BIASES THAT LEADS TO FINANCIAL MISTAKE OF AN INVESTOR

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ABSTRACT

Purpose: *This paper aims to review studies dealing with financial risk tolerance and behavioural biases. We have covered overconfidence bias, cognitive dissonance, disposition effect, the illusion of control, and regret aversion in our study.*

Design/methodology/approach: *This study coalesces research work available on electronic and manual resources conducted by psychologists, behavioural scientists, and researchers in the area if behavioural finance. The keywords such as "financial risk tolerance", "overconfidence", "cognitive dissonance", "disposition effect", "illusion of control", "regret aversion", and "investment behaviour" were considered in the search of the literature.*

Findings: *Based on the prior researches it found that biases are interrelated with each other. An investor gets trap in his/her own emotions by choosing the wrong investment option.*

Practical implications: *This review informs the policymakers about the effect of behavioural biases on investors subjective financial risk tolerance and further on investment decisions. It will also work for the financial advisors to consider and observe the behavioural biases that are restricting or over-exciting an investor to take a specific investment decision.*

Originality/Value: *This study is beyond the classic review not just by criticism of investor's biases. However, it showcases the future prospects of research in the area of investor's biases.*

Keywords: Financial Risk Tolerance, Bias, Investment

INTRODUCTION

Financial Risk Tolerance is an important aspect, which in general ignored by financial planners while suggesting investment products. Financial advisors more overlook to their commission or brokerage they get whenever investor trade. Sometimes investors are known about their own risk tolerance but they invest as per advice of some one, herd effect or under own perception. Such investment decisions are biased decisions.

Eaton & Douglas (2000) understanding client's psychology can help improving investment results and to avoid errors. An advisor can fine-tune investment strategies according to the

psychology of the investor (p.2).Chen,Kim, Nofsinger and Rui (2007) individual investor are more prone to the biases than institutional investors(p.35)

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Wealth appreciation concept via investment attracts every household. However, human acts different from robots or even the smartest computers of the world. Smelling, estimating, or predicting risk is one of our qualities. Some individuals do it accurately and some are not good in it. An investment decision involves hard-earned money of an investor. Emotions towards money of humans are well known and especially when money own by an individual itself. This research work is an effort to list down some of the cognitive biases that affects investment decisions. Development of world leads to development in the area of finance too. Internet technology made numerous things easy but also raised new challenges too. In the area of finance and investment, internet made investment process easy, information required to investor is available and accessible easily. Availability of information is boon and bane as well. On one hand, it can be beneficial and same way it can be misleading.

This research paper attempts to collect the theoretical evidence of empirical and descriptive researches attempted by the researchers. We have tried to explore the aspects of Financial Risk tolerance. Overconfidence Bias,

LITERATURE REVIEW

Eaton & Douglas (2000) It is assumed that investorbehaves rationally. They collect the information, calculate probabilities, and make a logically correct decision giving preferences to risk and return. Behavioural theorist believes that an investordoesn'tmake perfect decisions. Such imperfect decisions are taken due to psychological traits and mental mistakes (p.2).

FINANCIAL RISK TOLERANCE (FRT)

Maslow (1943) five goals of human life are psychological, safety, love, esteem, and self-actualisation respectively. Apart from this individuals are motivated by personal desires. The need has different potential for different individuals. A less important need for an individual may be ignored and further forgotten or denied (p.394). Olsen (1998) Individuals consider themselves are risk-avoider than a risk taker.

Grable (2000)Financial Risk Tolerance is the maximum amount of uncertainty an individual is willing to accept while making the financial decision. Assessing an individual's risk tolerance is a complex process that goes beyond socioeconomic variables (p.625).Hallahan, Faff & McKenzie (2004)It's the attitude of how he/she perceive the risk (p.57). Pan and Statman (2012) investors risk tolerance varies by circumstances and associated emotions. A failure to recognize the nature of risk tolerance can result in disappointment (p.54). Hanna and Peng (1997) differentiated financial risk tolerance as subjective and objective financial risk tolerance. Subjective FRT refers to the individual'swillingness to accept the risk while objective FRT is according to the availability of financial resources with an individual (p.24). In this research review, we are considering biases that affect subjective risk tolerance of an investor.

