according to the standard finance model, are not rational (Statman, 1999). The second group includes what Kahneman and Tversky (1979) labels as prospect theory which provides a thicker structure of how individual investment decisions are made.

Gilovich (1999) have referred to behavioural finance as behavioural economics and further defined behavioural economics as combining twin discipline of psychology and economics to explain why and how people make seemingly irrational or illogical decisions when they save, invest, spend and borrow money.

Shefrin (1999) “Behavioural finance is rapidly growing area that deals with the influence of psychology on the behaviour of financial practitioner.”

According to Shefrin “Behavioural Finance is the application of psychology to financial behaviour-the behaviour of practitioner.” (Shefrin, 2000)

According to Shefrin “Behavioural Finance is the study of how psychology affects financial decision making and financial markets” (Shefrin, 2001)

According to Fromlet “Behavioural finance closely combines individual behaviour and market phenomena and uses knowledge taken from both the psychological field and financial theory” (Fromlet, 2001)

M Sewell (2007) “Behavioural finance is the study of the influence of psychology on the behaviour of financial practitioner and subsequent effects on market.” He has stated Behavioural Finance, challenging the theory of Market efficiency by providing insight into why and how market can be inefficient due to irrationality in human behaviour.

W. Forbes (2009) defined behavioural finance as a science regarding how psychology influences financial market. This view emphasizes that the individuals are affected by psychological factors like cognitive biases in their decision making, rather

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than being rational and wealth maximizing. Behavioural finance is a new approach to financial markets that argues that some financial phenomena can be understood by using models where some agents are not fully rational.

1.1.4 Assumptions of Behavioural Finance:

- **Loss aversion**: The characteristics of seeking to limit the size of the potential loss rather than seeking to minimise the variability of the potential returns.
- **Bounded rationality**: The manner in which human beings behave, limits their rationality.
- **Denial of risk**: They may know statistical odds but refuse to believe these odds.

1.1.5 Meaning of Behavioural Finance:

Behavioural finance is a discipline that attempts to explain and increase understanding regarding how the cognitive errors (mental mistakes) and emotions of investors influence the decision making process. It integrates the field of psychology, sociology, and other behavioural sciences to explain individual behaviour, to examine group behaviour, and to predict financial markets. According to behavioural finance people are not always rational: many investors fail to diversify trade too much, and seem to selling winners and holding losers. Not only that, but they deviate from rationality in predictable ways.

Richard Thaler (1999) states “Behavioural finance is no longer as controversial a subject as it once was. As financial economists become accustomed to thinking about the role of human behaviour in driving stock prices, people will look back at the articles published in the past 15 years and wonder what the fuss was about. I predict that in the not-too-distant future, the term “behavioural finance” will be correctly viewed as a redundant phrase. What other kind of finance is there? In their enlightenment, economists will routinely incorporate as much “behaviour” into their models as they observe in the real world. After all, to do otherwise would be irrational.”

Thaler’s view is likely to prove optimistic. Finance researchers are likely to be studying large, highly competitive asset markets and largely ignore behavioural modifications to traditional theory. Even relatively new field, Behavioural Finance is growing very fast, in explaining not only how people make financial decisions and

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how markets functions, but also how to improve them. Behavioural finance is integration of various fields as explained in Figure 1.1 as under:

![Figure 1.1 Evolution of behavioural finance](source)

As the evidence of the influence of psychology and emotions on decisions became more convincing, behavioural finance has received greater acceptance.

“Behavioural 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 prompt the second” (Barber and Odean, 1999)\(^{40}\)

Individual investor and their behaviour had received lot of consideration and focus of interest of many scientists not only being confided only to economist, but, due to the inclusion of the findings and the methodology of psychology into financial studies. Despite many debates, this has slowly led to the establishment of behavioural economics and behavioural finance as widely recognised sub-disciplines.\(^{41}\)

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Behavioural finance promises to make economic model better at explaining systematic investor decisions. Taking into consideration their emotions and cognitive errors and how these influence decision making. So behavioural finance is not a branch of standard finance; it is replacement offering a better model of investor psychological decision process.

**Thus behavioural finance can be described in the following ways:**

- Behavioural finance is the integration of classical economics and finance with psychology and the decision making sciences.
- Behavioural finance is an attempt to explain what causes some of the anomalies that have been observed and reported in the finance literature.
- Behavioural finance is the study of how investors systematically make errors in judgment or ‘mental mistakes’.

According to behavioural finance, investor’s behaviour in market depends on psychological principles of decision making, which explains why people buy and sell investments. It focuses on how investors interpret information and act on information to implement their financial investment decisions. In short psychological process and biases influences investors decision making and influence the market outcomes.

**1.1.6 Similarity and Differences between Standard Finance and Behavioural Finance:**

Richard Thaler, Founding father of Behavioural Finance, captured the conflict in a memorable NBER(national Bureau of Economic Research) conference remark to traditionalist Robert Barro “The difference between us is that you assume people are as smart as you are, while I assume people are as dump as I am”. This is how the difference between two sciences is discussed.

