ROLE OF PSYCHOLOGICAL AND SOCIAL FACTORS ON INVESTMENT DECISION OF INDIVIDUAL INVESTORS IN ISLAMABAD STOCK MARKET

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ABSTRACT: *Investment decision making is a complicated process of choosing a best available option from a number of alternative options. It is an activity that is fulfilled after a keen evaluation of all the other alternatives. The current study investigates the psychological and social factors, impact the investment decision making of the individual investors and how the Psychological and social factor jointly are related to investment decisions. Using the descriptive statistical techniques on the data which was collected from 250 individual investors choose randomly trading at Islamabad stock exchange through a structured questionnaire. The findings of the study indicate that the psychological and social factors have a certain impact on the decision making process of the individual investors trading in the stock market while making investment decisions and investors are more aware about the situations and factors that may influence their decision making ability. There are some factors which affect males more than females like anger, fear, herding and stress. On the other hand, mood and social interaction affect female investor's decision making more than male investors. Furthermore, experienced investors face other biases such as anger.*

Key words: Behavioral Finance, Investment Decision making, individual investors, psychological factors, social factors, stock market

INTRODUCTION

Behavioral finance is essentially a blend of fund and brain science. This implies that how does brain science mediates the account hypotheses and translate singular practices on the premise of numerous mental variables other than the known standard practices. In fund the conduct of the speculators is seen by two unique classes of money. One of which is standard or custom or traditional finance and the other one is behavioral finance. The standard finance/money theory proposes that each investor is rational and acts totally reasonably while they settle on their venture choices. This implies that they generally settle on decisions which completely bolster their advantage and subsequently qualified for the increase. Then again, there is behavioral finance, which counters the thought of traditional finance by recommending that speculators/investors don't generally carry on sanely, however, there are times when they settle on choices which are not to support them and take them to misfortunes. The reasons of this conduct are accounted for as some mental or psychological factors of people known as predispositions. The earliest idea in this connection is the idea of bounded rationality by a respectable prize victor financial expert suggested that human rationality is restricted and they can't make optimal decisions constantly [1].

Decision making is basically characterized as the demonstration of deciding on choosing something. Investment decision making is a complicated process of choosing a best available option from a number of alternatives. It is an activity that is fulfilled after keen evaluation of all the other alternatives [2]. Investment decisions taken by individual investors in capital markets vary from investor to investor. There may be a decision that is beneficent for one investor and unworkable for the other at the same time. This distinguished behavior is because the investors have different demographic structures and other personal factors. Some people react with more intense feelings to both pleasant and unpleasant events in their lives [3]. Some people are more reactive to negative environmental signals than to positive ones [4].

Individual investors often develop their market expectations which are usually biased to make the financial decisions with limited and incomplete information, rumours and emotions that influence choices and decision making as a whole [5]. Investment decisions are usually based on two factors which are personal factors, and technical factors. Individuals mostly rely on personal factors such as age, education, income, analytical skills and investment portfolio to make an investment decision [6]. Investment decisions are also derived from complex models of finance like CAPM which is considered to be significant when there is risk involved. These two factors are not enough to make a wise decision, but there is a third category which is situational factors which not only includes person decision but extend to the environmental situations and fluctuations as well. Human beings behave irrationally about their investing decisions. Correct, standard and rational behavior patterns are completely essential to become successful investors in the stock market and it is also an essential prerequisite to be financially successful and for this one has to overcome these tendencies like heuristics leading to a successful investor. But it happens very rarely or near to non-existent that investors follow a standard pattern to make decisions and behave rationally with always a decision in their favor pertaining them with gains and profits only. One of the earlier studies regarding decision making under uncertainty was conducted [7].

A number of researches have been conducted before on psychological biases, but the impact of either personality or psychological and social factors at the same time has not taken before. The research on Psychological Factors, Information Asymmetry, and Investment Decision Making and studied that personality is to be added to short term investment intentions of investors and put forth future directions for other personality variables (fear, mood, anger) and their influence on investment decisions. In the present study other personality variables that are often inherited like fear, anger and mood are taken into account and to imply the results to identify investor's behaviour [8].

Research on determinants of herding behavior among investment analysts conducted by the authors [9]. Further work on elucidating rational investment decisions and behavioral biases in Taiwan in which it is discussed that psychological factors in the decision-making process lead to irrational and uncertain investment decisions [10]. In the USA, it was investigated on an investment decision, Fear and Social projection in which it is argued that people tend to rely on their own emotional state to predict other people's behavior, which in turn affects their own actions [11]. It is also stated that the optimism and the terror are two major determinants of individual investor's decision making, risk taking and trading patterns, but lack of awareness is also the other important factor found in the research [12].

There are several reasons due to which the investors distort their neutral mode of investing. This study will elaborate how the psychological and social factors affect the investment decisions and the way investors behave under the influence of these biases. The present study covers the limitations and gaps of the past researches mentioned above in accordance with the local setting. It's been taken in the investment market sector of Pakistan specifically taking the investors of Islamabad Stock Exchange. Secondly the effect of emotions, social and personality factors are taken combined to examine the investor's behavior visibly. Third, there is comparison of social and personality factors, i.e., which factors have more influence on investment decisions and which have less influence.

The objective of this study is to judge the psychological behavior of investors while making investment decisions by taking both personal and social factors which includes fear, mood, stress, social interaction, herding and anger at a time and to check out of these two which factor is more important to the investor's decision.

