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Behavioral factors Influence on choice of Mutual Fund in Uzbekistan: A Proposed Model using Prospect Theory

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Abstract:
This article proposed a model to investigate the behavioral factors influencing the choice of funds in mutual fund investment by using Prospect Theory. It used new independent variables to inoculate new findings to help the understanding of the influence of human behavior in decision making.
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Keywords: Prospect theory, mutual fund, choice

Introduction

This paper aims to propose a new model on decision making based on behavioural factors on choice of fund. This model is to extend the descriptive model of Muhammad (2009), Chin (2012), and Wamae (2013). The strength of model by Muhammad 2009) demonstrates that in the making of investment decision, investors are influenced by rational (economic, financial and environmental analysis) and irrational behaviour (emotion and frame of reference), and it is combination effect. There are no moderating variables that moderate this study. Chin (2012) examine how psychological biases affect investors' decision-making and show an individual effect. The model does not contain any moderating variables too. The independent variables are beliefs, self-confidence, regret and snake bite. The study by Wamae (2013) on investment decision in stocks market used heuristic variables. These variables were popular and were used in many studies (e.g. Ngoc, 2014; Subash, 2012) and indicating individual effect and do not contain any moderating variables. The independent variables are risk aversion, prospecting, herding and anchoring. The proposed model will be based on literature review.

Theoretical Foundation

It was Kahman and Tversky (1979) who discovered that human behaviour was much influenced in investing decision. The Prospect Theory provides a model of decision making under risk that incorporates observed behaviour that gave rise to a new paradigm in 1980 called Behavioural Finance (BF). Ritter (2003) stated that Behavioral finance seeks to complement classical financial theories by

presenting psychological dimension into the decision-making process. H. Levy, & Post T. (2005) pointed out that Behavioral finance as a theory can demonstrate market irrationalities and anomalies. While for Richard (2007), Behavioral finance acquired mostly from cognitive psychology, explores investing as an individual class decision making under uncertainty as well as highlighting grave judgment biases. Victor (2005) defines Behavioral finance as trying to explain investment decision making from the human perspective. It includes behaviour and emotions that influence the decision-making process.

According to Ackert & Deaves (2010), Prospect theory has three critical aspects of observed behaviour, and Victor (2005) agreed that Prospect theory is the central principle within Behavioral finance. There are three critical aspects of observed decision making that provide the basis for this theory and incorporated in this study.

Exhibiting of risk aversion or risk-seeking depends on the nature of prospect.
Prospect Theory allow for changes in risk attitude depending on the nature of the prospect. On the positive domain, people exhibit risk aversion and risk-seeking in the negative domain, which means the value function is concave in the positive domain and convex in the negative domain. The value function is drawn to reflect changes in states of wealth from some subjective reference point and serves to frame the decision parameter (Altman, 2011). Thus, profits and losses are separately treated.

The appraisal of a prospect depends on profit and losses relative to a reference point. Profit and loss of the prospect are the criteria when making a decision, which means that the argument is not wealth but a change in wealth. It illustrates that risk attitude is not the same across gains and losses, implying that it is the change in wealth and evaluation is based on a reference point.
People are averse to losses looming larger than gains. Investors dislike losses, so the value function is steeper for losses than for gains. The term loss aversion is used to describe the observation that, most people's losses loom larger than gains. Fisher (2015) said that Prospect theory amounts to investors feeling the pain of loss about two and a half times as much as they appreciate an equivalent gain. The loss is more painful as the feeling is more real compared to profit (Fisher, 2015).

Literature Review

Decision Making and Behavioural Factors
The considering the past, financial knowledge and miscalibration are the three independent variables to be considered for this framework where it looks on the behavioural factors in deciding the choice of fund and able to bridge the literature gap and answer the problem of the research. It is discussed below:

Considering the Past

As mentioned by Nofsinger (2005), memory is not much about factual recording, but it is about the perception of physical and emotional experience. How it affects us depends on how these events unfold on us. The brain records the events through a process and stores different features of the experience. These stored features are the basis for the subsequent recall. It is in line with Prospect theory where the reaction of an investor depends on a subjective reference point.

Our memory deals with two areas; the happy or sad event is the first event. It applies to investments as well. According to Nofsinger (2005), people feel better when experiences bring them with higher satisfaction. Look at the market in which two stocks increase in price. Over 12 months of stock, A increases to $125 and stock B rose to $120 in a month. It is this memory that Wright (2000) mentioned

that results in the investors' feeling better about stock B, even its performance is not at par with Stock A.

