PERSONALITY TRAITS AND DECISION-MAKING STYLES IN GET-RICH-QUICK SCHEME INVESTMENTS

*Ahmad Rizal Mazlan Azlizamani Zubir@Salim Fazilah Othman Md Zawawi Abu Bakar

DOI: https://doi.org/10.37178/ca-c.21.5.04

*Ahmad Rizal Mazlan

Universiti Utara Malaysia Kuala Lumpur Campus Email: arizal @uum.edu.my

Azlizamani Zubir@Salim

School of Applied Psychology, Social Work & Policy, Universiti Utara MalaysiaEmail: azlee1976@yahoo.com

Fazilah Othman

Universiti Utara Malaysia Kuala Lumpur Campus Email: fazilah @uum.edu.my

Md Zawawi Abu Bakar

School of Applied Psychology, Social Work & Policy, Universiti Utara MalaysiaEmail: zawawi @uum.edu.my

Abstract

Various types of investment schemes, both legal and illegal, are available to investors globally, including in Malaysia. The legal investments are quite clear as they are offered by financial institutions and the transactions usually occur in established capital markets. The illegal investment schemes, on the other hand, can be quite difficult to identify. Among them are the get-rich-quick schemes or infamously known as Ponzi schemes, which have adversely affected many individuals for the past few decades. This article focuses on how personality traits affect decisionmaking among investors, particularly in get-rich-quick schemes. By examining the relevant literature, this concept paper shows that personality traits significantly influence investment decisions, including the get-rich-quick schemes. Specifically, five elements have been identified as the contributing factors, namely, i) behavioral bias ii) emotional bias iii) cognitive bias, iv) overconfident personality and v) lack of shariah compliant. These factors need to be given attention by the government in addressing the issue of illegal get-rich-guick schemes. Furthermore, the study also suggests that the authorities need to develop investor personality profiler and guidelines to invest in legal and Sharia- compliant investments.

Keywords: personality traits, decisions-making styles, investment, getrich-quickscheme

INTRODUCTION

Get-Rich-Quick Scheme (GRQS) or also known as Ponzi or pyramid investment scheme is a type of investment frauds that has been around for several decades in many countries around the world. The scheme works by paying the existing investors a relatively high return from the money taken from the new investors who just joined, so on and so forth. The higher-than-average investment return lures many people to investment in such schemes. T.

With the advent of internet, GRQS is increasingly visible where advertisements for programs such as the High Yield Investment Programs (HYIP) regularly pop-up on the websites, offering exorbitantly high rate of return to investors in a specified period of time. By joining this program, investors are promised a certain number of profits that are greater than the return on fixed instruments. Many people who join are aware that those schemes are clearly or suspiciously fraudulent, but they still join them because they want to 'try their luck' anyway and get the high returns. This is called a PostmodernInvestment according to [1].

Everybody can be a victim of GRQS because it is focusing not only those who are wealthy and highly educated, but also those who earn average income and have low education level. Usually, the schemes aim at average people who desperately want to increase their income easily and quickly. Of late, GRQS is increasing rapidly in manycountries due to the weak regulation systems.

In Malaysia, one of the earliest GRQS is the "Pak Man Telo" scheme, founded by Osman Hamzah in 1972 [3], and became famous and was uncovered by the authority around 1992 [2]. Throughout the two decades, about 50,000 people lost a total amount of RM90 Million. The other famous scheme in the country was the SwisscashMutual Fund scheme, which came into the spotlight in 2006 [4]. In 2018, according to Bank Negara Malaysia (BNM), around 420 companies and individuals are listed on its website for not being authorized and approved under relevant laws and regulations, especially regarding deposit-taking activities from individuals to be invested in certaininvestment schemes.

These 420 companies and the individuals that have been listed by BNM list are doing business activities or investment programs such as gold investment, bit-coin investment, forex trading and other activities. To curb these activities from spreading further, BNM shares with public the list of cases that have been or are investigated by BNM through Financial Fraud Alert Website. In September 2019, the number of cases decreased to 154 companies and individuals under investigation. However, BNM reported that the amount financial losses due to GRQS amounted to RM26.5 million over the period of 2012 to 2018. In addition, the Crime Investigation Department reported total financial losses of RM4.4 billion from July 2013 until September 2017, and around 1.7 million investors are involved, most of which are linked to GRQS.

