



## HOUSE MONEY EFFECT AND SNAKE BITE EFFECT ON CHOICE OF UNIT TRUST FUND: A MIXED-METHOD STUDY

Tan Boon Pin<sup>a\*</sup>, Vinesh Maran Sivakumaran<sup>a</sup>

<sup>a</sup> Centre for Australian Degree Programs, INTI International College Penang,  
Bayan Lepas, Penang, Malaysia

\*Corresponding author's email: [boonpin.tan@newinti.edu.my](mailto:boonpin.tan@newinti.edu.my)

### ABSTRACT

This mixed-method study investigates the behavioural factors influencing retail investors' choice of unit trust funds in Malaysia, focusing on the Snake Bite Effect (past investment losses) and the House Money Effect (past investment successes). Using Prospect Theory as a framework, the study explores how past experiences with gains and losses shape investors' risk attitudes. Quantitative data were analyzed using descriptive statistics and correlation, revealing that the House Money Effect significantly influences fund choice, while the Snake Bite Effect does not. Qualitative insights, gathered through thematic analysis, reinforced these findings, highlighting that past successes boost confidence and risk-taking, whereas losses lead to cautious decision-making. By employing a triangulation design, this study offers a comprehensive understanding of investors' behaviour, bridging quantitative trends with qualitative depth. The findings have practical implications for investment management and future research into behavioural finance.

**JEL classification:** G4, H3, G51

**Keywords:** behavioral finance; prospect theory; unit trust fund

*Received: December 30, 2024*

*Revised: August 15, 2025*

*Accepted: August 29, 2025*

### 1. BACKGROUND

Federation of Investment Managers Malaysia and Securities Commission Malaysia (2025) indicate that Malaysia has 41-unit trust management companies, 58073-unit trust consultants together with 483 conventional funds and 305 Syariah funds to choose from as of December 2024. The Net Asset Value for the conventional fund is RM 423,865 billion and Islamic based fund is RM122,219 billion which is 26.25% of the nett asset value of Bursa Saham Malaysia as of 31 December 2024 (Federation of Investment Managers Malaysia, 2025). The projection penetration rate for unit trust fund 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. In circulation, the number of units and the number of accounts and approved funds from 2020 to 2024 are as follows:

**Table 1: Number of units in circulation, accounts and approved funds by securities commission as at 31 December 2024**

Year/Item	2020	2021	2022	2023	2024
Units in Circulation (billion)	745.051	772.634	769.002	756.786	757.384
Number of Accounts (million)	20.546	23.173	24.416	25.487	26.395
Approved funds by Securities Commission	456	740	759	757	775

Source: Securities Commission Malaysia (2025)

All the above statistics and information indicates that there are many funds to choose from; investment in the unit trust fund is getting popular among Malaysians. As this discovered by Schwartz (2004), the continuous increase in the number of choices, freedom to choose will eventually become an enemy of choices. Schwartz (2004) concur that experience with decision making is not a privilege but rather a burden since it is a psychological process, a multiplex reaction that includes rising expectation, awareness of opportunity cost, maximising, aversion to risk and social comparison.

The study on unit trust fund investment in Malaysia focuses on decision-making factors, particularly fund performance and fund characteristics. It uses primary data collected from Employees Provident Fund (EPF) members as respondents (Bala, 2003; Jidwin, 2011) and yet about behavioral factors influencing the choice of fund. This study used primary data, mixed methods triangulation design and the choice of the fund as the dependent variable and focusing on retail investors behavior to respond to the reasonable gaps in the literature.

The overall goal of this proposed study is to understand better the complexity in choosing unit trust fund for investment. The objective of this paper is to discover whether the snake bite effect and house money effect has influenced the choice of fund.

The research questions investigated are:

- a. Do snake bite effects influence the choice of funds?
- b. Does the house money effect influence the choice of the funds?

## 2. LITERATURE REVIEW

The expected utility theory discusses how people should act, while Prospect Theory is about how people act as claimed Ackert and 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.

Tversky and Kahneman (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. Bounded rationality does not equate to choice behaviour with an error in judgment (Herbert et al., 1987) because the choice is decided by various limitations, both psychological and environmental. Altman (2011) said that choice could be smart and intellectual while not following the traditional norms. Altman (2011) stated that Prospect Theory is a theory of average behaviour, and it assumes on the average how human either an individual or group behaves in a world of the risky and uncertain environment.

