Cognitive Behavior Effecting Investment Decision-making Processes

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Abstract

The objective of this study is to analyze the emotions, beliefs, and preferences of investors affecting the financial decision-making process. With the help of in-depth interview method, this study not only explores the cognitive behavior of investor but also identifies sources of behavioral biases. Twenty-five semi-structured interviews were conducted for the description and identification of underlying thoughts and feelings that can influence financial decisions. By using open coding method of verbal data, the required analysis was conducted. It was found that a variety of emotions, beliefs, preferences and personality characteristics bias the individual investor's decisions. Interviews revealed the flaws as well as the psychological design of investors while making financial decisions.

Keywords: Anxiety, Distress, Guilt, Personality, Behavioral biases, Qualitative study

Introduction

Theoreticians believe that it is possible to demonstrate everything very easily by controllable and vibrant mathematical models (Simon, 1979). On the other hand, real world happens to be more unpredictable and complex as compared to the phenomenon depicted in the form of equations. So far, the researchers are unable to fully understand the function of the human mind as well as its outcome that is decision making. Nonetheless, one thing is quite clear that the human decisions grossly fail in following the so-called golden principle of rationality as

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imagined by economist and financial scholars. Deviating from rationality occurs mostly in the dynamic and complex world which does not provide empirical and correct basis for decision making all the time and/or accurately. Stock markets are a good example of such environment. A Certain level of risk is involved in every investment decision and its estimation is important while determining the quality of decisions (Guo, Sun & Qian, 2017).

Behavioral Finance is a new field of study which explores the psychological factors to affect the investment decisions. These cognitive factors or behavioral biases dominate investors leading them to disregard the lengthy process of empirical studies which would guide them to reach the right value of assets based on numbers. Emotions control the investment decisions and even intelligence is overruled by emotions. According to Bechara, Damasio, and Damasio (2000), Emotions are either the reaction to the particular situation or is a state of human brain preparing the body to respond in one way or the other.

Previous researchers focused on different levels of discrepancies in the behavior and the decision-making of the individuals when they experience different emotions. People with high level of depression make more risk aversive decisions as compared to the normal one (Palmer, 2014). Overconfidence in one's abilities causes' higher portfolio turnover and lower returns (Nofsinger, 2017). For example, men generally have lower returns than women because they trade more actively and have greater confidence in their abilities. Loss aversion is the propensity of people to avoid losses even for possible gains (Gal, David, and Rucker, 2018). Therefore, feelings and emotions play a significant role in the decision-making process.

In order to understand properly the complex investor behavior, it is important to investigate unit of analysis related to their preferences and trust. For the fulfillment of this objective, an exploratory research was conducted to find out the type and intensity of the beliefs and emotions affecting investor's decision-making process. While understanding the individual biases it would be helpful to use the qualitative technique because it provides an in-depth and broad framework on how people act in actual investment situation while they have to evaluate their abilities and to make future plans (Sahi, Arora, & Dhameja, 2013).The constructivism paradigm is most appropriate as the epistemological base for the exploration of the sources of the phenomenon under study (Patton, Renn, Guido, & Quaye, 2016).

In –depth interviews were conducted for this exploratory study by taking an evocative assessment of how investor make financial decisions in the real world and what are the factors behind their diversion from rationality. As the rationale of study was to explore the major sources of biases effecting investment decision therefore, the following research question was defined:

Research Question

Why an investor faces loss and what are the major factors behind the biased decision of investors?

Literature Review

Many social, political and economic events occur in the financial market which is beyond the control of investors. Furthermore, there are multiple ways of portfolio selection and management. The data available to investors is mostly insufficient and inefficient therefore they have to rely on their emotional reactions (Groves et al., 2016). At first, biases in investment decisions were introduced by Tversky and Kahneman (1975). In the situation of uncertainty "decision making become more subjective and less ideal" and in decision making, process preferences and judgments are more relevant.

Some common biases are herd instinct bias, loss aversion and regret aversion bias, overconfidence, representativeness etc. Overconfident investor trades too much and it leads to low returns due to his too frequently changing position and portfolio (Nofsinger, 2017). In a research, Oberlechner and Hocking (2004), studied and compared the rating of different sources of information like personal contacts, financial news and newspapers etc. in financial markets and found that speed of information and estimated market surprise are rated more than the reliability of source. At the same time direct interpersonal communication i.e. social interaction creates overconfidence because the investor gets caught in information cascade and illusion of control and knowledge and he overestimates his ability to separate accurate information from propaganda (Nofsinger, 2017).

Moods and emotions significantly affect the individual decisions and the ability to process and collect required information. The feeling of regret will be more when the individual will be in the low mood or in the state of depression as compared to normal mood (Germer, Siegel, & Fulton, 2016). Depression and worry are hostile experiences damaging the concentration and the focus of the people from the concerned phenomenon. Social people participate more actively in stock markets as compared to non-social people (Konvalinka & Roepstorff, 2012).

