Winter January 14, 2013

Impact of Affect Heuristic, Fear and Anger on Decision Making of Individual Investor: A Conceptual Study

Ehsan ul Hassan
Fahad Shahzeb
Maryum Shaheen
Qamar Abbas
Zahid Hameed, et al.

World Applied Sciences Journal 23 (4): 510-514, 2013
ISSN 1818-4952

DOI: 10.5829/idosi.wasj.2013.23.04.13076

Impact of Affect Heuristic, Fear and Anger on the Decision Making of Individual Investor: A Conceptual Study

Ehsan ul Hassan, Fahad Shahzeb, Maryum Shaheen, Qamar Abbas, Zahid Hameed and Ahmed Imran Hunjra

UIMS-PMAS-University of Arid Agriculture Rawalpindi, Pakistan

Abstract: Financial theories support the efficient market hypothesis, which assumes that prices are fair in the market and investors behave rationally while taking any investment decision. Individual Investors of the stock market are therefore thought to take rational decisions while making judgments and investment decisions. However, a lot of studies on behavioral finance have criticized the phenomenon of market efficiency and investor's rationality. The empirical evidences of these studies conclude the involvement of behavioral biases and psychological impacts on investor's judgments and decision making. Keeping this in mind the present study has focused on studying the impact of affect heuristic, fear and anger on individual investor's judgments and decision making. Overall discussion concludes the presence of behavioral biases in decision making process of investors.

Key words: Affect Heuristic · Fear · Anger · Investment Decision making · Behavioral aspects

INTRODUCTION

The stock exchange is a market place where buying and selling of securities takes place. The companies are listed in stock exchange and buyers and sellers having securities of listed companies' trade at fair and efficient market prices. Stock exchange plays an important role that whether market is working proficiently, fairly, systematically and blatantly or not. There are three stock exchanges in Pakistan, Karachi Stock Exchange (Guarantee) Ltd, Lahore Stock Exchange (Guarantee) Ltd and Islamabad Stock Exchange (Guarantee) Ltd. Major Instruments through which an investor can invest in stock exchange are stocks or shares and bonds. Selden [1] writes in a book of psychology of the stock market that the ups and downs of prices in stock exchanges depend upon a very substantial degree of psychological approach of investing and trading community. According to Finucane, AlHakami, Slovic and Johnson [2] there is a negative relationship between risk and benefits perception due to affect heuristic. Loewenstein [3] argues that at the time of making decision feelings and emotions force an individual towards a direction which belongs to long term costs and benefits of the activities which are incongruent.

Lucey and Dowling [4] narrate that emotional decision making of an investor is basically the avoidance of underlying cost associated with the most favorable decision making. Sometimes individual investors make perceptions by their own regarding market trends according to limited available information and due to which emotions influence judgment and decision making [5]. According to Lee and Andrade [6] negative emotions particularly fear influence risk perception while investor makes a decision. Due to fear investors always approach certain events and stay away from uncertain or risky events and at the time of decision making anxious investors always prefer a certain event. An event in which anger is experienced in past professional occasions then the intuitive judgment and decision making is more effective than the anger which is personally faced by an investor. Most of the time moderate fear leads investor to make some sort of rational decisions but fear of high degree propels investors to make irrational decisions [7].

Affect means the explicit quality of "goodness" or "badness" which is experienced consciously or unconsciously as a feeling state and it also discriminates the positive or negative features of stimulus [8]. Fear and anger are two types of negative emotions. Although fear is characterized as negative emotion yet it positively

Corresponding Author: Ehsan ul Hassan, UIMS-PMAS-Arid Agriculture University, Rawalpindi, Pakistan.
Cell # +92-332-5200781.

impacts on investor's decision making. Anger makes the investor to use his or her intuitive judgment whatever he or she has experienced in carrier and most of the time anger investors make risky decisions which may lead to irrational decision making by [9].