OVERCONFIDENCE

Dominic and Fowler (2011) in various psychological biases overconfidence is one of the most consistent, powerful, and widespread. It boosts the ambitions and morale of an individual (p.1, 2).Eaton& Douglas (2000) overconfidence is a psychological state of overestimating the capabilities in comparison to others (p.2). Dominic and Fowler (2011) further defined it is as an error of judgment and decision-making. Researchers further gave the example of US-Iraq war 1991 and Vietnam War 1955-1973 (p.2). In terms of investment decisions investor overestimate the accuracy of information and probability of correct decision in a specific scenario. An overconfident investor trade excessively and give more relevance to futurepredictions at the place ofhistorical data (p.3). Ricciardi (2008) an overconfident investor underestimates or ignores the odds of a risky activity (p.98). Pan and Statman (2012) an overconfident investor perceive risk lower than a less confident one, an investor with overconfidence can exhibit high financial risk tolerance due to the high level of trust. Such investors resistbuyinga diversified portfolio and prefers to trade the securities instead of trading (p.59). In the study, men and young respondents were more overconfident in comparison to women and old (p.60). Kyle & Wang (1997) overconfidence may strictly dominate rationality (p.12). Michailova& Schmidt (2016) a strong relationship exists between overconfidence of investor and outcome. Researchers divided the marketinto two segments- one low market overconfidence, market with lower average market price and lower deviation of price from fundamental values.

Second, high overconfidence market- a market with a higher average market price and high deviation of price from fundamental values.The volatility of price and trade volume was observed lower in low overconfidence market than high overconfidence market. Sudden crashes and bubble patternsare also not found in low overconfidence market. Overconfidence can be traced in the stock market. An investor overestimates the future prices and purchases the securities with probability to sell them in the later rounds (p.287). Overconfidence is a cognitive bias. Cognition refers to the process of acquiring knowledge via experience. Itssynonyms are awareness, intellectual reasoning and so on so forth. The most interesting part of this bias exists that an individual feels that his/her decision or intelligence is better than others. “An empty vessel makes the most noise”, the proverb is one of the best examples that reflects overconfidence.

Michailova,Mačiulis&Tvaronavičienė (2017) financial literacy is an important aspect that can mitigate the effect of loss overconfidence (p.1128). Kubilay&Bayrakdaroglu (2016) used the Big Five Factors of Personality Traits to study financial risk tolerance, personality traits,andpsychological biases of active investors in the financial market of Istambul. Overconfidence was observed most common bias affecting investment decisions of the

investors. In 536 respondents of the questionnaire, 89% of respondents showed their inclination towards overconfident behaviour while making investment decisions. Overconfidence was more visible in the respondents with agreeableness personality i.e. warm and friendly (p.177, 179). Menkhoff, Schmeling, & Schmidt (2013) presented an online experiment on overconfidence in the financial market. The researcher derived the results from institutional investors, individual investors, and investment advisors. Socioeconomiccharacteristics of the individuals also considered during the research. Researchers finally concluded that the degree of overconfidence depends upon the degree of experience. When overconfident investors were categorised it was found that investment advisors were highly affected with the bias secondly, individual investors and third were institutional investors (p. 1, 11).There is a thin line between confidence and overconfidence. Dominic and Fowler (2011) Confidence is essential to get success in a wide range of activities (p.1).