The use of past results as a factor in assessing the present uncertainty widely used by many investors is recognized as taking into account the past (Nofsinger, 2005). The snake bite impact and previous success discovery by Thaler (1990) were the behavioural considerations to be considered if an investor considers the past in making a financial decision.

Snake Bite Effect (Past Investment Losses)

According to Nofsinger (2005), investors are becoming averse to risk following a financial loss. It's referred to as the snakebite effect. Investors will prefer to refuse to take the risk after losing money and face a gamble. Snakes seldom bite individuals, but the victims become more conscious when they bite. They will avoid dangerous adventures after feeling hurt and as long as the feeling of unluckiness is there; thus, they herd (Nofsinger, 2005). It is line with Prospect theory, risk-seeking or risk-averse depend on the nature of the prospect.

People have experience losses caused them to be cautious than they usually would. It is in line with the idiom "Fool me once shame on you, fool me twice shame on me" is a good description of this behaviour pattern (Wright, 2000). Investors may invest in blue-chip stocks, and due to unexpected happening beyond control, he realises a significant loss. These investors will be risk-averse, very cautious with their next investment so that they will not repeat the mistake. By being risk-averse, they may be adding losses in their future endeavour (Wright, 2000). It truly reflects that losing is painful and demonstrated in the Prospect theory.

According to Merli and Roger (2011), lousy past performance will lead to herding. Bikhchandani & Sharma (2000) and Chen (2012) finding was less convincing that investors herd if their investment did not perform well. What they found that 77% of these mutual funds investors were momentum investors, investing in past winners; but did not methodically sell past losers. The evidence of trend herding into past winners was stronger than herding into past losers (Bikhchandani & Sharma, 2000; Chen, 2012). It is line with Prospect theory where investors react on the subject reference point and act according to profit and loss of the prospect. Therefore, it is proposed that:

Proposition 1*: There is a significant relationship between the snake bite effects on investment choice of mutual funds.*

Past Success

As claimed by Nofsinger (2005), past successes are where people have experienced a gain or profit from an investment. Mallouk (2014) concurred that in any given year, there are winners. While the majority of mutual funds tend to lose to the index, some beat it (Mallouk, 2014). He continued to explain that the issue is that they tend not to outperform repeatedly, and there is no indication that the performance persists. We know that over time, performance usually gives way to underperformance. Funds will not perform well all the time.

By always emphasizing their excellent return, investors will always try to mitigate the effect of their bad return and by taking this measure, both their past return and their possible future success of their account will end up overrated (Wright, 2000). A common phenomenon is overestimating its investment return.

The ability and skill of investors are always a big question, and Nofsinger (2005) agreed that overconfidence is learned through past successes. He stressed that right decision; it resulted in their skill and ability. Bad luck is to blame if the investment turns out bad even when much luck is involved. It is here where the investment decision choice is to decide in a little time. It depends on the financial literacy of the investors to process the information available.

Investors are using historical outcomes as a metric when assessing risky decisions today. It is in line with the Prospect Theory where, after making a profit, investors are more risk-seeking and risk-averse after making a loss. The benefit they receive after a successful investment is never completely considered to be their income (Nofsinger, 2005). In an experiment, Nofsinger (2005) found that 77 per cent of economic students would continue to bet despite winning $15.00. Just 41 per cent decided to gamble after losing $15.00.

The reason for it is segregation as they treat profit as not belonging to them. The students act as if they are gambling with the opponent's money. It is the house-money effect and predicts that investors are more likely to be risk-seeking after a series of successful investment. The evidence of individuals' reaction when affected by prior gains and losses was provided by Thaler (1990) and similar to Prospect theory where the appraisal of a prospect depends on profit and losses relative to a reference point.

In a straightforward experiment conducted by Thaler (1990) on 95 economic undergraduates by providing many choices between certain items and gambling were asked to be answered, some of which included profits and other losses, and subjects were honestly told that one of the choices would be randomly chosen to count for the research. The percentages of subjects who choose the chosen answer are the three questions used in the analysis and the numbers in brackets.

Problem 1: You have just won $30. Now choose between:

a) A 50% chance to gain $9 and a 50% chance to lose $9. (70%)
b) No further gain or loss. (30%)

Problem 2: You have just lost $30. Now choose between:

a) A 50% chance to gain $9 and a 50% chance to lose $9. (40%)
b) No further gain or loss. (60%)

Problem 3: You have just lost $30. Now you choose:

a) A 33% chance to gain $30 and a 67% chance to gain nothing. (60%)
b) A sure gain of $10. (40%)

Problem 1 illustrates the effect of house money, while problems 2 and 3 illustrate the multiple preferences in play when people consider themselves to be behind in some mental accounting. In problem 2, a loss of $30 does not give rise to a risk-seeking if there is no chance of a break but, given that chance, in problem 3, the majority of subjects opt for a bet. House money effect is the phenomenon that investment profits can increase people's confidence to accept higher risk investment (Thaler, 1990). In another observation by Thaler (2015) in a poker game, he discovered that winners did not treat their winning money as their own money or "real money". When it comes to "house money", the expression "easy come, easy go" applies.