LITERATURE REVIEW

Heuristics are quite useful, but at times they lead to serious systematic errors [7]. According to their experiments, biases were also seen when the intuitive judgments are made and explain with a number of examples the effect of these biases on the investment behaviors. It is inspected that emotions play a vital role in decision-making by studying people who had an impaired ability to experience emotion [13]. It was found that investors can sometimes invest in an investment depending upon how they look up at the company i.e. if they like it or not. While this is consistent with what we know about how people make decisions, it is not usually consistent with efficient equity pricing [14].

Researchers found the effect of heuristics on investment decisions aided by the experiments and observations. The heuristics are exceedingly reasonable and frequently effective, but the heuristics also lead to methodical and predictable blunders. This shows that investors use heuristics for any reason either not knowing about the computations or avoiding complexity make wrong or less advantageous decisions. But an enhanced indulgent of these heuristics could advance verdicts and decisions in conditions of vagueness and uncertainty. [7].

A study in Pakistan described about being rational and irrational while investment is made. The findings depicted that investors are not rational figures as only 18.4% of the total respondents provided that intuition is ineffective in such a decision. This means that the investors behave irrationally as they rely more on intuitions rather than collecting valid information before they go into investment decision making. Moreover, people show stronger emotions in their investment behavior leading to irrational investment decisions [15].

Furthermore researchers also studied a role of feelings and their ultimate impact on the investment decisions. Several lab experiments were performed in which emotion and reason based responses were considered. The results showed that the feelings based assessments were faster than the reason based assessments and the moderate responses are quicker than the extreme responses because they require fewer efforts [16].

Personal Factors

It is claimed that the effects of tempted mood on attribution errors were strongly related to changes in information-processing style [17], further the same author gave the affect infusion model later [18]. One study states that positive events are judged more frequently and negative events less frequently in positive and negative moods, respectively [19]. The mentioned studies and researches show that mood has great impact on the investment decisions and there are different kinds of mood states that have positive and negative influence on the investor's behavior.

Authors followed the approach on negative mood and decision making and had undergone various studies that explained the effect of negative mood state on the decision making process. The results of the study suggested a stronger effect of the state than of trait mood and of state fatigue in particular and risk taking in everyday decision making may be affected by naturally occurring mood changes [20].

About mood, authors also appealed that the decision made on an individual basis are affected by the mood state of the society. The influence of current mood on judgment and decision making has great impact on investor's decisions [21]. Further studies attempted to detect if stock market investors were affected by different psychological biases or not. It was also found that more experienced investors are less affected by the behavioral biases and female investors are more like to fall a prey of these biases. This means that there was a medium negative relation between herding, heuristics and the investments [22].

Authors [14] and [16] also studied a role of feelings and their ultimate impact on the investment decisions. Several lab experiments were performed in which emotions and reason based responses were considered. The results showed that the feelings based assessments were faster than the reason based assessments and the moderate responses are quicker than the extreme responses because they require fewer efforts [16]. Another study also represented a positive relation of feeling with the investment decisions and these results were conflicting with the feelings based study of researchers [23]. It was explored that feelings were more consistent with the responses of the participants than those with their reason-based assessments. Feelings and emotions have much influence on the behavior of investors [24].

When we talking about the relationship of anger and investment decision Lerner and Keltner (2001) verified the results of their study, which included anger variable which is also under focus in the present study [25]. The lab experiments ensured the participation of different participants with the induction of different emotional states. The findings depicted that happiness and anger were associated with optimism, suggesting that underlying appraisals of certainty

and control accounted for the associations of these emotion dispositions with optimism [8]. It illustrates that anger plays an important role in decision making and also controls the risk perception of the investors [27]. The emotion, anger has less impact on the investment decisions and the degree of risk as compared to the other emotions like happiness [28].

Authors conducted a research on the emotions and found opposite results, according to their research the emotions of fear can make people conscious about danger and thus help them in making judgments and investment decisions [29] and [30] respectively. Another study by the specialists stated two dimensions of an angry and emotional state i.e. backward reflection and forward reflection [25]. In the backward reflection the author associated anger as an unpleasant and negative state on an individual emotion. On the contrary, in the forward reflection, anger was associated with the pleasant and positive state of individual emotions. However the forward reflection of anger is given more consideration now and makes visible that anger can occur both positive as well as negative depending upon the nature and mark of a given situation [3132].

Some writers considered the impact of fear on diversification, their results found that fear of unfamiliarity of events leads investors to think about pessimistic scenarios so they prefer to invest in familiar assets and avoid diversification [30]. A study conducted to find the impact of fear on an investment decision, their hypothesis was that fearful investors will show home biased investment decisions but their study did not find any evidence that can support this hypothesis [33]. A research on heuristics, anger, and fear found the positive relation of anger at the individual investor decision. The findings of the research investigated that the emotion anger had a positive effect on the investment behavior of the investors in ISE elaborated that the in such anger state the investors could easily control the situations contrary to the normal state [31].

Social Factors

The social factors chosen this study are social interaction, herding and anger. Social interaction relates to the social contacts and the social networks that people make some time for their own convenience and sometimes forcefully [34]. These social networks help in exchange of information among family, friends, neighbours and other people around [35,36]. When individuals perceive higher levels of general resemblance to a target group, they engage in higher levels of projection on specific attributes, they think about their own attitudes and qualities and relate them to the specific target [37]. Several scholars are of the view that perceivers show greater projection to in-groups than out-groups [38,39,40].

Aouthors studied that there are hubs in the society which influence the decisions of individual investors as they have an impact on the individual's behavior. The financial advisors are also termed as these hubs because most of the times people look up to them before making any decision. It leads to social bias that affects the investor's behaviour [41]. Social interactions between individuals affect investment decisions and the social or geographical localization of information and rumors act as an important part of the process by which trading patterns are assessed. Furthermore, some sociologists and economists argue that there are threshold effects in social processes, where the adoption of a belief or behavior by a critical number of individuals leads to a tipping in favor of one behavior versus another [42,43]

When focused on stress and individual behaviour, authors summarized the results that male and female acted differently under stressed conditions. This suggested further that the female participants performed better than the males who performed worse under stress [44]. These findings were against the study of [45] which demonstrated better performance of males in stress than females.