As the trend of GRQS-related fraudulent activities is increasing, it affects a larger segment of the population in the country. Moreover, with the internet and social media, it is much easier for the scammers to engage with public and entice them to join the fraudulent investment schemes.

LITERATURE REVIEW

Based on the literature, this section discusses how personality traits are linked with investment decision-making, particularly in GRQS.

i) Personality Traits

The two most widely used personality models which are the 16 Personality Factors

- [5] and the Big Five Factors of personality [6]; [7]. These personality models are used in measuring a person's personality based on the five levels or parts of the personality.
- [8] developed the 16 Personality factors model, which describes five international factors of a person's personality, namely, extroversion, anxiety tough-mindedness, independence, and self-control. Sixteen primary traits are associated with these five

international factors, to enhance the understanding an individual's personality. For example, the extroversion (versus Introversion) trait assesses individual 's basic human desire to move forward or away from social interaction. Next, the high levels of anxiety (versus low level anxiety) personality trait shows whether a person often worries, feels tense and suspicious towards other people.

Individuals who are generally shy to the feeling and emotions can be described ashaving a tough-mindedness personality. This personality occurs when one deals with unreal ideas and imaginations. Individuals with high determination and have high ability to influence others are having a personality of independence (versus accommodation). Finally, a person who is conscious of other people's feelings, desires, harsh thoughts, immoral actions, and temper is a person with the self-control personality (versus lack of caution).

The Big Five, developed by [7] is another set of personality factors that is like the 16 Personality Factors, and is one of the most widely used in studies on individual personality traits. The components of the Big Five personality traits are Extroversion, Agreeableness, Neuroticism, Conscientiousness and Openness to Experiences. The extroversion trait indicates the anxious attitude towards different people and situations and. Agreeableness trait measures a person's consideration, accommodativeness, and trust to other people. Individuals with high level of Agreeableness tend to help other people because they have an idealistic view of human nature and can get well with other people's personality. Neuroticism measures a person's accountability, doubt, and ambiguity. Conscientiousness assesses whether a person is responsible, determined, focused, and highly disciplined. Finally, Openness to Experience measures whether a person pays attention to his own feeling and respects other people's value.

Many studies show that the 16PF model is better in determining personality traits for several reasons. Firstly, the validity of the model has been agreed by most researchers. Secondly, the model contains specific traits that are very useful in understanding and forecasting the elaboration of certain attitudes compared to the BigFive personality traits [9]; [10]. Lastly, the model can be broken down into other related personality factors that are like the Big Five, which allows researchers to do a comparison with the existing studies about behavioral finance.

i) Personality Trait and Investment

There are some evidence that show the Big Five personality traits are related to financial desire and investment financial decisions. Firstly, the literature shows that the extroversion personality can significantly influence a person's investment decisions. A person with high level of extroversion trait tends to have a financial desire that will affect the investment decision making [11] [12]. It can be concluded that a person with extrovert personality is

prone to be involved in short-term investments, is fussier in making investment decisions, and usually does not have proper exposure and knowledge before investing. Next, a person with a high self-control personality can manage his own money compared to the person with highly obsessive personality.[13] [14]

Analysis on the findings of previous studies shows that outstanding and skillful investors tend to have a high level of risk acknowledgement. These individuals are emotionally stable and open to new ideas. Next, individuals with anxious personality generally avoid being involved in trading and investment decisions [15]. Finally, a person with high agreeableness personality trait tends to be risk reluctant [16] and is not normally engaged in investing [17].

Previous studies show that several external and internal factors can affect an individual's investment decisions. The external factors such as being framed and being given fake information, can adversely affect an individual's financial decisions such as investing. The internal factors are the personality traits that can also influence an individual's perception on investment and affects his financial behavior.

