



A Qualitative Study of Behavioral Biases Among Pakistani Investor Decisions

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Abstract

The basic purpose of this study is to highlight the importance of behavioural biases in individual investors' decisions that cause deviation from rationality. It also helps them to accelerate their abilities in investment decision-making. This study used semi-structured open-ended questions to explore the behavioural bias in six individual investors of the Pakistan stock market. The thematic content analysis is used to analyze the data. This study explores eight behavioural biases of the individual investor in the Pakistan stock market and process it does not seem that all the investors will suffer from all the behavioural biases simultaneously. Their decision is based not only on quantitative analysis but also influenced by cognitive, emotional, and social biases. They depend on other sources of information before investing in the stock market. This study focuses on behavioural biases of individual investors of the Pakistan stock market so their results can not be generalized to institutional investors, real estate investors, or any other geographical area due to culture differences, education level, values, and financial structure. As this study explores only individual behavioural bias it leaves many areas that are unexplained for further research like institutional investors behavioural bias, real estate investors behavioural bias with more sample size. The practical implications are it is helpful for companies, policymakers, and securities issuers can observe the investor interest and behaviour before issuing securities into the market. As far as the social implication is concerned it is good for investors to understand the several behavioral biases and make sound investment decisions that mitigate their risk. This paper explores the concept of behavioural biases in individual decision-making and adds value to the existing literature on behavioural finance.

Keywords: behavioural finance, behavioural biases, individual investors, investment decisions

1. Introduction

Individual investors, especially in the stock market, show different kinds of behavioral biases like erroneous judgment, Variations in patterns for a particular situation, invalid interpretations all are broadly represented by irrationality. This phenomenon is explained by behavioural finance. It is a new paradigm that shifted in finance called behavioral finance that explains the social, emotional, and psychological behaviour of investors in the decision-making process (Kahneman & Tversky, 1979). Kahneman and Tversky are also known as the Father of Behavioral Finance. Behavioral finance aims to explain the irrationality in the investment decision-making process which is caused by the psychological and social influence of individual investors. The first empirical study has been conducted in behavioral finance called "Pattern of investment strategy and Behavior among individual investors" by Leweller (1977). Most of the researchers in the area of behavioral finance argued that the choices of investment made by the investor are not always rational see (Mittal, 2019, Kumar & Goyal, 2019, Cao et al., 2021). The decision-making process that investors use is the inherent and inbuilt procedure rather than thoughtful and guided. Behavioral finance highlighted these issues by using psychological and social terms and describing how, when, and why sometimes investors behave irrationally. Kim and Nofsinger, 2007; and Nofsinger, 2017 try to explain the departure of EMH because of individual investors' behavior. The traditional finance theory (e.g., Arbitrage pricing theory, portfolio theory, capital asset pricing theory, and option pricing theory) construct on the assumption that the investors can make rational decisions and wealth maximizers. Similarly, Fama in 1970 represent EMH which states that stock price reflects all the available information and investor behave rationally. However, most researches documented the evidence that investors do not make their decision depending only on traditional finance theories or certain cause and effect; they are also directed by emotions, social and psychological factors (Kalra Sahi & Pratap Arora, 2012; Kashif et al., 2020; Mushinada & Veluri, 2019; R. Nofsinger & Varma, 2014). Investors recognize and answer the same information in different ways, leading to different interpretations of market behavior and performance. Hence there is a study documented by Kashif et al., 2020 that Pakistani stockholders follow the action of their herd, and their decision is affected by investors sentiments like fears, greed, and overreaction to bad news. Thus, traditional finance is not sufficient to accelerate in the stock market there is a need to understand behavioral finance too that influences the investor decision-making process depending on their beliefs and wishes. On that basis, the objective of this study is to explore the behavior of individual investors when they make an investment decision in the Pakistan stock market. Behavioral finance is an emerging area that indicates that insubstantial work has been done in this area. By filling this gap because it is the contribution in the literature of behavioral finance, the basic purpose of this study is to explain the deviation in the investors' decision processes due to their behavioural biases.

The aspect of motivation for this study is that most of the studies in behavioral finance are done in developed economies. The results of these studies cannot be generalized to the developing economy because of cultural differences, education level, values, and financial market structure. It is, however important to understand the behavior of Pakistan stock market investor and their influence in investment decision making. the practical implications of this study are that it is helpful for companies, policymakers, and securities issuers can observe the investor interest and behaviour before issuing securities into the market. As far as the social implication is concerned it is good for investors to understand the several behavioral biases, take sound investment decisions, and can also reduce their risk.