Damasio [10] has divided emotions into six categorizes that are disgust, happiness, surprise, sadness, fear, anger. In Pakistan less research has been done so far on the impact of these emotions on investor's behavior. The results of large number of historical studies, based on lab experiments have shown that emotions play negative role in investment decision making of people [11] but some other studies have focused on positive impacts of emotions on decision making [12-14]. So it is difficult to generalize their results for a population in natural environment because the decision making process in such an environment are far different from complex real world judgments and decision making processes therefore present study is based on survey method in order to grab real intentions of people. The aim of this study is to find out what role emotions play in investment decision making of Pakistani investors.

In the most recent study Snir, Kudryavtsev and Cohen [15] have studied the impact of five types of behavioral biases hot hand fallacy, herd behavior, gambler's fallacy, disposition effect and availability heuristic on stock market investment decisions but they have not studied the impact of negative emotions (Fear and anger) and affect heuristic. Gilovich, Griffin and Kahneman [16] studied the affect of Overconfidence, Representativeness, Herding, Anchoring, Cognitive Dissonance, Regret Aversion, Gamblers' Fallacy, Mental Accounting and Hindsight Bias, on the judgments and decision making of individual investors in the Indian Stock Market, but they have not studied the impact of negative emotions (Fear and anger) and affect heuristics on individual investors investment decision. In Pakistan Arshad *et al*. [17] conducted a research and used representativeness and anchoring and adjustment and leniency in their model but they also did not incorporate effects of affect heuristic in their model. Present study is an extension to these studies which will cover empirical evidences from Pakistani stock market effects of affect heuristic, anger and fear on single investor's behavior. Present research will be a pioneer study in Pakistan in this context. To explore the possible impact of affect heuristic and negative emotions (fear and anger) on the individual investor's judgments and investment decisions.

Review of Literature: Some researchers argued that feelings lead investors to unnecessary biases [18, 8] and therefore it is needed to keep these feelings under control while making judgments [19]. Affective feelings can bias Judgments and decision making in variety of ways. First, emotions can distort the information retrieved in the brain while making any decision. Second, feelings and emotions can directly influence our judgments which are required for decision making. For example, while making decisions people are inclined to make judgments which are in line with their affective states of mind [20]. Third, affective feelings and emotions can bias people choices [21]. For example, many studies have found that severe unpleasant feelings and emotions cause's individuals to support short-term improvements therefore they focus on what is finest at the moment instead of considering the long-term negative consequences [21].

However some others studies argued that feelings play vital role in effective decision making [10]. These studies have proposed that feelings facilitate effective decision making in variety of ways. First affective feelings drive the conscious attention which is essential for the extensive cognitive processes which are directly involved in decision making Damasio [10] found that one of the critical functions of feelings is that they divert attention of people from less urgent goals to more urgent goals. Damasio [10] also stated that feelings enhance the consciousness which facilitates judgments and decision making. Second, feelings and emotions can assist judgments and decision-making processes which are involved in choosing and prioritizing options are relevant to the requirement of the situation [10]. Mehmood *et al*. [22] conducted research on behavioral implications of investors for investments in the stock market studied effects of only the socio economic variables and its determinants such as variations in regulations, sensational attitudes and their marital status on risk perception in stock market.

Gambetti and Giusberti [9] conducted a research to study the impact of anger on investment decisions; the results showed that anger is positively related to investor's willingness to invest in diversified portfolio and also angry people usually make risky decisions. Previous research has shown that trait anger increases the inclination to perceive circumstances as predictable, understandable and under control of an individual by Ellsworth *et al*. [23] and also investors feel optimistic and invulnerable in anger [24] to which angry people feel less risk in new circumstances [25].

Lerner and Keltner [26] studied the effect of fear and anger on risk perception there results proved that investors having emotions of fear estimate risk pessimistically and therefore they make risk averse investment decisions whereas angry investors show opposite results they estimate risk optimistically and therefore make risky investment decisions in a hope to get high returns on them. Angry Investors perceive that situations are easy to predict, understand and control Ellsworth *et al*. [23] also angry investors are optimistic and feel invulnerable [24] due to which anger leads them to percieve less risk while taking investment decisions [25]. Lerner and Keltner [26] concluded in their study that fearful investors are mostly involved in risk aversive behaviors whereas angry investors show risk taking behavior while making judgments and investment decisions.