There is a need to identify the decision errors and the determinants of these systematic errors administrating the investment behavior. This study will be helpful to the financial researchers and advisors in designing better products and policies because it not only explores the problem but also discovers the root of the problem of irrationality.

Methodology

The previous researches in the area of behavioral finance were unable to fully uncover the impacts of psychological factors on the financial decision-making process through the intervention of behavioral biases. Therefore, personal interview method was adopted in order to collect in-depth information about the investment behavior and to qualitatively explore the major sources of behavioral biases in Pakistan Stock Exchange. Twenty-five stock investors were selected and Sami-structured interviews were conducted.

Sampling

The respondents were required to be the residents of Pakistan having investments in foreign exchange, bonds, and shares. Total 25 stock exchange equity investors were selected including male =18 and female=7. Five (5) of the stock investors were above 50 years of age and 15 were between 40 to 50 years, while 5 investors were below 40. Most of the respondents had more than ten years of investment experience.

Data analysis

Open-analysis technique is used for the data analysis. The significance of the statements is tested on the basis of the preferences and beliefs of the respondent. These preferences have a momentous influence on the investment decision and the derivation of the satisfaction with the financial condition. It was banged up into categories after the identification of a particular phenomenon (Wahyuni, 2012). Analysis of the interviews was done by reading the text line to line and observing the illustrations (Ryan & Bernard, 2003).At the end, content analysis summarized and classified by labeling and categorizing the text material.

Results

Time pressures and rational decision

Some investors expressed that sometimes, due to time pressure, it is difficult to make a good investment decision. In this case, they felt that in order to make quick and good decision with the limited information, it would be better for them to rely on the representative sample information because the sample is a true representative of the whole. This representativeness will reduce time and cost of the investors. In some cases the interviewees responded the way: "I am unable to control the important things in my life" and according to some others "I found that I could not cope up with all the things which I have to do; therefore, I use trend analysis of some representative stocks to make my decision for all the stocks in which I invest".

Depression and rational decision

Some investors told the researcher that their mood significantly affects their investment decision. While some other told that they have complete control over their mood that's why they can easily take a rational decision. Some of them told that in the low mood or in the depression state every investment seems them to be a failure, as this statement shows "when I have a sad mood, a good deal seems senseless to me" and in this state, it is difficult for them to be optimistic.

Being anxious at the start to make quick fortunes and investment decision

ccording to some of the respondents at the start of their investment career they wanted to get rich quickly and told that "I was very anxious about my finance", "I worry about my finance most of the time" and due to this anxiousness, they blindly follow the roadmap used by the people doing well in the financial market. They told that at the start of the investment –with no prior experience -it is difficult for the investor to take optimum decisions without the help of the others, therefore; following the other successful people is the only viable option for them.

Social interaction and quality of decision

Some investors told that informal socializing increases their confidence in their investment decision, for they think that due to social interaction it would be possible for them to collect more information and they will get a better overall view of market situations and the trends. Therefore, social interaction improves their control over uncertain events as per the statement shows: "We frequently get-together after work and this helps us collect information regarding investment opportunities", "Informal interaction helps me in making good decisions", "Due to one-to-one social interaction I think that I am well aware of the market fluctuations and it would increase my ability to manage my investment decision accordingly"

Personality and quality of decision

During interviews, the researcher observed the personalities of the respondents and at the same time asked different questions regarding their personalities. Consequently, it was observed that personality has a significant effect on the investor's decisions. Some of them told that they most of the time carry humongous energy and they are outgoing, sociable, and remain calm in any situation, therefore; they take investment decisions independently since they can easily handle any problem resulting from financial losses. Some of them expressed that mostly they get caught under worries and feel themselves unable to manage stress well; therefore, they thought it would be better for them to follow the broker's advice rather than making their decisions independently. Some of them told the investigator that they have an agreeable personality by stating that, "I have a forgiving and generally trusting nature at the same times I like to cooperate with others".

Psychological condition and feeling of guilt

Feeling of guilt is an effective state consecutive to the decision that a person considers inexcusable (Creo, 2016) "what did I do, why did I do" self-affliction and undermining yourself gives rise to the feeling of guilt. It was observed that the degree of guilt varies with the variation in the investor's psychological condition. Depressed individuals felt more guilt after their bad decisions while the individuals having strong and stable personality did not take the financial ups and downs seriously up to the extent that damage their personality. Interviews revealed that depressed investors generally count on the loss aspect of the investment decisions; some investors even do not sell their loss-making investments and hold for a long time in the hope of a rise in the market value of these assets.

Defense mechanism and optimization

For rational decision making the investor rely on the logically tested and coherent explanations of facts in which emotions do not play any role in the formulation and the articulation of these facts such as: "To analyze the fact between reason and emotion go first through reason" (Long & Brecke, 2003). Despite the fact that rationality requires the "Economic Man" but actually these are feelings which guide the individual decisions in the real world. Presumed "Economic man" is a fantasy hovering beyond the real life somewhere in the oblivion. Some investors follow hedging approach by not repeating the same mistakes.

