Cognitive dissonance and investors' decision-making: A review

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Abstract

Purpose: The purpose of this research is to develop a conceptual framework of cognitive dissonance bias that influences the investment decision-making.

Research Methodology: This research uses empirical studies in order to assess the accurate deviation of investors' behaviour from rational decisions.

Results: The result of this study reveals the identified factors like age, emotional biases, overconfidence, and confirmations biases that enhance the cognitive dissonance that influence the decision making of the investors.

Keywords: Cognitive dissonance bias, Psychological biases, Investment decisions, Behavioural finance, Psychology of investors.

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Introduction

Albert Einstein has given a famous quote is "Only two things are infinite, the universe and human stupidity, and I'm not sure about the former." This quote is much more relevant in the present context because the human mind is responsible for the best and worst conditions or decisions.

Every investor has some criteria for taking investment decisions either fundamental analysis which based on the present value of the future cash or technical analysis in relation to the past prices. However, the actual investment decisions are backed by the cognitive and emotional factors. In this argument, behavioural finance has given a new paradigm in relation to how cognitive and emotional factors may hinder optimal investment decisions. Traditional finance has laid their foundation on the assumption of rational behaviour of the investors that consider all available information about the stocks. By supplicating the traditional theories, behavioural finance contradicts with the rationality and has documented repeated errors in the judging criteria that lead to irrational behaviour.

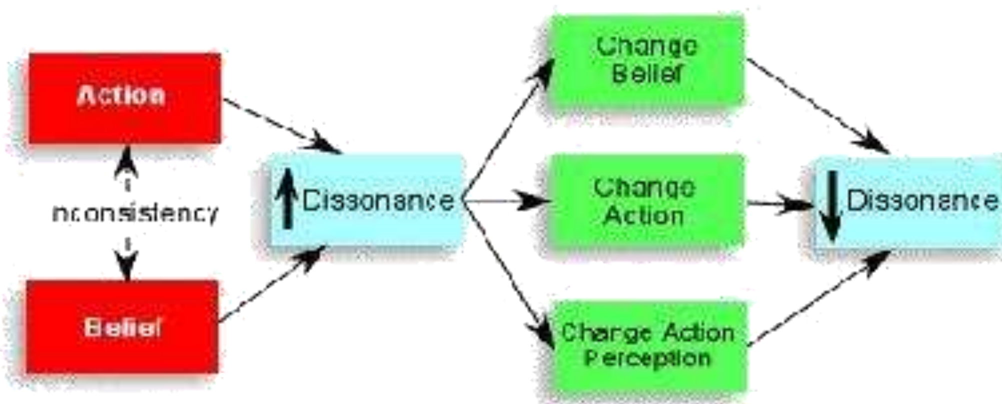
The foundation of behavioural finance theories has a psychological perspective of investor's decision and their illusions influences in different ways. Such illusions are overconfidence, herding, loss aversion, mental accounting, and cognitive dissonance. The investors have faced with these illusions in relation to the investment decision by choosing the investment avenues. Furthermore, investor's behaviour is dynamic and ally with theories of psychology, economics and cognitive which help in explaining the deviation from the rational behaviour (Kumari & Sar, 2017).

Kahneman and Tversky (1979) have postulated that how psychology has affected the investment decisions of not only the individual investors but also retail investors and the whole market. Baker and Nofsinger (2002) have added their work in the form of cognitive and emotional biases which mislead the investment decisions. To understand the investors' behaviour in order to know how psychological biases affect individual decision making becomes imperative. A voluminous literature on investor's behaviour is documented by several researchers. This study focuses on the development of a conceptual framework for cognitive dissonance bias that affects the investment decisions of the investors. The purpose of this research is also assessing the other factors which contribute to the cognitive dissonance bias.

Literature review and hypotheses development

The term cognitive relates to the gaining knowledge that involves the mental process for understanding that knowledge. The dissonance word is used to represent the discomfort or dissatisfaction level which arises due to the existence of a conflict between two different thoughts or beliefs. The standard beliefs are pre-established knowledge and contradict with these beliefs and experiences that resulted in inconsistent results that may raise the discomfort level. Thus, the cognitive dissonance is a level which defines the dissatisfactory result after contradicting beliefs or attitudes.