Very few scholars were able to explain well on the mechanism on house money effect although there are many studies on it. Jiaxi Peng (2013) carried out three studies consisting of 5 sub-experiments with 915 university students using two-stage gambles. He discovered that the profit from gambling is treated as windfall gain and have relatively low psychological value so that the loss of such money does not hurt much. The figure below illustrated it:

Insert Figure 1

Mallouk (2014) discovered that the vast set of the mutual fund, the overwhelming majority underperforms, and there is no guarantee that the winners will continue to win. A past trader performance in any given market has little or no bearing on their expected future performance (Mallouk, 2014). Under normal circumstances, the key to understanding why a manager has outperformed for over a period is to look at the field. There is a small minority of investment managers who beat the Standard & Poor performance over ten years, which cannot be a strong argument to hiring those managers, but a strong example of a field full of carnage, where an intelligent investor should avoid hiring them at the first place.

In sum, considering the past is clearly in lines with Prospect theory where an investor will react to a subjective reference point and value profit and loss relative to the reference point. The criteria for making decision depend on the profit and loss of the prospect. Therefore, it is proposed that:

Proposition 2*: There is a significant relationship between past successes on investment choice of mutual funds*

Financial Knowledge

Knowledge is acquired through many sources; the level of quality and reliability varies. These include formal education from college courses, seminars and, even training classes. The informal sources come from parents and relatives, co-investors and friend (Keller, 1987; Lee, 1999). In addition to that, many investors learned through a bad experience and sweet memories. According to Hoch (1986), overall people will learn more from experience but Brehmer (1980); Einhorn (1978) and Hogarth (2002) agreed that learn through experience is difficult.

In the sense of finance, Statman (2017) divided information into three groups. Form One is about knowledge of financial facts. Such information relates to capital markets, shares, securities and other instruments of investment. Diversification, the disadvantages of investment commissions and the challenge of beating the market are also at issue (Statman, 2017). Awareness of human actions is about our interests, ways in which investors make a decision, such as cognitive, emotional shortcuts and investors make mistakes. It's about wanting such a social status, adhering to value and wealth. Including in it, according to Statman, (2017) are errors in framing, hindsight and emotional shortcuts and errors such as hope, pride, regret and fear.

The third is knowledge of information and, according to Statman, divided into three kinds (2017). Data that is exclusively accessible is confidential or inside information. It is only applicable to those directors and managing director of the companies between the business administrator. Just a handful of the company's managers and executives have access to restricted details. Until it is announced to the public, it is about details. There is publicly accessible information for everyone, but it does mean that everyone knows that information is available (Statman, 2017). It is prominently published in the newspaper, finance magazine and widely read websites such as Bloomberg and CNBC.

Advice

Investors invest based on information or advice received and experienced. This is the subjective point under Prospect Theory, where the investor's reaction depends on. Forbes (2009) reported that the quality of the guidance they got from stockbrokers and market analysts was one of the reasons why investors prefer to agree. Welch (2000) investigated the clustering of analysts' recommendations in a client portfolio on to buy, sell or hold. He warned us that herding was more than a simple agreement. Two advisors may agree only because of the salient facts, which all pointed in one direction.

To the professionals like doctors and lawyers, Hilton (2003) found out that they used few clues to make decisions and the clues used differ significantly depending on the expert they consulted. The nature of the clues they used, characterise a particular decision they made. It appears that both doctors and fund managers differ in unsystematic ways and as a result, those that consult them suffer. The traditional understanding was that according to Jensen (1968) only a few financial institutions exhibit any stock-picking skills or abilities. However, Nofsinger (1999) pointed out that most tests of the skill of financial institutions have been confined to mutual funds and other players, such as shares and hedge funds might have been more successful.

