# Strategies to Mitigate Behavioural Risk in Investment Decision Making

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Abstract: An Investment decisions is the most crucial challenge faced by investors. Behavioural Finance is an Art and Science both. It deals with the psychological and emotional phenomenon that influences investors to take rationally or irrationally investment decisions. The present paper helps to identify the Behavioural risk factors that lead investment biases. The study also helps to provide various strategies to mitigate Behavioural risk that affect investors in investment decision making process. For attaining the purpose of the present study secondary data is used to collect the information. Secondary data are collected from Newspapers, Articles, Journals, etc. From the past researches certain factors are identified to develop System Dynamic Model. The causal loop diagram and stock flow diagram is developed for the investors investment decisions. The psychological and emotional aspects effect on investment decisions. It was found that mostly investors are influenced by irrational decision which leads to the investment biases.

**Keywords:** Investment Decision, Irrational Decision, Rational Decision, Behavioral Risk, Causal Loop Diagram, Stock Flow Diagram.

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#### I. Introduction

In economic growth of India financial sector plays an important role. Now a day's financial market are emerging as a strongest and fastest growing service sector in India. An Investment decisions is the most crucial challenge faced by investors. Behavioural Finance deals with psychological and emotional phenomenon of investment decision making process. Investment decision making process is most important aspect for all the stakeholders those who are directly or indirectly influenced by the financial market. Behavioural Finance is an Art and Science both. It deals with the psychological and emotional phenomenon that influences investors to take rationally or irrationally investment decisions. Behavioural Finance helps to analyze the investor's behaviour of investment pattern. When the irrational decisions are taken by the investors then it would leads to the behavioural biases. The irrational decisions not help the investors to maximize their utility. But now a day's mostly investment decisions are taken irrationally rather than rationally. There is a huge difference between traditional and modern approach of investment. Traditional method helps in maximize profit while modern method is influenced by behavioural and emotional in investment. Traditional approach of investment is related with rational decision making in which decisions are taken logically and rationally by the investors. The main concept of Traditional finance is that investors can construct portfolio according to their need which minimizes the risk and provide high return. The rational decision making approach of investment is to maximize the utility. But now days it was found that mostly investors are influenced by irrational decision which leads to the investment biases. In traditional finance investors analyze the statistics, facts, events and information by adopting various econometric models that helps to maximize the utility. In Behavioural finance investors get emotionally influenced while taking investment decisions. Individual financial behaviour affects the investment decision. The certain behavioural factors like greed, fear, love, optimism, herd instinct, overconfidence, etc. leads to the investment biases. Investors are more reliable on the past statistics rather than relying on the present information or facts which would be the major reason of investment biases. In the past researches the certain factors of behavioural risk like illusion of control, overconfidence, loss aversion, Anchoring, Trend Chasing, Self Attributionconsciousness level, information, belief, religion, etc. had been studied which leads to the investment biases. There are certain strategies that help investors to be more reliable on the present facts, events and information rather than having trust on brokers and past information or beliefs. When the investment decisions are taken by open minded and by cultivating high performance mind then it would leads to take decision logically and rationally. Instead of taking decision emotionally and psychologically that leads investment biases. Investors should act positive and should have some purpose or goals of investment which would result in positive or rational returns. Investors should adopt theses strategies to make investment decisions more effective. In the present study the system dynamics model is applied which helps to create a

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reinforcing and balancing loops for the various strategies to mitigate Behavioural risk that affect investors in investment decision making.

