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Exploring the Behavior of Retail Investor on Choice of Unit Trust Fund through Prospect Theory

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Abstract: *This study is meant to explore the behavior of the retail investors from the states of Kelantan, Terengganu, Penang and Kuala Lumpur on the choice of the unit trust funds where the underpinning theory is Prospect Theory. The selection of the respondent, who is a unit trust fund investor, is through purposive sampling. A total of 600 adapted questionnaires were distributed to those states for data collection purposes and was analysed using SPSS software to provide results for research objectives. The findings demonstrated that Prospect Theory could explain the behavior of the investors. The used of Prospect Theory as the leading theory to explain the behavior was the significance of this paper. The originality of this paper is by focusing on the behavior of the investors and applying Prospect Theory. Future research will need to focus on more respondents from other states and other fields of investment.*

Key words*: Choice, Unit Trust Fund, Behavioral Finance, Prospect Theory*

INTRODUCTION

Unit Trust Fund is structured shared investments with investors that have the same objectives contribute to the funds to invest in a portfolio of securities or assets (Gan, 2008). The fund is managed by professional fund managers and invested in a portfolio of a fund that may include cash, bonds and deposit, shares, properties and commodities. In Malaysia, the right to the fund is according to the units own as the fund and is broken down into units (Gan, 2008). The whole portfolio is not owned by the investors, but only some units they invest according to the price of the day. If a fund increases or decreases in value, the value of each unit will be affected accordingly. Federation of Investment Managers Malaysia, (2015) indicates that Malaysia has 42 unit trust management companies, 56,202 unit trust consultants together with 441 conventional funds and 190 Syariah funds to choose from as of December 2015. The Net Asset Value for the conventional fund is RM 294,454 billion and Islamic based fund is RM52, 124 billion which is 20.45% of the nett asset value of Bursa Saham Malaysia as at 31 December 2015 (Federation of Investment Managers Malaysia, 2016). The projection penetration rate for unit trust funds according to Securities Commission Malaysia (2014) is likely to be a double-digit growth from 18% in 2010 to 34% in 2020, which is almost the same the rate that observed in the developed countries.

Choosing the right fund that suits our financial objective is not as easy as a retail investor thinks. With the number of the options keep on increasing, going through the choices are very taxing, time-consuming and need mathematical and analytical skills.

The problem with choosing, according to Sheena (2011) is that to determine means to turn ourselves into the future while the future is invariably uncertain. So to choose means to assert some control over the

unknown, no matter how modest and ephemeral it may be (Portnoy, 2014) due to lack of knowledge or behavioral problems faced by investors. Inaccurate information, insufficient or incorrect analysis, and a slew of cognitive and emotional biases, humans are prone to errors. It is a sign of behavioral problems faced by investors acknowledged by Portnoy (2014).

Bogel (1993) discovered that in investment, nobody has problems with investment instead there are always issues with people and this happens because the people are the ones who created the funds and it is the people who invest in it. It is because the economic environment investors face today has become dramatically more perilous than before (Boshara, 2010) and most of the research done was on the fund (Bala, 2003; Nurasyikin, 2012) and not on the investors.

Many studies have investigated behavioral influence in the unit trust fund investment, and it is mostly from developed countries in the East and West of the globe such as Kutchukian (2013) and Shleifer and Vishny (1997). Most researches on unit trust fund investment based on the behavioral factors used secondary data, which was available in that particular country and focused on fund managers and institutional investors such as Bailey (2010) and Portnoy (2014). Studies carried out were on market level and rarely on an individual level.

According to Lu (2010), retail investors face much-trying issues to make rational decisions regarding their investment compared to institutional investors. Institutional investors have more resources to obtain crucial information to process it to come to a logical decision rapidly. Lu (2010), in his study, found that retail investors not only facing problems with the information, but they are "chasing return". In America, he discovered that the fund holding period declined from 3.75 years to 2.4 years between 1992 and 2000. Thus this study will be focusing on retail investors.

It was discovered by Yap (2012) that an investor could lose up to 30% of his investment if he chooses the wrong fund. Many were asked to dispose of the fund but prefer to wait for the fund to rebound.

It was not a surprise when Pengarang (2006) reported a shocking new that RM600 million loss from EPF saving invested in the unit trust. Answering to this issue, President of Federation of Malaysia Unit Trust Manager, YM Tunku Dato' Yaacob Tunku Abdullah, in his press release on 8th August 2006, said that according to Standard and Poor as reported on 28th July 2006, the average return from Malaysia equity funds for 7 years were 24%, 5 years was 56% and 3 years was 26%. It is a clear sign of investing in the wrong fund said the President. With this in mind, the choice of fund is very critical in unit trust fund investment.