Furthermore, reserchres elaborated the effects of herding bias on the investment patterns that consisted of 32 financial professionals from different financial markets. The findings disclosed that 45.7% participants followed their private signals or information for any investment decision and the remaining either followed both the private information and the public investment flow or followed others [46]. The study carried out to observed different parameters of herding and their effects on the investment behavior. Their work made known visibly that investors with more knowledge and experience relied on the information they possess more than the others behavior and gave due consideration to their particular situation [9].

In India it is predicted investor's behavior and studied herding bias along with many of the other psychological biases. He presented that herding may work sometimes, but the positive aspect is limited as when everyone is moving alike, i.e. in the same direction, then it is quite difficult to make abnormal profits out of the herds. The findings depicted that 47.8% of the investors made decisions on the basis of the other people's suggestions around them or simply follow what they do i.e. friends, family members, neighbours, brokers, etc. other than this there were results of experienced investors who followed media or relied on financial news to make their investment decisions. Investors apply to "herd behavior" because they are concerned about what others think of their investment decisions [47] as consistent to the previous studies [48].

It is explained the importance and impact of social interaction on the investment decisions by choosing an option from two to know the influence of this social interaction on investing behavior under uncertainty. The results revealed that participants who were more involved socially with other members invested in less risky investments and socially excluded participants chose to invest in more risky investments [40].

RESEARCH METHODOLOGY

For the current study, the sample is taken from the investors of Islamabad Stock Exchange who come across the biases concerned in this research while taking their investment decisions. The sample of the study is the 250 investors of Islamabad Stock Exchange is taken by using the simple random sampling technique, so the selected sample is truly representative of the population. The current study' research design consists of seven variables on the whole classifying six independent variables with their ultimate effect on one dependent variable. Anger, fear, mood, social interaction, herding and stress are taken as independent variables and investment decisions as the dependent variable. All the primary data collected was through questionnaire and 250 respondents were selected randomly from Islamabad Stock Exchange to know about the investor's decisions.

Questionnaire for the variable anger is taken from Understanding employees' behavioral reactions to

Table 1: Instrument's Reliability Measurement (N=250)

Variables	No. of Items	Cronbach Alpha
Mood	5	0.868
Anger	6	0.731
Fear	5	0.758
Social interaction	4	0.714
Herding	3	0.735
Stress	7	0.827
Investment decision	5	0.778
Total	**35**	**0.707**

Table 2: Frequency Distribution and Descriptive Statistics with respect to Gender, Age, Qualification, Experience

Variables	Frequency	Percentage (%)
Gender		
Male	190	76.0
Female	60	24.0
Age		
< 25	84	33.6
25-35	69	27.6
36-45	65	26.0
46-55	2	0.8
> 55	30	12.0
Qualification		
Inter	22	8.8
Graduation	88	35.2
Master	120	48.0
Other	20	8.0
Experience		
< 5	156	62.4
5-10	61	24.4
11-15	22	8.8
16-20	11	4.4
Total	250	100

aggression, which comprises of seven questions to be asked from the respondents relating to the behavior of individuals when they are in an angry state [49]. Items for measuring fear are adopted from the "Role of Fear in Investment Decisions - Experimental Approach by Bata" as adopted by researcher [47].

Five questions are considered to examine the impact of mood on investment behavior of individual investors from "The experience and meta-experience of mood," [50]. Four items considered to study the impact of the variable social interaction on investment decisions are obtained from A Comprehensive Psychological Profile of Professional and Nonprofessional Criminals in Pakistan [51]. To examine the effect of herding on individual investor behavior three items are taken from Herd behavior and investment [48].

Seven items are selected in this study to measure the impact of variable stress, taken from Interactions between Acute Stress and Financial Decision-Making [52]. The questionnaire considered to know about the dependent variable of the current study, financial decision, was obtained from the Determinants of Investment Decision Making by authers [53]. There were seven items used in it regarding the decision making and all the seven questions were included as a part of our research instrument to know the behavior and finalize the results. So a total of 35 items are used in the questionnaire to measure the impact of social and the personal factors on individual investors' decision making process.

Reliability Measurement

Using confirmatory factor analysis, which confirms the validity of the instrument reliability of the instrument is measured and the less reliable items of the questionnaire are dropped giving out a refined questionnaire. The results of the current study questionnaire are shown below.

The above table illustrates the reliability measure of all the variables and also of each variable separately. The ideal value for Cronbach Alpha is 0.6 or greater which represents a good model fit. The values of Cronbach alpha for all the variables are greater than 0.6 shows variable scale is reliable. The values for mood, anger, fear, social interaction, herding and stress are respectively. Similarly, the overall Cronbach alpha 0.707 which is also greater than 0.6 showing a best model fit.

RESULTS AND DISCUSSION

The results of the present study are discussed with the help of tables, statistical values and interpretations which are in consistence with the research objectives. The relationship of different variables is also discussed and their dependence on each other. The data collected from various respondents of sample size 250 are observed and analysed as under.

Descriptive Statics

First of all, frequency distribution and descriptive statistics on account of the gender, age, qualification and experience are shown below.