Financial Advisor

Welch (2000) reviewed 50,000 recommendations provided by 226 brokerage houses using the US Zacks database from 1989 to 1994. There was significant evidence that irrespective of the underlying distribution of advice given, investors followed recommendations against the existing consensus. According to Desteno (2015), it is a well-known phenomenon known as the "white coat effect" where people feel that the person who gives advice is an expert or authoritative person. Importantly, he found that the influence of herding towards consensus was never influenced by whether or not the recommendation of the consensus was a strong indicator of the future success of the stock price. Welch (2000) discovered that the tendency to herd was stronger during the bulls market rather than the bear market. Kramer M. (2007) compared the portfolio of advised and self-directed investors in over 52 months by using a large dataset with over 600,000 return observations of 16,053 Dutch investors. He found that there was a difference in a portfolio of advice and self-directed investors, but there was no evidence of significant outperformance or underperformance of advised investors.

What was discovered by Karabulut (2010) was that the usage of financial advisors lowered portfolio returns and increased portfolio risks compared to when individuals managed their investment on their own. Still, the usage of financial advisor improved diversification and moderate home bias. It managed to lower trading frequencies, account turnovers and failed in market timing in asset allocations. The involvement of a financial advisor can prevent overconfidence and loss aversion according to Shapira (2001), but it can give rise to excessive trading and risky share inertia. Kramer M. (2009) agreed that advisors could help their clients to defeat the barrier to stock holding both by providing information and eliminating the misperceptions to the stock market.

Goszcynska (2000) asked whether novice and experts assessed risks differently for different types of assets. The two groups showed differences in risk characteristic, the amount of profit, profit certainty, familiarity and judgmental independence for a different type of assets. Goszcynska (2000) discovered certainty of profit, the familiarity of risks and the deferment of loss accounts for 60% of the differences. Studies on comparing professionals in finance with ordinary investors depend on context. Bradley (1981) found out that people who obtained good general knowledge usually have very unrealistic higher expectation to answer the questions correctly. Torngren (2004) who studied overconfidence in the stock

market found that professionals and non-professionals overestimate their abilities and that the professionals overrated their abilities by a more considerable margin.

Mallouk (2014) discovered a big financial industry secret. Most of the advisors will fall into one of the three camps below:

First, advisors take custody of the money as part of the regular course of business, and they are salespeople in disguise. Advisors will use strategies that cause more harm than good as they are trying to sell his client something based on what he wants to hear.

He said that if investors can overcome the three core issues of custody, conflict and competence, they would eliminate 90% of advisors and end up working with someone competent. The finding shows that the usage of an advisor in the investment of mutual funds did not give any clear advantage to the client. The investors must make their own decision and cannot rely solely on the advisors. With this in mind, it is absorbing to find out whether mutual fundinvestors still using consultants for advice.

Information

Suleyman (2013) holds the view that information and profit are highly correlated and due to that investor invests based on the information. It in line with Prospect theory where investors invest based on the personal reference point. In mutual fundinvestments, information is slow coming as it all depends on the underlying assets of the portfolio. It is undeniable that mutual fundinvestors need to know the underlying asset changes. However, most investors will treat it as a passive investment.

Information based on herding theory explains herd behaviour over informational effects. It is what Suleyman (2013) agreed when thinking about this concept. He agrees that modern communication facilities had helped the financial system and makes this theory important. When investors follow other investors' footsteps and do not use their information, according to the initial finding of Banerjee (1992), this is characterised as herding behaviour.

It was argued that information cascade by observing the decision of their predecessors for information. The previous actions of other investors are internalised based on each investor, and it becomes a yardstick for decisions and the domination of previous actions of others over their own opinions.

According to Alevy (2003), information cascade takes place when previous trade opinions have been agreed with the personal opinions and not when everybody follows the previous decisions, and the information is commencing this cascade is perceived to be optimal information. This concept is social learning or observation-based learning.

Bikhchandani and Sharma (2000), Bikhchandani, D. Hirshleifer & I. Welch (1998) and Peterson (2012) were in the same boat when they stated that price movement of securities reflects the direction of the market. The investors take this as a signal of the market movement to choose their security and reflect the decisions and actions of the well-informed investors, and it resulted in information cascades.

In information cascade, the very first transaction is the most important one because it shows whether the investors are on the right track or not. The opinion of Suleyman (2013) about the financial market today is speed, and it is an important performance indicator. It has the potential of converting correct decisions into cascades when considering that failure of decision-making has a severe alternative cost.

According to Margarida A. (2012), he discovered that individual investors who are active traders are more likely to invest in information. It is a definite correlation because the more information investors have, the more signals he receives thus create more confidence, and therefore investor trades more. Information that can generate high volume transactions is securities prices underreact to the shocking general information (Chuang, B.S. 2006).

Hailing C. (2013) found that individual investors share their analytical findings on social media and it facilitates people in choosing products. Consumers have been referring to peers and have turned to social media in creating consumption of user-generated content and found that they do not rely on expert advice. Peer review has a significant influenced by internet users (82%) in their purchasing decision (Hailing C., 2013).