Furthermore, previous studies also show that individuals who are easily afraid and tend to be in fear will shy away from high-risk investment. They tend to hold less risky assets in their portfolio and will avoid investing in unconventional, high-risk investments [18, 19] [20, 21]. However, some other studies found that individuals with high level of neuroticism personality are not risk-averse, and they do invest in high-risk investments. Next, sociable individuals with high extroversion and low tough- mindedness personality are generally risk-takers and are involved in high-risk investments [22]. Next, several studies show that emotional stability with a low anxiety and a high openness to new experiences personality are associated with the high level of risk tolerance when facing financial retrieve [23]. Low self-control personality individuals can reduce the possibility of risk taking and put less weight on the negativeresults in developing an overall investment approach [24].

In general, the studies highlighted so far show that there is a correlation between individual personality traits and the investment approaches and decision-making.

ii) Decision Making Styles

Earlier studies have shown that their various decision-making styles which result from the various aspects of the personality [25] [23]. In general, individuals' responses to financial decision-making are common depending on their personality traits [26] and

[27] suggested five most common and valid decision-making styles, namely, rational, intuitive, spontaneous, dependent, and avoidant. Each of these Big Five personality traits could be charted into the exact observable instructions in decision making [7].

Furthermore, there are studies shown that personality trait of openness to experiences is significantly correlated with the emotional decision-making style [28]. According to [29], the personality trait of openness to experience also correlated with extroversion personality traits. There is also instinctive style, which can be characterized by a feeling of trust, kindness, conformity, humility, and compassion. It is positively correlated with the reliant decision-making style, which can be characterized by unreasonable assurance, conference and dependence in decisional scenarios. Moreover, the author also found that panic, self-awareness, desolation, impulsiveness, anger and accountability are positively related to restrained decision-making style. This

decision-making style is related to neuroticism personality because this personality trait is principally defined by hesitation when making decisions.

Personality refers to a person's overall arrangement of thinking, sense and attitude, which affects individuals' decision-making styles in certain scenarios. However, the Big Five personality traits only explain about 15% to 28% of the deviation in the five decision-making styles [30] and is rather limited to the approved way of impending decision-making. Personality trait also influence individuals' balanced absorption in making a financial decision [26]. Several studies found that a person with a rational style and high self-esteem personality tends to tend to search for information about financial product systematically before making an investment. This help individuals to predict the financial risk-tolerance and consequently and make them be a good decision financial decision.

a. Behavioural Bias

From the traditional perspective, human beings are always considered to behave rationally. Sometimes there are situations where people do not always act rationally because there are psychological factors that play a role through behavioural bias. Such behavioural biases can affect how a person acts [31] and influence them to invest in Ponzi and Pyramid schemes [32]. The behavioural biases that are considered to influence investment decisions related to Ponzi and Pyramid Schemes are emotional bias and cognitive bias.

b. Emotional Bias

Emotional bias in the form of optimism influences investment decisions, as shown by [33] [34], and [35] explained that optimism is significantly related with investment

decisions. In a Ponzi scheme and pyramid scheme, optimism occurs after someone knows the results of an investment scheme [36], especially they see others reaped huge profits from the schemes.

c. Cognitive Bias

Cognitive bias (representativeness bias, confirmation bias, herding, framing andoverconfidence) is predicted to play a role in determining investment decision aboutpyramid schemes. The pretension to invest in a scheme gets stronger when framingtakes place, because the information they receive can influence the financial decisions. According to [37], the scammer will frame information about a scheme with a positive frame by sharing only good news such as the huge profits made by those whojoined the scheme and showing the assets they own. The information given mayinfluence investment decisions, as stated by [38] and [39] because decision-making could be affected by how choices about decisions are presented.

d. Overconfident Personality

Some studies concluded that overconfident personality trait can also influence investment decisions, especially in stock trading. Overconfidence makes people or investors over-trade [40], [41], [42]. The conclusions of the studies suggest that overconfident is often associated with risky investment behaviour [43].

e. Lack of Shariah compliance

The interest or riba is prohibited is Islamic law and most of the investments offered contain interest, including GRQS. To be shariah-compliant, investors have to follow the seven shariah investment principles. [44]. The first principle is halal, whereby that the investment must not contain haram or forbidden elements such as alcohol, pig, blood, swaps, gambling, and usury. In addition, the investment must be beneficial, free from riba, fair for both

parties, contract of investment bases on the agreement of bothparties, follow Islamic rules and ethics, and finally, in the investment agreement must be documented as clearly as possible.

