Behavioral Finance, Investors' Psychology and Investment Decision Making in Capital Markets: An Evidence through Ethnography and Semi-Structured Interviews

Muhammad Naeem Shahid*

Assistant Professor,
School of Management Studies,
The University of Faisalabad
Email: naeem.shahid@tuf.edu.pk
*Corresponding author

Dr. Faisal Aftab

Professor,
Department of Management Sciences,
Bahria University, Islamabad, Pakistan
Email: faftab@bahria.edu.pk

Dr. Khalid Latif

Assistant Professor,
College of Commerce,
Government College University Faisalabad
Email: khalidlatif@gcuf.edu.pk

Dr. Zahid Mahmood

Professor,
Discipline of Business Administration
King Saud University, Saudi Arabia
Email: zahid2749@gmail.com

Abstract

The paper is aimed to portray the Behavioral Factors, which affect the investment decisions of individual investors at Pakistan Stock Exchange. Through this paper we enhance the existing literature on behavior finance as the study first time links behavioral factors with investment decisions through ethnographic observations and semi-structured interviews. There are few studies in the literature investigating behavioral factors through observations which effect decisions of investors at Pakistan stock exchange, so the current study may be of importance and interest to finance researcher, academicians and practitioners alike. In complex situations, investors usually make irrational decisions while making investments. In order to explore how emotions, cognitive errors and behavioral factors affect the investment decisions, interviews with investors at Pakistan Stock Exchange were conducted along with ethnographic observations. The results provided an evidence for the existence of behavioral factors at Pakistan stock exchange. The results showed that the behavioral biases affect the decision making process of individual investors. The results may be used for better decision making for investors. The findings of this study are helpful to risk managers dealing with models of behavioral finance. There is wide range of behavioral aspects influencing the financial decisions of individual investors. But in the present study only Heuristic and Prospect behavioral factors were taken into account. Furthermore, the study was also limited to Pakistan stock exchange with 30 interviews. The article complements studies on market efficiency and TOM effect in developing and developed countries. The results of this study are important for portfolio managers, brokers and investors. They can relate the findings of this study while making investment decisions.

Key worlds: Behavior Finance; Investment Decisions; Ethnography; investors' Psychology

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Biographical notes: Muhammad Naeem Shahid is an Assistant Professor of Finance at the School of Management Studies, The University of Faisalabad, Pakistan. He received his Masters' in Finance in 2008 and in Management in 2011 from The University of Faisalabad, Pakistan. He is a PhD scholar at the Bahria University Islamabad, Pakistan. His research and teaching interests are in the areas of Behavior Finance and Corporate Finance

Dr. Faisal Aftab is a Professor of Management at Bahria University Islamabad, Pakistan. He received his Bachelors' in Management Information Systems in 1994 from Georgetown College, Georgetown Kentucky. United States of America. In year 2006, he received his Masters' in Information Systems from Information System Institute, Sanford University, United Kingdom. He has earned Ph.D. in Change Management from School of Management, University of Leicester, United Kingdom. His particular areas of concern are change management, innovation and creativity, leadership role within organizations and strategic management.

Dr. Khalid Latif is an Assistant Professor in the College of Commerce, Government College University, Faisalabad, Pakistan. After qualifying M.Com from Hailey College of Commerce, University of the Punjab, Lahore, he did MS from the University of Faisalabad. He has earned PhD (Specialization in Finance) from International Islamic University, Islamabad, Pakistan. He has teaching experience of 18 years in the fields of Accounting and Finance.

Dr. Zahid Mahmood is a Professor of Strategic Management at King Saud University, Saudi Arabia. He received his PhD in Quality Management 1999 from Sydney Graduate School of Management, Australia. He is having teaching experience of more than 20 years in different countries. His research and teaching interests are in the areas of Quality Management, change management, leadership role within organizations and strategic management.