Therefore, the present study aims to bridge the gap by exploring the behavioral factors influencing the choice of the fund by using the quantitative method among the retail investors and Prospect Theory to explain it. The significance of this study is behavioral as factors that play an intricate role in the choice of fund.

Secondly, focusing on investors' behavior in investment in the unit trust fund is still very new, and this research will enrich and advance the literature of this field. It is interesting as Malaysia is a multi-racial and multi-cultural nation, where different races behave according to a different set of beliefs and norms (Albaity and Rahman, 2012). It will result in an exciting finding that demonstrates whether behavioral factors influence the choice of the fund in unit trust fund investment and becomes the critical contribution to this research.

Thirdly, the investment of unit trust fund is for medium to long-term, and by studying it together with behavioral factors, it will contribute to a better understanding of investment choice decision in the unit trust fund. The finding of this research may help to conclude whether the rationality assumption holds in current unit trust fund investment. If the rationality assumption fails, it may also provide evidence whether expected utility theory[1] is still applicable in investment choice of the fund in unit trust fund investment.

This study will also help to conclude whether psychology is capable in explaining the behavior of the investors in investing unit trust fund as Behavioral finance is an interdisciplinary subject which includes psychology, sociology and finance and whether Prospect Theory can explain the behavior of the retail

[1]Expected utility theory states that the decision maker chooses between uncertain prospects by comparing their utility value.

investors. It will help the government to provide better legislation to protect the retail investor and also help the fund management company to promote their fund.

Literature Review

Prospect Theory

The expected utility theory discusses how people should act, while Prospect Theory is about how people act as claimed by Ackert & Deaves (2010). The work of two psychologists Daniel Kahneman and Amos Tversky who contributed to psychology literature in 1970 resulted in Prospect Theory. It is a positive theory based on what people do and observe. The theory has become a first substitute for the expected utility as a theory of decision under risk. It is the best alternative to conventional wisdom. Baker (2011) said that the possible explanation to Prospect Theory like behavior is the role of imperfect and asymmetric information.

Tversky (1981) employs it to understand the human decision making better, and it is used to measure what they believe to be the degree of inaccuracy in judgment. Altman (2011) stated that Prospect Theory is a theory of average behavior, and it assumes on the average how human either an individual or group behaves in a world of the risky and uncertain environment. Thus, there will be a deviation from the mean. Prospect Theory points to the probability that individuals' sub-optimal behavior is smart and thus rational, given the limitations facing the individual.

This theory is capable of explaining better the biases cognitive false belief in human choice behavior where biases are the results of the heuristic used. Prospect theory is the base for a variety of descriptive hypotheses about so-called persistent biased decision making under risk and uncertainty (Altman, 2011). The introduction of a short-term emotive factor as a determinant of choice behavior and profit and loss in the short term is another substantial essential component of Prospect Theory (Kahnman, 2003).

The inherent capability of Prospect Theory to explain behavior in financial markets lies upon three unique features of Prospect Theory, as shown below:

1. Choice decision-making depends on a subjective reference point, which is autonomous to the decision maker's state of resources.
2. The forming of framing is due to subjective reference points of a prospect, which affects the choice behavior.
3. At a reference point of Prospect Theory's value function, a kink exists, believing individuals weight losses at above twice as gains.

- **Assumptions of Prospect Theory**

The biases and cognitive false belief approach to choice behavior by D. Kahneman, & T., Amos (1979) has now become the conventional knowledge among a significant number of behavioral economists. This theory assumes that an individual is risk-averse. 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 allows 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. When they joined, we obtain an S-shaped function of the type as displayed below:

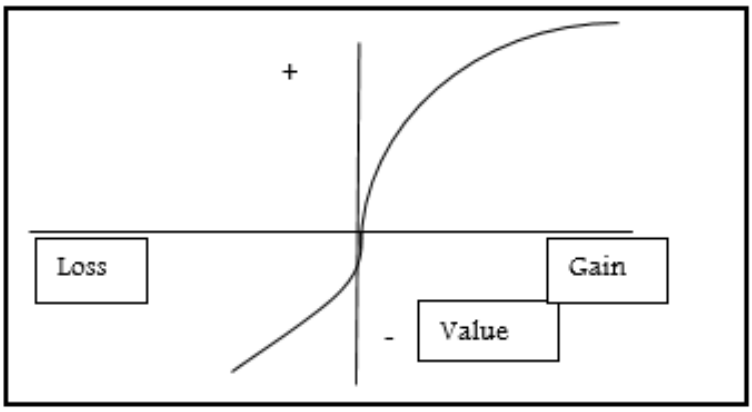

Figure 1: A Hypothetical Value Function of Prospect Theory
Source: (Kahneman, and Amos, 1979)

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).