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On January 11, 2016 the Pakistan stock exchange was established by the merger of three regional stock exchanges Karachi stock exchange, Lahore stock exchange and Islamabad stock exchange. In January 2021 the number of listed companies in Pakistan stock exchange were 443 with market capitalization approximately US \$52 billion. The Pakistan stock market is considered a highly volatile market (Rashid et al., 2021; Sulehri & Ali, 2020). Hence, this attribute of volatility make PSX is more suitable to explore the behavioural biases of investors.

The significance of this study is first it gives the understanding of individual investor behaviour of Pakistan stock market, second, it will give clear thinking to government and financial advisors into making financial policies, practices, and customized financial products that can help in realizing the need of the individual investor. Although this study is only exploring the behaviors of individual investors in the Pakistan stock market thus it leaves many unexplained areas. For instance, the concept of behavioral bias in the institutional investor of the stock market, real estate, and commodity and equity market.

2. Literature Review

This literature review is focused on the behavioural biases of individual investors in the investment decision-making process. several studies have been conducted to explore the behavioural biases among the investors by psychologists and academicians of finance in different stock markets (Cao et al., 2021; Kalra Sahi & Pratap Arora, 2012; Kashif et al., 2020; Kumar & Goyal, 2015; Lao & Singh, 2011; Mittal, 2019; Audi et al., 2022). Past studies show that investors exhibit different types of behavioural biases according to Kumar & Goyal (2015) these behavioural biases can be classified into three main categories cognitive biases, emotional biases, and social interaction. These behavioural biases lead investors towards irrationality in the investment decision-making process because of their social and emotional influences.

2.1. Rationality in the investors' decision-making process

The traditional finance theory and economic models are built on the two basic assumptions one is rationality and the second is an efficient market hypothesis. While the newly emerging concept, behavioural finance in the area of economics and finance from the 1980s continuously challenges these assumptions that other factors derive investors' behaviour. Traditional finance theory explained the hypothetical assumption that what one should do while behavioural finance explains several biases that influence the investor decision-making process and become irrational. The rational decision-making process generally involves logic and systematic procedures concerning this several studies documented the rational decision-making stages. Mintzberg et al. (1976) introduced three rational decision-making stages, identification of the problem, relevant information, and evaluation of alternative solutions. Although in the real world it becomes very difficult for individuals to make rational choices because of their beliefs, opinions, emotions, social interactions, preferences (Jaiyeoba & Haron, 2010).

Kahneman & Tversky (1979) presented the Prospect theory to demonstrate investor behaviour during decision making under the uncertain situation. As reported by prospect theory investors deviate from rational decision-making because of the psychological factors that derive their decision-making process. sometimes investors often follow a heuristic approach that is one limitation of a human being to act as a rational actor that gives sufficient outcomes for giving time constraint but do not maximize their decisions. Anchoring, availability, and confirmation are some examples of heuristics people. Investors probably make decisions based on their intuitions, perceptions, and past experiences rather than rational analysis with systematic logic (objective reasons).

2.2. Behavioural biases and individual investors:

There is a need to understand human behaviour and their inherent norms and values that guide investors' decision-making process may be influenced by emotions, beliefs, preferences, cognitive process limitation, etc. (Mittal, 2019; Mushinada & Veluri, 2019; Thaler, 1999). These values and attributes become a cause of different behavioural biases that enable investors to make rational choices among different alternatives. Biases are the judgemental error and norms made by the human mind or the instrument that is used to generate useful information reach to a decision and biases are also defined as the impaired reasoning that is affected by emotions and feelings. Reasonable consideration of behavioural biases helps investors and their advisors to obtain their financial objectives. According to Michael M. Pompeian, Book: Behavior Finance and Wealth Management, second edition, Wiley publication states that identification of behavioural biases at the correct time can prevent the client from possible financial disasters.

This study enlightens the phenomenon of behavioural biases in individual investors' decision-making process. Considerable work has been done in behavioural finance that shows investor exhibits different types of behavioural biases, and we have identified eight behavioural biases that influence the investor decision process and we reviewed these behavioural biases in this section.

2.3. cognitive error

People have different ways of thinking that may influence their behaviour. Normally, a cognitive error occurs because of incomplete information, illogical reasoning, and statistical errors. So, cognitively biased decision results lead towards judgmental error. Many studies are claiming that cognitive error creates different behavioural biases like Overconfidence Bias, Anchoring bias, Mental Accounting, Framing, Representativeness, etc. (Özen & Ersoy, 2019).