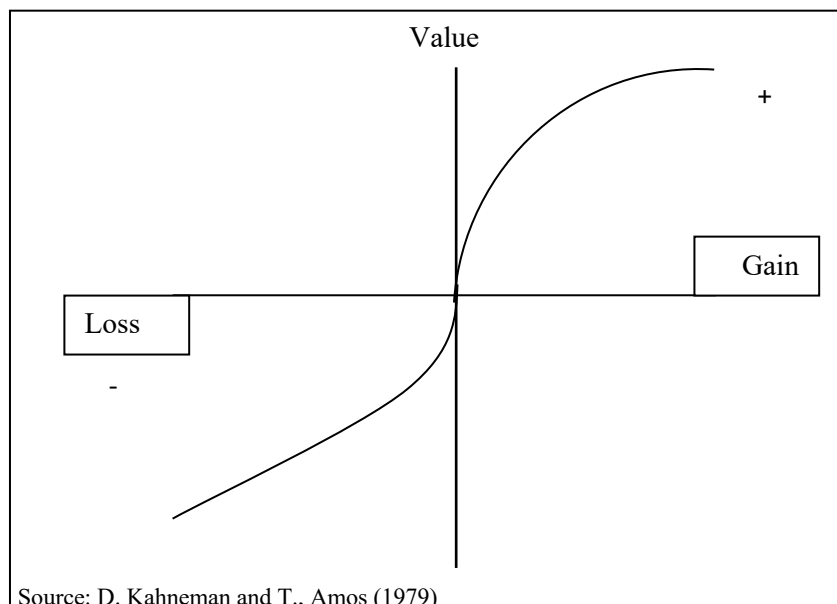
The inherent capability of Prospect Theory to explain behaviour in financial markets lies upon three unique features of Prospect Theory, as shown below:

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

Prospect theory choices are reference dependent. Under Prospect theory, the reference point is considered one of the essential features (DellaVigna, 2009). There are at least two reasons for it. First, it is the entry point from which an individual sets up their value function, distinguishing between the domain of gains and losses. The outcome of this theory is based and measured on the current wealth; the reference point is used to describe the present individual level of utility. The reference point can shift from time to time, either from the internal switch such as preferences, tastes and social status or the external ones such as losing a job or a lottery win.

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.

i. 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**

ii. 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 deciding, which means that

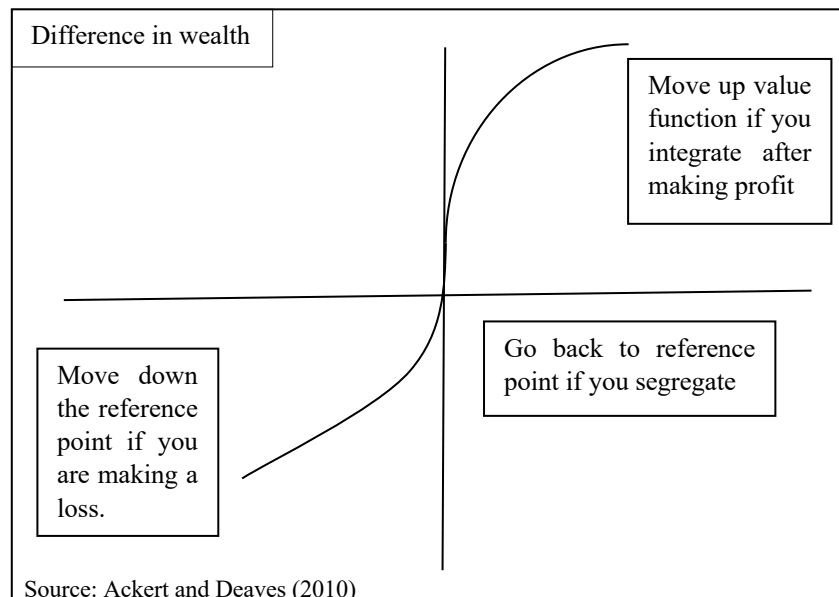
the argument is not wealth but a change in wealth. It illustrates that risk attitude is not the same across gains and losses, implying that it is the change in wealth, and evaluation is based on a reference point.

iii. People are averse to losses looming more significant 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 and Dellinger (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 & Dellinger, 2015).