#### **II.** Literature Review

Kristina Jermakova (2012) in the study reveals the importance of passive and active investors. Passive investors are wealth preserver while active investors are more aggressive which may leads to emotional biases. Individual financial behaviour affects the investment decision. The certain behavioural factors like greed, fear, love, optimism, herd instinct, overconfidence, etc. leads to the investment biases. Sanjeev Swami (2013) the study is based on literature review in which three theories (subjective expected utility theory, prospect theory and multi-attribute utility theory) of decision making has been discussed. On the basis of empirical study it was suggested that cognitive biases and errors cab be controlled or reduced by efficient and effective decision making rules (heuristics). For solving complex decision making problems decision makers adopt the multi criteria decision making or collaborative decision making approach. Amar Kumar Chaudhary (2013) analyzed in the study that in behavioural finance how investors get emotionally influenced while making investment decisions. Investors are more reliable on the past statistics rather than relying on the present information or facts which would be the major reason of investment biases.Dr. Taqqadus Bashir (2013) examines gender behaviour while taking investment decisions. The study states that female are more biased to take investment decisions emotionally as comparison to male. The certain behavioural factors have been identified like illusion of control, overconfidence, loss aversion, etc. that reflects investors irrationally.H. Kent Baker (2014) stated the two different types of investors one is overconfident and other is Status Quo investors. There are certain types of behavioural biases like Worry, Greed, Anchoring, Trend Chasing, Self Attribution, etc. that affects investors to take irrationally investment decisions.Dr.Thimmarayappa.R (2015) the study distinguishes between the traditional and modern approach of investment. Traditional method helps in maximize profit while modern method is influenced by behavioural and emotional in investment. The study examines that most of the time investors' act irrationally rather than rationally which may leads to the behavioural biases. Mehmet Apan (2015) in the study highlights several factors that affect the individual investors' behaviour in investment decision making process. The certain factors that had been identified in the study are income level, consciousness level, information, belief, religion, following traditional approaches, etc. which influenced towards irrational decisions.Dr. AtulBansal (2015) states the importance of behavioural finance concept rather than adopting the traditional concept of investment. The study states that behavioural finance helps to analyze the bahvioural and psychological pattern of investors. It also tries to analyze the importance of irrational investment decisions for investors.

# III. Research Significance

An Investment decisions is the most crucial challenge faced by investors. Behavioural Finance is an Art and Science both. It deals with the psychological and emotional phenomenon that influences investors to take rationally or irrationally investment decisions. There are various Behavioural factors which influence investors in investment decision making process. So, the particular study helps to identify the Behavioural risk factors that lead investment biases. The study also helps to provide various strategies to mitigate Behavioural risk that affect investors in investment decision making process. Behavioural finance helps to analyze the bahvioural and psychological pattern of investors. It also analyzes the importance of irrational investment decisions for investors. This particular study also helps to identify the variables from the past studies and to propose a system dynamics model which helps to create a reinforcing and balancing loops for the Behavioural risk that affect investors in investment decision making. The particular study also helps to reveal the variables which are helpful to mitigate behavioural risk and also identify those variables that helps in developing strategies to reduce investment biases and irrational decision making. Thepsychological and emotional aspects effect on investment decisions. Mostly investors are influenced by irrational decision which leads to the investment biases. The objective of the study is to providing assistance to all the investors and other stakeholders to reduce investment biases and to involve in rational decision making process.

#### **IV. Research Objectives**

- a) To identify the Behavioural risk factors that leads investment biases.
- b) To provide various strategies to mitigate Behavioural risk that affect investors in investment decision making process.
- c) To develop causal loop diagram and stock flow diagram for the investors investment decisions.

# V. Research Methodology

For attaining the purpose of the present study secondary data is used to collect the information. Secondary data are collected from Newspapers, Articles, Journals, etc. From the past researches certain factors

are identified to develop System Dynamic Model. The causal loop diagram and stock flow diagram is developed for the investors investment decisions. The Research is conducted from 2013 to 2015. The present study is descriptive and causal in nature. The study helps to explore and to seek cause and effect relationship among various dimensions of behavioral risk that affects investors in investment decision making process. The system dynamics model which helps to create a reinforcing and balancing loops for the various strategies to mitigate Behavioural risk that affect investors in investment decision making.