Behaviourist argues that behavioural theories are necessary to explain anomalies that cannot be accommodated by traditional finance theory. In return Traditionalist uses a philosophy of instrumental positivism to argue that the competitive institutions in finance make deviationfrom *Homo Economicus*.

Traditional Finance incorporates no element of human psychology; Behavioural Finance usually incorporates almost no elements, relying on economic theory. Finance institution place people in complex settings that are best described in terms of information, incentives, and actions that can be taken –building block of economic theory. Thus, behavioural studies include only small elements of psychology, integrated into economic theory needed to understand the institution itself. In this way, Behavioural Finance adds only wrinkle to standard finance, which is to alter
some of one or more facets of an assumption which is the very foundation of economic theory: how do individual behave?

The key difference between “Traditional Finance” and “Behavioural Finance” are as follows:

- Traditional finance assumes that people process data appropriately and correctly. In contrast, behavioural finance recognises that people employ imperfect rules of thumb (heuristics) to process data which induces biases in their belief and predisposes them to commit errors.
- Traditional Finance presupposes that people view all decision through the transparent and objective lens of risk and return. Put differently, the form (or frame) used to describe a problem is inconsequential. In contrast, behavioural finance postulates that perceptions of risk and return are significantly influenced by how decision problem is framed. In other words, behavioural finance assumes frame dependence.
- Traditional finance assumes that people are guided by reasons and logic and independent judgment. While, behavioural finance, recognises that emotions and herd instincts play an important role in influencing decisions.
- Traditional finance argues that markets are efficient, implying that the price of each security is an unbiased estimate of its intrinsic value. In contrast, behavioural finance contends that heuristic-driven biases and errors, frame dependence, and effects emotions and social influence often lead to discrepancy between market price and fundamental value.
- EMH views that price follow random walk, though prices fluctuate to extremes, they are brought back to equilibrium in time. While behavioural finance views that prices are pushed by investors to unsustainable levels in both direction. Investor optimists are disappointed and pessimists are surprised. Stock prices are future estimates, a forecast of what investors expect tomorrow’s price to be, rather than an estimate of the present value of future payment streams.

Behavioural finance questions whether the behavioural assumptions underlying the EMH are true. Another aspect of behavioural finance concerns how investors form expectations regarding the future and how these expectations are transformed into security prices. By considering that investors may not always act in wealth maximising manner and that investors may have biased expectations. Behavioural finance may be able to explain some of the anomalies to EMH that have been reported in finance literature.
1.2 Characteristics of Behavioural Finance:

Four Key Themes- Heuristics, Framing, Emotions and Market Impact characterized the Field. These themes are integrated into review and application of investments, corporations, markets, regulations, and educations-research.

1. Heuristics
2. Framing
3. Emotions
4. Market Impact

1. **Heuristics:** Heuristics are referred as rule of thumb, which applies in decision making to reduce the cognitive resources to solve a problem. These are mental shortcuts that simplify the complex methods to make a judgment. Investor as a decision maker confronts a set of choices within certainty and limited ability to quantify results. This leads identification and understanding of all heuristics that affect financial decision making. Some of heuristics are representativeness, anchoring & adjustments, familiarity, overconfidence, regret aversion, conservatism, mental accounting, availability, ambiguity aversion and effect. Heuristics help to make decision.

2. **Framing:** The perceptions of choices that people have are strongly influenced by how these choices are framed. It means choices depend on how question is framed, even though the objective facts remain constant. Psychologists refer this behaviour as a’ frame dependence’. As Glaser, Langer, Reynders and Weber (2007) show that investors forecast of the stock market depends on whether they are given and asked to forecast future prices or future return. So it is how framing has adversely affected people’s choices.

3. **Emotions:** Emotions and associated human unconscious needs, fantasies, and fears drive much decision of human beings. How these needs, fantasies, and fears influence financial decision? Behavioural finance recognise the role Keynes’s “animal spirit” plays in explaining investor choices, and thus shaping financial markets (Akerlof and Shiller, 2009). Underlying premises is that our feeling determine psychic reality affect investment judgment.

4. **Market Impact:** Do the Cognitive errors and biases of individuals and groups of people affect market and market prices? Indeed, main attraction of behavioural finance field was that market prices did not appear to be fair. How market anomalies fed an interest in the possibility that they could be explained by psychology? Standard finance argues that investors’ mistakes would not affect market prices because when prices deviate from fundamental value, rational investor would exploit the mispricing
for their own profit. But who are those who keep the market efficient? Even institutional investor exhibits the inefficiency. And other limit to this is arbitrage.(Shleifer and Vishny, 1997\textsuperscript{42}; Barberies and Thaler,2003)\textsuperscript{43}. This prevents rational investor from correcting price deviations from fundamental value. This leaves open the possibility that correlated cognitive errors of investor could affect market prices.