As defined by Mallouk (2014), loss aversion is the bias where human tends to avoid a loss rather than to make a gain. Humans fear losing more than enjoy winning. Losses hurt more than the pleasure we get from gains (Mallouk, 2014). Loss aversion comes in all forms; perhaps it causes more damage to investors than any other groups. The main reason why investor keeps cash despite knowing well that they are purposely losing the purchasing power of their money is that they are afraid of losing. The average money market returns have been well below the inflation rate for years. Despite that fact, investors are willingly losing a little each day to avoid potential losses with real investment (Mallouk, 2014).

Kahneman, and Amos (1979), discovered that usually the value function is concave for gains and commonly convex for losses, and it is steeper for losses than r gains. This pattern demonstrates that the reaction towards good news should be different from the reaction towards the bad news.

Prospect Theory is a theory about choice. The choice among the risky prospect will exhibit the different behavior of the investors. Therefore, it is appropriate to test this theory on unit trust fund investor as there are lots of fund in the market.

Choice

A choice is an act of selecting or making a decision when faced with two or more alternatives (Schwartz, 2004). The study by Sheena (2011) has shown that the power of choice stems from its promise of almost infinite possibility, but what is possible is also, what is unknown. According to her, we use the choices that we have decided to shape our lives; despite those choices we have, uncertainty still exists. Choice has the power of possibility. To face the future and only be equipped with the complicated tools of choice can be scary and exciting at the same time. We are the sum of our choices. Perhaps all three, our destiny, chance and opportunity are attributable to where and how we end up being. However, choice alone gives us some measure of control and allows us to participate in our decision making actively. It also provides us with the opportunity to make the most of whatever destiny and choice that set the way. When things do not go as planned, the choice enables us to recover, survive and even thrive (Sheena, 2011).

- **Paradox of Choice**

A survey carried out by MFS[2] Investing Sentiment in 2012 found that 40% of the investors thought that investment products were too complicated to understand and 34% felt that they were unable to make decisions on investment choices available for them. There have been quite some studies by psychologists and economists on the issue of having too many choices (e.g. Sheena (2001); Schwartz (2004); Sheena (2006)). Sheena (2011) concluded that having too many opportunities is likely to render people incapable of making decisions or lead them into making decisions that are against their best interest. In theory, the presence of many choices may seem appealing, but in reality, people may feel depressed when faced with more than one opportunity to make. It also shows that an excess of choice often leads us to be less, not more, satisfied once we have made a decision. Along the same line, Schwartz (2004) clarified that it is not clear if more choice gives you more freedom to select.

As posited by Sheena (2006), it is undeniable that choice will improve the quality of our life. With choice, we can manage our objectives and draw ourselves closer to our destination. It is also necessary for our independence and fundamental to our well-being. Furthermore, a rational human being will always want to have control of their life, many needs are universal, and many preferences are to be customised and highly individualised. It is further elaborated by Sheena (2006) that choice gives us the authority to precisely pursuing what we want and gratify our preferences that are confined to our wealth. Regulating our choice in some manner, Sheena (2006) affirmed that along the way, there are surely humans who feel rundown of the prospect to pursue something of personal value.

According to Sheena (2006), freedom has significant value. It is the choice that enables us to inform the world what we want, what we care, and who are we. The choice we make reflects our independence, and since the time of Plato, philosophers of all fields have always appreciated such freedom. Andrew (2008) explained that with the new additional choice, it creates a new opening to state our independence and thus present our character. Nobody will be able to recognise us if we give up our collective social life.

Joachim (2002)'s research on dissonance theory[3] has found that dissonance can arise if a decision is voluntary, i.e. a free choice has been making from at least two alternatives. If we were asked to carry out a particular activity, then there is no question of commitment, and there is no emotional attachment to the decision. The boss will be responsible if the outcome is not as expected. Responsibility is minimal if the boss orders for everyone souvenirs in advance for a year-end dinner. In financial markets, accountability is very high, as usually nobody is compelled to invest. Instead, the decision to invest is voluntary. The trader who merely executes an order for his clients will not experience dissonance.

The paradox of choice infuses the process of picking one's retirement choice. Sheena (2004) examined the 401 (k) participation rates among clients of an investment firm called Vanguard, across more than 600 plans covering more than 800,000 employees. She discovered that the more funds offered, the lower the rate of participation was. For every ten additional funds included in a plan, there was a 1.5% to 2.00% decline in the participation rate. The low participation rate is due to difficult choices available and investors reacting to sideline the plan.

