

BEHAVIOURAL FINANCE**The Study of How Psychology Affects Financial Decision Making*****Santosh Sah****Research Scholar****Department of Commerce and Business Administration****L. N. Mithila University, Darbhanga****** Dr. Anil Kumar Gupta****Associate Professor****Department of Commerce****J. M.D.P.L. Mahila College, Madhubani*****Abstract***

Behavioural Finance is the study of influence of psychology on the behaviour of financial practitioners and the subsequent effect on markets. It can be taken as open-minded finance. It combines the twin disciplines of psychology and economics to explain why and how people make seemingly irrational or illogical decisions when they spend, invest, save and borrow money. It is a rapidly growing area. The general premise of behavioural finance is that investors do not always act in a fully rational, utility maximizing manner. In other words, investors' decisions are not always consistent with what traditional finance theory suggests. The implications of some of the main findings of research in behavioural finance on the decision-making of individuals, and how financial counsellors, planners, advisors and educators (hereafter, for brevity, financial professionals) can use them in order to increase the value added that they provide to their clients.

Key words: *Behavioural Finance, Finance Professional, Irrational Behaviour, Over-confidence, Over-optimism.*

Introduction

Behavioural Finance, a study of investor market behaviour that derives from psychological principles of decision-making, explains why people buy or sell the stocks they do. The linkage of behavioural cognitive psychology studies human decision making, and financial market economics. Behavioural 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 as indicated by the quantitative models. Behavioural finance places an emphasis upon investor behaviour leading to various market anomalies.

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how financial counsellors, planners, advisors and educators (hereafter, for brevity, financial professionals) can use them in order to increase the value added that they provide to their clients. We concentrate on four of the most prevalent seemingly irrational behaviours that individuals are prone to exhibit.

First, individuals tend to separate their money into several 'mental accounts, depending on the sources, magnitudes and purposes of such money.

Second, individuals exhibit loss aversion,' which causes their decisions to depend on the context in which the problem is framed, rather than on the net effect of their decisions on their wealth.

Third, individuals are prone to a cognitive bias known as representativeness, whereby information that is easily available or has become known recently is given too much weight.

Fourth, people are subject to the psychological tendencies of limited self-control and procrastination.

While financial professionals may come across one or more of the above behaviours on a daily basis, we hope that they can benefit from a better understanding of these behaviours and their effects on clients' decisions. Financial professionals, in dealing with their clients, often attempt to drum home certain maxims or themes. Interestingly, the reason why individuals are sometimes slow students in taking these themes to heart is because of some of the aforementioned psychological proclivities. After a discussion of each psychological behaviour, we will connect it to a few tried-and-true kernels of advice that financial professionals often give. It is our view that a better understanding of the relevant psychological factors can only help as counsellors counsel, advisers advise, educators educate and planners plan on behalf of their clients. This may make it possible to move towards the ultimate goal, which is to nudge the client in the direction of what a well-informed, rational, emotionally neutral individual would opt for.

Importance of Behavioural Finance

According to the theory of behavioural finance the financial practitioners must acknowledge and understand behavioural finance, that is, the application of psychology to financial behaviour, in order to avoid many of the investment pitfalls caused by human errors. The financial community often ignores the psychology of investing at its own peril. Behavioural finance helps practitioners to recognize and avoid bias and errors in their

application of behavioural finance can be convenient are:

1. Behavioural finance can help practitioners recognize their own errors as well as the errors of others. For practitioners, it is a must to understand that both are important.
2. In 1997, the Financial Times ran a contest by economist Richard Thaler. Readers were told to choose a whole number between 0 and 100. The winning entry would be the one closest to two-thirds of the average entry.
3. The Financial Times published the following short example to help readers to understand the contest: Suppose five people enter the contest and they choose 10, 20, 30, 40 and 50. In this case, the average is 30, two thirds of which is 20. The person who chose to enter 20 would be the winner.
4. What is the point of this contest? The point is that if you are playing to win, you need to understand how the other players are thinking. Suppose you think everyone who enters the contest will choose 20. In that case you should choose the integer closest to two-thirds of 20, or 14. But when you think on this for a moment, and wonder whether most other players would also be thinking along this line, and therefore all the 138 are planning to choose 14. In this case, your best choice would be 10. And if you kept rethinking your choice, you would eventually come down to choosing 1. And if everyone thinks along these lines, the winning number will indeed be 1. But in a group of normal, even well- educated, people, the winning number will not be 1. In mentioned contest the winning choice was 13. If everyone chose a 1, then nobody would have made a mistake in his or her choice. But if 13 is the winning number, then most people are making mistakes. The real point of this game is that playing sensibly requires you to have a sense of the magnitude of the other players' errors. The game illustrates the following: people commit errors in the course of making decisions and these errors cause the prices of securities to be different from what they would have been in an error-free environment.

Themes of Behavioural Finance

The proponents of behavioural finance argue that a few psychological phenomena pervade the entire landscape of finance. These phenomena are usually divided into three themes:

- (b) Frame Dependence, and
- (c) Inefficient Markets.