1.3 Application of Behavioural Finance:

Behavioural finance actually equips finance professionals with a set of new lenses, which allows them to understand and overcome many proven psychological traps that are present involving human cognition and emotions. This includes corporate boards and managers, individual and institutional investors, portfolio managers, analysts, advisors, and even policy makers. Behavioural traps exist and occur across all decision spectrums because of the psychological phenomena of heuristics and biases. These phenomena and factors are systematic in nature and can move markets for prolonged periods. It applies to:

1. Investors
2. Corporations
3. Markets
4. Regulators
5. Educations

1.3.1 Behavioural finance and investment decisions:

Decision making is a complex process which can be defined as a process of choosing a particular alternative among a number of possible courses of actions after careful evaluation of each. Most crucial challenges to investors is to make investment decision, having a difference in their profile, like demographic factors, socio economic factors, educational levels, age, gender, and race.


Given the run up in stock (capital) market in 2004 to the end of 2007 and subsequent downturn of financial market, understanding irrational investor behaviour is as important as it has ever been. In present scenario behavioural finance becomes integral part of decision making process due to its influence on performance of investment stock market as well as mutual funds.

Most critical issue is market participant cannot behave rationally always, they deviate from rationality and expected utility assumption, while really making investment decisions. So, behavioural finance help investors as well as market participants to understand biases and other psychological constraint in their interplay in market. Thus, behavioural finance application can be illustrated as:

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<th>The Individuals</th>
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<td>Small investors</td>
<td>Portfolio of Investors (Mutual Funds)</td>
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<td>Portfolio Managers</td>
<td>A Group of Investors</td>
<td>A Non Profit Entity</td>
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Behavioural finance approach attempts to explain and increase understanding of reasoning patterns of investors, including the emotional processes involved and degree to which they influence the decision making process. Essentially, it attempts to explain the what, why and how finance and investing, form human perspective. These help investors to minimize or eliminate the psychological biases in investment decisions.

1.4 Theoretical framework of Behavioural Biases:

Psychologists have documented systematic patterns of bias on how people form views and take decisions. These biases influence how decision makers form investment opinions, and then how investors take investment decisions.

Information processing may be correct but individual tend to make less rational decisions using that information. Nevertheless, most of the financial decisions are driven by people’s emotions and associated universal human unconscious needs, fears and psychological traits. Thus bias arises and it can be divided into (i) Prospect theory and framing (ii) heuristics and (iii) other biases. These biases sit deep within our psyche and as fundamental parts of human nature;they affect all types of investors, both professionals as well as private.
The heuristic decision process by which the investors find things out for themselves usually by trial and error, leads to the development of rules of thumb (Brabazon, 2000). These decision are those with which humans attempt to make mental shortcuts. These practices however can result in poor decision results that also apply to individual investment decision process.

When individuals are faced with complex judgments involving statistical probability, frequency or incomplete information, many individuals usually utilise limited number of heuristics that reduce the decision to simper task (Kahneman, Slovic, and Tversky, 1982). Psychological biases or heuristics that can affect decision making are explained in following section.

1.4.1 Frame Dependence and Prospect Theory:

1.4.1.1 Framing

The term Frame dependence means the way people behave depends on the way that their decision problems are framed. There is much evidence that variation in the framing of options, in terms of gains and losses, yield systematically different preference. (Tversky and Kahneman, 1986).

Framing is the way in which a question is structured with regard to the issue being evaluated. Economists argue that framing is transparent; implying that investors can see through all the different ways cash flows might be described. According to Modigliani and Miller approach “if you transfer a dollar from your right pocket to your left pocket, you are no wealthier”. Franco put it as “Frame independent investors pay attention to changes in their total wealth”

Framing is the notion that how a concept is presented to individual matters. A frame is the Form used to describe a decision problem, and Frame dependence means that the form is relevant behaviour (Shefrin, 2000). In reality, behaviour is frame dependent. This means that, the form used to describe a problem has bearing on decision making. Frame dependence stems from mix of cognitive and emotional factors. The Cognitive

aspects relate to how people organise information mentally, in a coding losses and profits.

1.4.1.2 Prospect Theory:

Prospect theory has done more to bring psychology into the heart of economic analysis than any other approach. Prospect theory, developed by Kahneman and Tversky (1979)48 and Tversky and Kahneman (1974, 1981)49 was proposed as a best practice alternative to conventional wisdom. Prospect theory is a theory of average behaviour. It theorizes how an individual or group of individuals behaves, on average, in a world of uncertainty.

The prospect theory is proposed by Daniel Kahneman and Tversky. They describe how people frame and value decision involving uncertainty. According to Prospect theory, people look at choices in terms of potential gains or losses in relation to specific reference point, which is often a purchase price. People feel more strongly about the pain from loss then the pleasure from equal gain.

Prospect theory is a representation of the statistical average of individual behaviours. Thus, there will be deviations from the mean. For example, a subsample of individuals behaving in a consistently deviant fashion can help explain important aspects of choice behaviour, whether or not such behaviour is consistent with the conventional wisdom or prospect theory. Nevertheless, the underlying empirics of prospect theory with regard to average choice behaviour have been well documented. As Tversky and Kahneman (1981)50 write:

“Prospect theory and the scales [used in this theory] should be viewed as an approximate, incomplete, and simplified description of the evaluation of risky prospects. Although the properties of v and n summarize a common pattern of choice, they are not universal: the preferences of some individuals are not well described by an S-shaped value function and a consistent set of decision weights.”