As depicted from the table 2 that the number of male respondents are more than the female. There were 76% males and only 24% females who have participated in response. This might be because of the reason that females are less likely to attempt to invest in stocks than the males. This could a culture difference or lack of risk taking power in females than the males. The most of the investors who have participated to respond are about 45 or below. There are 33.6% of respondents who are below the age of 25, 27.6% are between 25 to 35, 26.0% are between 36 to 45., only 0.8% are between 46 to55 and 12% are above 55.

It is shown in the table that the number of investors who have responded are Masters or Bachelors. There are more highly qualified investors than the investors with low qualification. There are only 8.8% of investors who are Inter, 35.2% were Bachelors, 48.0% were Masters, and 8% are with other qualifications. The number of investors who have responded have an experience of less than 5 years. There are 62.4% of investors who have an experience of less than 5 years, 24.4% of investors with an experience of 5-10 years, 8.8% of investors with 11-15 years of experience, and only 4.4% investors with an experience of 16-20 years of experience.

Table 3 depicts 250 responses of the respondents for five items of the current study variables relating to psychological factors. For the first item of the variable "mood" 62 out of 250 respondents strongly disagree, 32 disagree, 26 respondents agree, 76 were strongly agreed, whereas 54 are neutral on this. The second item for mood related to the satisfaction of the investors, 39 out of 250 respondents strongly disagree, 44 only disagree, 89 agree, 29 strongly

Table 3:

Frequency Distribution and Descriptive Statistics with respect to Psychological Factors

	No. of Respondents (N=250)						
Items	S.D	D	N	A	S. A	Mean	St. Dev.
I feel I can't overcome my nervousness.	62	32	54	76	26	2.89	1.355
Being satisfied increases my level of observation.	39	44	49	89	29	3.10	1.271
When excited I oversee many aspects.	74	42	38	59	37	2.77	1.462
When I am fed up I mostly quit.	31	72	26	69	52	3.16	1.369
Being sad I can't get over things soon.	20	80	21	81	48	3.23	1.299
I get angry quickly but get over it quickly.	0	14	27	147	62	4.03	0.763
When frustrated, I let my irritation show.	2	16	27	142	63	3.99	0.831
I sometimes feel myself ready to explode (get angry).	0	10	30	134	76	4.1	0.759
I am a calm person.	0	10	39	100	101	4.17	0.833
I use predictive skills for investment decision making when I feel angry.	12	19	64	64	91	3.81	1.152
Some of my friends think I'm a hot head.	0	28	32	119	71	3.93	0.927
I think my knowledge about the stock investment is up to mark.	0	44	81	101	24	3.42	0.889
The preconditions of being successful in the stock market are mainly knowledge and experience rather than luck.	28	38	72	77	35	3.21	1.195
The notions of stock market investment evoke feelings of fear.	12	50	54	92	42	3.41	1.127
The stocks are risky in my opinion.	4	36	34	113	51	3.68	1.006
The notions of stock market investment evoke feelings of unpleasant excitement.	6	69	63	101	41	3.41	1.127

S.D= Strongly Disagree, D= Disagree, N= Neutral, A= Agree And S.A= Strongly Agree

agree and 49 are neutral. The third item for mood got 250 responses out of which 74 respondents strongly disagree, 42 disagree, 59 agree, 37 strongly agree, and 38 are neutral. The fourth item for mood got 31 strongly disagree responses out of 250, 72 disagree, 69 agree, 52 strongly agree and only 26 are neutral on this. For the fifth item of the mood out of a total of 250 responses 20 strongly disagree, 80 disagree, 81 agree, 48 strongly agreed and only 21 are neutral. The above table also shows the mean values of all the five items of mood variable representing the positive or negative responses of the respondents. The mean values against six items of mood are 2.89, 3.10, 2.77, 3.16, 3.80 and 3.23 respectively. All the mean values are indicating positive responses from the investors.

After five items on mood table 3 depicts 250 responses of the respondents for six items of the current study variable that is Anger. There are different reactions of investors that come out from this when they are angry. For the first item of the variable anger none of the respondents strongly disagree, 14 disagree, 247 respondents agree, 62 were strongly agreed, whereas 27 are neutral on this. For the second item of anger only 2 out of 250 respondents strongly disagree, only 16 disagree, 142 agree, 63 strongly agree and 27 are neutral. The third item for anger got 250 responses out of which none of the respondents strongly disagree, 10 disagree, 134 agree, 76 strongly agree, and 30 are neutral. The fourth item for anger got 0 responses to strongly disagree responses out of 250, 10 disagree, 100 agree, 101 strongly agree and only 39 are neutral on this. For the fifth item of anger out of a total of 250 responses 12 strongly disagree, 19 disagree, 64 agree, 91 strongly agree and 64 were neutral. The sixth item for anger got none of the response as strongly disagree, 28 disagree, 119 agree, 71 strongly agree and 32 neutral. The above table also shows the mean values of all the six items of anger variable representing the positive or negative responses of the respondents. The mean values against six items of anger are 4.03, 3.99, 4.10, 4.17, 3.81 and 3.93 respectively. All the mean values for anger are positively indicating positive responses from the investors.