Barber & Odean (1999) (2002) an overconfident investor feels that his opinion as less risky and more profitable than others (p.12). Very active investors in the financial market make more speculations this leads to excessive trading and finally,the investor becomes overconfident. Self-attribution and illusion of control are the key biases that convert a confident investor into an overconfident investor. During research on 1,607 investors during 1992-1995, researchers concluded that young investor with no children and high income switched to online trading. Others have high experience of trading. Before 1992-1995 these investors earned well from trading activities (p.456, 481). Hilary, G and Menzly, L (2006) in their research on overconfidence on analysts concluded that an analyst overweights their own estimates and rely less on public signals. There is more possibility of prediction error in this context. It was also found, prediction errors are the result of past success (p.499).

COGNITIVE DISSONANCE

Abhijeet (2010) cognitive dissonance is a mental conflict. This feeling arises when an individual feels that he has made a mistake (p.18).Festinger, L. (1962) is the mental discomfort of an individual. Two or more belief, ideas or values exist. (p.14) Burhhard&Eckwert (2005) interpreted as the behaviour of an investor caused by the perceived error of past decisions. Investor's endogenous beliefs lead him to over or undervalue a stock. The research authors further concluded that cognitive dissonance could lead to mispricing of assets (p.24). Goetzmann&Peles(1997) investors revise their belief due to a reduced logical contradiction. An investorgets affected by cognitive dissonance due topast performance of mutual funds. In other words, an investor remembers the positive past performance of the securities (p.11). Stahl, Matzler&Hinterhuber (2003) while studying linkage of customer lifetime value to shareholder value researchers found interpreted that referral and reputation of the other customers reduce cognitive dissonance (p.274). Barber &Odean (2002) defined cognitive dissonance as an illusion of knowledge. An investorspends a considerable amount of time or money to gather information consider him/her as a reasonable or logical person (p.460, 461). Valentine, T.(2003) cognitive dissonance leads to ignorance of any information that conflicts with preconceptions or previous decisions (p.47).

Prast (2000) an investor suffer from cognitive dissonance at the time of panic (p.15). The researcher further concluded that- while analyzing the investor's behaviour it is essential to understand how he/she is gathering information of securities and interpreting the information. Herd behaviour (Crowd Behavior), mood swing, and investor reaction to the news in various circumstances can be explained by the cognitive dissonance (p.15).

DISPOSITION EFFECT/LOSS AVERSION BIAS

Weber &Camerer (1998) Disposition effect can be defined as a behaviour of an investor in which he/she thinks to minimise the losses with immediate effect. An investor sells his/ her profit-making assets and keeps the loss-making assets with the expectation of their value appreciation in the future. The authors elaborated this behaviourto sell the winner and keep the losers. During investment, it is suggested to sell the stocks that are likely to have a downward trend and buy stocks with an upward trend. But investor suffering from disposition effect acts in reversal pattern (p.1, 26). Dhar& Zhu (2002) opposite from the overconfidence, this bias come into effect with the investors who trade less. Disposition effect refers to the tendency to sell stocks or investments that have appreciated the price and unwillingness to sell those that are trading below purchase price.Rubaltelli, Rubichi, Savadori, Tedeschi, & Ferretti (2005) Investor like to sell performing investment to avoid regret due to change in the market trend. An investor predicts market trends may reduce future gains (p.20). Brown, Chappel, da Silva Rosa & Walter (2006) interpreted that the disposition effect exists inall types of investors. The researchers examined the behaviour of IPO subscribers, December 1995-2000, non-subscribers to IPOs December 1995-200 and investors in index stocks. It was found that- disposition effect improves over time.Pompian, M.M. (2006) some researcher defined disposition effect as loss aversion bias. This bias is observed in the professionals who are in the area of wealth management.

Ackert, Church &Deaves (2003) a depressed investor is more risk-aversethan an anxious investor without any rational reason and take irrational decisions (p.37). Baker &Ricciardi (2014) disposition effect is termed harmful for the investor as it increases the capital gain taxes and can reduce return before taxes. To remove this effect an advisor needs to bring discipline in the investor to generate higher returns (p.8).Weber &Camerer (1998) the researchers explained the selling winner and keeping losers in the following manner- firstly as per the prospect theory disposition effect show up because the investor uses the purchase price of the security as a reference point and gamble with the securities that are making a loss. The investors feel that the profit-making stocks may go down in the future so to avoid the future loss they sell it. Secondly, the investor misperceives the probability of future price change. They think that price will bounce and become a winning stock (p.26).