Typically, the decision-maker selects a reference point, and whether the result is perceived as gains or loss will depend on the reference point selected (Ackert & Deaves, 2010). Tversky and Kahneman (1981) provides an example. Assume a loss of \$150 at the horse race today and are considering betting another \$10 in the next final race of the day on a horse with 15:1 odd. A win will win \$150, and loss will lose \$10. It demonstrates the importance of the bettor's reference point. If the bettor ignores his prior losses and considers his new preference point, the outcome of the final bet is either a gain of \$150 or a loss of \$10.

Prospect Theory anticipates that the decision-maker who prefers the segregating result will be less favourable to accept risk in this situation. It is because the gamble crosses over between loss and gain, the fear of loss is still in her mind and to the degree that we are in the domain of gains, the value function is concave.

If the gambler who integrates the result of the bets on the day, he will be more risk-seeking, since he is in the domain of losses. His last bet presents the chance to break even. Figure 2 illustrates the difference between integration and segregation. When positions are lumped together, integration occurs, and segregation occurs when people segregate. Tversky and Kahneman (1981) agreed that sometimes, people adopt the frame of integration. They will take a risk to break even.



**Figure 2: Integration vs segregation of prospect theory**

Humans do not make decisions according to *homo economicus*. When an investment is a frame regarding emotional gains and losses, our thinking and the process of making the decision are distorted through lenses of loss aversion. However, this distortion can be predicted through PT as it understands it.

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. According to heuristic, it is familiarity and representativeness, where investors look for traits and behavior, and it is due to bounded rationality because of the capability of our brain to remember.

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 to higher satisfaction. Look at the market in which two stocks increase in price. Over 12 months of stock, stock A increased to \$125 and stock B rose to \$120 in a month. It is this memory that Wright (2000) mentioned results in the investors feeling better about stock B; even though its performance is not at par with Stock A.

Using past outcomes as a factor in evaluating the current uncertainty commonly used by many investors is known as considering the past (Nofsinger, 2005). The discovery by Thaler and Johnson (1990) that snake bite effect and past success were the behavioral factors to consider if an investor considers the past in making a financial decision.

### **2.1 Snake bite effect (past investment losses)**

According to Nofsinger (2005), following a financial loss, investors become averse to risk. It is known as snake bite effect. After losing money and are faced with a gamble, investors will choose to decline to take the risk. Snakes seldom bite people, but when they bite the victims become more mindful. After feeling hurt and if the feeling of unluckiness is there, they will avoid risky adventure; therefore, they herd (Nofsinger, 2005). It is in line with Prospect theory, risk-seeking or risk-averse depend on the nature of the prospect.

Investors have experienced losses that caused them to be cautious than they usually would as mentioned by Nkukporu et al. (2020). 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 behavior 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 by this theory. A study conducted by Das and Mohapatra (2017) strongly evidenced that the snake bite effect influence investors in making decisions that may result in errors in their judgement.

According to Merli and Roger (2011), lousy past performance will lead to herding. Bikhchandani and Sharma (2000) and Chen (2012) finding was less convincing that investors herd if their investment did not perform well. What they found is that 77% of these trust 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 in line with Prospect theory where investors react on the subject reference point and act according to profit and loss of the prospect. Therefore, the hypothesis is there is a significant relationship between snake bite effects in investment choice of the unit trust fund.

## **2.2 House money effect (past investment 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 many unit trust 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. This was discovered by Hsu (2010) that the house money effect seems to decline over time, because the propensity for risk taking following gains is diminished with time.

Investors will always try to minimise the impact of their poor return by always highlighting their excellent return and by taking this step, will end up overrating both their past return and their potential future performance of their account (Wright, 2000). Overestimating their investment return is a common occurrence. There is some evidence of a house money effect in risky choice experiments, the effect being to make choices more risk-seeking (Engel & Moffatt, 2012).

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 the right decision 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.

In evaluating risky decision today, investors are using the past outcome as a yardstick. It is in line with Prospect theory where investors are more risk-seeking after making a gain and risk-averse after making a loss. After a profitable investment, the profit they earn is never fully considered their own money (Nofsinger, 2005). Nofsinger (2005), in an experiment, found that 77% of the economic students would continue betting after winning \$15.00. After losing \$15.00, only 41% chose to gamble.

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 has a house-money effect and predicts that investors are more likely to be risk-seeking after a series of successful investments. The evidence of individuals' reaction when affected by prior gains and losses was provided by Thaler and Johnson (1990) and similar to Prospect Theory where the appraisal of a prospect depends on profit and losses relative to a reference point.