Table 3 also represents the 250 responses of the respondents for five items of the current study variable that is Fear. It shows the investing behavior of fearful investors other than in the ordinary circumstances. For the first item of the variable fear none of the respondents strongly disagree, 44 disagree, 101 respondents agree, 24 were strongly agree, whereas 81 are neutral on this. For the second item for fear only 28 out of 250 respondents strongly disagree, 38 disagree, 77 agree, 35 strongly agree and 72 are neutral. The third item for fear got 250 responses out of which 6 respondents strongly disagree, 69 disagree, 101 agree, 41 strongly agree, and 63 are neutral. The fourth item for fear got 4 responses to strongly disagree responses out of 250, 36 disagree, 113 agreed, 51 strongly agree and only 34 are neutral on this. For the fifth item of fear out of a total of 250 responses only 6 strongly disagree, 69 disagree, 101 agree, 41 strongly agree and 63 are neutral. The above table also shows the mean values of all the five items of fear variable representing the positive or negative responses of the respondents. The mean values against five items of fear are 3.42, 3.21, 3.41, 3.68, and 3.41 respectively. The positive values of mean, means the positive response of investors for all the five items of fear variable Table 4 depicts 250 responses of the respondents for four items of the current study variable that is Social interaction. It indicates the impact of interaction with the social circle of an individual. For the first item of the variable social interaction 5 out of 250 respondents strongly disagree, 33 disagree, 149 respondents agree, 10 were strongly agreed, whereas 53 are neutral on this. For the second item for social interaction, none of the responses out of 250 strongly disagree, 52 disagree, 74 agree, 61 strongly agree and 63 are neutral. The third item for this variable got 250 responses out of which 11 respondents strongly disagree, 88 disagree, 66 agree, 39 strongly agree, and 46 are neutral. The fourth item for fear got none of the responses for strongly disagree responses out of 250, 44 disagree, 114 agree, 40 strongly agree and only 52 are neutral on this. The above table also shows the mean values of all the four items of social interaction variable representing the positive or negative responses of the respondents. The mean values against four items of social interaction are 3.50, 3.58, 3.14 and 3.60 respectively. All the positive values of mean illustrate positive responses from investors for all the items of variable social interaction.

Table 4 also shown the 250 responses of the respondents for three items of the current study variable that is Herding. It shows that how the individuals fall a prey of herding behavior by blindly following others. For the first item of the variable herding 6 of the 250 respondents strongly disagree, 7 disagree, 170 respondents agree, 43 were strongly agreed, whereas only 24 are neutral on this. For the second item for herding none of the responses out of 250 strongly disagree, 6 disagree, 133 agree, 59 strongly agree and 52 are neutral. The third item for this variable got 250 responses out of which 6 respondents strongly disagree, 21 disagree, 128 agree, 43 strongly agree, and 52 are neutral. The above table also shows the mean values of all the three items of fear variable representing the positive or negative responses of the respondents. The mean values against three items of herding are 3.95, 3.96, and 3.72 respectively. This shows that the responses from the investors for all the three items of herding are positive as the values of the means are positive. Table 4 also depicts 250 responses of the respondents for six items of the current study variable that is Stress. This shows different reactions of individuals under the stress factor. For the first item of the variable stress none of the respondents strongly disagree, 8 disagree, 149 respondents agree, 65 strongly agree, whereas 28 were neutral. For the second item of stress only 0 out of 250 respondents strongly disagree, only 7 disagree, 142 agree, 64 strongly agree and 31 are neutral.

Table 4: Frequency Distribution and Descriptive Statistics with respect to "Social Factors"

Items	Percentage response rate (N=250) S.D	D	N	A	S.A	Mean	St. Dev.
People can easily win a debate from me.	5	33	53	149	10	3.5	0.847
I feel I am not as much happier as other people seem to be.	0	52	63	74	61	3.58	1.074
I feel a person who doesn't believe others does more good.	11	88	46	66	39	3.14	1.185
I feel I face more troubles than other people do.	0	44	52	114	40	3.6	0.957
I prefer to buy stocks if many "buy" orders were submitted to them from the beginning of the trading session.	6	7	24	170	43	3.95	0.77
If in the last month, the aggregate trading volume in the stock market was higher than usual, I would increase the sum of my stock market holdings.	0	6	52	133	59	3.96	0.81
I would prefer to sell stock if I find many people quitting from it.	6	21	52	128	43	3.72	0.93
If I think something unpleasant is going to happen, I usually get pretty ―worked up.	0	8	28	149	65	4.08	0.704
I worry about making mistakes.	6	7	31	142	64	4.00	0.843
Criticism or scolding hurts me quite a bit.	6	12	34	134	64	3.95	0.895
When I want something, I usually go all-out to get it.	0	12	14	187	37	4.00	0.631
I often act on the spur of the moment.	0	6	36	137	71	4.09	0.719
Even if something bad is about to happen to me, I rarely experience fear or Nervousness.	0	25	59	110	56	3.79	0.905
I feel pretty worried or upset when I think or know somebody is angry at me.	0	36	43	108	63	3.79	0.9

S.D= STRONGL DISAGER, D= DISAGREE, N= NEUTRAL, A= AGREE AND S.A= STRONGLY AGREE

The third item for stress got 250 responses out of which 6 respondents strongly disagree, 12 disagree, 134 agree, 64 strongly agree, and 34 are neutral. The fourth item for stress got 0 responses to strongly disagree responses out of 250, 12 disagree, 187 agree, 37 strongly agree and only 14 are neutral on this. For the fifth item of stress out of a total of 250 responses none of the respondent strongly disagrees, 6 disagree, 137 agree, 71 strongly agree and 36 are neutral. The sixth item for stress got none of the response as strongly disagree, 25 disagree, 110 agree, 56 strongly agree and 59 neutral. The last seventh item for stress got none of the response as strongly disagree, 36 disagree, 108 agree, 63 strongly agree and 43 are neutral on this. The above table also shows the mean values of all the six items of stress variable representing the positive or negative responses of the respondents. The mean values against six items of stress are 4.08, 4.00, 3.95, 4.00, 4.09, 3.79 and 3.79 respectively. All

Table 5: Frequency Distribution and Descriptive Statistics with respect to "Investment Decision"

Items	No. of Respondents (N=250) S.D	D	N	A	S.A	Mean	St. Dev.
My investment in stocks has a high degree of safety.	0	0	50	151	49	4.00	0.631
My investment pays me higher dividends as compared to others.	0	6	83	116	45	3.80	0.755
My investment repays the principal at maturity.	0	12	65	123	50	3.84	0.794
My investment has a lower risk compared to the market in general.	0	26	47	127	50	3.80	0.877
My investment in stocks has demonstrated increased revenue growth in past 05 years.	0	6	61	135	48	3.90	0.724

S.D= STRONGL DISAGER, D= DISAGREE, N= NEUTRAL, A= AGREE AND S.A= STRONGLY AGREE

the mean values of stress are positive, indicating positive responses from the investors.