The illusion of Control-Pompian, M.M. (2006) a bit same like overconfidence an investor affected by this bias believes that he/she can control the or at least can affect the events but in reality, they cannot. This bias is more visible in gamblers (p.111).Hirschey (2010) this bias prevails in the technically savvy investors who use online brokerage services (p.66)Barber &Odean (2002) an overconfident investor trade and speculative more. Selections bias the investors going for online trading are more overconfident than other investors do. The further illusion of control and the illusion of knowledge leads to overconfidence. Illusion of control and knowledge prevail when an investor gets more choice of investment options, involvement in investment activity, the familiarity of the task, and availability of information (p.461).Qadri & Shabbir (2014) investor believe that his knowledge, experience have an impact on investment decision (p.43)

REGRET AVERSION

Pompian, M.M. (2006) this bias insist the investor avoid a specific course of action in the present that may cause a loss in future. The investor believes that he/she may commit during taking a decision. To avoid such error the investor doesn't take the specific decision. (p.227). The researcher further divided the bias into two parts that are (i) error of commission that arises due to misguided actions and (ii) error of omission arises due to misguided inaction. Regret aversion is different from dissonance where investor feels disheartened due to the negative or unexpected performance of securities (p.228). Baker &Ricciardi (2014) it is the emotion of regret experienced after choosing a course of action that may turn into a bad decision. An investor affected by the bias provoked to invest in the less risky asset. Less risky investment options lessen the chance of poor returns (p.8).

Solnik (2008) the author researched over effect of regret aversion bias over the portfolio of investor having domestic and foreign stocks.

An investor buys foreign stocks with the anticipation of outperforming. When foreign stocks underperform investor feels the pain, it is due to less familiarity of the foreign stock market and stocks (p.18). Kannadhasan (2006) due to regret aversion bias influence the investor hold poor performing asset in the portfolio. It also creates an inefficient taxation strategy because the investor reduces the taxable income (p.5). Albaity& Rahman (2012)regret aversion bias is connected with the overconfidence bias. While research over Malaysian investor it is observed that investor overconfident in their choice have more propensity of influencing with regret aversion bias (p.515).Arora &Kumari (2015) regret aversion bias is more visible in the age bracket of 41-55 years in comparison to the investors in 25-40 years.

Therefore, as an investor grew old he/she prefer to invest in less risky investment options. Further,the female show less regret while investment in comparison to the male investor (p.86). Kubilay&Bayrakdaroglu (2016) investor who have neurotic personality trait have more chances of getting affected with regret aversion bias. Investors with neurotic personality trait are more moody in comparison to the other while expressing worry, fear, anger, frustration and other expressions (p.178).

CONCLUSION

Chandra, A (2008) unlike the classical theory of finance investor doesn't behave rationally and make mistakes during investment decisions. Investors suffer from multiple psychological and emotional biases (p.25).Chen,Kim, Nofsinger and Rui (2007) individual investor may suffer from multiple biases at the same time. The researchers concluded that poor choices of investment lead to disposition effect and investors affected byoverconfidence also suffer from disposition effect (p.33). Goetzmann& Kumar (2005) when it comes to the diversification of investment portfolio, investor's individual characteristics, they're financial; sophistication, investment preferences and behavioural biases are strongly correlated with their propensity to diversify (p.21). Lee, K. Miller, S. Velasquez, N. Wann, C. (2013) male and female are affected by the different behavioural biases in investment decisions. Female investor exhibits a balanced and focused approach than men.