A simple experiment carried out by Thaler and Johnson (1990) on 95 undergraduates' economic students. They were asked to answer a series of choices between sure things and gambles, some of which involved gains and other losses and subjects were genuinely told that one of the choices would be selected at random to count for the study. The three questions included in the study and the numbers in brackets are the percentages of subjects who chose the selected answer.

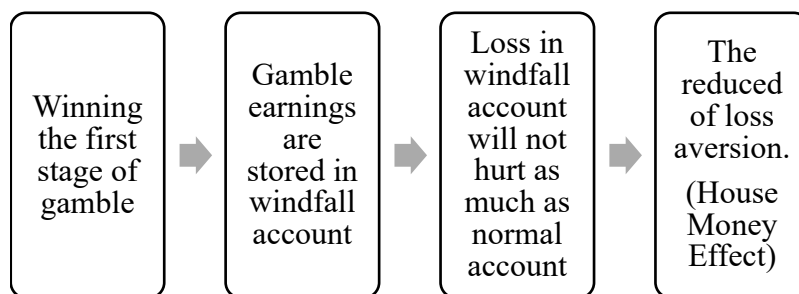
**Table 2: Summary of choices across three scenarios**

Scenario	Choice	Description	Probability
Scenario 1: You have just won \$30.	a	A 50% chance to gain \$9 and a 50% chance to lose \$9.	70%
	b	No further gain or loss.	30%
Scenario 2: You have just lost \$30.	a	A 50% chance to gain \$9 and a 50% chance to lose \$9.	40%
	b	No further gain or loss.	60%
Scenario 3: You have just lost \$30.	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 house money effect while problem 2 and 3 illustrate the multiple preferences in play when people consider themselves behind in some mental accounting. In problem 2, a loss of \$30 does not generate risk-seeking when there is no chance to break even but when given that chance, in problem 3, the majority of the subjects opt for a gamble. House money effect is the phenomenon that profit from an investment may increase people's confidence to accept a higher risk investment (Thaler & Johnson, 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 of house money effect, although there are many studies on it. Peng et al. (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 has relatively low psychological value so that the loss of such money does not hurt much. The figure below illustrates it.



Source: Peng et al. (2013)

**Figure 3 Mechanism for house money effect**

Mallouk (2014) discovered that the vast set of the unit trust 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 and 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 in the first place. Therefore, the hypothesis is there is a significant relationship between past successes in the investment choice of the unit trust fund.

In sum, snake bite and house money effect is heuristic and 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 decisions depend on the profit and loss of the prospect. It is also in line with bounded rationality because of the limitation of the human brain.

There are 483 conventional funds and 305 Islamic funds to choose from Federation of Investment Managers (2014). In investing unit trust funds, investors need to choose as there are choices. This study only focuses on the listed unit trust scheme (either conventional or Syariah fund), which can be a closed-end or open-end fund. An open-ended fund has unlimited unit creation by the fund management company while a closed-end fund, the number of units created is limited. Listed unit trust funds are funds where the value is floated in the secondary financial market. Islamic funds are funds that follow the Syariah principles, whereas the conventional fund follows strictly on the objective of the fund.

The willingness to engage in a financial activity when the payback is uncertain is defined as risk tolerance, according to Fehr-Duda et al. (2010). In evaluating their risk tolerance, Moreschi (2005) found out that only 4% of their respondents were able to do it, 23% overestimate it, and 73% underestimate it. The investor ends up making irrational decisions as a result of this. Chavali and Mohanraj (2016) recognised that there are many factors which affect the financial decision making of an individual of which demographic variables which represent personal financial risk tolerance are the most important one. According to him, risk tolerance is a crucial factor that influences a wide range of financial decisions. Janin and Mandot (2012) concluded that there is an impact of demographic factors on investment decision. Based on Praba (2011), factors like age, education level, profession and annual income will determine the investment objective of the individual.

The three controlling variables representing risk tolerance in this study are age, education and income.

### **2.3 Age**

According to Korniotis and Kumar (2011), age dominates the positive effect of experience, but their investment skill declines with age due to the adverse effects of cognitive ageing. Findings from Salthouse (2000) agreed with it. Research conducted by Fagereng et al. (2017) showed that people tend to enter the stock market at an early age and invest a more considerable portion of the wealth in stock. It was discovered by Subramaniam and Athiyaman (2016) that teenagers are more risk-seeking because they have time and capacity to recover from potential financial losses; they tend to take more risks than older people. Similar, younger individuals have more time to accumulate as well as to protect their wealth. When they approach retirement, they adjust their portfolio, reducing it gradually. Bailey et al. (2010) in his study of behavioral biases in the unit trust fund was by inhibiting age and McNab et al. (2015) study memory of the respondents by inhibiting the same demographic factor.