The American social psychologist Leon Festinger in 1957 has given the theory of cognitive dissonance in order to give some insight on mental dissatisfaction. Festinger (1957) stated that any person may face dissonance or non-fitting situation among their cognitive beliefs which laid emphasis on the behavioral changes and circumspect exposure of newly acquired information or opinions. Theory of cognitive dissonance also elaborated the situation when any person has faced inconsistencies among the cognitive elements that give a reason to exhibits the discomfort. At this time, the person tries to minimize the discomfort or dissonance in different ways.



The following diagram represents the arousal of dissonance and the different ways one's tries to overcome the unpleasant condition which decreases the dissonance.

Figure1: Cognitive Dissonance Theory
Source: Pompian, M. M., & Wood, A. S. (2006). Behavioral Finance and Wealth Management: How to Build Optimal Portfolios for Private Clients.

The psychologists have argued that people try to behave rationally by synchronizing the cognitions for maintaining psychological stability. It is not always necessary for being rational cognition by modifying the behaviour. There are certain assumptions on which theory of cognitive dissonance has based, which are stated as under:

1. Presence of Cognitive Elements

Cognitive elements or cognition implies an attitude, beliefs, emotions, and values which get affected by the interaction of new learning and contradicts with the preconceived notions. These are arousing with new experience and knowledge.

2. Presence of Inconsistencies

Generally, the cognitions clash in a real-life situation due to the inconsistencies prevails. Most of the investors make investment decisions based on their cognition accordingly. By facing the inconsistencies in the practical situations that may result in the unpleasant state of mind and at this stage an investor exhibits dissonance and collectively, it is termed as cognitive dissonance.

3. Intensity of Dissonance

The intensity of the dissonance is based on how important is your decision. The importance of decisions is directly affected by the dissonance level. Festinger (1957) has exerted their view on other determinants of dissonance which is exhibited after taking decisions is the attractiveness of non-selected options.

4. Minimise the Level of Dissonance:

Every investor tries to reduce the discomfort situation after making decisions and convince themselves to get rid of the unpleasant stage to a consistent stage. It is helpful in determining a stable relation between behaviour and cognition.

When an individual possesses the cognitive dissonance, the following actions have added in their behaviour. These are stated as under:

By Ignoring New Information

Human psychology never allows contradicting a preconceived belief from the newly available information. It is a feature of cognitive dissonance that always tries to avoid new information about any alternatives.

By Taking Decisions under Overconfidence

Overconfidence is prominent when any individual possessing dissonance. The investors are more confident about previously held decisions and to deny accepting the actual performance of any stocks or the ground reality. For instance, they carry a losing stock instead of selling it at the right time.

By Wrongly Interpreting the Information

The whole decision gets affected by the biased interpretation. If the investor overweighs to only those information which supports their pre-established beliefs, then the decision will be biased. In order to overcome the biased interpretation, the investor should assess all aspects of the information.

1. **Conceptual Framework of Cognitive Dissonance Bias:**

3.1 Cognitive Dissonance Bias:

Mental stress arises by holding ideas and beliefs which is different from each other that give born the cognitive dissonance. Numerous observations and experiments have been done in relation to defeating this dissonance by analyzing the situations of inconsistencies. The individuals carry a positive image and considered more competent as compared to others. They continue to maintain this image by examining constraints of a decision without hurting the self-image and always try to opt for the decision which doesn't contradict the pre-established beliefs. In return, they face an adverse situation in terms of capital loss that increases the dissonance level. If they accept the alternative beliefs or decisions, they overwhelmed by the returns which automatically decreases the dissonance.

3.2 Investment Decision-Making:

Investment decisions are the investor's choice to employ the money for future consumption instead of using in the present time. Usually, the individuals select the option which is more beneficial of them. To proceed with this argument, Harper (2012) has stated that investment decision-making is based on the risk and return aspects of the instrument. Bodie Kane & Marcus (2008) have given insight on decision making of the investors in relation to the expecting return from the employed funds for the future and analyses the benefits and losses before making investment decisions (Akintoye, 2006).