50Ibid 31.
Fig. 1.2 Kahneman-Tversky Value Function

Note: This figure presents a visual representation of prospect theory and shows an S-shaped value function.

Fig 1.2 shows value function—this is prospect theory’s equivalent of classical economic utility function. However, it is defined over gains and losses around a reference point. The reference point is determined by the subjective feelings of the individual. It is the individuals’ point of reference, the benchmark against which all comparison is made. Value function is concave for gains and convex for losses. This means that value function is steeper for losses than for gains—this is referred as loss aversion.

Three unique features of prospect theory:

- Prospect theory assumes that choice decisions are based upon a subjectively determined reference point independent of the decision maker’s state of wealth.
- Subjective reference points introduce a frame to a prospect, which affects choice behaviour.
- A kink exists at the reference point of prospect theory’s value function, assuming individuals weight losses at above twice that of gains.

Individuals tend to think in terms of gains and losses rather than a state of wealth. For example, if there are two people, one of them learns that his wealth has gone from 1 million to 1.3 million while other one learns that his wealth gone down from 5 million to 4.5 million. Most of the people will say that the first guy is happier. However if we look in terms of finance, the second person should be better pay off in terms of total wealth.

The Prospect theory explains that people focus on the outcomes of their decisions. This is in contrast to Bernoulli’s expected utility theory that looked at the utility of the
state of wealth. The Prospect Theory of Kahneman and Tversky follow value functions. Reference points serve to frame the decision parameters. Thus, gain and losses are evaluated both separately and relatively, as opposed to simultaneously and in terms of absolute values of state of wealth.

1.4.2 Mental Accounting:

Mental accounting was proposed by Richard Thaler. Traditional finance holds that wealth in general and money in particular must be regarded as ‘fungible’ and every financial decision should be based on rational calculation of its effects on overall wealth position. In reality, however, people do not have computational skills and will power to evaluate decisions in terms of their impact on overall wealth. So people separate their money into various mental accounts which has different significance to them.

Mental accounting describes the tendency of people to place particular events into different mental accounts based on superficial attributes (Shiller, 1998). People separate money and financial risk into ‘mental accounts’ putting wealth into various buckets. They place their money into separate parts on a variety of subjective criteria, like the source of money, and intend of each account, which has an often irrational and detrimental effect on their consumption decision and other behaviours. For example, investors may feel free to take risk in their own account rather than their children.

Mental accounting manifests itself in investors’ behaviour in following ways:

- Investors have a tendency to ride losers as they are reluctant to realize losses. Mentally, they treat unrealized ‘paper loss’ and realised ‘loss’ differently, although from a rational economic point of view they are same.
- Investors often integrate the sale of losers so that the feeling of regret is confined to one time period.
- Investors tend to stagger the sale of winners over time to prolong favourable experience.
- People are more venturesome with money received as bonus but very conservative with money set aside for children’s education.
- Investors often have irrational preference for stocks paying high dividends, because they don’t mind spending the dividend income, but are not inclined to sell a few shares and ‘dip into the capital’.

So, ‘mental accounting’ refers to how individuals mentally integrate different parts of their wealth. Even over monitoring of portfolio is the result of this biasness. That reflects the way in which investors assign sums of money to different actual or notional accounts for different purposes with varying degrees of risk tolerance upon the importance of achieving the particular objective.

1.4.3 Loss Aversion:

There are two particular areas of investors’ preference that have been highlighted by behavioural finance. The first is loss aversion, which in behavioural finance fills the roles of risk aversion in traditional finance, and the second is mental accounting.

Loss Aversion is a pervasive phenomenon in human decision making under risk and uncertainty, according to which people are more sensitive to losses than gains. It plays a crucial role in Prospect Theory (Tversky and Kahneman, 1974)\textsuperscript{53}, and (Tversky and Kahneman, 1992)\textsuperscript{54}. A typical financial example is in investor’s difficulty to realize losses. Shefrin(2000)\textsuperscript{55} calls this phenomenon ‘Get-evenities’ that is, people hope that markets will work in their advantage and they will be able to terminate their investment without incurring losses.

The human tendency to take extreme measures to avoid loss leads to some behaviour that can inhibit investment success. So the human attitude to risk and reward can be very complex and subtle, which changes over time and in different circumstances.

1.4.4 Disposition Effect:

The disposition effect refers to the pattern that people avoid realizing paper losses and seek to realize paper gains. The disposition effect manifests itself in lots of small gains being realized, and few small losses. Regret aversion and pride seeking behaviour can cause investors to be predisposed to selling winners too early and riding losers too long. This is referred as Disposition effect.

Shefrin and Statman(1985)\textsuperscript{56} predicted that because people dislike incurring losses much more than they enjoy making gains, and people are willing to gamble in the


domain of losses, investor will hold onto stocks that have lost values and will be eager
to sell stocks that have risen in value. They called this the disposition effect.

1.5 Heuristics and Biases:

1.5.1 Representativeness:

According to Shefrin (2000)\textsuperscript{57}, Representative heuristic is a judgment based on
stereotypes. It is also referred as drawing conclusions from little
data. Representativeness refers to the tendency to form judgment based on stereotypes.
For example, you may form an opinion about a student to perform academically in
college on the basis of how he has performed academically in school. While
representativeness may be a good rule of thumb, it can also lead people astray.