Charness&Gneezy (2007) women prefer to invest in a smaller amount in the riskier assets thanmen. So women are more risk averse than men (p.15).Bashir, Rasheed, Raftar, Fatima &Maqsood (2013) investor's biases are interrelated and have a positive and negative correlation with each other. Overconfidence and illusion of control have a negative relationship. Overconfidence has no significant relationship with gender (p.67).

It will be interesting to analyse the illusion of control bias because as many researchershas discussed that the internet is one of the major factors that creates prevalent conditions for this bias.

REFERENCES

- Abhijeet, C. (2010). Decision Making in The Stock Market: Incorporating Psychology with Finance. *MPRA Paper*, *21288*, 1-29.
- Ackert, L. F., Church, B. K., &Deaves, R. (2003).Emotion and financial markets.*Federal Reserve Bank of Atlanta Economic Review*, *88*(2).
- Baker, H. K., &Ricciardi, V. (2014). How biases affect investor behaviour. The European Financial Review. 7-10.
- Barber, B. M., &Odean, T. (1999). The courage of misguided convictions.*Financial Analysts Journal*, *55*(6), 41-55.
- Barber, B. M., &Odean, T. (2002). Online investors: do the slow die first?.*The Review of Financial Studies*, *15*(2), 455-488.
- Bashir, T., Rasheed, S., Raftar, S., Fatima, S., &Maqsood, S. (2013). Impact of behavioral biases on investor decision making: Male vs female. *Journal of Business and Management*, *10*(3), 60-68.

- Bell, D. E. (1982). Regret in decision making under uncertainty. *Operations research*, *30*(5), 961-981.
- Brown, P., Chappel, N., da Silva Rosa, R., & Walter, T. (2006).The reach of the disposition effect: Large sample evidence across investor classes.*International Review of Finance*, *6*(1‐2), 43-78.
- Burhhard, D., &Eckwert, B. (2005).''*Asset Mispricing Due to Cogitive Dissonance*''. IMF Working Paper.
- Chandra, A. (2008, December). Decision making in the stock market: Incorporating psychology with finance.In *National Conference on Forecasting Financial Markets of India*.
- Charness, G., &Gneezy, U. (2007).Strong evidence for gender differences in investment.*Available at SSRN 648735*.
- Chen, G., Kim, K. A., Nofsinger, J. R., &Rui, O. M. (2007).Trading performance, disposition effect, overconfidence, representativeness bias, and experience of emerging market investors.*Journal of Behavioral Decision Making*, *20*(4), 425-451.
- Dhar, R., & Zhu, N. (2002). Up close and personal: An individual level analysis of the disposition effect.
- Eaton, R. D. V., & Douglas, V. (2000).The psychology behind common investor mistakes.*AAII Journal*, *22*(3), 2-5.
- Fellner, G. (2004). *Illusion of control as a source of poor diversification: An experimental approach*.Max Planck Inst. for Research into Economic Systems, Strategic Interaction Group.
- Festinger, L. (1962). *A theory of cognitive dissonance* (Vol. 2). Stanford university press.
- Goetzmann, W. N., & Kumar, A. (2005).*Why do individual investors hold under-diversified portfolios?*(No. ysm454).Yale School of Management.
- Goetzmann, W. N., &Peles, N. (1997).Cognitive dissonance and mutual fund investors.*Journal of financial Research*, *20*(2), 145-158.
- Grable, J. E. (2000). Financial risk tolerance and additional factors that affect risk taking in everyday money matters. *Journal of Business and Psychology*, *14*(4), 625-630.
- Hallahan, T. A., Faff, R. W., & McKenzie, M. D. (2004).An empirical investigation of personal financial risk tolerance.*FINANCIAL SERVICES REVIEW-GREENWICH-*, *13*(1), 57-78.
- Hanna, S. D. and Chen, P. (1997). Subjective And Objective Risk Tolerance: Implications For Optimal Portfolios. Financial Counseling and Planning, Volume 8(2), 17-26.
- Hilary, G., &Menzly, L. (2006). Does past success lead analysts to become overconfident?.*Management science*, *52*(4), 489-500.
- Hirschey (2010).Investments : Analysis And Behavious. Tata McGraw-Hill Education
- Johnson, D. D., & Fowler, J. H. (2011).The evolution of overconfidence.*Nature*, *477*(7364), 317.
- Kannadhasan, M. (2006).Role of behavioural finance in investment decisions.*Retrieved December*,*29*, 2014. Available at https://www.researchgate.net/profile/Manoharan_Kannadhasan/publication/265230942_ROLE_OF_BEHAVIOURAL_FINANCE_IN_INVESTMENT_DECISIONS/links/55ac75b608ae481aa7ff5a80.pdf
- Kubilay, B., &Bayrakdaroglu, A. (2016). An empirical research on investor biases in financial decision-making, financial risk tolerance and financial personality. *International Journal of Financial Research*, *7*(2), 171-182.