1. Introduction

Making money is the primary motive of an investor and everyone has to manage his or her personal finance in one way or the other. Some investors want to save a lot and some like to collect information before making investment while others like to follow their gut feelings. However, decision making is an important ability and mental application that how people behave while making investment decisions (Wang, 2012). Investment decision making is a very difficult activity to tackle complex situation. The focus of this study is to give holistic view of personal financial activities by taking into account the attitudes and behavior involved in decision making. Several studies have been documented to analyze the attitudes, actions and perceptions which involve in the investment decision making process (see Selden, 1912; Festinger et al., 1956; Tversky & Kahneman, 1974; Kahneman & Tversky, 1979). Proponents of behavioral finance believe the study of psychology can help to reveal the behavior of stock market bubbles, and stock market crashes (Gao & Schmidt, 2005). (Simon, 1955, 1959; Margolis, 1958; Cyert & March, 1964) are among the early authors who document and blend the concepts of psychology with corporate finance. Daniel Kahneman and Amos Tversky were two psychologists who provided the theoretical and experimental foundations to a new paradigm in the 1980s which was called Behavioral Finance. Behavioral Finance "studies how people actually behave in a financial setting. Especially it is the study of how psychology affects financial decisions, corporations, and financial markets" (Nofsinger, 2001). According to Thaler (2005) behavioral finance is actually try to supplement theories of traditional finance with special reference to cognitive psychology to propose a more complete model of behavior that people show in decision making process. Concepts of behavioral finance are very essential in investment decision-making process as they influence the preferences of investors and helps them in better choice of investment alternatives to avoid errors in decision making.

During several past years, investment decisions were based on forecasting the future, performance of stocks, market timings and many behavioral factors. These behavioral factors include psychological factors such as emotions and cognition, which play an important role in investment decision making process (Waweru, et al., 2008). In addition to psychological aspects the investors also differ from one another in demographic factors, i-e; socio-economic, education, sex, race and age. These demographic factors influence the investors' decision making. According to Mathews (2005) decision-making can be defined as the process of choosing a particular alternative from a number of alternatives. It is an activity that follows after proper evaluation of all the alternatives. In addition to evaluation of investment alternatives the investors should also develop persistence and positive vision. Investors while constructing their investment portfolios need to consider their risk tolerance, rate of return, market conditions and other constraints. However, the level of risk taking depends on investors' personality and attitudes towards risk (Madition, et al., 2007).

Behavioral finance is based on psychology to explain why people buy or sell stocks (Waweru, et al., 2008). Investor behavior measures the attitudes and preferences investors' hold, while making investments in financial markets. Behavioral Finance illustrates how different investors realize and react to the information available in the market. It is not necessary that all the investors always behave rationally or they predict quantitative models in same and unbiased manner. So the behavioral finance provides worth to the behavior of investors, and leading them to make effective decisions to improve investment performance. Olsen (1998) argues behavioral finance recognizes the paradigms of traditional finance such as rational behavior and profit maximization in the aggregate, but he asserts these models are incomplete, since they do not fully consider individual behavior. In the current scenario, behavioral finance is becoming a central part of the decision-making process because it profoundly influences the investment performance. That's why in this study, financial affairs such as routines and attitudes are gathered to gain insights into significant behavioral patterns, which influence the decision making process and investment performance. Investors' decision making process has significant impact on the stock market while performance of stock market has positive correlation with economy. The rising stock market positively influence economy or vice versa. Therefore, it is essential to explore behavioral factors that have impact on the decision-making process of investors in stock market which in turn help the investors as well as security companies to better predict and to make good decisions for their business. Thus the study is aimed to identify the possible behavioral factors influencing investment decision of individual investors at Pakistan stock exchange. The research provides good references for suitable investment decisions in stock market and good authentic information to individual investors. The investment decisions made largely under certain behaviors. Study of behavior may helpful in stock investments. Finally, research helps author to understand the theoretical and practical aspects of stock market and its behavior as well.