2.4. Emotional bias

Emotional bias refers to those investment decisions that are influenced by the feelings and moods of investors. Since these emotional biases influence the investors' decision-making choices, that's why it needs to be further investigated and assessed, so the essential elements behind the investors' minds can be revealed. Kahneman and Rippie (1998) highlighted the importance of analyzing investment decisions as they have included both the emotional and financial outcomes over time. According to Kumar and Goyal 2019 regret aversion and loss aversion of investor behavioural biases come under the category of emotional bias.

2.5. Social interaction

Social interaction is a powerful series of social behaviours between individuals or groups who change their behaviour due to the actions of other interacting partners. People pay attention to majority behaviour and avoid the occurrence of risk to feel safe. If the majority moves in one direction the other will follow and in finance, it is called the herding behaviour. so, the social interaction bias creates bubbles and market anomalies when investors in rushed and invest their money.

3. Research Methodology

This is an exploratory qualitative study for behavioural bias that affect individual investors' decision in the Pakistan stock market. According to Draper,2004 qualitative study gives a better picture of investors' behaviour like emotions, beliefs, intentions, motives, attitudes, rules, and values that exist behind the investor decision making and built their behaviour and action meaningful. Moreover, data collection source in qualitative study refers to different techniques such as semi-structured open-ended interviews. This technique is important in the qualitative study because it gives a flexible zone to the respondents to share experience in their own words and researchers can probe the initial response by asking how and why.

In this study, an in-depth interview is conducted to learn the concept of behavioural biases. According to Boyce and Neale, 2006 the advantage of an in-depth interview is that it gives brief and thorough information about the phenomena. In a qualitative study, the sample size tends to be small because researchers can extract in-depth information from the respondents about the experience related to phenomena of interest. In our study purposive sampling is conducted, the reason for that it gives the participants that relevant in our area of interest in research and information. For this study, the target respondents are the individual investors of the stock market that have a minimum of one year of experience. The data is recorded with the permission of respondents. The data analysis technique Thematic content analysis is used in this study.

4. Data Analysis

In this study, we interviewed six individual investors of the Pakistan stock market to explain the behavioural biases among the investors' decision-making process. Table 1 represents the interviewees' backgrounds like age, education, and experience. The data is obtained from interview transcripts and notes were made by reading the transcript again and again carefully. Then labeling the relevant piece of information like uncertainty, risk tolerance, action on good or bad news, follow trend, overconfidence, invest in familiar security, etc. this process is called coding or indexing. All the relevant pieces of information are further analyzed and eliminated the phrases that have a similar meaning. with the help of these codes, we can generate appropriate themes by bringing several codes together. These themes were found as a major behavioural bias in investors' decisions by the strong argument of interviewees.

Table 1: Interviewees' Information

Interviewees	Experience	Gender	Age	Status	Qualification
1	18	male	42	Current investor	PhD
2	7	male	36	Current investor	Masters
3	3	female	51	Current investor	PhD
4	5	female	45	Current investor	Masters
5	11	male	37	Current investor	PhD
6	4	male	33	Current investor	PhD

4.1. Findings and Results

Different behavioural biases have been documented in the previous studies. However, in the present study, we also identified the eight behavioural biases that exist in the decision-making of individual investors of Pakistan stock. The traditional approach is used to analyze the key findings under each theme reported by respondents' opinions during an interview (Kumar & Goyal, 2019).

4.1.1. Possess complete knowledge and skills(overconfidence)

In a situation of overconfidence, people overestimate their skills and knowledge and underestimate the uncertainty. They trade excessively with the illusion that they assess the company very well and have all the information required for investment point

of view. Overconfidence is defined as the investors thinking that they possess all skills to forecast market events and have good enough information for decision making. The following are the interviewees' responses that illustrate this phenomenon:

As I am quite educated so, I should rely on my analytical skills (respondent 1)

[...] somehow based on my experience, knowledge, and specific skills I can filter the stock market information very well. (respondent 2)

I am satisfied with all the investment decisions that I made it. (respondent 4)

4.1.2. Buy stock based on their performance and past trend (representative bias)

People mostly buy stock based on their past performance. Investors think that past enormous earnings and financial stability will be the reflection of the high growth rate in the future. this situation shows the representative bias among the Pakistani stock investor. under the situation of uncertainty investors engaged with representativeness (Jain et al., 2020). The following are the interviewee's responses that illustrate this phenomenon:

I should prefer to invest in blue chips companies. (respondent 1)

Before investing in any stock I should see the financial statement and past trends of the companies. (respondent 5).