IMPLICATION OF THE STUDY

Based on analysis on the literature, this study aims to analyze whether individuals' personality traits and decision-making styles are related with their investment approaches and choices.

Focusing on the studies that have used the 16PF and the Big Five models [45], is the following conclusions are derived:

- a) Emotional balance and openness to a new experience are the commonattributes among the professional investors [46].
- b) People with the extroversion personality often think about the possibility tospend money on investment [47].
- c) People with the agreeableness personality are mixed when it comes to spending their money in investment schemes [17].
- d) People with conscientiousness personality will anticipate the capability to handle their money and will not easily spend it in investment schemes [48]

Personality traits influence how people make monetary choices and take risk. This study shows that people with conscientiousness, openness to new experiences and agreeableness personality have better control of their finances and generally make good financial decision-makings.

In general, individuals who think rationally do not take unnecessary risks and are particular on how to accomplish their monetary goals [11]. Individuals with extroversion personality are different compared to those with neuroticism personality, whereby the latter tend to think less rationally in taking financial risk. In addition, people who are agreeable and open to new experience tend to make less rational decisions in risk taking [22].

Furthermore, researcher also found that people with openness to new experiencepersonality trait have a tendency to embrace unconventional rules of thumb in making financial decisions. These rules of thumb are usually used by accountants with established performance benchmarks rather than the repetitive analysis in making adecision.

The findings also show that people with distressed behavior or personality are more willing to invest their money. People with this personality trait usually doubtful, tensed and vigilant about some financial issues. Furthermore, studies have also shown that people with neuroticism personality trait are associated with anxiety, worry, self-doubt and panic behavior; and will avoid any risk taking [49]. Furthermore, recent studies also agreed that individuals with anxious personality prefer to save in interest-bearing instruments rather invest in risky investments [50].

Moreover, individuals with high self-control and high self-discipline are more practical and solution oriented. They are prone to invest their money in different kinds of investment, with a balanced portfolio [51].

Finally, people who are tough-minded and anxious tend to have negative perception on risky investments. They usually have sympathetic feeling toward others, are more flexible and open to new changes. These individuals will make thorough research about the investment before investing their money.

CONCLUSION

Studies have shown that individuals with impatient and suspicious personality traits are more vulnerable to invest in high-risk investments such as GRQS. Anxious individuals are willing to assume high risks. In addition, people who are sociable and open to new experience also tend to be more

susceptible to risk taking [52]. They have a tendency not to assess the investment risk objectively and do not consider the details before making an investment [53].

On the other hand, people with rational personality trait tend to consider and analyze the financial, economic, and environmental factors before deciding to invest. Previous studies found that rational individuals make good financial decisions that lead to good investment returns [54]. This personality trait is vital for making wise financial decisions. In contrast, people with avoidant personality trait tend to avoid making financial decisions altogether, including those that are legitimate and promise good returns.

In conclusion, this study highlighted those decision-making styles are important in understanding how individuals' personality influences the financial decision-making, specifically investment decisions such as GRQS. This study also provides the strongargument that personality traits influence how a person makes financial decisions or any other decision in their life. However, future research is needed to explore more about how the interaction between personality and the decision-making styles influence financial decision-making.