2. Literature Review

The extant research in the field of finance and management acknowledges the lack of emphasis on investors' preferences in investment decisions making (Burer & Wustenhagen, 2009; Russo, 2003; Shleifer, 2000). The current study is intended to fill this literature gap by shedding new light on the manner investors apportion their funds to different investment alternatives. The present study also intends to analyze investors' decisions by taking into account the various behavioral factors. Psychology provides huge literature documenting the systematic errors that people usually make while thinking. Investors sometimes feel overconfident and more experienced which lead towards irrational investment decisions. Jahanzeb et al. (2012) construct a model of investors behavior in financial market by blending the concepts of psychology, sociology and financial economics and find the behavior finance claims every market participant does not suffer from similar illusion rather it puts light on strategies to avoid such illusions while making investments. Singh (2012) argues that behavior aspects undoubtedly play a significant part in decision making but do not provide all the prediction about Efficient Market Theory. Because the theory assumes that financial markets mark impartial forecast of future. Similarly, Warneryd (1989) find very weak relationship between the extent to which attitude predicts behavior. But while predicting the future investors usually tend towards different types of behavior partialities which in turn lead them to construct "cognitive errors".

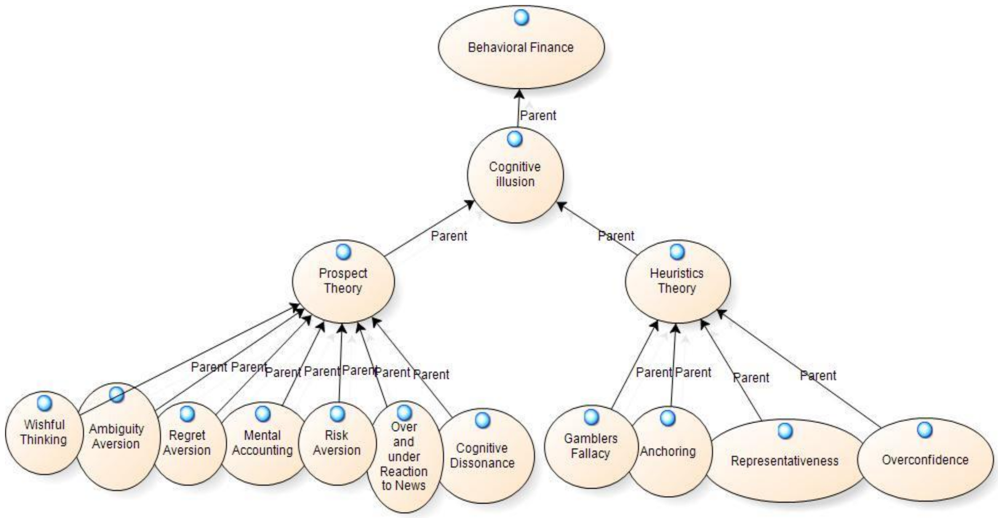


Figure- 1: Conceptual Framework

Chen, et al. (2007) define the behavioral biases as the systematic errors while making judgments. It may be possible investors predict and make best possible choices under difficult and uncertain decisions. Pompian (2006) argues that the research on behavioral finance is based on the set of evidences indicating the futility of investors' economic decision making. Nik-Muhammad and Ismail (2008) investigate relationship between investor's rationality and decision making at Malaysian capital markets. They conclude behavioral frame work and economic conditions have an impact on decision making style. They further identify that decisions making of Malaysian investors is partially rational. Waweru, et al. (2008) explore the role of psychological factors to impact the investment decision making styles at NSE (Nairobi Stock Exchange) and argue that the anchoring, availability biases, gamblers fallacy, loss aversion, regret aversion, representativeness and overconfidence affect the decisions of market participants at NSE. Chanrda (2008) in his study, find the impact of investors' psychology and behavior on decision making style of individuals. The author conclude investors usually not make rational decisions constantly rather their investment choices are often influenced by anchoring, cognitive, dissonance, fear, greed, heuristics and mental accounting. Lo et al. (2005) argue psychological factors such as conservatism, framing, heuristics, mental accounting, overconfidence, representativeness, deposition effect and emotional reactivity hinder rational thinking of investors. The same was identified by Ritter (2003) who suggests that behavior finance is based on psychological cognitive illusion and divided into two categories, illusion caused by heuristic rules and prospect theory.

Figure-2: Word Tag Cloud

2.1. Discussion.

Influence of behavioral aspects on decision making of investors at PSX.