- **Choices and Reasons**

We need to justify when we make choices, and we feel that there is a need to articulate to ourselves why we make such a decision. It is beneficial to know why such judgment has been established as it enables us to improve the quality of our picks in the future. Every choice we make needs to be justified as a study by Weiner (1985) suggests that the decision-making model that is simple and straightforward is not always accurate. Two groups of participant involved in the research asked to taste and rank five different kinds of jam. The participants did not need to give reasons for their choice for the first group, but reasons are

[2]MFS is a premier global money management firm with investment offices in Boston, London, Mexico City, Singapore, Sydney, and Tokyo. The firm's history dates back to March 21, 1924, and the establishment of the first U.S. "open-end" mutual fund. MFS manages $237.1 billion in assets on behalf of individual and institutional investors worldwide, as of July 31, 2011

[3]Dissonance Theory by Leon Festinger (1957) said that there is a tendency for individuals to seek consistency among the cognition (beliefs & opinions). If there is a conflict between behavior and attitude, something must change to eliminate the dissonance.

necessary for the second group. Comparing took place after their tasting session, with rankings to those of experts published in Consumer Reports. The group, which had freedom, produced a ranking closer to that expert. It indicates that thinking about reason can change our decision, and this implies that people do not always think first and decide later (Weiner, 1985).

- **Choice and Opportunity Cost**

The quality of any choice cannot be determined in isolation. It is necessary to compare with other choices available due to the cost involved. According to the economist, this is the opportunity cost. If we forgo a choice and choose the other, an opportunity cost is involved. In decision making, for every choice, we make there is an opportunity cost attached to it. The opportunity cost considered is the one associated with the next best alternative.

This advice is not easy to follow as, according to Sheena (2006), today's products have different features. Some features may rank higher than the other in various products. As Sheena (2006) said that even though there may be a single, second best choice overall, each of the choices may have highly recommended features compared to the others. The higher our experience on the opportunity cost, the less satisfaction we will obtain from our chosen alternative. Both Brenner (1999) and Andrew (2008) agree with this form of dissatisfaction.

- **Choice and Decision Making**

It has been reported by Lepper (2000) that the decision-making process with extensive choice is more complicated than participants with limited choice as it can be very frustrating. Nevertheless, for some people selecting many choices can be enjoyable and overwhelming. Lepper (2000) found out that having more choices might appear to be pleasing and desirable; however, sometimes, it can be detrimental due to human motivation. Satisficing heuristic tends to be useful in this circumstance. He also found that people with extensive choices enjoy the process of choice-making; only because of the ease they can afford. They will feel accountable for their actions. It may result in dissatisfaction with the choice making the process and later cause discontent with their selection. Gilovich (1995) found that frustration and unhappiness are the results of the initial failure to disengage from the choice-making process. It results in the choosers' inability to use the psychological operations for the enrichment of the attractiveness of their own choice (Gilovich, 1995).

Lepper (2000) viewed that people are unsure about which one to choose when faced with many choices but happy with the decisions they make. They carry a heavy responsibility to distinguish good and bad decisions. What Lepper (2000) discovered is that the offer of too many choices is relatively trivial in choice-making context, but it can have significantly demotivating effects because of the cost associated with creating "wrong" decision, or even beliefs. Besides, it requires substantial time and effort to create a genuinely informed comparison among the alternatives available. One crucial paradox confronting the modern world, according to Schwartz (1994), is that the freedom of individuals expands, and does our reliance on other institution and people.

Methodology

According to the Federation of Investment Managers Malaysia (2014) and Securities Commission Malaysia (2014), the population of the unit trust account is around 16,000,000 in Malaysia. Thus non-probability purposive sampling is appropriate to use in this research due to the large population. However, the researcher did not have a list of the respondents. Therefore, the researcher was unable to contact the investors. All the respondents are chosen from those who met the criteria: (a) Malaysian retail investors in the unit trust fund (b) They volunteer themselves in this survey (c) The retail investors reside in Kelantan, Terengganu, Kuala Lumpur and Penang.

- **Questionnaire Design**

The principal instrument used in this study is an adapted questionnaire. It is in line with Luong (2011) and Nurasyikin (2012). The questionnaire is written in two languages; English and Bahasa Malaysia. The respondents' responses to the items, using a categorical scale for demographic variables and using five-point Likert scale from 1 = Strongly Disagree to 5 = Strongly Agree to elicit individual's dependent and independent variables responses. The questionnaire is segmented into two main parts. Section A is about the background of the respondents, while Section B is on behavioral factors influencing the choice of fund. Funnel approach was adopted in designing the questionnaire where it started with broad and general questions such as getting to know the investors and progressively narrowed down to specific questions about the variables in this study. It starts by providing the general information and objective of the study as well as the right to confidentiality. The development of the questionnaire is in Table 1.