Many recent studies on emotions showed that some negative emotions can lead investors to intuitive decision-making. Cao, Han, Hirshleifer and Zhang [27] conducted a research on the role of fear on investment decision making, their result showed that fear of unknown events lead investors to home biases and fearful investors go for less diversification. Some other studies found the impact of anger and sadness on decision-making, using lab studies their results found that people angry investors are mostly involved in intuitive decision-making while sad investors are involved in rational decision-making [28] also concluded that anger and happiness led investors to make investment decisions using intuitions rather than rationality however sadness and fear led investors to make rational investment decisions. Contrary to this Katkin, Wiens, and Ohman [29] argued that Fear alerts people to possible risks thus helping them to make rational decision. Lerner and Keltner, [26] studied the effect of fear and anger on risk perception there results proved that investors having emotions of fear estimate risk pessimistically and therefore they make risk averse investment decisions whereas angry investors show opposite results they estimate risk optimistically and therefore make risky investment decisions. Cao, Han, Hirshleifer and Zhang [27] studied the impact of fear on diversification, their results found that fear of unfamiliarity of events lead investors to think about pessimistic scenarios so they prefer to invest in familiar assets and avoid diversification.

On the basis of the above mentioned literature our second and third hypotheses are:

H_2: Anger positively affects individual investor's judgments and investment decision making

H_3: Fear positively affects individual investor's judgments and investment decision making

Four variables are used in present study i.e. affect heuristic, fear and anger are studied as independent variables and their combine effect on dependent variable judgment and decision making of an individual investor. Previous studies show that there is a negative relationship between affect heuristic and decision making of an individual investor. This is because an investor perceives negative relation between risk and return while investing in the stock market. A situation which is suitable to invest for one investor would not necessarily be the same for another investor in stock market. Most of the time investors do ratings of their choices by using their gut feelings which is more fascinating them and ultimately they are directed towards irrational judgment and decisions. Fear shows positive relationship with judgment and decision making of an individual investor.

Theoretical framework:

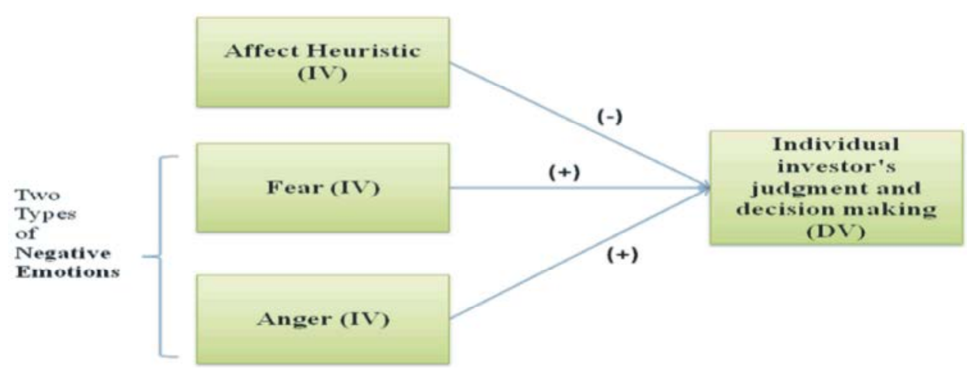

Fig. 1: Relationships between independent variables and dependent variable

Although fear is a negative emotion yet it has positive impact on investor decision making. Fear makes an individual take careful steps even precautionary measures while decision making. Most of the time individual investors do not take right decisions which are beneficial for them due to fear and all their efforts end in a wild goose chase to avail that opportunity. Anger shows a negative relationship on dependent variable in our model. Anger leads an investor to make quick decisions which may be the result of his aggressive nature and due to which an investor could not achieve his / her ultimate financial objectives.