Table 5 depicts 250 responses of the respondents for five items of the current study variable that is Investment decision. It illustrates different investing behavior and investment portfolios of individuals along with their behavior. For the first item of the variable investment decision none of the respondents strongly disagree, none disagrees, 151 respondents agree, 49 were strongly agree, whereas 50 are neutral on this. For the second item of investment decision only 0 out of 250 respondents strongly disagree, only 6 disagree, 116 agree, 45 strongly agree and 83 are neutral. The third item for investment decision got 250 responses out of which none of the respondents strongly disagree, 12 disagree, 123 agree, 50 strongly agree, and 65 are neutral. The fourth item for investment decision got 0 responses for strongly disagree responses out of 250, 26 disagree, 127 agree, 50 strongly agree and only 47 are neutral on this. For the fifth item of

Investment decisions out of a total of 250 responses, none of them strongly disagrees, 6 disagree, 135 agree, 48 strongly agree and 61 are neutral. The above table also shows the mean values of all the five items of investment decision variable representing the positive or negative responses of the respondents. The mean values against five items of investment decision are 4.00, 3.80, 3.84, 3.80 and 3.90 respectively. All the mean values for investment decision are positive, indicating positive responses from the investors regarding their investment decisions.

FINDINGS AND DISCUSSION

The mentioned literature and the logic prove that the psychological as well as the social factors have immense impact on decision making engendering behavioral finance. The six independent variables, i.e. anger, fear, mood, social interaction, herding and stress affect the investment decision making of individuals in one or the other way. Some of these factors encompass a positive influence while some factors negatively influence the investment decision of individual investors. The findings of the present study are in line with the previous literature and demonstrated that mood fluctuations have little impact on the investment decisions. As gender and experience differences are concerned male investors and less experienced investors are more affected by the different mood states. These results are in line with the previous literature as suggested by researchers [18,54,55,56].

Anger has also an impact on the investment decisions of individual investors. According to past studies 'results angry investors are more likely to have control over their actions leading to positive results. The results reveal that male and more experienced investors are affected by anger more than the others. Previous studies 'results as [24,29,31,57,58] support the findings of the present study. Fear also has a positive impact on the investment decisions as observed from the table. Fearful investors are more conscious about their investments, thus making them more watchful and cautious about the decisions [25,59].

On the other hand the social interaction, herding and stress negatively influence the investment decisions because the individual investors instead of analyzing their own financial spots and making judgements according rely or become victim of the social groups around them. Otherwise, not having appropriate knowledge and information about their stock tends to follow the herds blindly and facing loss at the end. Similarly, under stressful conditions the investors fail to make a beneficial decision due to incapable of using their cognitive abilities and mind powers effectively. The results are in concordance with the previous literature found by [11] [34,37,38,41]. The findings of the present study are supported by previous studies [44]. It is further observed that male investors are slightly more influenced by the stress than the females and in terms of experience very low experienced and very highly experienced investors face this bias as compared to the average experienced investors. Moreover, female investors are seen to fall a prey of these biases more than the male investors as they have less control of their emotions to handle things in dynamic situations.

CONCLUSION AND RECOMMENDATIONS

The present study is carried out to examine the effect of all these variables on the investment decisions in Islamabad Stock Exchange, so that the investor's conduct can be determined clearly. This research is confined to the a few selected variables which are mentioned, whereas there are many other psychological and social factors which are discussed previously and which can be discussed in future. The purpose here is to know about actual investment behaviors rather than the theoretical or standard behaviors and to find out that what measures or ways can be used to minimize the negative impacts of these heuristics. Six psychological variables are discussed and studied in this research which is fear, mood, stress, social interaction, herding and anger. The new dimension is given to this research by deeply analysing the variables and a comparison of psychological and social factors in term of which of them has more influence on the investor's investment conduct.

It is recommended from the current study that there should be proper attention paid to the effects of the biases of which the investors usually become a victim of without being aware of it. There are some serious impacts of these biases which may lead to serious investment breakdowns. Although there are positive as well as negative effects of mood and other psychological and social biases, but the negative aspects should be considered more cautiously so that the future implications can be made more secure.

The current study gains its importance by proving to be beneficial for economists, investors, institutional and business perspectives. It provides fruitful information to the investors that there is an intense impact of their unintentional psychological and social factors which affect their investments. These are mostly unrealized in their importance because of being unaware and most importantly, these factors have instant effects before giving much attention to it. So it is essential for the investors to know more about it and try to overcome these biases as much as possible.

The current study provides them to know whether these psychological and social biases have positive or negative effects as well as their intensity. The improvement in investments of businesses and institutions aids the economy to grow and increase the worth of the organizations. It can also help the investors to upgrade their investments at the individual level by working on the negative aspects occur under the influence of these social and psychological factors.

FUTURE DIRECTIONS

Some of the future directions are recommended where further researches can be conducted. More research is needed to understand the effects of different mood (sad, contented, happy, nervous, etc.) states that the investors are usually come across leading them to a gain or loss. A research can be conducted to know either feelings or emotions make the investors to pay a heavy cost of being encountered by them or they also sometimes proved to be beneficial. The results of this study can be studied and verified by using different techniques.