## **2.4 Education level of investors**

Kannadhasan (2015), thought that generally, it was assumed that people of professional qualification could assess the risk and return of an investment project. According to Subramaniam and Athiyaman (2016), a factor that influences risk tolerance is the level of formal education of an individual. Rao (2011) found that that increased level of education is linked with higher risk tolerance. High-risk takers tend to have a higher level of education, whereas less educated people are risk-averse (Subramaniam & Athiyaman, 2016). Investors with a higher level of education have more understanding of various investment options and features and are more knowledgeable in managing risk. On education, Fernandes (2014), found that when the education of an investor is inhibited, psychological factors appear in decision making

## **2.5 Income**

Kannadhasan (2015) discovered that people would allocate some of the income for wealth accumulation and Korniotis and Kumar (2011) also discovered that income has a relationship with investment. People with higher income have better disposal income to invest, and this was discovered by Subramaniam and Athiyaman (2016) concerning the positive relationship between income level and risk tolerance; that a higher level of income serves as a buffer to face the possible losses in the future. Aspara (2018) study decision making and income were made a controlled variable. He found that large scale of intelligent decision making.

In sum, demographic factors play a significant role in deciding the risk tolerance level of investors. Based on the discussion above, the theoretical framework will demonstrate the personal effect of the independent variables towards the dependent variable.

## **3. METHODS**

### **3.1 Mixed methods**

What the methodology considers in this study are mixed methods. Creswell (2011) define mixed methods designs must include at least one quantitative method and one qualitative, where neither type of method is inherently linked to any particular inquiry paradigm. The user of this method is to explain and confirm the findings of the quantitative method (Venkatesh et al., 2013).

Integrating the two findings will provide a bigger picture and bring a greater understanding of the problem than would be obtained by either type of data separately. The current study, the quantitative data is used to test the behavior of investors in the unit trust fund in the choice of the fund while the qualitative data will explore, explain, expand and reaffirm on it. In sum, the mixed methods provide a better understanding than either quantitative methods or qualitative methods alone.

In this study, the employing design is triangulation. This design will address the study of the behavior of unit trust investors in Malaysia. Both the quantitative and qualitative data are used to test whether behavioral factors influence exist in investment choice decisions in unit trust fund investment. In this design, quantitative and qualitative data is collected concurrently and analyses accordingly while the result is merged to gain more excellent insights into the research problem.

The convergent design can offer different insight, and their combination provides to see the problem from multiple angles and perspectives and even validates one

database with the other (Creswell, 2015). The quantitative findings provide general trends and relationships while qualitative results provide in depth personal experience of the investors. As agreed by Creswell (2015), both essential results, when combined, will provide complete understanding than what would have been provided by each database alone. Thus, because of using this design, the mixed methods researchers can advance multiple perspectives. By data triangulation, it enables data saturation and one method by which the validity of the study results are ensured (Denzin, 2009).

The convergent design can offer different insight, and their combination provides to see the problem from multiple angles and perspectives and even validates one database with the other (Creswell, 2015). The quantitative findings provide general trends and relationships while qualitative results provide in depth personal experience of the investors. As agreed by Creswell (2015), both essential results, when combined, will provide complete understanding than what would have been provided by each database alone. Thus, because of using this design, the mixed methods researchers can advance multiple perspectives. By data triangulation, it enables data saturation and one method by which the validity of the study results are ensured (Denzin, 2009).

The population of retail investors in Malaysia is about 16,000,000 accounts (Federation of Investment Manager Malaysia, 2014). This study used concurrent mixed methods of sampling, where the unit of analysis comes from the same population.

According to Teddlie and Yu (2007), concurrent mixed methods sampling is where the selection of unit analysis is simultaneously used through both probability sampling and purposive sampling. Purposive sampling (quantitative strand) will provide generalisation (findings can be used in a broader group) while purposive sampling (qualitative strand) will provide in depth exploration and the sampling procedure occur independently (Teddlie & Yu, 2007). Teddlie and Yu (2007) said that it utilised a single population to generate a sample by using the purposive technique to produce data for the qualitative strand and quantitative strand. Creswell (2015) has the same opinion.