2.1.1. Heuristics Theory

Heuristics decision involves rule of thumb or mental shortcut in decision making which make the decision making easy but sometimes leads towards Poor decisions. Investors usually want to purchase those stocks which have doubled in price and make biased decisions because the market conditions change very rapidly. So it is not easy to eliminate emotional/mental aspects involved in investment decision making process. According to Brabazon (2000) Heuristics decision making process states that investors usually make investment decisions by trial and error which leads towards the development of rule of thumb that helps investors to make decisions in complex and uncertain environment. Waweru, et al. (2008) classify the heuristic behavioral factors as anchoring, availability bias, gambler's fallacy, representativeness and overconfidence. These all behavioral factors affect the decisions of investors while making investment, e.g. representativeness has a massive effect on decision making process of individuals. "Representative" means investors while investing rely on past trends of performance of stock and give too much weight on recent events, which can lead towards poor investment decisions. If equity prices remained very high in specific period (as an example returns were very high from 1982-200 in US markets) the investors think that these recent trend will continue and they allocate their money on the basis of recent stock performance. "Representativeness heuristic" is used while ruling the chance of unsure events (Kahneman & Tversky, 1982). DeBondt (1998) describes that analysis of investors to forecast the earnings are biased in direction of recent failure or success. Similarly, Dittrich, et al. (2005) observe self "confidence" reflects to be a positive attribute, giving courage and plays important role in achievement. But confidence alone is not the sole element of success in investments. They further observe that two third of the respondent in their research are overconfident while those investors who lost money by investment are more confident. People miscalculate the risks involved in the investment and overvalue their knowledge just because of overconfidence. They always try to invest in those stocks with they have familiarity and confidence, so this little diversification sometimes leads towards loss. Pompian (2006) proposes that the people think they are better informed about the events in the market than they actually are. Fagerstrom (2008) investigates the effect of over optimism and the factors that affect the decision making while analyzing the investment projects in S&P, he finds that the analysts of S&P 500 were inflated by problem of overestimates. Thus over confidence in estimation, results in poor decision making. Likewise, (Shefrin, 2000) suggests that experiences of investors have important role in decision making, the less proficient being prone to representativeness (extrapolation) while extra proficient investors execute “gamblers fallacy” The investors while investing rely too much on piece of information. People excessively rely on strength of information rather than the weight of information (Hirshleifer, 2001). Human beings try to estimate consequences on the basis of beginning values about different events (Slovic & Lichtentein, 1971). Different estimates come up with different initiating points and lead to initial values (Tversky & Kahneman, 1974). Sometimes investors inappropriately predict events. The incorrect assumptions about the events due to lack of understanding and poor information is sometimes referred to as Gambler’s fallacy. Investors give excessive weights to the information available which forces human to overestimate the probabilities of events and causes overreaction by investors to investment outcomes (whether positive or negative). Therefore, Gambler’s fallacy leads towards poor decisions. In the same way, sometimes investors (Anchor) predict or estimate the future performance of the stock from its beginning or initial performance, and believe that those stocks have increased in their value will also increase in near future as well. Thus “Anchoring” leads an investor towards irrational investment decisions because the investors psychologically determined and give undue importance to statistically random events. Then such kind of biased decision making style make the investment riskier. Pompian (2006) explains the anchoring, as investor’s attention to anchor thoughts to irrelevant event while making investment decisions.