REFERENCES

- 1. Moore, L.J., et al., The effect of challenge and threat states on performance: An examination of potential mechanisms. Psychophysiology, 2012. **49**(10): p. 1417-1425 DOI: https://doi.org/10.1111/j.1469-8986.2012.01449.x.
- Muhammad Takiyuddin, A.G. and A.H. Bahyah, Pseudo-Investment Scheme in Malaysia: Issues and Problems. Jurnal Sultan Alauddin Sulaiman Shah, 4(1), 60-66. 2017.
- 3. Piaw, L.L.T., H.B. Zawawi, and Z.B. Bujang, Who are the money games investors? A case study in Malaysia. International Journal of Accounting, 2019. 4(25): p. 12-24.
- 4. Mohd Sulaiman, A.N., A.I. Moideen, and S.D. Moreira, Of Ponzi schemes and investment scams: A case study of enforcement actions in Malaysia. J. Fin. Crime, 2016. 23: p. 231 DOI: https://doi.org/10.1108/JFC-05-2014-0021.
- Ward, G.R., C.H. Cunningham, and J.A. Wakefield Jr, Relationships between Holland's VPI and Cattell's 16PF. Journal of Vocational Behavior, 1976. 8(3): p. 307-312 DOI: https://doi.org/10.1016/0001-8791(76)90046-4.
- Paunonen, S.V., Big Five factors of personality and replicated predictions of behavior. Journal of personality and social psychology, 2003. 84(2): p. 411 DOI: https://doi.org/10.1037/0022-3514.84.2.411.
- Costa, P.T. and R.R. McCrae, Normal personality assessment in clinical practice: The NEO Personality Inventory. Psychological assessment, 1992. 4(1): p. 5 DOI: https://doi.org/10.1037/1040-3590.4.1.20.
- 8. Eysenck, H.J., Dimensions of personality: 16, 5 or 3?—Criteria for a taxonomic paradigm. Personality and individual differences, 1991. **12**(8): p. 773-790.
- 9. Gavrilescu, M. and N. Vizireanu, Predicting the Sixteen Personality Factors (16PF) of an individual by analyzing facial features. EURASIP Journal on Image and Video Processing, 2017. **2017**(1): p. 1-19 DOI: https://doi.org/10.1186/s13640-017-0211-4.
- 10. Roy, D.D., Personality model of fine artists. Creativity Research Journal, 1996. **9**(4): p. 391-394 DOI: https://doi.org/10.1207/s15326934crj0904 10.
- 11. Powell, M. and D. Ansic, Gender differences in risk behaviour in financial decision-making: An experimental analysis. Journal of economic psychology, 1997. **18**(6): p. 605-628 DOI: https://doi.org/10.1016/S0167-4870(97)00026-3.
- 12. Staw, B.M., Knee-deep in the big muddy: A study of escalating commitment to a chosen course of action. Organizational behavior and human performance, 1976. **16**(1): p. 27-44 DOI: https://doi.org/10.1016/0030-5073(76)90005-2.
- 13. Tangney, J.P., R.F. Baumeister, and A.L. Boone, High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. Journal of personality, 2004. **72**(2): p. 271-324 DOI: https://doi.org/10.1111/j.0022-3506.2004.00263.x.