Lukas M. (2013), studied online experiences on investment advisors and individual investors. He found that investment advisors and individual investors turned out to have no differences in overconfidence among them. Investment experience has a significant impact on the degree of an excess of confidence that is surprisingly in reverse.

Peer opinions have played a significant role that once dominated by professional forecasters and financial analysts. A quarter of adults in the United States rely on social media for investment advice said Research (2008) and SEC (2012) discovered that regulators conclude that social media is shifting the landscape and becoming relevance to financial markets.

Referring to Alpha (2012), the objective of the website is to provide news and not opinions or analysis. The approach is very personal and written by investors. Hailing C. (2013) said that social media's main strength is the ability to interact with users. These interactions combined with the intelligence of the "crowd" maybe are the apparent reasons why social media platform can produce value-relevant content that is better than revealing through the traditional news channel. Hailing C. (2013) finding shows that opinions revealed on social media can envisage future stock prices and earnings surprises. These findings are about the advantage of peer-based advice in financial markets.

Dewally (2003) studied stocks suggested by messages posted on the boards of two internet newsgroup. Suggested stocks had performed either well recently or very bad. It discovered that stock recommended for investment did not perform well in general. Another study by F.Whitelaw (2001) on message posting at RagingBull.com, discovered that positive messages on the message board were not correlated with positive stock returns the following week or day but correlated with trading volume. It shows that if investors perceive that the messages can increase their knowledge, they might become overconfident about their investment decisions.

Mondria J. (2012) showed that US investors allocated the same amount of attention to the unfavourable news in any equity markets, but they tended to allocate more attention to favourable from familiar equity markets. He concluded that bad news has a more significant influence than favourable information.

Forbes (2009) said that one of the most recognised failures of competitive financial markets is their inability to impound bad news about the company's performance. According to Hong (2000), 'bad news' travels slowly, and Conrad (2002) found that the impact of bad news regarding company performance is particularly devastating in rising markets and price of the securities will fall if analysts recommend it to sell. Conrad (2002) acknowledged that stock would be downgraded once the unfavourable company information becomes public knowledge.

Anderson T.G. (2003) explored the foreign exchange rate quotation in real-time price changes using a new data set, and they found out that the exchange market reacts to news in an asymmetric way. The good news has a lesser impact compared to bad news.

Noise traders

A. Shleifer, L. Summers (1990) noted that the term "noise traders" is to describe behavior caused by trading not captured by the standard explanations and labelled themselves as 'noise trader approach' according to finance. Investor confused noise with information (Black, 1986). Investors sometimes trade on noise because they failed to make a profit based on the information received.

The overwhelming majority of financial news is just noise as reminded by Mallouk (2014). A large part of the financial information an investor encounter is worthless, damaging or misleading (Mallouk, 2014). The headlines on financial media explain statistically insignificant moves in the market (Mallouk, 2014). The financial media may not be right all the time. They have no choice, according to Mallouk (2014), the media's job is not to inform the public; but to grab attention. It will lead to advertising revenue. Telling the reader that things are going to work out just fine and do not get an "eyeball" the way feeding into fear does. Therefore, the rough math is:

More Viewers = higher price for commercial space = more considerable profit = happier shareholders

To protect themselves from taking actions based on false information, they must understand the performance data, which can be very misleading. Part of being a successful investor has been able to filter out the noise as much as possible. A great example of how financial media news is created, often out of thin air, an explanation for minor market movements (Mallouk, 2014)

According to Robert Blommfield (2007), by looking at the interaction between price and information, his research discovered that with the presence of noise traders, price errors increased and it only happened when the adverse choice was large. Noise traders do not trade base on fundamental data according to Black (1986), and he continually said that noise traders put noise into the price, which resulted in worsening the price. The more intriguing result of the experiment was that the effect was not observed unless informed traders had precious information. To be able to explain why it happen lies in understanding the way noise traders behave.

According to Black (1986), noise is the opposite of information. Noise trading trades as if they are trading on the information. They trade on belief, and their belief is as reasonable as anyone's belief. Thus, differences in beliefs are derived ultimately from differences in information and interpretation said Black (1986).

It is the noise that makes the market possible, yet it also makes them inexact (Black, 1986). If no noise trading did not exist, the volume of trading would be small as investors will hold on individual assets according to Black (1986) merely because they have no reason to trade. Harris (1998) and Linnainmaa (2003) reported that noise traders make profits, while Jordan (2003) and Barber (2004) documented the only average opposite. These conflicting findings reflect the ambiguity of our profit predictions, which depends on the motivation for noise trade.

