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Conceptual Framework Regarding the Psychology of Irrational Investment Decisions

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Abstract

Deploying financial resources is central to an investment decision, yet the resulting outcome is uncertain, carrying the potential for either gains or losses. The overall returns achieved are a consequence of the investor's good and bad decisions. Even well-thought-out decisions can be thwarted by unforeseen events, just as poor decisions that should have been avoided can sometimes occur. Identifying the factors that contribute to these flawed choices is essential for reducing potential financial damage. Behavioural finance attempts to provide an understanding of how flaws in reasoning affect investment choices and market prices. It focuses on the consequences of investor errors in judgment for both individual decisions and market pricing. This analysis will review a conceptual structure for understanding such irrational investment behavior. To explain the issues of irrationality in investment, specific theories from behavioural finance—such as prospect theory, frame dependence, mental accounting, and the house money effect—are examined based on their inherent characteristics. The study employs an explanatory research design. It has been observed that investors are prepared to accept a greater level of risk when trying to avoid a loss. Additionally, investors tend toward irrational decision-making based on how financial data is presented (framing). Through mental accounting, investors mentally designate assets to specific "accounts," forming a personal attachment to the stocks they own. This unconscious personal relationship with stock holdings can subsequently make the decision to sell them more challenging.

Keywords: Prospect Theory, Frame Dependence, Mental Accounting, House Money

1. Introduction

Do you think of yourself as a better than average investor? If your answer is yes, you are not alone. About 80 percentage of the people who answer this question will say yes. Normally we used to overestimate our skills and abilities. Is the same thing true when it comes to making investment decisions? You can substitute the following question. Do you think of yourself as a better than average investor? The above-mentioned scenario may also exist here. Human beings make various errors and the same is reflected in judgements. How human behaviour and its various aspects along with errors affect investors comes under behavioural finance?

Prospect Theory

Prospect theory is an alternative theory to classical, rational, economic decision making, which emphasizes, among other things, that investors tend to behave differently when they face prospective gains and losses. Investors respond in different manner to identical situations depending up on the presentation of situation in the context of gains or losses. Prospective losses bring more distress than prospective gains. Investors are ready to assume more risk for avoiding losses than for making profit. Certainty of sure gain is preferred by the investors over a gamble that may increase or decrease benefits.

Consider the following two scenarios:

Scenario 1: If an investor is given a chance to select between a sure gain of Rs 10,000/- and a gamble that may increase or decrease the sure gain, normally the investor will prefer the sure gain option. This behaviour of choosing a sure gain over a gamble is called risk-averse behaviour.

Scenario 2: If an investor is having a chance of a sure loss of Rs 10,000/- and a gamble that may increase or decrease the sure loss, normally the investor will be going for a gamble. This behaviour of choosing a gamble over a sure loss is called risk-taking behaviour.

The behaviour of investors to be risk averse with reference to gains and risk taking with reference to loses and their focus on gains and loss is the main context of prospect theory.

Exhibit:

On 31st March 2014 an investor hold 10 shares of A Ltd. @ Rs 100 per share and 10 shares of B Ltd @ Rs 200 per share.

Table 1 – Basic Details

Company	Market Price Per Share (Rs.)	No. of Shares	Value (Rs.)
A Ltd.	100	10	1000
B Ltd.	200	10	2000
	Total Wealth		3000

Scenario 1:

On 1st April 2014 the market price of the share of A Ltd. goes up by 20% and the price of B Ltd. goes down by 10%. The total wealth remains unchanged.

Table 2 – Changed Scenario 1

Company	Market Price Per Share (Rs.)	No. of Shares	Value (Rs.)
A Ltd.	120	10	1200
B Ltd.	180	10	1800
	Total Wealth		3000

Scenario 2 :

On 1st April 2014 there are no changes in the market price of the shares. The total wealth remains unchanged.

Table 3 – Changed Scenario 2

Company	Market Price Per Share (Rs.)	No. of Shares	Value (Rs.)
A Ltd.	100	10	1000
B Ltd.	200	10	2000
	Total Wealth		3000

In both the scenarios wealth remains unchanged. But if you're analyzing the first scenario the investor will be feel depressed because a good gain was nullified by a loss. Here the individual is focused on each individuals share price and not the total wealth. These sorts of thinking and actions will potentially lead to error in judgement.

Frame dependence, mental accounting and the house money effect are all consistent with the predictions of prospect theory.

Frame Dependence

Analyse the following two questions and the available options for the same.

Question One:

You are given Rs 10,000/- and you have the following choices.

A. A sure sum of another Rs 5000/- will be received by you.

B. A coin can be tossed by you. If head is received you will get Rs 10,000/-. But if tail is received you won't get anything.

Question Two:

You are given Rs 20,000/- and you have the following choices.

A. A sure loss of Rs 5000/- will be there for you.

B. A coin can be tossed by you. If head is received you will lose Rs 10,000/-.But if tail is received you won't lose anything.

What will be the answers for the above questions? If option A in the first question and option B in the second question is selected by you, you are just restricting your focus on gains and losses. The impact on your wealth is not given due consideration. As a matter of fact around 80% of the people will go for the above two options. If you select option A, a sure sum of Rs 15,000/- will be received by you. You have a 50% chance for Rs 20,000/- and 50% chance for Rs 10,000/- if you go for option B. Normally one would pick the same option in both questions. Which option is preferred depends, but an important thing is that one would never select option A in one question and option B in other question.