DISCUSSION

It is a valuable study to describe the combined effect of affect heuristic, fear and anger on individual investor's judgment and decision making. It is observed that there are also some investors trading in the stock market who are illiterate and have no sufficient financial educational background so that they are unable to do detail financial analysis before taking any decision and use heuristics to get rid of that critical decisional phase. At the same time fear also helps investors to take some precautionary measures to be on safer side while making the decision. Present study is a step towards a better awareness of impacts heuristics, fear and anger for an individual investor as well as corporate investors. Present study is in the line with the previous literature to examine the impact of affect heuristic, fear and anger have negative relationship with the risk judgment and decision making of an individual investor [8]. An investor always wants high returns against his investment in stock market but his / her decisions are explicitly affected by affect heuristic. Hot stocks where an investor perceives high risk may be neglected by investor regardless of its return due to inverse relation of affect heuristic and "judgment and decision making". People already have some images and symbols in their minds to perceive their risk and benefits and ultimately they use those images and symbols to make their financial decisions in the stock market. It is also observed that due to fear, decisions of investors are also affected. Investors who are ready to buy hot stocks in the stock market but due to the fear factor they hold themselves to be on the safer side and do not go for that investment. This is because of the development of risk averse nature of an investor built by the fear. Affect heuristic will negatively impact investors' judgments and decision making [8, 18, 21]. Anger will also negatively impact the investor's judgments and decision making [9, 23, 24] Fear will have positive impact on it [26, 28, 29]. It is difficult to do rational judgment and decision making for angry investors because anger leaves negative signs on investor's mind and leads to wrong decisions. Sometimes angry decisions make an investor bear dire consequences because these decisions have no proper analysis as well as no rational judgment by [9].

Present study focuses on exploring such evidences that might help us to resolve this ongoing debate. On the basis of simple discussion with some investors from Islamabad stock exchange this study proposes that affective feelings lead to dysfunctional decision making. Based on the observation of this proposition in a stock investment by individual investors, this study is intended to explore the hypothesis that affect heuristic negatively impacts on the judgment and decision making of an individual investor.

CONCLUSION

Present study deals with the impact of affect heuristic and two emotions fear and anger but future researchers may study the combined impact of other types of heuristics and emotions on individual investors as well as institutional investor's judgment and decision making. Furthermore the moderating effect of personal moods and different personality types can also be studied to find out how they can change the relationships between different types of behavioral biases and investors decisions.

REFERENCES

1. Selden, G.C., 1912. Psychology of the Stock Market: Human Impulses Lead to Speculative Disasters. New York: Ticker Publishing.
2. Finucane, M.L., A. Alhakami, P. Slovic and S.M. Johnson, 2000. The Affect Heuristic in Judgments of Risks and Benefits. Journal of Behavioral Decision Making, 13: 1-17.
3. Loewenstein, G., 2000. Emotions in Economic Theory and Economic Behavior. American Economic Review, 90(2): 426-432.
4. Lucey, M.B. and M. Dowling, 2005. The role of feelings in investor decision-making. Journal of economic surveys, 19(2): 211-237.
5. Cohen, J.B., M.T. Pham and E.B. Andrade, 2008. The Nature and Role of Affect in Consumer Behavior. Handbook of Consumer Psychology, pp: 297-348.