3.3 Cognitive Dissonance Bias & Investment Decision-Making:

Cognitive dissonance is a stage where any investor felt the mental discomfort and imbalance situation that appears at the time of two different contradictory views. It inclines towards the irrational decisions of any investment. Goetzmann (1997) has stated that mostly investor experiences the feeling of cognitive dissonance if they continue to hold the underperforming mutual funds. Kanojia et al. (2018) have found evidence of cognitive dissonance in the Indian investors that leads towards irrational decision-making. Olsen (2008) has opined that when any investors don't want to change the existing opinion about the stock performance that resulted in adverse consequences and enhances the discomfort level. In such a situation, they become overconfident and always trying to find out ways to confirm their existing opinion. At this stage, the investors would be highly influenced by the overconfidence & confirmations biases. Kanojia et al. (2018) have identified the age factors that impact cognitive dissonance directly. The dissonance increases with the different age group that appeared in the capability of taking quick decisions but at the cost of rationality.

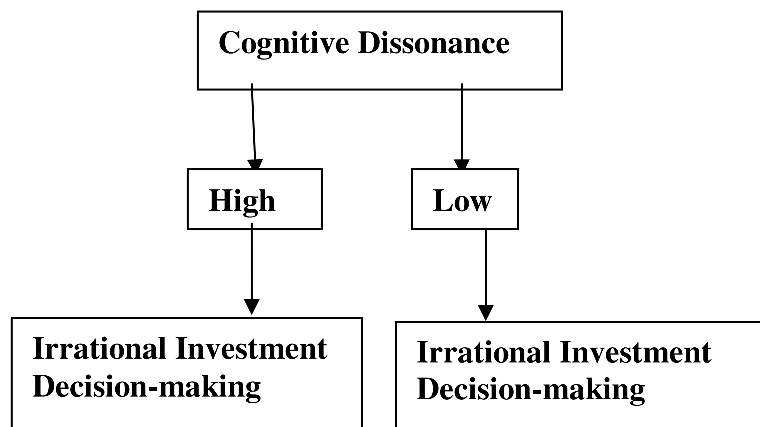


Figure 2: Cognitive Dissonance Level Representing the Irrationality.

Source: Chandra, A. (2008, December). Decision making in the stock market: Incorporating psychology with finance. In National Conference on Forecasting Financial Markets of India.

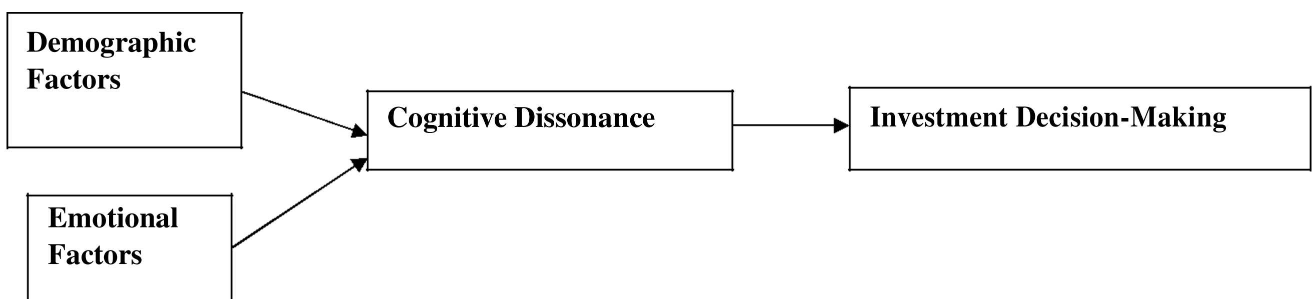


Figure 3: The Conceptual Framework of Cognitive Dissonance Bias

Discussion and conclusions

It is pointed out that every investor attempts to shoot down the dissonance level in a possible way whether they succeeded or not. It is imperative to focus on whether they achieved the desired level of dissonance by the investors or not. Sharma (2014) has asserted that a certain amount of dissonance will exist after all trials. The empirical evidences opined that the cognitive dissonance bias prevails in the Indian investors (Kanojia et al., 2018; Chandra, 2008). The dissonance level has increased the chances to get influenced by confirmation and overconfidence biases that appear in their irrational behaviour (Olsen, 2008).

In addition to the cognitive dissonance, the investor continues to carry a mistake that is to be considered as the investors' incompetency which makes reluctant the investor from correcting the beliefs. Sometimes, the investor doesn't want to profess their mistakes and some other waits for the proven to be wrong by others. In spite of the fact, all the type of behaviour and actions are backed by the psychology of investors. However, behavioural finance is a complete solution to understand the investor's psychology.

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