- 14. Baumeister, R.F. and J.J. Exline, Self-control, morality, and human strength. Journal of and Clinical Psychology, 2000. **19**(1): Social https://doi.org/10.1521/jscp.2000.19.1.29.
- 15. Cunha, F., et al., Interpreting the evidence on life cycle skill formation. Handbook of the Economics of Education, 2006. 1: p. 697-812 DOI: https://doi.org/10.1016/S1574-0692(06)01012-9.
- 16. Hew, P., B. Brenner, and J. Kaufman, Reluctance of paramedics and emergency medical technicians to perform mouth-to-mouth resuscitation. The Journal of emergency medicine, 1997. 15(3): p. 279-284 DOI: https://doi.org/10.1016/S0736-4679(97)00006-
- 17. Brown, S. and K. Taylor, Household finances and the 'Big Five' personality traits. of Economic Psychology, 2014. **45**: 197-212 https://doi.org/10.1016/j.joep.2014.10.006.
- 18. Stouthard, M.E.A., J. Hoogstraten, and G.J. Mellenbergh, A study on the convergent and discriminant validity of the Dental Anxiety Inventory. Behaviour Research and Therapy, 1995. 33(5): p. 589-595 DOI: https://doi.org/10.1016/0005-7967(94)00096-3.
- 19. Feldman, D.C. and T.A. Beehr, A three-phase model of retirement decision making. American Psychologist, 2011. 66(3): p. 193 DOI: https://doi.org/10.1037/a0022153.
- 20. Gambetti, E. and F. Giusberti, The effect of anger and anxiety traits on investment decisions. Journal of Economic Psychology, 2012. **33**(6): 1059-1069 DOI:https://doi.org/10.1016/j.joep.2012.07.001.
- 21. Oehler, A., M. Horn, and S. Wendt, Brexit: Short-term stock price effects and the impact of firm-level internationalization. Finance Research Letters, 2017. 22: p. 175-181 DOI: https://doi.org/10.1016/j.frl.2016.12.024.
- 22. Zuckerman, M. and D.M. Kuhlman, Personality and risk-taking: common bisocial Journal of personality, 2000. **68**(6): 999-1029 p. https://doi.org/10.1111/1467-6494.00124.
- 23. Baruch, Y., et al., Prosocial behavior and job performance: Does the need for control and the need for achievement make a difference? Social Behavior and Personality: an journal, international 2004. 399-411 DOI: **32**(4): p. https://doi.org/10.2224/sbp.2004.32.4.399.
- 24. Romer, D., et al., Can adolescents learn self-control? Delay of gratification in the development of control over risk taking. Prevention science, 2010. 11(3): p. 319-330 DOI: https://doi.org/10.1007/s11121-010-0171-8.
- 25. Willock, J., et al., Farmers' attitudes, objectives, behaviors, and personality traits: The Edinburgh study of decision making on farms. Journal of Vocational Behavior, 1999. **54**(1): p. 5-36 DOI: https://doi.org/10.1006/jvbe.1998.1642.
- 26. Thunholm, P., Decision-making style: habit, style or both? Personality and individual differences, 2004. 36(4): p. 931-944.
- 27. Scott, S.G. and R.A. Bruce, Decision-making style: The development and assessment of a new measure. Educational and psychological measurement, 1995. 55(5): p. 818-831 DOI: https://doi.org/10.1177/0013164495055005017.
- 28. Tleyjeh, I.M., et al., Efficacy and safety of tocilizumab in COVID-19 patients: a living systematic review and meta-analysis. Clinical Microbiology and Infection, 2021. 27(2): p. 215-227 DOI: https://doi.org/10.1016/j.cmi.2020.10.036.
- 29. Shiota, M.N., D. Keltner, and O.P. John, Positive emotion dispositions differentially associated with Big Five personality and attachment style. The journal of positive psychology, 2006. 1(2): p. 61-71 DOI: https://doi.org/10.1080/17439760500510833.
- 30. Feldt, R., et al., Links between the personalities, views and attitudes of software engineers. Information and Software Technology, 2010. 52(6): p. 611-624 DOI: https://doi.org/10.1016/j.infsof.2010.01.001.
- 31. Pompian, M.M. and J.M. Longo, A new paradigm for practical application of behavioral finance: creating investment programs based on personality type and gender to produce better investment outcomes. The Journal of Wealth Management, 2004. 7(2): p. 9-15 DOI: https://doi.org/10.3905/jwm.2004.434561.
- 32. Bosley, S.A., et al., Decision-making and vulnerability in a pyramid scheme fraud. Journal of Behavioral and Experimental Economics, 2019. 80: p. 1-13 DOI: https://doi.org/10.1016/j.socec.2019.02.011.