[...] I purchased new equity of those companies in which I have already invested. (respondent 6)

[...] I will go to check the past performance and price trend of the share before investing. (respondent 4)

4.1.3. Rely on stock return and purchase price as a reference point (anchoring bias)

In this situation, investors forecast the future price of a share based on their recent stock price. People rely upon their estimation as a reference point employed to perform a heuristic decision-making process. Investors set the benchmark as a reference point for their investment decision analysis. The following are the interviewees' responses that are relevant to this phenomenon:

Primarily we sell shares when their purchase price is above the initial purchase price of the shares. (respondent 1)

I prefer to invest in PSO and oil and gas companies because their rate of return is good. (respondent 2).

[...] umm... I consider both rates of return and the purchase price of the share as a reference point (respondent 5).

.... Definitely, there are many stocks listed in Pakistan stock exchange, selection of any is based on informative criteria... (respondent 4)

4.1.4. Investment decision based on the easily available information (availability bias)

Investors in the Pakistan stock market decide on the easily available information as they react to any news regarding stock price. simply they don't put too much effort to filter more stock information. they are enabling to relate their reasonable objective with the prospect of the investment. the following are the interviewees' responses:

I take help of a financial advisor for the evaluation of stock (respondent 3)

An investment decision is based on any new stock information. (respondent 2)

4.1.5. Hold losing stock with the expectation of trend reversal (regret aversion)

Sometimes investors hold stock with the expectation that it goes up but this will not happen always. this situation disappoints the investors and they have a feeling of regret for not making a good decision. This regret aversion takeaway investors from the market or investors become conservative about the alternative investment opportunities. The following are the respondents' reviews.

That is why I prefer to invest in the long term as compared to short-term investment. (Respondent 2)

Sometimes you commit loss and it is the result of a lack of information (respondent 4)

4.1.6. More response towards losses than gain (loss aversion)

Loss aversion is an extensive situation in the investment decision-making process with uncertainty and more responsiveness towards losses than gain. Pakistani investors show more sensitivity towards losses as compared to gain. that is why they are risk-averse and keep their portfolios to minimize losses. The following are the respondent views that illustrate this phenomenon.

Oh yes, I have more sensitivity towards losses. (respondent 2)

I invest in a safe stock like blue chips company to avoid losses situation. (Respondent 1)

4.1.7. Diversification in the investment (mental accounting)

Mental accounting is a bias in which investors use the systematic procedure to divide their money into different accounts such as some amount invest in risk-free assets and some in risky assets based on their perceptions and needs. That is why investment decision-making is influenced by mental accounting. The following are the respondent views.

...as there is a famous quote that doesn't put all eggs in one basket. (respondent 3)

I think no one put all money in one asset. (respondent 1)

4.1.8. Investment decision based on other sources of information (herding)

Herding is a process in which investors depend on other sources of information to maximize their profit and avoid loss. In the Pakistan stock market, investors can herd on any news and views relating to the investment. This herding behaviour can shape their investment decision-making process. The following reviews of interviewees illustrate this phenomenon.

Before investing I should take advice from a financial advisor and my friends and family members. (Respondent 3)

.. or I should focus on good and bad news too. (respondent 1)

5. Conclusion

Unlike past studies in the context of the Pakistan stock market, this study used the qualitative approach to explore the behavioural phenomenon of an individual investor of the Pakistan stock market(Maqsood Ahmad & Shah, 2020; Mumtaz Ahmad et al., 2021; Kashif et al., 2020; Rashid et al., 2021). Though this study determined the behavioural biases in the investor decision-making

process it does not seem that all the investors will suffer from all the behavioural biases simultaneously. As investors are the human being to subject all psychological influences but some of them they are facing during investment. That is why investors' decision is influenced by their behavioural biases including experiences, past information, trends, knowledge, skills, and other sources of information they have. Behavioural finance suggests that it should consider by the investor while making the investment decision, it will help to maximize their profit efficiently and effectively and reduce the occurrence of any financial disasters. Understanding the phenomenon of behavioural biases will provide objective reasoning to investors to think logically and make better investment decisions.

Thus, this study concludes that investors of the Pakistan stock market exhibit different behavioural biases that influence their decision based on experience, emotions, and social interactions. By analyzing all the interview transcripts, it can be concluded that the eight behavioural biases overconfidence, representativeness, anchoring, availability, regret aversion, loss aversion, and mental accounting are exhibited in the Pakistan stock market. This implies that the understanding of behavioural biases will enhance investors' capabilities to remain active and perform better in the stock market.

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