Behavioural Finance Promise

Behavioural Finance promises to make economic models better at explaining systematic (non-idiosyncratic) investor decisions, taking into consideration their emotions and cognitive errors and how these influence decision-making.

- Behavioural Finance is not a branch of standard finance; it is its replacement, offering a better model of humanity:
- Create a long-term advantage by understanding the role of investor psychology.
- Human flaws pointed out by the analysis of investor psychology are consistent and predictable, and that they offer investment opportunities.

History and Precursors to Behavioural Finance

During the classical period, economics had a close link with psychology. For example, Adam Smith wrote an important text describing psychological principles of individual behaviour, *The Theory of Moral Sentiments* and Jeremy Bentham wrote extensively on the psychological underpinnings of utility. Economists began to distance themselves from psychology during the development of neo-classical economics as they sought to reshape the discipline as a natural science, with explanations of economic behaviour deduced from assumptions about the nature of economic agents. The concept of homo economicus was developed and the psychology of this entity was fundamentally rational. Nevertheless, psychological explanations continued to inform the analysis of many important figures in the development of neo-classical economics such as Francis Edgeworth, Vilfredo Pareto, Irving Fisher and John Maynard Keynes.

Psychology had largely disappeared from economic discussions by the mid-20th century. A number of factors contributed to the resurgence of its use and the development of behavioural economics. Expected utility and discounted utility models began to gain wide acceptance which generated testable hypotheses about decision making under uncertainty and intertemporal consumption respectively, and a number of observed and repeatable anomalies challenged these hypotheses. Furthermore, during the 1960s cognitive psychology began to describe the brain as an information processing device (in contrast to behaviourist models).

began to benchmark their cognitive models of decision making under risk and uncertainty against economic models of rational behaviour.

Perhaps the most important paper in the development of the behavioural finance and economic fields was written by Kahneman and Tversky in 1979. This paper, Prospect Theory: Decision-Making Under Risk, used cognitive psychological techniques to explain a number of documented anomalies in rational economic decision making. Further milestones in the development of the field include a well attended and diverse conference at the University of Chicago (see Hogarth & Reder, 1987), a special 1997 edition of the respected *Quarterly Journal of Economics* (In Memory of Amos Tversky') devoted to the topic of behavioural economics and the award of the Nobel prize to Daniel Kahneman in 2002 "for having integrated insights from psychological research into economic science, especially concerning human judgment and decision-making under uncertainty."

Prospect theory is an example of generalized expected utility theory. Although not commonly included in discussions of the field of behavioural economics, generalized expected utility theory is similarly motivated by concerns about the descriptive inaccuracy of expected utility theory.

Behavioural economics has also been applied to problems of intertemporal choice. The most prominent idea is that of hyperbolic discounting, in which a high rate of discount is used between the present and the near future, and a lower rate between the near future and the far future. This pattern of discounting is dynamically inconsistent (or time-inconsistent), and therefore inconsistent with standard models of rational choice, since the rate of discount between time t and $t+1$ will be low at time $t-1$, when is the near future, but high at time when is the present and time $t+1$ the near future.

Behavioural Principles that come primarily from

- Psychology,
- Sociology, and
- Anthropology.

Other Behavioural Principles are

- Prospect theory,
- Regret and cognitive dissonance,
- Anchoring,
- Mental compartments,

- Over and under reaction,
- Representativeness heuristic,
- The disjunction effects,
- Gambling behaviour,
- Speculation, perceived irrelevance of history,
- Magical thinking,
- Quasi-magical thinking,
- Attention anomalies,
- The availability heuristic,
- Culture and Social contagion, and
- Global Culture.

The field of modern financial economics assumes that people behave with extreme rationality, but they do not. Furthermore, people's deviations from rationality are often systematic. 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.

Two Common Mistakes Investors make

1. Excessive trading and
2. The tendency to disproportionately hold on to losing investments while selling winners.

We argue that these systematic biases have their origins in human psychology. The tendency for human beings to be overconfident causes the first bias in investors, and the human desire to avoid regret prompts the second.

Investor Biases

Economists frequently assume that people will learn from their past mistakes. Psychologists find that learning itself is a tricky process. Many of the self-deception biases tend to limit our ability to learn. For instance, we are prone to attribute good outcomes to our skill, and bad outcomes to the luck of the draw. This is self-attribution bias. When we suffer such a bias, we are not going to learn from our mistakes, simply because we don't see them as our mistakes.

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- Conservatism bias
 - Cognitive dissonance
 - Hindsight bias
 - Confirmation bias
 - Self-attribution bias
 - Overconfidence
 - Over-optimism
 - Illusion of control
 - Illusion of knowledge
 - Self-deception
 - (Limits to learning)
 - Loss aversion/Prospect theory
 - Cue competition
 - Availability bias
 - Anchoring/Salience
 - Categorization
 - Framing
 - Representativeness
 - Heuristic Simplification
 - (Information processing errors)
 - Regret theory
 - Ambiguity aversion
 - Self-control
 - (Hyperbolic discounting)
 - Mood
 - Emotion/Affect
 - Cascades
 - Herding
 - Contagion
 - Imitation
 - Social Biases

For instance, when teachers ask a class who will finish in the top half, on average around 80% of the class think they will! Not only are people overly optimistic, but they are over-confident as well. People are surprised more often than they expect to be.