The noise traders, on the average, are more aggressive than the arbitrageurs are. Summer (1990) thought that they were either optimistic or overconfidence and so they have to accept more risks. They would

earn more if their risk-taking were rewarded. Even if they buy high and sell low, noise traders can still earn more returns.

Summer (1990) agreed that learning and imitating might not adversely affect noise traders. Many traders will follow the noise traders if they earn higher than an average return by ignoring them. They are taking more risk, and they are lucky if such herding will bring in more profit by following the noise traders.

As argued by Summer (1990), noise traders might say that their success is due to their skills rather than luck and will become more aggressive, this action will increase trading volume. Robert Bloommfield (2007) concluded that noise traders is an important issue to study and it can be very contentious. The effect of noise traders can be confident and reduces the spread and price effects by allowing liquidity traders to reduce their loss. These positive effects arise because noise traders are more likely to invest and reinvest rather than to take out cash from the market. Other effects are more decidedly adverse; price adjustment will be hindered and result in the market less efficient.

What influences the investing trading behaviour is the quality of the information and more trades will develop if the news originates from trustworthy sources. Usually, financial advisors always lead us to a better self-evaluation and better rational investment decision as argued by Epstein (2008) and Fischer (2007). Ivkovic (2007) claimed that word of mouth is useful and it affects the financial decision made by individual investors. It helps to reduce search cost and circumvent their lack of expertise by relying on word-of-mouth communication with those around them.

In sum, what moves the market be the belief of the investors. When investors believe in what they hear and receive; it will result in an investment. It is in line with Prospect theory where investors act on a subjective reference point. Therefore, it is proposed that:

Proposition 3: *Advice and information received have a significant influence on investment choice of the unit the trust funds.*

Illusion of Knowledge

According to Suzanne (2012), differing levels of actual knowledge versus perceived knowledge, combined with unreasonable expectations, generate significant obstacles to healthy decision-making. To Nofsinger (2005), the illusion of knowledge refers to the tendency for people to assume that with more details, the accuracy of their predictions increases; with more information, one's knowledge increases, thereby enhancing one's decision. Overconfidence is partially the product of the illusion of knowledge (Nofsinger, 2005).

The illusion of knowledge, according to Crystal C. Hall (2007), is related to at least three phenomena: the hindsight bias, the curse of knowledge and the illusion of transparency. The hindsight bias is where investor looks backward for similarities in prediction for future outcomes. In the curse of knowledge, the knowledge of people with less knowledge can not be estimated by more knowledgeable people, normally overestimating the knowledge of the latter. People overestimate the ability of others to interpret their inner states through the illusion of openness. Crystal C. Hall (2007) carried out four experiments based on basketball game from a National Basketball Association season. All respondents were received game statistic, and half of it received team names and game statistic. Name of the team increases the confidence of participants that were consistent with the conviction that this knowledge will improve their predictions. The findings showed a mark of a decrease in the accuracy of their prediction by reducing reliance on statistical output. In a real environment, fans' income decline by knowing the team

names with a firm belief that this knowledge improves their predictions. The reaction is according to Prospect theory as people react based on the subjective reference point.

Investors that have access to the internet will access information at a quicker level, based on Nofsinger (2005). They have raw data, but there is a lack of preparation, expertise and practice for most retail investors about how to view and evaluate it. It takes specialist expertise, and manipulating raw data can be very expensive, and yet being able to use this knowledge can result in a price shift that is either beneficial or lossful (Nofsinger, 2005). As Nofsinger (2005) found, it is beyond the scope of many non-professionals.

Wright (2000) found that the academician is another source of the illusion of knowledge. He discovered that in 1994, a group of "super investors' formed a hedge fund known as Long Term Capital Management. The two founding directors[1] won the Nobel Prize of Economics in 1997 for their research in determining the value of stock options, known as the Black Scholes options pricing model, which made trading derivative possible. The returns were fantastic, almost 40% annually at the beginning. In late 1998, due to overconfidence managers, they led to take massive over-leveraged positions in foreign government debts. The Russian government defaulted on their bonds; those highly leveraged positions collapsed as well, leading to massive losses. It was due to their overconfidence in their abilities that they failed to see the risk involved. To avoid a more extensive collapse of the debt market, the Federal Reserve had to get involved, organising a bailout by a consortium of the bank. Eventually, they led astray by their knowledge and success. Extra information does not mean more knowledge. The more information investors gather the more problems they face. It is line with Prospect theory as it demonstrates how investors react based on the subjective reference point.