If an investment problem is presented in two different but equivalent ways, investors often make inconsistent choices. That is, how a problem is described, or framed, seems to matter to people.

People usually do this because the phrasing or framing of the question leads people to answer the questions differently. This phenomenon is known as frame dependence.

The following investment aspects can be analysed from the above:

1. Investors frame a decision problem in broad terms or in narrow terms
2. Different alternatives are selected based on broad and narrow frames

It's better to go for broad frames for better decision making rather than narrow frames even though going for narrow frame forms the basic aspect of human nature which many lead for irrational selection of available alternatives.

Frame dependence means that people make decisions that are influenced by the manner in which the information is presented. Frame dependence manifests itself in the way that people form attitudes towards gains and losses. Framing is a cognitive heuristic in which people tend to reach conclusions based on the 'framework' within which a situation was presented Many people make one decision if a problem is framed in terms of losses, but behave differently if the same problem is framed in terms of gains. An important reason for this behaviour is loss aversion.

Mental Accounting and Loss Aversion

People's preferences depend on the way in which decisions are framed, not just on the objective outcomes. Standard finance assumes that people combined all the relevant outcomes and make choices accordingly. Behavioural research indicates that people tend to maintain sets of separate mental accounts and do not combine outcomes

Normally we will associate the price of a stock with its purchase price. Whenever there are changes in the price of the stock we will compare the current price with the purchase price leading to an assessment of unrealized gains or losses. We will mentally account for the gains and losses and our feelings about the investment made depend upon whether we are ahead by way of gains or behind by way of losses. This behaviour can be referred as mental accounting. People mentally frame assets as belonging to current income, current wealth or future income and this has implications for their behaviour.

Engaging in mental accounting unknowingly establishes a personal relationship with the stocks you hold which may cause it difficult to sell. Difficulty exists when a stock is to be sold at a price lesser than the purchase price. Investor will have the hard time then and will think that the decision to purchase was correct or it was a good decision or may think that if he can get an amount equal to his investment he can dispose the stock without any hard feelings. This concept is called as loss aversion, which is actually the reluctance to sell investments after they have fallen in value.

Investment 1:

An investor purchased 10 shares of X Ltd. on 01st October 2013 for Rs 100 per share. The price of these shares is Rs 50 per share on 1st October 2014

Investment 2:

An investor purchased 10 shares of Y Ltd. on 01st October 2013 for Rs 12.50 per share. The price of these shares is Rs 50 per share on 1st October 2014

What will the investor do? The options are

- Sell shares of X Ltd.
- Sell shares of Y Ltd.
- Sell shares of both X Ltd. and Y Ltd.
- Hold shares of both X Ltd. and Y Ltd.

Consider the following points associated with this:

Point 1: The market values that the price of X Ltd. are Rs 50 worth. The market does not care that you paid Rs 100 a year ago.

Point 2: Do not care about the purchase price of X Ltd. Evaluate the shares at their current market price.

House Money

Investors who have experienced a gain or profit are often willing to take more risk. Gamblers call this "playing with the house's money." Since they don't yet consider the money to be their own, they are willing to take more risk with it. The house money effect predicts investors will be more likely to purchase risky stocks after closing out a profitable trade. Behavioural finance theory suggests that overcoming this bias may help investors profit more over the long term.

Gamblers will take big risks with the money they have earned from gamble (i.e. the "house money"). Gamblers are also not so upset about losing house money which is not the case while losing the money they have brought for gamble. It is generally felt that some money is precious because it is earned by way of hard work whereas some other money is less precious because it was earned with less effort or as luck. This concept seems to be good but it is not actually rational because by using any money you get the same value irrespective of the effort for obtaining that money.

Point 1: There are no paper profits and your profits are yours.

Point 2: The money should not be segregated into bundles such as "house money" and "my money". All money is your money.

Investment 1:

An investor purchased 100 shares of XYZ Ltd. on 01st April 2014 for Rs 50 per share. The price of these shares is Rs 25 per share on 1st October 2014

Investment 2:

An investor purchased 100 shares of ABC Ltd. on 01st April 2014 for Rs 10 per share. The price of these shares is Rs 25 per share on 1st October 2014

The price of both shares was reduced to Rs 20 per share on 10th October 2014. The investor will feel differently about the reduction in price of both shares. In case of X ltd., the reduction of price will make the position worse. But in case of Y Ltd. the investor feels that he is giving up only a part of the paper profit and the position is still good. This sort of thinking is playing with house money. Whether an investor loose from the investment gains or from the original initial investment is irrelevant. The house money effect explains that investors are more prone to buy higher-risk stocks after a profitable trade.

Conclusion

Investors are prone to making mistakes and errors in judgment. A key question for analysis is whether these individual errors can ultimately influence market prices and contribute to market inefficiencies. It is important to note that market efficiency does not necessitate that every single investor acts in a perfectly rational or scientific manner. Behavioural finance offers a framework to analyze potential portfolio losses stemming from psychological biases, such such as overconfidence. To enhance investment performance, individuals should aim to recognize and avoid certain established patterns of irrational behavior.

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