REFERNCES

[1] Simon, H. A. (1955). A behavioural model of rational choice. *The Quarterly Journal of Economics*, 69(1), 99–118.

[2] Chandra, A., & Kumar, R. (2008). Decision Making in the Stock Market: Incorporating Psychology with Finance. In the Proceedings of *the Conference on Forecasting Financial Markets* in India at IIT Kharagpur. (Available at:h#p://ssrn.com/abstract=1501721).

[3] Larsen, R.J., & Diener, E. (1987). Affect intensity as an individual difference characteristic; A review. *Journal of Research in Personality, 21*, 1-39.

[4] Larsen, R.J., & Diener, E. (1992). Promises and problems with the circumflex model of emotion. In M. S. Clark (Ed.), *Review of personality and social psychology: Emotion* (Vol. 13, pp. 25-59). Newbury Park, CA: Sage.

[5] Pham, M. T. (2007). Emotion and rationality: A critical review and interpretation of empirical evidence. *Review of general psychology*, *11*(2), and 155.

[6] Simon, H. A. (1987). Making management decisions: The role of intuition and emotion. *Academy of Management Executive*, 1(1), 57–64.

[7] Tversky, A. and Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases Science. *American Association for the Advancement of Science*, 185(4157), 1124-1131.

[8] Lerner, J. S. and Keltner, D. (2001). Fear, Anger, and Risk. *Journal of Personality and Social Psychology*, 81(1), 146-159.

[9] Youssef, M. and Rajhi, M. T. (2009). Determinants of Herding Behavior among, Financial Analysts: A Study of French Listed Firms. *International Journal of Business and Management*, 4(9).

[10] Lin, H. W. (2011). Elucidating rational investment decisions and behavioral biases: Evidence from the Taiwanese stock market. *African Journal of Business Management*, 5(5), 1630-1641.

[11] Lee, C. And Andrade, E. (2011). Fear, Social Projection and Financial Decision Making. *Journal of Marketing Research.* Vol. XLVIII (Special Issue),121–129.

[12] Hoffmann, A. O., & Post, T. (2012). What Makes Investors Optimistic, What Makes Them Afraid? In *Boulder Summer Conference on Consumer Financial Decision Making, University of Boulder at Colorado*.

[13] Damasio, A. (2008). *Descartes' error: emotion, reason and the human brain*. London: Vintage.

[14] Lucey, B.M., and Dowling, M. (2005). The role of feelings in investor decision-making. *Journal of* economic *surveys*, 19(2), 211-237.

[15] Ahmed, N., Ahmad, Z. and Khalil, S. (2011). Behavioral Finance: Shaping the Decisions of Small Investors of Lahore Stock Exchange. *Interdisciplinary Journal of Research in Business*, 1(2), 38-43.

[16] Pham, M., Joel, B., John, C., Pracejus, G. and Hughes, D. (2001). Affect Monitoring and the Primacy of Feelings in Judgment. *Journal of Consumer Research, Inc*., 28(1), 167-188.

[17] Forgas, J. P. (1989). Mood effects on decision making strategies. *Australian Journal of Psychology*, 41, 197–214.

[18] Forgas, J.P. 1995. Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin* 117: 39–66.

[19] Johnson, E., & Tversky, A. 1983. Affect, generalization, and the perception of risk. *Journal of Personality and Social Psychology*, 45: 20–31.

[20] Hockey, G. R. and Maule, A. J., Clough, P. J., Bdzola, L. (2000). Effects of negative mood states on risk in everyday decision making, *Cognition and Emotion*, 14 (6), 823–855.

[21] Chou, K. L., Lee, T., Andy H. Y. (2007). Does Mood State Change Risk Taking Tendency in Older Adults.*The American Psychological Association*, 22(2), 310–318.

[22] Hon-Snir, S., Kudryavtsev, A., Cohen, G. (2010). Stock Market Investors: Who Is More Rational andWho Relies on Intuition? *International Journal of Economics and Finance*, 4(5), 56-72.

[23] Seo, M. and Feldman, L. (2007). Being Emotional During Decision Making—Good or Bad? An Empirical Investigation. *Acad Manage Journal*, 50(4), 923–940.

[24] Small, D. and Lerner, J. S. (2008). Emotional Policy: Personal Sadness and Anger Shape Judgments about a Welfare Case. *Political Psychology*, 29(2), 148-168.

[25] Lerner, J. S., & Tiedens, L. Z. (2006). Portrait of the angry decision maker: How appraisal tendencies shape anger's influence on cognition. *Journal of Behavioral Decision Making*, 19(2), 115–137.

[27] Lerner, J. S., & Keltner, D. (2000). Beyond valence: Toward a model of emotion-specific influences on judgment and choice. *Cognition and Emotion*, 14(4), 473–493.

[28] Sjoberg, L. (2007). Emotions and Risk Perception. *Risk Management*, 9, 223-237.[28] Shiv, B., Loewenstein, G., Bechara, A., Damasio, H. and Antonio R. (2005). Investment Behavior and the Negative Side of Emotion. *American Psychological Society*, 16(6), 435-439.

[29] Coget, J. F., Haag, C. and Gibson, D. E. (2011). Anger and fear in decision making: The case of film directors on set. *European Management Journal*, 29(6), 476-490.

[30] Cao, H. H., Han, B., Hirshleifer, D., & Zhang, H. H. (2009). Fear of the Unknown: Familiarity and Economic Decisions*. *Review of Finance*, rfp023.