There is another interesting finding by Heuer (1999) on the behavioural biases of Central Intelligence Agency analysts. The key finding of this research was that minimum information to make judgment was available for the experienced analyst; he obtained additional information that led him to be more confident in the judgment to the point of being overconfident.

Slovic (1973) studied the impact of giving extra information to individuals handicapping a horse race. First, he gave each five essential pieces of information and asked for their predictions. Then he gave them additional 35 pieces of information. This time when he asked for their predictions, the handicappers were less accurate but twice as confident.

As said by Mallouk (2014), by gathering more information, we feel better and confident about the investment and trade more. Those who trade more are those who underperform more. Mallouk (2014) agreed that the investor makes a big mistake if they agreed that by collecting more information means they are adding more intelligence that will enable them to trade to their advantage. Nevertheless, the more information we gathered, the more problems we faced and was proven right (Wright, 2000). So, the idea that we can gather a vast amount of information and distil it down to a single decision is nonsense and impossible (Richard, 2014). It has been proven by Rules of Seven by George Miller that is related to psychological restriction in our short-term memories – people can only hold seven, plus or minus two, chunks of information for processing at any one time (Miller, 1956). Therefore, it is proposed that:

Proposition 4: *Illusion of knowledge has a significant relationship in investment choice of the mutual fund.*

[1]Myron Scholes
Robert C.Merton

Miscalibration

Miscalibration is a strain of overconfidence. Ackert & Deaves (2010) define miscalibration as the tendency for an investor to overestimate the precision of their knowledge. Fischhoff, Slovic, and Lichtenstein (1977) showed that investors made rash decisions by using past events to resemble the future events with greater certainty than justified. They were only right 80% of the time. Along the same line, The Lake Wobegon Effect[2] exists, in which people overestimate positive outcomes. It could quickly explain a large part of the over-investment in collateralised debt obligation, where the valuation process is opaque.

Judgment of fund

Shiller (1997) concluded that overconfidence is related to the judgement of investors, underestimating the margin of error likely to be committed. Graham (2009) concluded that when they feel skilful or competent, people are more likely to gamble on their decisions. Lambert, Bessière, and N'Goala (2012), showed that there were negative dissimilarities between bankers and students in the level of overconfidence in judgment. However, overconfidence seems to determine decision-making in a different way across the two groups. Students were more overconfident in general tasks such as global knowledge of assets but not in investing. They were somewhat risk-averse, but bankers were overconfident. It mainly affects the specific task (investment choice and valuation) and risk aversion did not affect them in the investment decision.

Glaser, Langer, and Weber (2010) analyse the judgment bias between investment bankers who work in international banks and ordinary people. Based on the reply of 123 professionals, they found that professional judgment was biased. In most tasks, their amount of overconfidence was significantly higher than the respective scores of ordinary people.

Denis Hilton, Regner, Cabantous, Charalambides, and Vautier (2011) showed that individuals are miscalibrated as the central finding that confirms the truth of judgmental overconfidence. They overestimate the chances of their decision being correct. Miscalibration relies on how it is measured. In particular, in the interval development challenge where participants were asked to state an interval such that they were XX per cent (e.g., 50 per cent) confident that the correct answer to the questions falls in that interval, higher confidence is found.

Numerous studies have noted that confident people's judgments surpass their accuracy and overconfidence increases with the difficulty of the task (Klayman,1999). The repeated and robust findings are people using confidence to respond to questions that fall in a very close confidence interval, leading to a high error rate due to correct answers falling outside the confidence interval. When asked to evaluate the probability from a chosen set, overconfidence has always been the finding, but at a lower level, in the probability estimation format. Whether judgment biases are related or whether consistent individual differences in the degree of overconfidence exist has been unknown.

The judgment of fund is based on subjective criteria and conforming to Prospect theory where the action is taken based on the subjective reference point.

[2]The Lake Wobegon effect, a natural human tendency to overestimate one's capabilities, is named after the town. The characterization of the fictional location, where "all the women are strong, all the men are good looking, and all the children are above average," has been used to describe a real and pervasive human tendency to overestimate one's achievements and capabilities concerning others. The Lake Wobegon effect, where all or nearly all of a group claim to be above average, has been observed.