#### VI. Results and Discussions

# 6.1 BEHAVIOURAL RISK FACTORS THAT LEADS INVESTMENT BIASES

Mostly Investors takes decisions irrationally rather than rationally. Irrational investment decisions are taken emotionally that leads investment biases. There are various Behavioural factors which influence investors in investment decision making process. From the past studies the certain factors of behavioural risk has been identified which leads to the investment biases are discussed below:

- a) Overconfidence: It is the most important behavioural risk factor in which investors do trading on number of securities and take too much risk. The investors have to pay more to the brokers which may also leads to high losses.
- **b) Herding:** Investors are mostly influenced by herding. They don't take their investment decisions individually. Investors are influenced by others decisions. Herdingbehaviourwill leads to the bubble formation in the Indian financial market.
- c) Cognitive Dissonance: Investors are influenced by beliefs, psychological stability and irrationality. In cognitive dissonance investors ignores important information and rationality that affect investors in investment decision making process.
- **d)** Representativeness: Investors take investment decision on the basis of past experience or events. In Representativeness investors are defined as a stereotype because they try to link present investment decision with past information and knowledge.
- **e) Mental Accounting:** Investors portraits in their mind that no or low diversification is the best option for the investment. Low diversification will effect on irrational returns.
- **f) Hindsight:** Investors are more reliable on brokers and past information rather than having the present events and information that will leads to the investment biases.

# 6.2 VARIOUS STRATEGIES TO MITIGATE BEHAVIOURAL RISK THAT AFFECT INVESTORS IN INVESTMENT DECISION MAKING PROCESS

Investors take decisions irrationally rather than rationally. Rational decision making process involves investors taking investment decision logically, analytically, based on known facts or present events. From the past researches certain strategies have been identified to mitigate behavioural risk, irrational investment decision and investment biases that affect investors in investment decision making process. The various strategies used to mitigate behavioural risk like open minded, cultivate high performance mind, think logically, improve mental focus, challenge belief system, find purpose, act positive, peer effect, etc. can be adopted by the investors to take rational investment decisions.

By adopting all these behavioural strategies investors will reduce the investment biases. The certain strategy helps investors to be more reliable on the present facts, events and information rather than having trust on brokers and past information or beliefs. When the investment decisions are taken by open minded and by cultivating high performance mind then it would leads to take decision logically and rationally. Instead of taking decision emotionally and psychologically that leads investment biases. Investors should act positive and should have some purpose or goals of investment which would result in positive or rational returns. Investors should adopt theses strategies to make investment decisions more effective.

#### 6.3 CAUSAL LOOP DIAGRAM FOR THE INVESTORS' INVESTMENT DECISIONS

Causal loop diagram depicts that in the system how certain variables are interrelated with each other. It also represents the positive and negative relationship among various variables. The system dynamic model process starts with developing the causal loop diagram. [Sterman, 2000]. Causal loop diagram depicted by reinforcing loop (positively or negatively reinforce the other variables of the system) and balancing loop (maintains the stability in the system).

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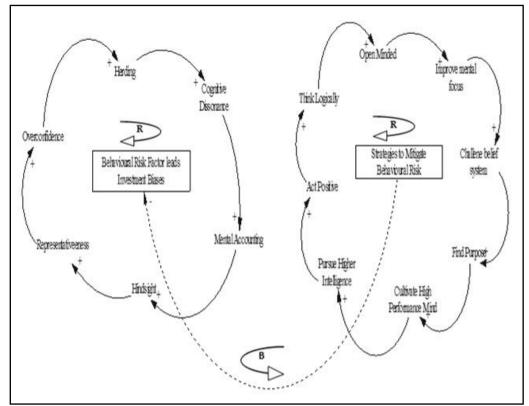


Figure 1: Causal Loop DiagramSource: Self Constructed

The above given figure represent that bahvioural risk factors that leads to the investment biases are influenced by positive reinforcing effects on certain variables. When (Herding Behaviour) investors are influenced by others to take investment decisions then it would leads in the stability of beliefs, psychological and irrationality (Cognitive Dissonance) that would further reflect the mental accounting of the investors. In HindsightInvestors are more reliable on brokers and past information which may leads to become investors as stereotypes. All this behavioural risk factors reinforce the overconfidence among investors. The above given figure also represent strategies to mitigate behavioural risk that are reinforced by positive effects on certain variables. Investors are open minded then they would challenge the belief system and find purpose of their investment. Cultivating high performance mind and higher intelligence leads investors to act positive and think logically. The above given figure depicts that the various behavioural strategies helps to balance the behavioural risk that leads to investment biases. Balancing loop helps to maintain the stability in the investors' behaviour that affects investment decision system. The strategies influence investors in rational decision making further that helps to reduce irrational decision and investment biases from the investment decision system.