[31] Hassan, E., Shahzeb, F. and Shaheen, M., Abbas, Q., Hameed, Z., and Hunjra, I. A. (2013). Impact of Affect Heuristic, Fear and Anger on the Decision Making of

Individual Investor: A Conceptual Study. *World Applied Sciences Journal*, 23 (4), 510-514.

[32] Gambetti, E. and Giusberti, F. (2012). The effects of anger and anxiety traits on investment decisions. *Journal of Economic Psychology*, 33(1), 1059-1069.

[33] Loewenstein, G., 2000, Emotions in economic theory and economic behavior, *American Economic Review* 90, 426-432.

[34] Watts,A, 2001, A dynamic model of network formation: *Games and Economic Behavior*, v. 34, p. 331-341.

[35] Watts,A. and Strogatz, S.H. (1998), Collective dynamics of 'small-world' networks. *Nature 393* [4], p. 440-442.

[36] Jager, W. (2003). How to decide how to decide: an integrated and dynamical perspective on human decision making, working paper.

[37] Ames, D. R. (2004). Strategies for Social Inference: A Similarity Contingency Model of Projection and Stereotyping in Attribute Prevalence Estimates. *Journal of Personality and Social Psychology*, Vol. 87, No. 5, 573–585.

[38] Janssen, M.A. and W. Jager (2001) Fashions, habits and changing preferences: Simulation of psychological factors affecting market dynamics, *Journal of Economic Psychology*, 22: p. 745-772.

[39] Daniel, R. (2004). Strategies for Social Inference: A Similarity Contingency Model of Projection and Stereotyping in Attribute Prevalence Estimates. *Journal of Personality and Social Psychology*, 87(5), 573–585.

[40] Duclos, R., Echo, W. and Jiang, Y. (2012). Show Me the Honey! Effects of Social Exclusion on Financial Risk-Taking. *Journal of Consumer Research*, 40(1), 122-135.

[41] Hirschleifer,D, S H Teoh, 2003, Herd behaviour and cascading in capital markets: a review and synthesis: *European Financial Management*, 9, 25-66.

[42] Olsen, R.A. (1998), Behavioral finance and its implications for stock-price volatility: *Financial Analysts Journal*, Vol. March/April, p. 10-18.

[43] Gigerenzer, G., & Gaissmaier, W. (2011). Heuristic decision making. *Annual review of psychology*, *62*, 451-482.

[44] Preston, S. D. T., Buchanan, W., Stansfield, R. B.and Bechara, A. (2007). Effects of Anticipatory Stress on Decision Making in a Gambling Task. Behavioral Neuroscience, *American Psychological Association*,
121(2), 257–263.

[45] Bechara, A., Damasio, A., Tranel, D. and Damasio, A. R. (1997). Deciding advantageously before knowing the advantageous strategy. *Science 275*: 1293–1295.

[46] Cipriani, M. and Guarino, A. (2008). Herd Behavior in Financial Markets: An Experiment with Financial Market Professionals. *International Monetary Fund*, 47(2), 576-605.

[47] Subash, R. (2012). Role of Behavioral Finance in Portfolio Investment Decisions: Evidence from India, Charles University in Prague Faculty of Social Sciences Institute of Economic Studies, Master Thesis. Available at http://ies.fsv.cuni.cz/default/file/download/id/20803.

[48] Scharfstein, D. S. & Stein, J. C. (1990). Herd behavior and investment. *American Economic Review*, 80(3), 465-479.

[49] Mitchell, M. S., & Ambrose, M. (2012). Employees' Behavioral Reactions to Supervisor Aggression: An Examination of Individual and Situational Factors. *Journal of Applied Psychology*, DOI: 10.1037/a0029452

[50] Mayer, J. D., & Gaschke, Y. N. (1988). The experience and meta-experience of mood. *Journal of Personality and Social Psychology*, 55(1), 102-111.

[51] Tariq, P. N. (1991). *A comparative psychological profile of professional and non-professional criminals in Pakistan* (Doctoral dissertation, Quaid-i-Azam University Islamabad, Pakistan 1991, 4).

[52] Porcelli, A. J., and Delgad, M. R. (2009). Acute Stress Modulates Risk Taking in Financial Decision Making. *A Journal of the Association for Psychological Science*, 20(3), 278-283.

[53] Qureshi, S.A., Rehman, k., Humjra, A. I. (2012). Factors affecting investment decision making of equity fund manager. *Wulfenia Journal, 19 (10)*, 280-291.

[54] Schwarz, N., & Clore, G. L. (1988). How do I feel about it? The informative function of mood. In K. Fiedler & J. Forgas (Eds.), *Affect, cognition, and social behaviour* (pp. 44-62). Toronto: C. J. Hogrefe.

[55] Schwarz, N., & Clore, G. L. (1996). Feelings and phenomenal experiences. In E. T. Higgins & A.Kruglanski (Eds.), *Social psychology: A handbook of basic principle* (pp. 433-465). New York: Guilford Press.

[56] Vries, M., Holland, R. W., Corneille, O., Rondeel, E. and Witteman, C. (2010). Mood Effects on Dominated Choices: Positive Mood Induces Departures from Logical Rules. *Journal of Behavioral Decision Making*. 25, 74-81.

[57] Spielberger, C. D., Jacobs, G., Russell, S., & Crane, R. S. (1983). Assessment of anger: The state-trait anger scale. *Advances in personality assessment*, *2*, 159-187.

[58] Spielberger, C. D. (Ed.). (2013). *Anxiety: Current trends in theory and research*. Elsevier.

[59] Katkin, E.S., S. Wiens and A. Ohman, 2001. Nonconscious fear conditioning, visceral perception and the development of gut feelings. *Psychological Science*, 12(5): 366-370.