6. Lee, J.C. and E.B. Andrade, 2011. Fear, Social Projection and Financial Decision Making. Journal of Marketing Research, forthcoming.
7. Coget, J.F., C. Haag and D.E. Gibson, 2011. Anger and Fear in Decision-Making: The Case of Film Directors on Set. European Management Journal, 29(6): 15.
8. Slovic, P., M.L. Finucane, E. Peters and D.G. MacGregor, 2002. The affect heuristic. In T. Gilovich and D. Griffin and D. Kahneman (Eds.), Heuristics and biases: The psychology of intuitive judgment New York: Cambridge University Press, pp: 397-420.
9. Gambetti, E. and F. Giusberti, 2012. Dispositional Anger and Risk Decision-Making. Mind and Society, 8: 7-20.
10. Damasio, A.R., 1994. Descartes' Error: Emotion, Reason and the Human Brain. Grosset / Putnam. New York.
11. Peters, E. and P. Slovic, 2000. The Springs of Action: Affective and Analytical Information Processing in Choice. Personality and Social Psychology Bulletin, 26: 1465-1475.
12. Davidson, R.J., D.C. Jackson and N.H. Kalin, 2000. Emotion, Plasticity, Context and Regulation: Perspectives from Affective Neuroscience. Psychological Bulletin, 126: 890-909.
13. Dolan, R.J., 2002. Emotion, Cognition and Behavior. Science's Compass, 298: 1191-1194.
14. Rahman, S., B.J. Sahakian, N.C. Rudolph, R.D. Rogers and T.W. Robbins, 2001. Decision Making and Neuropsychiatry. Trends in Cognitive Sciences, 6: 271-277.
15. Snir, S.H., A. Kudryavtsev and G. Cohen, 2012. Stock Market Investors: Who Is More Rational and Who Relies on Intuition. International Journal of Economics and Finance, 4(5): 56-72.
16. Gilovich, T., D. Griffin and D. Kahneman, 2002. Heuristics and Biases: The Psychology of Intuitive Judgment. New York: Cambridge University Press.
17. Butt, M.A., R. Saddar, H. Shafi, K.U. Rehman, R.R. Rehman and H.M. Shoaib, 2011. Investor's Dilemma: Fundamentals or Biasness in Investment Decision. Journal of Economics and Behavioral Studies, 3(2): 122-127.
18. Shiv, B., G. Loewenstein, A. Bechara, H. Damasio and A. Damasio, 2005. Investment behavior and the negative side of emotion. Psychological Science, 16: 435-438.
19. Gross, J.J. and O.P. John, 2003. Individual differences in two emotion regulation processes: Implications for affect, relationships and well-being. Journal of Personality and Social Psychology, 85: 348-362.
20. Plous, S., 1993. The Psychology of Judgment and Decision Making. New York: McGraw-Hill.
21. Kruglanski, A.W., J.Y. Shah, A. Fishbach, R. Friedman, W.Y. Chun and D. Sleeth-Keppler, 2002. A theory of goal-systems. In M. Zanna (Ed.), Advances in Experimental Social Psychology, 34: 331- 376. New York: Academic Press.
22. Mahmood, I., H. Ahmad, A.Z. Khan and M. Anjum, 2011. Behavioral implications of investors for investments in the Stock Market. European Journal of Social Science, 20(2): 240-247.
23. Ellsworth, P.C., K.R. Scherer, R.J. Davidson, K.R. Scherer and H.H. Goldsmith, 2003. Appraisal Processes In Emotion: Handbook of Affective Sciences. New York: Oxford University Press, pp: 572-595.
24. Quigley, B.M. and J.T. Tedeschi, 1996. Mediating effects of blame attributions on feelings of anger. Personality and Social Psychology Bulletin, 22: 1280-1288.
25. Lowenstein, G. and J. Lerner, 2003. The Role of Affect in Decision Making. Handbook of Affective Science. New York: Oxford University Press.
26. Lerner, J.S. and D. Keltner, 2001. Fear, Anger and Risk. Journal of Personality and Social Psychology, 81(1): 146-159.
27. Cao, H.H., B. Han, D. Hirshleifer and H.H. Zhang, 2011. Fear of the Unknown: Familiarity and Economic Decisions. Review of Finance, 15(1): 173-206.
28. Lerner, J.S. and L.Z. Tiedens, 2006. Portrait of the angry decision maker: How appraisal tendencies shape anger's influence on cognition. Journal of Behavioral Decision Making, 19: 115-137.
29. 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.