# 6.4 STOCK FLOW DIAGRAMFOR THE INVESTORS' INVESTMENT DECISIONS

Stock Flow Diagram is a technique that represents the accumulation which is controlled by inflows and outflows of the particular system. Stock Flow Diagram helps to determine the behaviour of the particular system. [Sterman, 2000]. The system dynamic model process start while identifying the variables of the study, then develop causal loop diagram and further causal loop diagram is converted into the stock flow diagram.

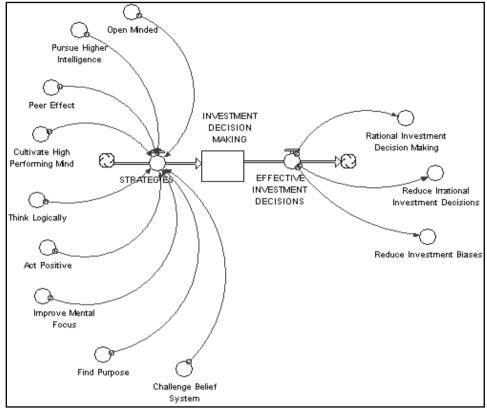


Figure 2: Stock Flow DiagramSource: Self Constructed

The above given figure depicts the investors behaviour that affect investment decision system. Stock is stated by investment decision making which is modulated by inflows and outflows of the investors' behaviour. Inflows are various behavioural strategies that help investors in investment decisions process. Outflows of the investors' behaviour system will be to reduce investment biases, mitigate irrational investment decision and to take decision rationally which may results in the effective investment decision. There are certain inflow variables like open minded, cultivate high performance mind, think logically, improve mental focus, challenge belief system, find purpose, act positive, etc. that help in developing behavioural strategies which helps to reduce irrational decision and investment biases from the investment decision system.

# VII. Conclusion

From the study it was found that mostly investors are influenced by irrational decision which leads to the investment biases. In traditional finance investors analyze the statistics, facts, events and information to maximize the utility. In Behavioural finance investors get emotionally influenced while taking investment decisions. Individual financial behaviour affects the investment decision. The study reveals that most of the time investors' act irrationally rather than rationally which may leads to the behavioural biases. Behavioural Finance helps to analyze the investor's behaviour of investment pattern. The certain factors of behavioural risk like illusion of control, overconfidence, loss aversion, Anchoring, Trend Chasing, Self Attributionconsciousness level, information, belief, religion, etc. had been studied which leads to the investment biases. Rational decision making process involves investors taking investment decision logically, analytically, based on known facts or present events. The certain strategies that have been identified to mitigate behavioural risk, irrational investment decision and investment biases that affect investors in investment decision making process. The various strategies used to mitigate behavioural risk like open minded, cultivate high performance mind, think logically, improve mental focus, challenge belief system, find purpose, act positive, peer effect, etc. can be adopted by the investors to take rational investment decisions. The strategies influence investors in rational decision making further that helps to reduce irrational decision and investment biases from the investment decision system. The irrational decisions not help the investors to maximize their utility. But now a day's mostly investment decisions are taken irrationally rather than rationally. Traditional Finance helps in maximize their utility while modern finance is influenced by behavioural and emotional in investment. Instead of taking decision emotionally and psychologically that leads investment biases. Investors should act positive and should have some purpose or goals of investment which would result in positive or rational returns. This particular study identify the

variables from the past researches to propose a system dynamics model which helps to create a reinforcing and balancing loops for the Behavioural risk that affect investors in investment decision making.

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