- Kyle, A. S., & Wang, F. A. (1997). Speculation duopoly with agreement to disagree: Can overconfidence survive the market test?.*The Journal of Finance*, *52*(5), 2073-2090.
- Lee, K., Miller, S., Velasquez, N., &Wann, C. (2013).The effect of investor bias and gender on portfolio performance and risk.*The International Journal of Business and Finance Research*, *7*(1), 1-16.
- Maslow, A. H. (1943). A theory of human motivation.*Psychological review*, *50*(4), 370.
- Menkhoff, L., Schmeling, M., & Schmidt, U. (2013).Overconfidence, experience, and professionalism: An experimental study.*Journal of Economic Behavior & Organization*, *86*, 92-101.
- Michailova, J., & Schmidt, U. (2016). Overconfidence and bubbles in experimental asset markets. *Journal of Behavioral Finance*, *17*(3), 280-292.
- Michailova, J., Mačiulis, A., &Tvaronavičienė, M. (2017). Overconfidence, risk aversion and individual financial decisions in experimental asset markets. *Economic research-Ekonomskaistraživanja*, *30*(1), 1119-1131.
- Olsen, R. A. (1998). Behavioral finance and its implications for stock-price volatility.*Financial analysts journal*, *54*(2), 10-18.
- Pan, C. H., &Statman, M. (2012).Questionnaires of risk tolerance, regret, overconfidence, and other investor propensities.The Journal of Investment Conusulting. Volume 13, 54-63.
- Pompian, M. M., & Wood, A. S. (2006).Behavioral Finance and Wealth Management: How to Build Optimal Portfolios for Private Clients.
- Prast, H. (2000). *Herding and financial panics: a role for cognitive psychology?*. De Nederlandsche Bank.
- Qadri, S. U., &Shabbir, M. (2014). An Empirical Study of Overconfidence and Illusion of Control Biases, Impact on Investor's Decision Making: An Evidence from ISE.*European Journal of Business and Management*, *6*(14), 38-44.
- Ricciardi, V. (2008).The psychology of risk: The behavioral finance perspective.
- Rubaltelli, E., Rubichi, S., Savadori, L., Tedeschi, M., & Ferretti, R. (2005).Numerical information format and investment decisions: Implications for the disposition effect and the status quo bias.*The Journal of Behavioral Finance*, *6*(1), 19-26.
- Solnik, B. (2008). Equity home bias and regret: An international equilibrium model.Available at http://ssrn.com/abstract=828405.
- Stahl, H. K., Matzler, K., &Hinterhuber, H. H. (2003).Linking customer lifetime value with shareholder value.*Industrial Marketing Management*, *32*(4), 267-279.
- Valentine, T. (2003).The treatment of risk in financial planning.Journal of Law and Financial Mangement - Volume 2, No. 1. 43-49.
- Weber, M., &Camerer, C. F. (1998). The disposition effect in securities trading: An experimental analysis. *Journal of Economic Behavior & Organization*, *33*(2), 167-184.