Representative bias occurs when it is required to assess the probability of an object.
A belonging to B. The heuristic rule says that if object A is highly representative of
class B, the probability of A originating from B is judged as high, and vice versa
(Tversky and Kahneman, 1974)\textsuperscript{58}. They showed that representative is insensitive to
prior probability of outcomes, when description is provided. Furthermore, it is
insensitive to sample size, when people estimate the probability related to the
sample randomly drawn from a large population, based on the similarity with the
population parameter.

Heuristics are just rule of thumb for dealing with the information deluge that we are
all faced with. Representativeness refers to our tendency to evaluate how likely
something is with reference to how closely it resembles something rather than using
probabilities. (James Montier.2002)\textsuperscript{59}

Actions which is explaining representativeness bias:

- Investors often try to detect patterns in data which is random number.
- Investors extrapolate past returns which actually follow randomness.
- Investors may be drawn to MFs with good track record because such funds are
  believed to be representative of well –performing funds. They forget that even
  unskilled manager can earn higher return by chance.\textsuperscript{60}
- Investors are overly optimistic about past winners.
- Good companies -good stock syndrome.

\textsuperscript{57}Ibid 47.
Science 185:4157, 1124–1131.
\textsuperscript{60} Chandra P. In his Book “Security analysis and Portfolio Management” p.295
This heuristic leads people to judge the stock market changes as bull or bear market without valuing that the likelihood that particular sequences happen rarely. In the same way it could lead the investors to be more optimistic about the past winners and more pessimistic about the past losers which may assume that a recent trend in price movements will definitely continue into the future. It may also result in individual investors developing too much attention to popular stocks that have recently been performing well.

Statman explains that being duped into making investment decisions based upon imperfect theory of small numbers is something that standard finance investor would never do. Statman argued conversely that the investors consider past performances as evidence of future returns is a realistic possibility, contrary to the standard finance model of an investor. (Statman, 1999)\textsuperscript{61}

Representativeness and sample size neglect, bias is where individual are too quick to conclude that they understand developments on the basis of too little information and limited data, where conclusions from small data sets were used even when that is the only evidence available.

One aspect of representativeness is often referred to as the law of small numbers. It is believed that random sample will resemble each other and the population more closely than statistical sampling theory would predict. This representativeness heuristic has application in finance. For e.g. investor are subject to law of small number when dealing with earning data. Another example of representativeness is the way in which investors often mistake good companies for good stocks(Statman, 1989, and 1995)\textsuperscript{62}.

Representativeness can cause investors to overreact to new information, i.e. investors give new information too much weight in forming their expectation about future.

\textbf{1.5.2 Overconfidence:}

\textsuperscript{61} ibid. 41
Confidence can be described as the “belief in oneself and one’s abilities with full conviction” while “overconfidence can be taken one step further in which overconfidence talks this self – reliant behaviour to an extreme” (Ricciardi and Simon, 2000). As a human being people have tendency to overestimate their skills and predictions for success.

Extensive evidence shows that people are overconfident in their judgments. Psychologist has found that people tend to be overconfident and hence overestimate the accuracy of their forecasts.

Overconfidence stems partly from illusion of knowledge. The human mind is perhaps designed to extract as much information as possible from what is available.

They may not be aware that the available information is not adequate to develop an accurate forecast in uncertain situations. Investment with overconfidence, can lead to inappropriate or risky investments. Overconfidence causes investors to overestimate their knowledge, underestimate risks, and exaggerate their ability to control events.

Not only people are habitually optimistic but they are overconfident as well. People are surprised more often than they think. The classic study in overconfidence is Lichtenstein, Fischhoff and Phillips(1982.) Individuals who exhibit overconfidence are said to be not well calibrated. Overconfidence and optimism are potent combination. They lead investors to overestimate their knowledge, understate the risk and exaggerate their ability to control the situation.

The two main facet of overconfidence are mis-calibration and better than average effect. Mis-calibration can manifest itself in estimates of qualities that could potentially be discovered and in estimates of not yet known quantities.
Overconfidence people are not well calibrated. In their prediction they set confidence bands overly narrow, which mean they get surprised more frequently than anticipated (Shefrin, 2000). This type of overconfidence is known as mis-calibration. A more general definition of overconfidence is the one by which people overestimate their own capabilities, usually with respect to capabilities of other people on average. This is also known as better than average overconfidence. In financial market overconfident investors are considered those who actively trade in such a way that the difference between the stock they buy and those they sell does not cover transaction costs (Odean, 1998)\(^{66}\).

There is explicit and implicit assumption of the way overconfidence is modelled in theoretical finance. Static model or models with constant overconfidence over time assume stable individual differences in the degree of overconfidence that is miscalibration. Some papers such as Benos (1998)\(^ {67}\) even refer to investors’ different degree of overconfidence as different investor types.

People remember their success and forget their failures. Harvard psychologist Langer describes these phenomena as “head I win, Tail its chance”. Which is termed as self-attribution bias. People often treat their success due to their own skill and capabilities and they attribute failure to other reasons like bad luck etc. Moreover overconfidence leads to higher trading in financial markets.