This study uses the convergence model, and the data collection for the present study will follow the recommendation by Creswell (2011) and in response to the research questions. Creswell (2011) raises the issues of sample size, respondents involved, the source of data and concepts need to assess. This study will follow his recommendations, as explained in Table 3.

**Table 3: Data collection**

Type of Mixed Design	Decision Needed in Data Collection	Recommendation for Designing a Mixed Methods Study
Convergent Design	Will the two samples include different or the same individual?	Use the same individual if the intention is to compare the data set.
	Will the samples be the same size?	Selecting equal or unequal sample sizes is a limitation of the study. The qualitative study provides in-depth exploration while the quantitative study provides generalisation.
	How will the concepts be assessed?	Create similar questions for qualitative and quantitative data collection so that the two databases can be merged.
	Where were the sources of data? Single or two sources?	Collect independent qualitative and quantitative data sets from two sources.

Source: Creswell (2011)

Strategies used to minimize the threat to validity are by drawing samples from the same population, using the separate data collection procedure and addressing the same questions in both quantitative and qualitative data collection.

According to Creswell (2011), the question of the mixed methods addresses the mixing or integration of quantitative and qualitative data, and it must be made explicit and stated. Before data analysis is carried out, a mixed methods question is formulated to guide the merging of the two databases through merging analysis. The mixed-methods question is *“To what extent do the quantitative and qualitative results converge?”*

Data analysis for this study will follow the method by Creswell (2011). The two types of data will be collected concurrently and analyses separately by using the best logical way to answer the research questions. Following that the results are compared according to the dimensions needed.

Integration refers to how one brings together qualitative and quantitative results in a mixed-methods study (Creswell, 2015). As mentioned by Creswell (2011), merging data strategies involve the use of “analytic techniques for merging the result”. During the process, the result from the two databases will either be “congruent or divergent” as agreed by Creswell (2011) and further reconciliation is needed if it were to be divergent. Denzin (2009) said that it is up to the researcher to make sense for them and to explain the richness of the information gleaned from the data.

Creswell (2011) asserted that there are three options to merge data analysis in today’s mixed-method studies. The side-by-side comparison table involves presenting two results together in a discussion or a summary table so that they can compare. The final column in the table would discuss the differences and similarities between the themes and the statistical result. The second option is a joint display whereby two findings either in the form of a figure or table in which the researcher presents enable it to be directly compared. Data transformation merged analysis is the third option. In this form of merging, the researcher transforms one type of data into another type so that both databases can compare and further analysed (Creswell, 2011).

In this study, the researcher will use a side-by-side comparison table used to merge data analysis. It is because it enables discussion, and the presentation becomes the means for conveying the merged result and commonly used in the convergent design (Creswell, 2015). Strategies to minimize the threat to validity at this stage are to address the question of mixed methods, gathering more data if divergent finding cannot be resolved and use procedures to present both sets of results in a balanced way.

It concludes with the mixed methods strategy and will be followed by qualitative and quantitative methods.

### **3.1.1 Qualitative method**

Qualitative study is used to expand, explain, explore and reaffirm the findings of the quantitative study and help to develop an appropriate model on how retail investors choose their fund. The design for this qualitative study is for grounded theory. It is a substantive theory where it fits into the real and practical world. Grounded theory is chosen because little is known in this study. Most study in the unit trust fund is focused on performance and the comparative study of conventional and Syariah fund. Little research has been done based on an alternative theory like Prospect Theory. The explanatory power of grounded theory has been another reason for it. Grounded theory

must work and thus capable of explaining what is happening on the ground and how those investors choose their fund. Grounded theory will help to examine topics related to behavior from many different angles, thus developing comprehensive explanation on how investors choose their fund and capable of examining a rational and irrational aspect of behavior and show how reasoning and emotion combine to influence investors in their choice of fund.

There are many versions of grounded theory and among them are Glaser Approach, Strauss and Gorbin Approach, Constructivist Grounded Theory and Grounded Theory Lite (Virginia, 2013; Gibson, 2014). In this study, grounded theory lite is used because a complete full-grounded theory is highly demanding and time-consuming. Furthermore, “*many grounded theorists use grounded theory-lite (Virginia, 2013)*”. In grounded theory lite, Gibson (2014) asserted that researchers would only need to complete the earlier stages (initial coding and concept development), and it is very suitable for the smaller qualitative project.