After considering the previous framework, the broad literature review on the three independent variables to be considered for this framework where it looks on the behavioural factors in deciding the choice of fund, it is found to be related to the problem statement and also able to bridge the literature gap. The three independent variables were able to incorporate Prospect Theory which was practically used in decision making. Therefore, it is proposed that:

Proposition 5: *There is a significant relationship between investors' judgment in investment choice decision of mutual fund.*

Proposed Framework

Based on the literature review on behavioural factors on decision making, the theoretical framework was constructed as below. In the present study, the researcher proposed that the behavioural factors have a significant impact on the choice of a fund in mutual fund investment. Therefore, the proposed model of behavioral factors is as below:

Insert Figure 2

Discussion

Since the 1990s most researchers on mutual fund focused their study on the characteristic of the fund (Bala 2003; Ramasamy and Yeoung 2003 and Jidwin 2011). The past studies had described that investment decision depends on the intermediary, fund performance and risk and return. Another popular aspect in the past study was on fund managers and the used of secondary data (Meng-Fen Hsieh 2010 and Sepala 2009). This describes the gap that exists in the literature where this study focused on the behaviour of the investors.

According to behavioural finance, it is proven that investors are normal people and normal smart (Statman, 2017). They are not irrational, but mostly smart and "normal smart". Normal humans do not wish to be ignorant or to make a cognitive or emotional mistake. They act instead to achieve the utilitarian, expressive and emotional advantages they seek. Normal people are often "normal fools," fooled by cognitive and emotional errors. So, by observing the real behaviour of investors, Behavioral Finance describes stock market anomalies.

The role in the choice of fund is to provide choice to the investors where the correct choice will bring profit to the investors. In deciding on the choice of fund, investors are overwhelmed by the choice available which provides an opportunity to win and loss. The choice provided is decided by the investors in which it is highly influenced by the behaviour of the investors.

Conclusion

Based on the above discussion, human behaviour influences the choice of fund and it is the behaviour of the investor which influence the decision of the investor. The new framework based on Behavioural finance equips finance professionals with new knowledge, which permit them to understand and overcome many psychological and behavioural traps involving human actions and emotions.

Declaration of Conflicting Interest

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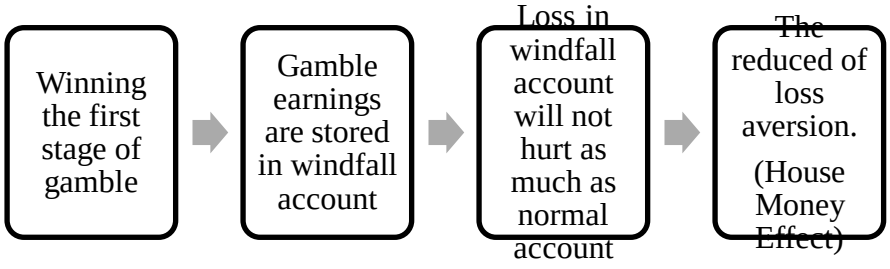

Figure 1 Mechanism for House Money Effect

Source: Jiaxi Peng (2013)

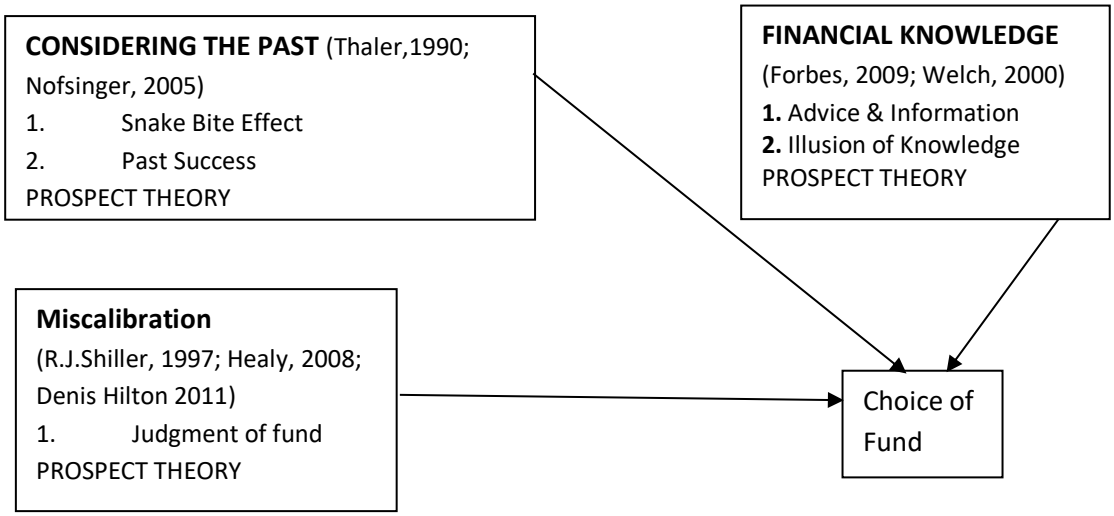

Figure 2: The Proposed Model of " Behavioral Factors on Choice of Fund (authors illustration)