2.1.2. Prospects Theory

Investors usually allocate their funds in different available portfolio in the stock market on the basis of their own thinking without considering what is better for them or what is not. According to Benatzi and Thaler (2007) people spread their savings in different alternatives investments without considering the potential risks involved in the investment portfolio. Prospect theory labels different mental states affecting investors’ decision making processes and these aspects include loss aversion, mental accounting and regret aversion (Waweru, et al., 2008). They further argue elements of the prospect theory influence the mental state of investors while making judgments about investment alternatives, e.g. investors are usually aversion to losses, means, they dislike the losses may arise in an investment. The “Risk aversion” is one of the main tenets of behavioral finance. But some studies suggest that the investors in actual do not extremely dislike the risk rather they hate losses. Thus the investment decisions are highly influenced by the risk aversion behavior of the investors because people feel more pain of loss than they derive pleasure from equal gains. When investors suffer loss they may become risk seeker but when enjoy gain become risk averse (Venkatesh, 2002). Investors value their gains and losses differently but they usually wish to escape from the pains of guilt arises from poor investment decisions is called regret aversion. In the same way "Mental accounting" refers to evaluation of financial transactions on the basis of think different aspects (Barberis & Huang, 2001) which permits individuals to shape their portfolio into distinct accounts (Barberis & Thaler, 2003). Mental accounting is based on the multiple goals of investors. When an investor has multiple goals in mind it would be difficult to reconcile investment portfolio framework with different mental accounts linked with multiple goals, thus investment decisions may be affected. According to Thaler (1999) "set of cognitive operations used by individual and households to organize, evaluate, and keep track of financial activities. Investors differently and irrationally handle the function of each asset group which affect negatively investors' behavior, consumption and investment decisions. Individuals tend to assign different functions to each asset group, which has an often irrational and negative effect on their consumption decisions and other behaviors".

Similarly, every investor usually "over or under react" to news regarding changes in price of stocks and try to make decision on the basis of recent news about the changes in price. DeBondt and Thaler (1995) argue that the over and under reaction to price change news often leads an investor towards making different investment strategies and investment decisions. Because Tan et al. (2008) observe that change in price of stock have impact on the risk & return models and asset pricing theories. Waweru et al. (2008) claim that the investment behavior is highly affected by changes in price of stock. Odean (1999) observes the investors usually buy and sell those stocks that experienced high changes in price during last two years. He also proposes the choice of stock is highly dependent on investors' attention, preferences and selection criteria. Likewise, Behavioral finance attempts to describes that how people idealistically display very desirous views of their abilities to forecast the future. Investors while making an investment usually make some rosy views in their minds about the outcomes of their investment. People use their skills and abilities in the desirous way to predict the future (Buehler, et al., 1994). When people think about outcomes according to their own "wishes" (wishful thinking) the investment decisions may be affected negatively. Because stock market changes very rapidly, we can’t bind the movements of the stock market according to our own desires. In the same way, Psychological as well as emotional side of investment decision making apparently explain the irrational action of investors. Investors usually dislike the uncertainties and don’t consider them while making decisions. It is the situation where people feel competent and experienced in evaluating risks. Heath and Tversky (1991) argue that “Ambiguity Aversion” is how investors feel competent while assessing the information. But in stock market it is not easy for the investors to feel confident about probabilities to capture favorable returns. Thus ambiguity aversion has negative effect on decision making. Individual investors’ trading and investing activities in the stock market are highly dependent on how they think about the current scenario. Sometimes the investors think about to avoid loss while tend to realize profits only. And sometimes they do not think according to the changing environment of stock markets and believe that their assumptions are correct, in fact they are wrong to forecast the market. These all cause thinking dissonance in investors, and affect their decision making styles. Montier (2002) argued that the “cognitive dissonance is the mental conflict that people experience when they are presenting with evidence that their beliefs or assumptions are wrong”, which affects their future decision making and often leads towards poor investment decisions.

3. Methodology

In order to get profound understanding of investor’s behavioral factors that have influence on investment decision making style, qualitative research strategy was used. Cooper and Schindler (2006) describe the reason of using qualitative-research strategy is to collect data which portray a thorough picture of events, situations and interactions with people & things. So in this study we use ethnography and semi-structured interview method to collect data from Pakistan stock Exchange of Pakistan. To get some deeper involvement to study the behavior of investors at Pakistan stock exchange, ethnographic method provides us to understand the perceptions of investors through direct observations, like that it is easy to infer some qualitative results. Maanen (1988) defines that ethnography is a field work conducted by the single investigator to observe participants. Harris and Johnson (2000) describe ethnography is the description of customs, beliefs and behavior of a particular culture. Siggelkow (2007) describes ethnography is powerful tool to build a theory. Ethnographic approach provides us holistic view and better understanding of behavior in the cultural context of Pakistan stock exchange through our participation with investors and brokers for some days. With ethnographic observations, we also employ interview technique to get detailed insight into the behavior of investors at PSX. As the investors involved in daily share trading they can better describe what behavioral aspects influence the decisions while making investments in stock market. And when a little is known to researcher about a situation in qualitative research, an Interview is useful (Bryman & Bell, 2007) and most commonly used (May, 2001) method for gathering information. But the structure of interview may vary from highly structured to unstructured interviews. To achieve the purpose of this study a semi-structured interview is employed to determine the impact of behavioral factors on the decision making of investors at Pakistan stock exchange. (Bryman & Bell, 2007; Saunders et al., 2009) "suggest the flexibility and comparability of semi structured interviews can help the interviewer to concentrate on the main objectives of the interview". Thus, some interviews with the investors are conducted for the appropriate explanation of behavioral factors which influence investment decisions. This deeper involvement to analyze the behavior of investors is related to interpretivism in the way "understanding the social world from the viewpoint of social actors who are part of it".