Table 1: Sources For Questionnaire

Section	Items	Sources
Understanding the investor	7	Adapted from Wang (2012); Hayat (2012)
Choice of fund	8	Adapted from Nurasyikin (2012); Hayat (2012); Noel (1996); Teoh (2012)

- **Process of Data Collection**

Three of the 13 states in Malaysia and one of the three federal territories were selected for the study. There were 600 sets of questionnaires distributed to the office of fund management companies, enumerators and retail investors of the four states of interest (Kelantan, Terengganu, Kuala Lumpur and Penang). At the launching of new funds and investors gathering at the fund management office, questionnaires were distributed to those who are investors through the intermediary. These gatherings were carried out at the state level by the intermediary to create awareness, sales and information. The researcher cooperated with all intermediaries from CIMB Principal Asset Management Company, Public Mutual, Prudential, RHB Asset Management Company and Maybank Asset Management Company.
The second effort, the researcher appointed enumerators in each state to distribute the questionnaires. The enumerator must be an intermediary. Five enumerators were appointed for the state of Penang, five in Kuala Lumpur, five in Terengganu and five in Kelantan. They helped in contacting the respondents and assist the respondents in answering the questionnaire. Six hundred questionnaires were distributed to fulfil the needs of the statistical tools used. The questionnaire was analysed using SPSS for preliminary analysis, followed by testing to answer all research questions developed for the study.

Statistical Tools

The Statistical Package for Social Sciences (SPSS) is used as it is in line with Gözbaşı & Çıtak (2010) and Nurasyikin (2012). SPSS helps to facilitate data screening, cleaning and checking for logical inconsistencies. Besides that, it will be used to analyse the data for this quantitative study.

- **Data Analysis**

Descriptive statistic was carried out to check any logical errors and discrepancies. Besides that, it was employed to analyse the background of the respondents. In this section, frequency and percentage and choice of fund employed mean and standard deviation. The table below demonstrates it:

Table 2: Descriptive Statistic on Profile of Respondents and Choice of Fund

Items	Descriptive Statistic
Demographic Variables	Frequency And Percentages
Choice of fund	Mean and Standard Deviations

The measurement scale used in this particular study is a five-point Likert Scale. For ease of interpretation, the range of the 5 points Likert scale was ranked into three groups. The score between

1.00 to 2.33 (4/3 + lowest value (1) is considered lowly important; 2.34 to 3.66 is moderately important, and 3.67 to 5.00 is high (highest value 5 – 4/3 and above are considered highly important) (Tan, 2018).
Next factor analysis is used to confirm the finding of the descriptive statistic. The primary objective of using factor analysis is to identify a small set of factors that represents the underlying relationship among the group of related variables (Pallant, 2005). Thus factor analysis is used to identify the items, which measure the essential underlying variables. Referring to Fern (2016), factor analysis and reliability measures such as Cronbach Alpha were used to assess the extent to which the separate items are assessing a single attitude dimension.
There are some steps involved in factor analysis. Sample size has to look into. According to Pallant (2005), factors obtained from small data sets do not generalise as well as those derived from the more extensive data set. Tabachnick (2001) agreed that it is comforting to have at least 300 samples for factor analysis. In this study, the recommendation from Tabachnick (2001) is followed.
In order is to determine factorability of the data is by using Measure of Sampling Adequacy (MSA) with a value of more than 0.6, Kaiser-Meyer-Olkin (KMO) with a value of more than 0.5 and Bartlett's test of sphericity (BTS) which is significant (Pallant, 2005). The number of factors to be used will depend on the extraction factor, and the scree plot will help to determine the eigenvalue by looking at the natural bend in the data as the curve flattens out (Osborne, 2005). To ensure meaningful factors to be selected only eigenvalue over one is selected (Pallant, 2005). Osborne (2005) acknowledged that the goal of the rotation is to simplify and clarify the data structure. It cannot improve the fundamental aspects of the analysis, such as the amount of variance extracted from the items. Rotation, according to Vogt (1993), is methods in factor analysis by which the researcher attempts to relate the calculated factors to theoretical entities.
It is done differently depending on whether the factors are believed to be correlated (oblique) or uncorrelated (orthogonal). The more helpful is Yaremko, Harari, Harrison, and Lynn (1986), who define factor rotation as follows: "In factor or principal-components analysis, rotation of factor axes identified in the initial extraction of factors, to obtain simple and interpretable factors."
Tabachnick and Fiddell (2007) argue that: "Perhaps the best way to decide between orthogonal and oblique rotation is to request rotation (e.g. direct oblimin or promax from SPSS) with the desired number of factors (see Brown, 2009) and look at the correlation among factor. If the data do not drive factor correlations, the solution remains nearly orthogonal. If correlation exceeds 0.32, then is 10% (or more) overlap in variance among factors, enough variance to warrant oblique rotation unless there are compelling reasons for orthogonal rotation. Varimax rotation is by far the most common choice said Osborne (2005), and according to Leandre (1999), there is no widely preferred method of rotation, all tend to produce the similar result. The final step is the definition of the factors. An item with loading higher than 0.6 is chosen to represent a factor (Tabachnick, 2001).