For instance, when you ask people to give a forecast, and provide estimates of 98% confidence intervals, the true answer only lies within the limits around 60-70% of the time! Over-optimism and over-confidence tend to stem from the illusion of control and the illusion of knowledge. The illusion of knowledge is the tendency for people to believe that the accuracy of their forecasts increases with more information.

So dangerous is this misconception that Daniel Boorstin opined that the greatest obstacle to discovery is not ignorance. It is the illusion of knowledge. The simple truth is that more information is not necessarily better information, it is what you do with it, rather than how much you have that matters.

Self-Attribution Bias

Self-attribution bias occurs when people attribute successful outcomes to their own skill but blame unsuccessful outcomes on bad luck.

Status Quo Bias

The example also illustrates what **Samuelson and Zeckhauser (1988)** call a status quo bias, a preference for the current state that biases the economist against both buying and selling his wine.

"One implication of loss aversion is that individuals have a strong tendency to remain at the status quo, because the disadvantages of leaving it loom larger than the advantages." Samuelson and Zeckhauser (1988) have demonstrated this effect, which they term the status quo bias.

Cognitive Bias

Cognitive psychology is the psychological science that studies cognition, the mental processes that underlie behaviour, including thinking, reasoning, decision making, and to some extent motivation and emotion. Cognitive psychology covers a broad range of research domains, examining questions about the workings of memory, attention, perception, knowledge representation, reasoning, creativity and problem solving,

When trying to explain the occurrence of an event, humans have a tendency to seize upon any evidence, which may constitute an explanation. We believe that the subjective and judgmental elements of reserving practice lead actuaries to be particularly vulnerable of this. Often they encounter an unexpected result for which it may not be easy to determine the cause - why numbers do not balance, why the best estimate changed so much, why loss ratios have increased and proceed to brainstorm possible explanations. Humans are often satisfied with the first idea that explains the direction of the anomaly, without regard for its feasibility.

Sometimes, actuaries will seize on a justification, and a few minutes later realize that the explanation actually indicates the opposite; the explanation then gets rejected and the search continues for another reason. Meanwhile, the existence of the first idea should represent even greater concern. The confirmation bias is not only inaccurate, but also intellectually dishonest.

Behaviour Themes

Mental and emotional factors identified by Professor Shefrin as leading investors to make mistakes include the following:

Heuristic-driven Biases

1. **Availability bias:** The tendency to base decisions on the most readily available information.
 - ❖ **Representativeness:** Projecting from stereotypes. Includes "the illusion of validity."
2. **Overconfidence:** Assuming more knowledge than one actually has. It includes "excessive optimism" and "the illusion of control." Anchoring-and-adjustment. Too-conservative extrapolation from current data and too-slow readjustment of expectations based on changes. It also includes "hindsight bias". Aversion to ambiguity. Preference for the familiar over the unfamiliar.
3. **Self-attribution bias:** Ascribing successful outcomes to one's skill, but blaming failures on bad luck.

Frame Dependence

Loss aversion: The fact that losses are more painful than gains are pleasurable leads to reluctance to realize losses, "get-events"

losses.

- ❖ **Hedonic editing:** Preference for frames that obscure losses-eg, a slim possibility of no loss often outweighs the taking of a sure but small loss.
- ❖ **Regret:** Focus on what might have been if not for one's past mistakes.
- ❖ **Money illusion:** Valuing dollar amounts without regard to reduced value from inflation.

Other judgmental biases include:

- ❖ *Association Bias*, in which an individual tries to repeat past success by choosing strategies more related to the past situation than to the current set of circumstances.
- ❖ *Escalation Phenomena*, in which an individual finds it difficult to abandon a course of action and ignores feedback that the process is failing.
- ❖ *Self-serving Bias*, in which individuals take credit for successes which occur, but deny responsibilities for failures by blaming external issues or circumstances out of their control.

Summing-up

Behavioural finance combines the twin disciplines of psychology and economics to explain why and how people make seemingly irrational or illogical decisions when they spend, invest, save, and borrow money. According to the theory of behavioural finance, the financial practitioners must acknowledge and understand behavioural finance, that is, the application of psychology to financial behaviour, in order to avoid many of the investment pitfalls caused by human errors.

The two most common biases are over-optimism and over-confidence. The illusion of knowledge is the tendency for people to believe that the accuracy of their forecasts increases with more information. So dangerous is this misconception that we may opine that the greatest obstacle to discovery is not ignorance. It is the illusion of knowledge. The simple truth is that more information is not necessarily better information, it is what you do with it, rather than how much you have that matters. Self- attribution bias occurs when people attribute successful outcomes to their own skill but blame unsuccessful outcomes on bad luck.

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