Overconfidence will result in:

- Mistaking luck for skill
- Too much risk
- Too much trading

So people tend to overestimate their belief and ability. Overconfidence suggests that investors overestimate their ability to predict market events, and because of this they often take risk without actually receiving proportionate returns. Psychological studies show that, although people differ in their degrees of overconfidence, almost everyone displays it to some degree. For example most of people rate themselves as above average drivers, but by definition 50% of driver are below average.

This kind of behaviour is predominate in all categories of professionals (Barber and Odean, 1999).

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Barclays Wealth management highlighted this as a tendency of individuals to place too much confidence in their own investment decisions, beliefs and opinions. In financial market this leads to form opinions about where the market is going on the basis of far too little information.

1.5.3 SAB & Confirmation Bias:

Self-attribution bias theory is attributed to Heider (1958)\(^6\), who observed how people tend to attribute successful outcome from decisions to their own actions and bad outcome to external factors.

SAB emerge from two important human traits: Self-protecting and Self enhancement. Self-protecting, which is the desire to have positive self-image and self enhancement, which is the desire for others to see us positively.

It can be difficult to encounter something or someone without having pre-conceived opinion. This first impression can be hard to shake because people also tend to selectively filter any pay more attention to information that supports their opinions, while ignoring or rationalizing the rest. This type of selective thinking is often referred to as the confirmation bias.

The people are systematically overconfident in the reliability of their own judgment. Overconfidence in turn is reflected in self-attribution, attributing to their own innate ability and unusual skill any success that they enjoy. Self-attribution leads to a natural tendency to attribute any disappointment to bad luck rather than a lack of skill.

Confirmation bias is the people’s desire to find information that agrees with their existing view. Any information that conflicts with the null is ignored, whilst information that reinforces the null is over-weighted.\(^6\) In investing, the confirmation bias suggests that an investor would be more likely to look for information that supports their original ideas about an investment rather than seek out information that contradicts it. Due to this kind of investor’s tendency, it often results into wrong decision.

1.5.4 Availability Bias:

According to availability bias, people tend to base their decisions more on recent information rather than any detailed study of past events and thereby become biased to that latest news.

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In investment world, people often made decisions based on the information readily available and do not take pain to go for any detailed analysis. When people are asked to assess the frequency of a class or the probability of an event, they do so by the ease with which instances or occurrences can be brought to mind.70

This heuristic is used to evaluate the frequency or likelihood of an event on the basis of how quickly instances or association come to mind. Availability is a cognitive heuristic in which a decision maker relies upon knowledge that is readily available rather than examine other alternatives or procedures.

1.5.5 Cognitive Dissonance:

A form of self-deception stems from the fact that people seek consistency. The mental discord, that arises when the memory of an event conflicts with a positive self-perception or conflict between perception and reality.71

Cognitive Dissonance is the mental conflicts that people experience when they are presented with evidence that their belief or assumptions are wrong, people have an incredible degree of self-denial. They will effectively jump through mental hoops in order to reduce or avoid inconsistencies.

Cognitive dissonance is the mental suffering that people experience when they are presented with the evidence that their belief have been wrong (Shiller, 1998)72

1.5.6 Conservatism:

Kahneman et al. describes conservatism bias as how people underweight base rates such as extrapolating trend from patterns in a small data set.73 This is a tendency to cling tenaciously to a view or a forecast. Once the position has been stated most people find it very hard to move away from the view. When movement does occur it is only very slow, which creates under-reaction to events.

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70 Sewell, Martin. 2007. (Revised, 2010). Behavioural Finance. p. 2
Another bias is conservatism, which arises when it is widely recognised that the available data are insufficient to support strong conclusions. In this case, it is a common error to place too little weight on the available evidence, or even to disregard it and to rely solely on prior expectations. In this way, individuals demonstrate a reluctance to search for evidence that contradict their previous views, because they are reluctant to change their own judgment.

When things have changed, people tend to be slow to adjust to the changes. In other words, they prefer to stay on the ways things have normally been. This is what conservatism is all about. People might under react because of the conservatism bias. However, if the pattern is long enough, then they will slowly adjust to it and may overreact and underweighting the long term average (Ritter and Warr, 2002).

Such bias would give rise to momentum in stock market return. The investors take very conservative approach to changing their minds after taking a decision, despite new contradictory information. For example, investors also tend to look at short term investment performance and believe it will continue, rather than take a long view.

1.5.7 Regret aversion:

Loomes et al. developed the term regret aversion, which is used to describe the emotion of regret experienced after making a choice that either turns out to be bad choice or at least an inferior one. Regret aversion is primarily concerned with how a priori anticipation of possible regret can influence decision making. (Loomes and Sugden, 1982) and (Bell, 1982).

Regret is the emotion individual feels if they can easily imagine having acted in a way that would have led to a more favourable outcome. Classical e.g. of it is fall in price of investment. Regret is the emotion experienced for not having made the right decision. It is the feeling of responsibility for loss (Shefrin, 2000). In a financial context the minimization of possible future regret plays an important role in portfolio allocation. It is also related with preference for dividend in financing consumer expenditures, because selling a stock that may rise in the future carries a huge potential for regret.