Findings

Out of 600 questionnaires distributed, only 390 were returned, and 333 questionnaires were found usable.

Table 3: Response Rate

States	Questionnaire Distributed	Collected	Defects	Useable
Penang	150	110	7	103
Kuala Lumpur	150	100	33	67
Kelantan	150	110	6	104
Terengganu	150	70	11	59

- **Demographic Characteristic**

Section A of the questionnaire generated information based on a selected demographic characteristic of the respondents. The items were gender, occupation, region in Malaysia residing in, residing state in Malaysia, age, educational level and income per month. The profile summary of the respondents is in Table 4.

Table 4: Demographic Variables

Demographic Variables	Frequency	Percentages
Gender		
Male	156	46.8%
Female	177	53.2%
Age		
20-30 years old	53	15.9%
31-40 years old	95	28.5%
41-50 years old	123	36.9%
51 years above	62	18.6%
Education		
Primary School	27	8.1%
MCE/SPM	54	16.2%
HSC/STPM	116	34.8%
Diploma	87	26.1%
Degree	44	13.2%
Postgraduate	5	1.5%
Occupation Public Sector(Executive Level)	154	46.2%
Public Sector (Support Level)	47	14.1%
Private Sector(Executive Level)	86	25.8%
Private Sector (Support Level)	46	13.8%
Income per month		
RM2000-RM3000	38	11.4%
RM3001-RM4000	102	30.6%
RM4001-RM5000	100	30%
RM5001 Above	93	27.9%
Region		
East Peninsular Malaysia	165	49.5%
West Peninsular Malaysia **States**	168	50.5%
Kelantan	104	31.2%
Terengganu	59	17.7%
Penang	103	30.9%
Kuala Lumpur	67	20.1%

- **Choice of fund**

Table 5 displays the preference for the choice of the fund in unit trust investment by retail investors by using descriptive statistic.

Table 5: Choice of Fund

Items	N	Mean	Category	Std. Deviation
A fund that makes a profit every year	333	3.43	Moderately Important	1.59
Funds that meet my long-term financial objective	333	3.75	Highly Important	0.87
A fund that diversifies my investment	333	3.91	Highly Important	0.71
Advice from intermediary	333	2.55	Moderately Important	1.25
Through extra reading	333	3.55	Moderately Important	0.95
Popular funds among	333	2.67	Moderately Important	0.98

investors				
Funds from a highly reputable company	333	3.71	Highly Important	0.898
Choice of the fund provided by the intermediary	333	3.60	Moderately Important	1.04

The descriptive statistic employed was to evaluate the choice of the fund among retail investors in Malaysia. It was unearthed that only three items were categorised under HIGHLY IMPORTANT, and another five items were categorised under MODERATELY IMPORTANT, and none was categorised as LOWLY IMPORTANT. It indicates that retail investors paid attention to specific criteria which will bring them benefits.

Items that categorised under HIGHLY IMPORTANT was a fund that meets my long-term objectives (M=3.75; SD = 0.87), a fund that is capable of diversifying my investment (M=3.91; SD=0.71) and funds issued by the highly reputable company (M=3.71; SD=0.898). It indicates that retail investors were careful with their investment as they choose their fund by looking at the reputation of the company and also fund that is capable of diversifying their investment which brings them to face lesser risk in achieving their long-term financial objectives.