Figure- 3: Word Tree Map

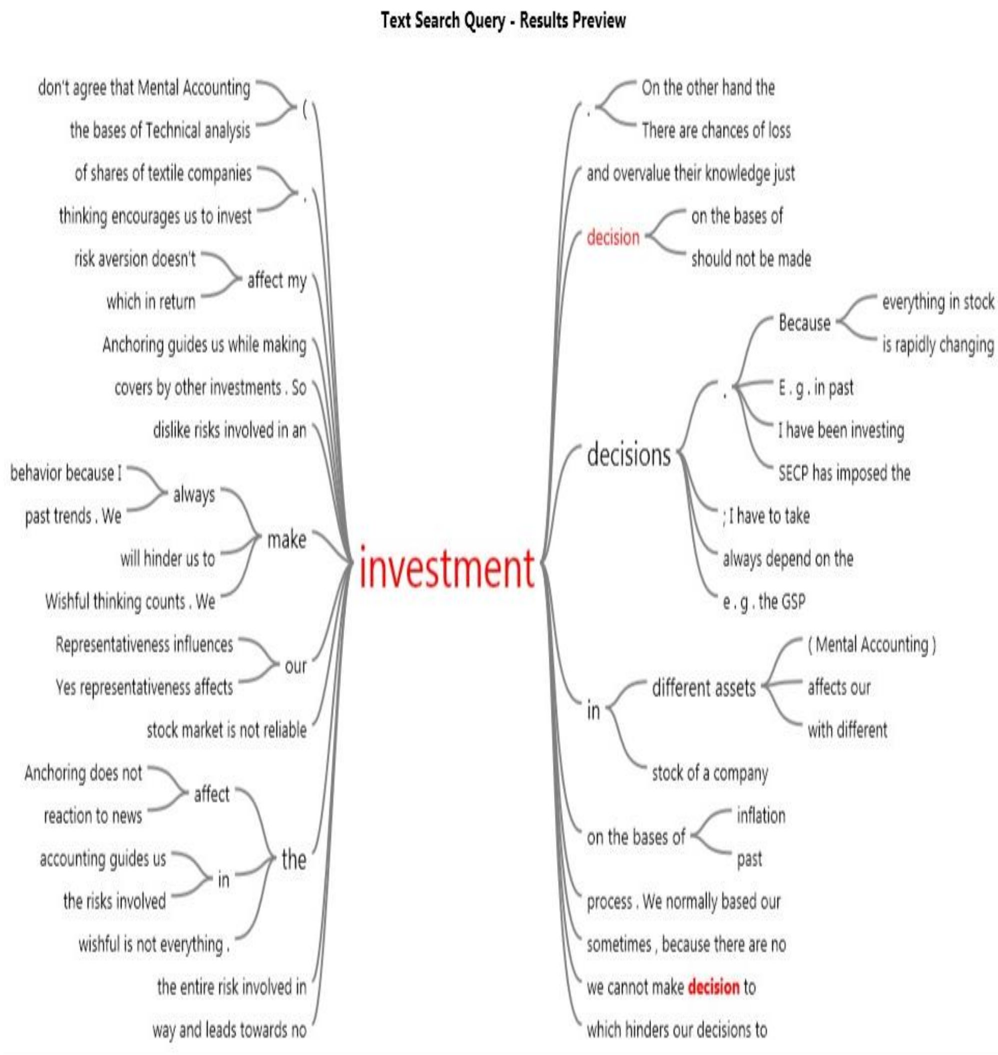
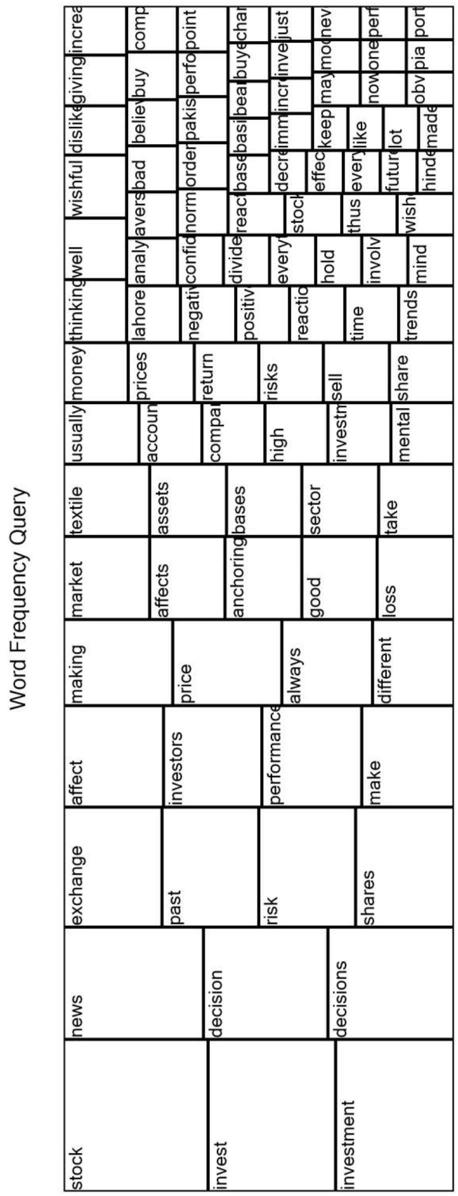