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Regret avoidance is the tendency to avoid actions of interest that could create discomfort over prior decisions. This explained why investors defer selling losing positions. In order to avoid the stress associated with admitting a mistake, the investor holds onto the losing position and hopes for recovery.

At the same time, they sell the stock that have gone up in order to feel regret if the prices later fall. This regret avoidance can also be explained when individuals tend to have more regret over the same losses in small stocks rather than the good ones. As buying a small stocks would be more of their own decisions which is ‘out of favour’ to others. When investors lost on small stocks, they feel much more guilty than losing on larger ones. Hence small stocks require higher rate of return to make a buying decisions.

Regret of omission is disappointment of not taking action that would have had good result. Regret of commission is disappointment from taking an action that had bad result. And myopic loss aversion is irrational focus on trying to avoid short term losses. So investors avoid loss or regret, at all costs, which can mean we don’t invest in way that will truly help us reach our investment objectives.

1.5.8 Anchoring and Adjustment:

It is well known that when people are asked to form a quantitative assessment their views can be influenced by suggestions. When faced with uncertainty people will grasp at straws in order to find basis for the view.

Kahneman and Tversky (1974) argued that when forming estimates, people often start with some initial, possibly arbitrary value, and then adjust away from it. Anchoring can be explained as the tendency to attach or ‘anchor’ our thought to a reference point even though it may have no logical relevance to the decision at hand (Phung, 2008). Although it may seem an unlikely phenomenon, anchoring is fairly prevalent in situation where people are dealing with concepts that are new or novel.

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After forming an opinion, people are often unwilling to change it, even though they receive new information that is relevant. Suppose that investors have formed and opinion that company X has above average long term earnings prospect. Suddenly, X reports much lower earning that expected. Thanks to anchoring (conservatism), investors will persist in the belief that the company is above average and will not react sufficiently to bad news. Anchoring manifests itself in phenomena called “post-earning announcement drift”, which is well documented empirically.

Some evidence suggests that recently observed and experienced events strongly influenced decisions. The recent memory makes the prospect more vivid, and therefore seems more likely.

1.5.9 Aversion to Ambiguity: (Familiarity bias)

Familiarity bias is an inclination or prejudice that alters an individuals’ perception of risk. The phrase familiarity has been described as to denote “a degree of knowledge or experience a person has respect to a task or object” (Gigerenzer and Todd, 1999).80

Familiarity is a mental short-cut that treats the familiar things as better than less familiar things. People are comfortable with things that are familiar to them. The human brain often uses the familiarity short cuts in choosing investments. That is why people tend to invest more in the stock of their neighbour companies, employer companies, as well as domestic companies.

People are fearful of ambiguous situations where they feel that they have little information about the possible outcomes. In experiments, people are more inclined to bet when they know the probabilities of various outcomes that when they are ignorant of the same. In the world of investments, aversion to ambiguity means investors are wary of stocks than they feel they don’t understand. On the other side it means investors have a preference for familiar assets. This is manifested in home country bias, local company bias, and own company bias.

1.6 Other biases:

1.6.1 Innumeracy:

According to John Paulos “some of the blocks to dealing comfortably with numbers and probabilities are due to quite natural psychological responses to uncertainty, to coincidence, or to how a problem is framed. Others can be

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attributed to anxiety or to romantic misconceptions about the nature and importance of mathematics”. 81

Innumeracy refers to people confuse between nominal change and real change. People find difficulty in figuring out probabilities. They also give attention to big numbers and give less weight to small figures. Moreover people tend to ignore the base rate and consider only case rate, which reflect the most recent experience. They tend to estimate the likelihood of event on the basis of past example and how frequently that event has occurred.

Innumeracy can be explained in following actions:

• People are unable to differentiate between nominal change and real change.
• People have difficulty in figuring out true probabilities.
• People are more attentive to big numbers.
• People miss frequency of happening past stories.
• People generally ignore base rate.

1.6.2 Affect:

The affect heuristic concerns ‘goodness’ and ‘badness’. Affective responses to a stimulus occur rapidly and automatically: note how quickly you sense the feelings associated with the stimulus words treasure or hate.

Paul Slovic et al. developed the affect heuristic as a theory of how people allow their initial emotional reaction or feelings towards a decision to influence their subsequent evaluation of its risks and benefits. (Slovic, 1987,2000, Peters, Finucane, and MacGregor,2005)

1.6.3 Status Quo Bias:

People prefer status quo to change that involve losing some goods, even when these losses are offset by gains (Knetsch and Sinden, 1984). It is related to the endowment effect and loss aversion.

Affect: it is referred as emotional component of risk. That is risk can be defined as the emotional response of fear, anxiety, chance, probability or consequence of loss. Affect can be positive and negative affect. Positive affect is an individual’s tendency to accentuate the positive aspect of himself or herself, other people, and the world in

81 Paulos, John. in his book on “Innumeracy: Mathematical Illiteracy and its Consequences"
general affect deals with a upside swing in feelings, i.e., happiness, optimism. Negative affect is an individual’s tendency to accentuate the negative aspect of himself or herself, other people, and the world in general. Negative affect focuses on the downword aspect of emotions.