Retail investors did pay attention to other items which considered MODERATELY IMPORTANT in this study. Among the items were funds that profit every year (M=3.43; SD-1.59), advice from an intermediary (M=2.55; SD=1.25), through extra reading (M=3.55; SD=0.95), popular funds among investors (M=2.67; SD=0.98) and choice of fund from the intermediary (M=3.60; SD=1.04). These findings display that retail investors were careful with their money, and there is influence from the unit trust consultant. Chasing profit, popular funds and advice from the intermediary were only treated as MODERATELY IMPORTANT items while the choice of the fund from the intermediary was the highest among it in their category as they treated as an expert or better known as the white coat effect. The white coat effects symbolise an authoritative figure. It indicates that the intermediary symbolises authority and the investor prefers to invest with someone who has the knowledge and training in it.

Factor Analysis

Eight items were used to measure the choice of fund. The MSA was more than 0.5, KMO was 0.559 with a BTS chi-square of 262.184 ($p<0.000$) allowing a factor analysis. Two items (diversification of investment, a choice from UTC) were dropped as it did not fulfil the factor loading of more than 0.6. Three factors were extracted with an eigenvalue of more than 1 (See Figure 2, Figure 3 and Table 6). The statement is:

My Choice of the fund is:

Profit every year	**0.533**					
Long term investment	-0.373	**0.542**				
Advice from intermediary	0.081	-0.094	**0.561**			
Through extra reading	0.009	0.05	-0.367	**0.574**		
Popular fund	-0.028	-0.094	-0.024	-0.172	**0.568**	
Reputable Company	-0.05	-0.014	-0.049	0.005	-0.531	**0.562**

Figure 2: Measure of Sampling Adequacy for Choice of fund

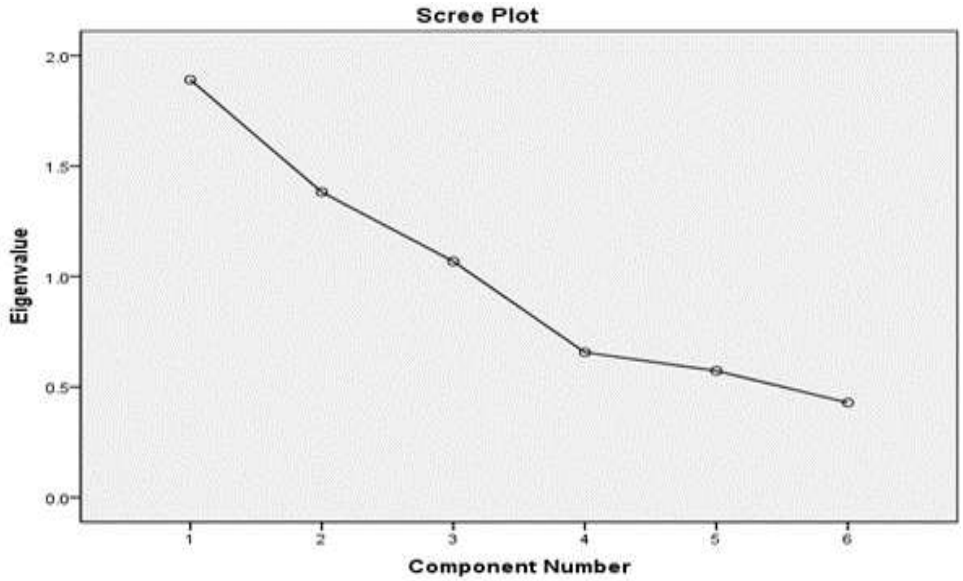

Figure 3: Scree Plot for Choice of Fund

Table 6: Summary of Factor Loading for Choice of Fund

	Factor		
	1	2	3
Profit every year			.824
Long-term investment			.831
Advice from intermediary		.845	
Extra reading		.804	
Popular fund	.859		
Reputable Company	.884		
Eigenvalue		1.068	
Percentage of variance explained		72.350%,	
KMO = .559			
Barlett's Test of Sphericity Approx. Chi-Square = 262.184, df = 15, sig = 0.00			

Discussion

This study is to explore the behavior of the retail investor on the choice of the fund for the states of Kelantan, Terengganu, Penang and Kuala Lumpur through Prospect Theory. It was discovered by the descriptive statistic that only three items were categorized under HIGHLY IMPORTANT, and another five items were categorised under MODERATELY IMPORTANT, and none were categorised as LOWLY IMPORTANT. Confirmatory Factor analysis confirms six terms, as shown below:

Table 7: Summary of the Findings

Items	Highly Important	Moderately Important	Confirmatory Factor Analysis
Funds that meet my long-term financial objective	M=3.75; SD=0.87		0.831
Reputable Companies	M=3.71; SD=0.89		0.884
A fund that makes a profit every year		M=3.43; SD=1.59	0.824
Advice from intermediary		M=2.55; SD=1.25	0.845
Through extra reading		M=3.55; SD=0.95	0.804
Popular funds among investors		M=2.67; SD=0.98	0.859

It was indicated that retail investors from the four states were educated and they knew what is unit trust fund investment. It can be seen that they invested in the long term as their choice and look for companies that had performed well. This choice reflects highly on the investors where investors look for past performance of the fund but also on the company as a whole. It is where the investors put their priority on the choice of the fund in deciding their choice of fund. It is a positive behavior, but it demands information and knowledge.