In this study, the interview method is used, and the unit of analysis is retail investors in the unit trust fund. It is used because interviews are ideally suited for experience type of research question and exploring understandings perceptions and construction of things that respondent have some personal stake that will generate rich and detail responses (Virginia, 2013). Referring to Esterberg (2002), the interview is an assembly of two folks to trade facts and thoughts via questions and responses, resulting in communication and joint construction of meaning about a particular topic.

In this study, the interview in use is semi-structured. It will be less rigid than a structured interview, and it enables the topic to be explored more honestly and allow the interviewees to express their views and ideas in their expression (Virginia, 2013). A face-to-face interview will be carried out in this research due to its strength. According to Virginia (2013), comprehensive data about individual experiences and perspective is available; unplanned questions can be used as a probe to obtain more information, it requires smaller samples that enable the researcher to generate adequate data and the researcher has control over data production and increases the probability of generating useful data.

The hypotheses are the basic and the content of the interview protocol and were grounded because the goal of the qualitative phase was to elucidate and elaborate on the outcome of the statistical test.

**Table 4: Hypotheses and questions**

Theory	Hypotheses	Questions
Snake Bite Effect	There is a significant relationship between the snake bite effects on investment choice of unit trust funds.	Does your experience in loss of your investment influences the choice of the fund?
House Money Effect	There is a significant relationship between house money effect on investment choice of unit trust funds.	Does your past success have an influence on your choice of the fund?

Open-ended questions were created in line with the hypotheses based on independent variables studied in this study and must answer the research questions and objectives. By triangulating the data, obtaining the information through contrasting method, it heightens the dependability and trustworthiness of the data and their interpretation (Zohrabi, 2013).

In preparing questions for the interview, the questions will allow the interviewer to dig into the experience or knowledge of the interviewee to gain maximum data or anything new that helps the study.

In this study, purposive sampling is employed due to its focus only on the interest group. Moreover, it can generate insight and in-depth understanding as opined by Patton (2002). It was agreed by Virginia (2013), that one of the concepts that can drive the question of quantity of data needed for the qualitative study is “saturation”; a concept that is developed from grounded theory. Theoretical saturation is often used to determine the sample size and often is the point in data collection when new data no longer provide additional insight into the research questions (Virginia, 2013). The recruiting of the respondent is through friends, intermediary (unit trust consultant) and family members. The criteria used in selecting respondents are Malaysia Retail Investors in Unit Trust Fund with more than five years’ experience. With more than five years’ experience, they are considered an expert in investing in unit trust funds. The above criterion is used because the study focuses on Malaysians, and retail investor is the focus because they consist of more than two-thirds of investors in the unit trust fund investment. (Federation of Investment Managers Malaysia, 2024) Respondents are voluntarily willing to participate and share their experience, and they reside in Kelantan, Terengganu, Penang and Kuala Lumpur.

The four states are chosen because it is from various parts of Peninsular Malaysia. It will reflect a more comprehensive study. Besides, it will have more ethnic balance as the population in eastern Peninsular Malaysia are mostly Bumiputra, and western Peninsular Malaysia is somewhat mixed. Refer to Table 5. It is because different ethnics have different behaviour, according to Abaity and Rahman (2012), but Yoanna Fransisca Sri Widayanto (2013) found the opposite.

**Table 5: Distribution of ethnic according to the states**

States	Bumiputra	Chinese	Indians
Kelantan	95.50	3.20%	0.30%
Terengganu	97.40%	2.40%	0.30%
Kuala Lumpur	47.70%	38.50%	9.20%
Penang	45.10%	41.50%	9.80%

Source: Department of Statistic Malaysia (2024)

Although the Malays and Chinese had been together for a long time, Sian et al. (2010) found dissimilarities in their decision-making, choice of products, branding and responses towards advertisements. It is consistent with Chui, Titman and Wei (2010).

Thematic analysis is used to interpret and understand the dataset. It will be used to show the relationship, pattern and themes in the dataset while notes collected will be used to understand better on what had been collected. The analysis is not shaped by any theory and able to generate an analysis from the bottom.

Thematic is used because of its strengths. As said by Virginia (2013), thematic analysis is flexible and can answer almost any research questions and used to analyse almost any kind of data with a large or small dataset. Secondly, according to Morse (2000), it is an excellent starter for beginners with little or no knowledge of qualitative research and easy to learn, compared to another laborious method. Answers are analysed on question basic and follow by pattern or theme. The following steps recommended by Taylor-Powell and Renner (2003) and Virginia (2013), will be

followed, as shown in Table 6. The result of the interpretation will be used to merge, compare and contrast the result of quantitative data finding.