- 33. Murphy, F.C., et al., Emotional bias and inhibitory control processes in mania and depression. Psychological medicine, 1999. **29**(6): p. 1307-1321 DOI: https://doi.org/10.1017/S0033291799001233.
- 34. Ball, S.J., M.A. Brown, and K.R. Snow, A new species of Isospora (Apicomplexa: Eimeriidae) from the greenfinch Carduelis chloris (Passeriformes: Fringillidae). Parasitology research, 2012. **111**(4): p. 1463-1466 DOI: https://doi.org/10.1007/s00436-012-2980-0.
- 35. Kinari, Y., F. Ohtake, and Y. Tsutsui, Time discounting: Declining impatience and interval effect, in Behavioral Economics of Preferences, Choices, and Happiness. 2016, Springer. p. 49-76.
- 36. Pressman, S., On financial frauds and their causes: Investor overconfidence. American Journal of economics and sociology, 1998. **57**(4): p. 405-421 DOI: https://doi.org/10.1111/j.1536-7150.1998.tb03373.x.
- 37. Meltzer, C.E., et al., Media effects on policy preferences toward free movement: evidence from five EU member states. Journal of Ethnic and Migration Studies, 2021. **47**(15): p. 3390-3408 DOI: https://doi.org/10.1080/1369183X.2020.1778454.
- 38. Aprayuda, R., F. Misra, and R. Kartika, Does Order of Information Affect Investors' Investment Decisions?: Experimental Investigation. Journal of Accounting and Investment, 2021. **22**(1): p. 150- 172 DOI: https://doi.org/10.18196/jai.v22i1.9965.
- 39. Slovic, P., et al., Affect, risk, and decision making. Health psychology, 2005. **24**(4S): p. S35 DOI: https://doi.org/10.1037/0278-6133.24.4.S35.
- Schaefer, P.S., et al., Overconfidence and the big five. Journal of research in Personality, 2004.
 38(5): p. 473-480 DOI: https://doi.org/10.1016/j.jrp.2003.09.010.
- 41. Statman, M., S. Thorley, and K. Vorkink, Investor overconfidence and trading volume. The Review of Financial Studies, 2006. **19**(4): p. 1531-1565 DOI:

https://doi.org/10.1093/rfs/hhj032.

- 42. Glaser, M. and M. Weber, Overconfidence and trading volume. The Geneva Risk and Insurance Review, 2007. **32**(1): p. 1-36 DOI: https://doi.org/10.1007/s10713-007-0003-3
- 43. Abreu, M. and V. Mendes, Information, overconfidence and trading: do the sources of information matter? Journal of Economic Psychology, 2012. **33**(4): p. 868-881 DOI: https://doi.org/10.1016/j.joep.2012.04.003.
- 44. Johan, Z.J., Shariah compliant credit cards: Disputes and steps forward. Journal of Emerging Economies & Islamic Research, 2019. **7**(2): p. 1-11 DOI: https://doi.org/10.24191/jeeir.v6i1.8773.
- 45. Morrell, K., Decision Making and Ethics, in Organization, Society and Politics. 2012, Springer. p. 109-127.
- 46. Sternberg, R.J. and T.I. Lubart, An investment theory of creativity and its development. Human development, 1991. **34**(1): p. 1-31 DOI: https://doi.org/10.1159/000277029.
- 47. Mayfield, C., G. Perdue, and K. Wooten, Investment management and personality type. Financial services review, 2008. **17**(3): p. 219-236.
- 48. Cornely, O.A., et al., ESCMID* guideline for the diagnosis and management of Candida diseases 2012: non-neutropenic adult patients. Clinical Microbiology and Infection, 2012. **18**: p. 19-37 DOI:https://doi.org/10.1111/1469-0691.12039.
- 49. Thaler, R.H., et al., The effect of myopia and loss aversion on risk taking: An experimental test. The quarterly journal of economics, 1997. **112**(2): p. 647-661 DOI: https://doi.org/10.1162/003355397555226.
- 50. Kip, N., et al., Detection, isolation, and characterization of acidophilic methanotrophs from Sphagnum mosses. Applied and environmental microbiology, 2011. **77**(16): p. 5643-5654 DOI: https://doi.org/10.1128/AEM.05017-11.
- 51. Rha, J.-Y., C.P. Montalto, and S.D. Hanna, The effect of self-control mechanisms on household saving behavior. Journal of Financial Counseling and Planning, 2006. **17**(2).
- 52. Bailey, J.J. and C. Kinerson, Regret avoidance and risk tolerance. Journal of Financial Counselingand Planning, 2005. **16**(1): p. 23.
- 53. Parker, A.M. and B. Fischhoff, Decision-making competence: External validation through an individual-differences approach. Journal of Behavioral Decision Making, 2005. **18**(1): p. 1-27 DOI: https://doi.org/10.1002/bdm.481.