Prospect theory is capable of explaining the behavior of unit trust fund investors. It is based on a subjective reference point-the choice of the investors. An investor reacts based on the individual subjective reference point. The investor selects a reference point, and whether the result is perceived as gains or loss will depend on the reference point selected (Ackert and Deaves, 2010). These reference points are the positive trait of the companies and the fund. It is the decisive point where the investors decide as investors are risk-averse. Investors also go for popular funds-another reference point. It is because the reference point is subjective. When everyone invests in a particular fund, investors will follow the crowd. When losses occur, the pain of suffering is lesser as everyone suffers too

The demand for information and knowledge in the choice of fund is essential. Advice from intermediary and extra reading by investors plays a role in their choice fund as investors decide on their choice of fund. It will decide the subjective reference point as an entry point to their investment. This reference point can move, and this movement highly depends on the information and their reading. It is because there is plentiful of the fund in the market.

The choice of investors makes demand profit every year to fulfil their investment objective. It is because according to Prospect Theory, the appraisal of investment depends on profit and loss of the investment. Profit and loss of an investment are the sole criteria in decision making. So it is not the wealth of the investor but the change of wealth of the investor. Loss is more painful than gain, and 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). It is this reason why profit is always what investors are looking for.

It is demonstrated that investors are loss aversion. Investors' choice of the fund are funds that make a profit and meet their financial objectives. He also goes for a fund that is popular, seeking information from intermediary and reading. A fund that comes from popular companies is also on their list. Humans fear to lose, and it will take steps to avoid it happening.

The choice is part of life. While making a decision, the choice we made is reflected through Prospect Theory. Humans choose their choice to manage and improve their life. The above shown that Prospect Theory is capable of explaining the behavior of retail unit trust fund investor. Prospect Theory is capable of demonstrating how retail investors behave in an uncertain investment environment where the investment is for the long term. It established that Prospect Theory is a positive theory- a theory that demonstrates how things work out. It is also a theory of choice.

Implications and Future Research

The findings have many grateful implications for the unit fund industry. The retail investor must realise that human has behavior and their behavior influence their investment decision. It is this that causes them to create a subjective reference point (choice) to invest. Retail investors must realise that past performance does not reflect future performance. Popular funds, good reputation company are all related to the performance of the fund. The performance of the fund is highly correlated to the underlying assets of the portfolio. It is advisable to rebalance to the portfolio once in six months to achieve the financial goals.

The intermediary must realise that they play a role to create the subjective reference point (choice) by providing information and knowledge. It is here where the creation of investing begins. The role of the intermediary is not only to promote and sells the fund, but they must help the retail investors to achieve their financial objectives. By helping the retail investors to achieve their financial objectives, they will be able to promote and sell more funds to them

The unit trust fund companies must provide their intermediaries with up to date information and knowledge to guide them in their essential role. With proper guidance, the intermediaries will be more effective in creating a subjective reference point. It will help the intermediary to effectively promoting their funds and selling it to prospective investors. At the same time, the fund management company should realise that plentiful choices will not help investors. It will put the investors into a challenging position in making a decision. It can be detrimental to retail investors in making the wrong decision.
The government should draw up regulations to oversee the whole industry and protect retail investors. It will help the industry to grow and provide a healthy competitive environment for all the players involved. The enforcement of regulations must be carried out to assure that the companies abide by it, and retail investors are fully aware of their rights.
The Prospect theory has proved that it is capable of explaining the behavior of retail investors in the unit trust fund investment. This positive theory, although second to the expected utility theory, is performing better than expected. Although this theory is still young, it is gaining popularity because of its practicality.
In future research; Prospect theory should cover another area of investment such as gold, share, derivatives and property investment. The respondents will come from all walks of life and different states in Malaysia. It will help the researcher to understand whether Prospect Theory applies to other investment industries. The researcher will have a clearer picture of the capability of this theory.

Conclusion

This study is to explore the behavior of the retail investor on the choice of the fund by for the states of Kelantan, Terengganu, Penang and Kuala Lumpur by using Prospect Theory. This paper has fulfilled its objective and discovered that Prospect theory could illustrate the behavior of the investors in unit trust fund investment.

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