Figure-4: Word Frequency Map



Therefore 30 interviews are conducted with those investors who have above 5 years' experience at Pakistan stock exchange and spend most of their time at stock exchange. The maximum time for interview is 30 minutes and minimum time is 25 minutes. Only male investors are interviewed because in the cultural context of Pakistan women usually not participate in investment activities at stock exchange. Thus ethnography provides us the opportunity to observe the behavior of investors, while semi-structure interview guides us to draw conclusion whether behavioral factors influence the investment decisions or not. The data collected are analyzed through Nvivo-10. To understand the patterns of behavior which influence the investment decisions, thematic analysis is employed. The word tag cloud, word tree map and word tree are given in analysis of the study.

4. Empirical Results

Figure-2 represents word Tag cloud which shows different words helpful in thematic analysis. The size of each word shows their repetition frequency. In this study the investors (respondents) frequently said some behavioral aspects which influence their decisions at stock exchange. These aspects became the themes for this study e.g. Mental Accounting, Anchoring, Risk Aversion, Gamblers Fallacy, Over Confidence, News, Representativeness and Wishful Thinking are the major factors shape the decisions of investors at PSX. In Figure-3 there is Word Tree Map which shows how investors at Pakistan Stock Exchange talked about different aspects of behavioral finance and linkages of those aspects with Investment decisions. This map is normally used to explore new themes.

In Figure-4 there is Tree Map which shows different outcomes of behavioral Finance on Investment decisions. It is clear from the figure that considering different behavioral aspects while investing impact stock performance and investment decisions. It is identified that Anchoring, Risk Aversion and Representativeness have more influence on investment decision making. While wishful thinking, Mental Accounting and over confidence have less impact on decision making.

Table: 1 shows identification of different mental and behavioral perspectives that affect the decision making process of investors. Anchoring, wishful thinking, over confidence and over reaction to news are the most influencing behavioral factors identified in this study that affect the investors' decisions of at stock market.