Distress, grief, and aversion

During interviews, it was observed that feeling of distress and grief plays a vital role in the avoidance of any action and fear paralyzes the individuals as one of the investor expressed his feelings in such words, "I try to control my feeling of fear because it leads me to avoid some actions". Interview exposed that fear plays a significant role in the articulation of financial decision making as "If hope wins over fear the pride comes on the other hand; if fear wins over the hope the individuals do not make investments".

The tendency to rely on own skills

While making financial decisions some investors choose to trust on their own skills. In their words "My intuition plays a significant role in my financial decisions", "I never take guidance from others in financial decision making", "I have my own rulings regarding investment, therefore, I don't trust anyone else"

Confidence and ability to control

Some investor had a high degree of confidence in their ability to make investment decisions. They believed that they are the better decision maker than the others and they have more ability to control uncertain situations. "While investing I believe that I will do well, I am sure that in future my investment will go up, I have the ability to successfully perform all my investment activities"

Relying on the financial experts and stock brokers

Many people believe that for a good investment it is better to rely on the financial analysts or brokers. It is perceived that because of the sheer experience they are the better judges for the efficient investment. "Before making my investment decision I consult my financial advisor/broker and I let my advisor/stock broker make my investment; my investment decision would be better if I follow the advice of stock broker…" some of the people neither trusted nor followed the advice of the brokers blindly.

Discussion on Research Outcomes

The basic objective of this study is to identify different sources of behavioral biases affecting the financial decision-making process. The respondents explained their own experiences and shared their feelings and preferences affecting their investment behavior. It is clear from the preceding section that there are some socio-psychological factors biasing investment decisions. Analysis revealed 11 melodies emerging from the interview data. These melodies expressed that people use different filters while processing any information available to them. These filters explain the human psychology in investment decision-making process. The researcher classified these melodies in five categories i.e. feelings and emotions, social interaction, information processing strategies, psychosomatic objectives and personality.

Research findings

Existence of Behavioral Biases

Feelings and emotions can affect the individual decision by contributing to the human motivations (Brock, 2014). Feelings either good (happy) or bad (sad) are originated by the brain and have strong positive or negative utility associated with them (Trevarthen, 2017). These emotions have both pre-decision and post-decision affects. Feeling of fear - negative emotion- reduces the environmental scan of the individual and diverts the attention of individual from the point of interest that is the quality of investments being made. Therefore, the individual base their decision on the emotions rather than the pure reasoning.

Information processing strategies

People are biased in their information processing because they use heuristic simplifications and do not use this information in the objective manner. Heuristics simplifications are commonly used in the presence of complex information (Kim & Lee, 2014).

Social interaction

Informal socializing affects the information processing and designing style of the individuals. It is convenient for the individual to collect the information regarding investment from his friends, colleagues and the financial advisors (Pempek, Yermolayeva, & Calvert, 2009). They feel that after collecting a lot of information from social clout, they are able to make a better decision than the others and it is quite remote that any crisis can affect their investment because they have the ability and contingency plans to hedge their investment.

Psychosomatic Objectives

Different socio-psychological factors such as stress, depression, anxiety and social interaction impact the financial decision and convert the individual decision from the optimization motive to the options that are coherent with the individual motive (Chaubey, Aggrawal, & Gurung, 2015). Individual's psychological condition also affects and guides his/her psychosomatic motives. The investment decision is expected to be biased because the financial decisions are considered to be risky and a certain level of risk is associated with it. This biased behavior is prominent in the case of the decisions taken by the individuals suffering from stress, depression, and anxiety (i.e. financial anxiety) (Quartz, 2009).

Personality

Personality is another significant factor affecting the financial decisions. As the perception of investor plays an important role in articulation and formulation of decision. Temperament, intellect, and viewpoint of investor are major intervening characteristics in the decision-making process. Individual's experience, age, and his risk-taking potential are of crucial consideration in the financial decision-making process. An extrovert investor usually focuses on the external environment and can easily take decisions (Babalhavaeji, Taghvaei, & Soleimani, 2016). Agreeable investors have the tendency to give respect and trust others, as a result, they can win people's confidence easily. Conscientious individuals are trustworthy, structured and have high-risk potential.

Conclusion

Findings of this study indicate that investor's emotions, beliefs, and perceptions bias his decision-making process. This study not only examines the importance of biases in financial decision making as well as addresses the personal, emotional and logical routes of these biases. At the end, the researcher can conclude that while analyzing and forecasting the performance of stocks, analysts usually get loaded with information like past year's earnings, projected earnings, and projected cash flows, price/earnings ratios and the host of empirical indices. They totally miss out on the factors like, overall economic factors or environment affecting positivity or negativity of investors. The psychological landscape of investors dominating the market and setting the trends in the market. In order to make informed and better decisions, deep study is required which would transcribe a vivid cognitive behavior of investors in a typical equity market setting.

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