1.6.4 Self-control:

The issue of self-control and hedonic editing reasons for investors’ preference for the portfolio that features high dividends. To finance their consumer expenditures come investors prefer dividends rather than selling assets. (The heuristic “don’t dip into capital”). This is due to framing /hedonic editing, because dividends are labelled as income, not as capital. (Shefrin, 2000)82

1.6.5 Money Illusion:

A natural way for people to think about money is in terms of nominal rather than inflation-adjusted values (Shefrin, 2000). Thus under hyperinflation people will view nominal wage increase more favourably than it really is.

1.6.6 Behavioural Portfolios:

While investors understand the principle of diversification, they don’t form portfolios in the manner suggested by Harry Markowitz portfolio theory. According to Hersh Shefrin and Meir Statman, the psychological tendencies of investors prod them to build their portfolios as pyramid of assets as under:

- Investors have several goals such as safety, income, and growth, often in that sequence.
- Each layer in the pyramid represents assets meant to meet a particular goal.
- Investors have separate mental accounts for each investments goal and they are willing to assume different levels of risk for each goal.
- The asset allocation of an investor’s portfolio is determined by the amount of money assigned to each assets class by the mental accounts.

1.7 Criticisms of Behavioural Finance:

Although behavioural finance had been gaining support in recent years, it is not without its critics. Some supporter of EMH and standard finance theory criticise the behavioural finance approach.

82 Shefrin, Hersh, and Statman, Meir. 2000 in his article “Beyond Greed and Fear: Finance and psychology of Investing”
Critics of behavioural finance Eugene Fama, the founder of the Efficient Market Hypothesis. They contend that behavioural finance is more a collection of anomalies than true branch of finance and these anomalies will eventually be priced out of the market or explained by appeal to market microstructure arguments. However, a distinction should be noted between individual biases and social biases; the former can be averaged out by the market, while the other can create feedback loops that the market further from the equilibrium of the ‘fair price’.

Another argument is found in explanations of the equity premium puzzle. It is argued that the puzzle simply arises due to entry barriers, that have traditionally impeded entry by individuals into the stock market, and that returns between stock and bonds should stabilize as electronic resources open up the stock market to a greater number of traders (Freeman, 2004). Others contend that most personal investment funds are managed through superannuation funds, so the effect of these putative barriers to entry would be minimal. In addition, professional investors and fund managers seem to hold more bonds than one would expect given return differentials.

Eugene Fama has argued that even though there are some anomalies that cannot be explained by modern financial theory, market efficiency should not be totally abandoned in favour of behavioural finance. Fama argued that many of the findings in behavioural finance itself appear to be collection of anomalies that can be explained by market. It is observed that, the problem with the general area of behavioural finance is that it only serves as a complement to general economics at the moment; mostly because it is quite a new area.

Fama also said that conflict of conservatism bias with representativeness bias is the main fundamental flaw in behavioural finance theory (Fama, 1998).

1.8 Summary:

Behavioural Finance is a new approach to financial market that has emerged, at least in part, in response to difficulties faced by the traditional paradigm. In broad terms it argues that some financial phenomena can be better understood by models in which some agents are not fully rational. Behavioural finance theory or behavioural biases can be grouped up as under:

| Table 1.2 SUMMARY OF BEHAVIOURAL FINANCE: BIASES |

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84 Ibid 83.
Table 1.2 SUMMARY OF BEHAVIOURAL FINANCE: BIASES (Cont.)

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House money Effect/MA Anchoring and Adjustments (contamination bias) Shadow of past or snake bite effect

Familiarity bias (Aversion to Ambiguity) Psychology/perception of Risk

Innumeracy Money illusion

Excessive optimisms Behavioural portfolio

Under reaction& overreaction Herd Behaviours

Availability biases

“Perhaps the most important contribution of behavioural finance on the theory side is the careful investigation of the role the markets in aggregating a variety of behaviours” (Thaler, 1999)86.

Because of the many flaws of accepted economic theory, behavioural finance serves as a good complement. The assumptions of perfectly rational individuals and perfect information seem to work in some situations. Behavioural finance then gives explanations as to why the market behaves as it does.

Most of people know that emotions affect investment decisions. People in the world of investments commonly talk about the role that greed and fear play in driving stock markets. Behavioural finance extends this analysis to the role of biases in decision making, such as the use of simple rules of thumb for making complex investment decisions. In short, Behavioural finance uses psychology to explain this behavioural decision making.

Behavioural finance takes a different approach, through recognising the cognitive errors and emotions, human being is prone to while making financial decisions. It is an attempt to describe human behaviour positively, to understand how people behave in financial settings. This helps to understand, psychological influences market

behaviour when investor perception influence markets and how the market action influence investors perception.

Thus, behavioural finance can be presented as the field which combines behavioural and cognitive psychological theory with conventional economics and finance to provide explanation for why people/investors make irrational choices or irrational financial decisions. Behavioural finance could be most interesting in the academic world for the time being.