5. Conclusion

The study is aimed to find the possible behavior factors that influence the investors' decisions at Pakistan stock exchange. We observe Heuristics factors (Anchoring, Gamblers Fallacy Representativeness & Overconfidence,) and Prospect factors (Loss Aversion, Mental Accounting, Regret Aversion, Over/under reaction to news, Optimism/wishful thinking, Ambiguity aversion & Cognitive dissonance) in literature. We found through observations and semi structured interviews that all the behavioral factors identified in literature review have systematic impacts on financial decisions of investors. Investors at Pakistan stock exchange use these behavioral illusions while making investment decisions to generate positive returns from investment. But not every investor suffers from same illusion to gain positive return from investment. Because at Lahore stock exchange, investors sometimes make financial decisions on the basis of Heuristic or prospect factors and suffer from loss as investors feel overconfident than their abilities. They trade on the basis of wish of making quick returns. In the process of thinking wishfully, they ignore the company's fundamental aspects and future growth of company which cause them to suffer loss. In the study we find through thematic analysis that Risk Aversion, Anchoring, Representativeness have more influence on investors' decisions. These Findings are similar to previous research findings that overconfidence, representativeness and price anchoring impact inversely to investment outcomes. Furthermore, when investors are behaviorally biased, they usually make risky investment decision. So these factors should be avoided in decision making process. We recommend the investors that they should have proper investment skills and knowledge about the stock market while making decisions. They should not too much rely on behavioral aspects because these factors create hurdle for good chance of investment and badly affect the investors' psychology. We further suggest that a study should be conducted to check the impact of these biases upon the performance of investment. And there is need to explore the behavioral influences of institutional investors.

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Table 1. Respondent-Wise Results

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20	R21	R22	R23	R24	R25	R26	R27	R28	R29	R30
Wishful Thinking	2	0	2	1	2	0	3	4	6	0	2	2	2	2	3	2	1	2	3	3	3	5	1	5	2	2	2	2	2	5
Risk Aversion	0	0	1	2	0	0	2	2	2	2	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	0	0	0	1
Regret Aversion	0	2	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1
Over and under Reaction to News	3	6	1	3	1	1	1	0	2	0	5	3	3	3	2	2	2	1	2	1	2	1	3	1	2	2	3	3	3	1
Mental Accounting	2	2	1	0	1	2	0	2	0	1	2	2	1	1	2	0	1	0	0	1	1	1	1	1	1	1	2	0	0	1
Cognitive Dissonance	0	0	0	1	1	0	1	0	0	1	0	1	2	0	1	2	2	2	2	2	0	1	0	1	1	1	0	1	0	1
Ambiguity Aversion	0	1	1	1	0	1	0	1	0	1	1	0	2	0	1	0	2	0	0	1	0	0	1	1	0	2	1	1	1	0
Prospect Theory	0	1	0	1	0	1	1	1	0	1	1	0	0	1	2	1	2	0	2	1	0	1	1	0	1	1	1	0	1	0
Representativeness	2	2	1	1	1	0	1	1	0	1	2	0	1	1	1	1	0	0	1	2	3	0	2	2	2	1	2	2	1	1
Over-confidence	5	1	3	0	4	0	2	3	2	2	2	1	5	2	1	1	2	2	2	4	3	2	2	4	4	5	2	2	5	2
Gamblers Fallacy	1	0	1	1	2	1	2	2	2	0	3	1	1	1	3	2	2	1	1	1	1	1	0	0	1	1	1	0	0	1
Anchoring	5	0	6	1	1	4	2	6	7	3	3	2	1	2	2	1	3	5	2	3	3	4	3	4	4	3	4	1	1	4
Heuristics Theory	0	1	2	2	2	1	1	2	2	4	1	0	2	2	0	2	2	2	2	4	1	3	4	1	4	0	4	3	2	1
Cognitive illusion	0	1	1	0	1	1	0	1	0	0	1	0	1	1	0	1	0	1	1	1	1	1	1	1	3	2	3	2	1	0
Behavioral Finance	0	1	1	0	0	0	1	0	0	0	1	0	1	0	0	1	0	1	1	2	1	2	1	1	1	1	1	0	0	1