**Table 6: Thematic analysis, coding and grounded theory lite**

Step	Thematic Analysis	Grounded Theory Lite
i.	Get to know the data - In this step, the researcher will listen to the tapes and read the notes repeatedly to get an in-depth understanding of it. - It will help the researcher to get the impression of the data. - It will go through question by question.	Initial coding and initial memo
ii.	Searching for theme	Intermediate coding: memo writing, refining the coding system, connecting codes with other codes, identifying categories and defining them.
iii.	Reviewing themes (producing a map of the provisional themes and subthemes and the relationship with them.	Production of a diagrammatic representation of analysis-shows categories and relationship between them.
iv.	Defining and naming the themes	Writing up-finalising analysis
v.	Writing up-finalising analysis	

Source: Virginia (2013) and Taylor-Powell and Renner (2003)

To determine the accuracy of the qualitative findings, Creswell (2009) agreed with the use of respondent validation. According to Torrance (2012), respondent validation allows the respondent to read the data and analyses and provide feedback on the researcher interpretation of their responses. It provides for the researcher a method of checking for inconsistencies and challenges the researchers' assumption and provides the researcher with an opportunity to re-analyse the data. It helps and addresses to co-construct the nature of knowledge by providing the respondents with the opportunity to engage with, and add to interview and interpreted data several weeks after their semi-structured interview (Birt et al., 2016). It will undoubtedly engage the respondents' reaction to new and emerging findings and certainly refine the analysis and explanation.

Respondents will receive a copy of his transcribe, analysis and ask to comment on it. This step follows Carlson (2010). The researcher will contact the respondent from time to time for their comments, and the final transcribe was used. According to Creswell (2009) and Harvey (2015), after analyzing and conceptualizing the theme, it will send back to the respondents. Respondents will respond by commenting on whether the analyzed result resonated with their experiences or otherwise.

Another method used to enhance validity is theoretical saturation by Virginia (2013), where extra respondents will not contribute new information to the study and thus indicate validity. Thirdly, it is through the analysis of the verbatim through a thematic analysis where it allows the researcher to analyze and to conclude the finding. Citations were also used to reaffirm new variables found. In this study, the methods mentioned above were used to validate the qualitative findings.

### 3.1.2 Quantitative methods

The quantitative study seeks to discover the relationship between variables, to explain and predict it to generalize the findings to a broader population (Bourne 2009). In this study, its objective is to detect the behavior of the investors in the choice fund in unit

trust fund investment and whether behavioral factors have influenced it. This quantitative phase employed deductive approach where it starts with the existing theory and logical relationships among the concepts and then continues to find empirical evidence. In this study, exploring behavior, which is already out there with the variously available theory behind it, seems to be very appropriate. The deductive approach is associated with quantitative research, which involves collecting quantitative data and analyzing it with the statistical method.

According to Federation of Investment Managers Malaysia (2024) and Securities Commission Malaysia (2014), the population of the unit trust account is around 26,395,595 in Malaysia, thus purposive sampling is very appropriate and used in this research.

The researcher used non-probability sampling as he is unable to contact all the investors. Respondents are Malaysian retail investors residing in Kelantan, Terengganu, Kuala Lumpur and Penang, and they volunteer themselves in this study. Purposive sampling is appropriate because it is due to the large population, and the researcher did not have the list of the respondents, it is a non-probability sampling, and it provides generalisation, it is more economical than other methods, and area sampling is possible.

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

Cronbach's coefficient alpha is a widely used measure of reliability and defines as *"the proportion of a scale's total variance that is attributable to a common source, presumably the true score of a latent variable underlying the items"* (DeVellis, 2003). In other words, Cronbach's coefficient alpha distinguished between the amount of variation that stemmed from the latent variable and the amount attributable to error. Theoretically speaking, alpha may range in value from 0.0 to 1.0 (Sekaran & Bougie, 2000). However, obtaining either of these extreme values is unlikely. A negative alpha indicates negative correlations among scale items.

As mentioned by Sekaran and Bougie (2000), there is no specific minimum value for the alpha coefficient, *"a higher value indicating a higher degree of internal consistency or reliability is expected"*. Sekaran and Bougie (2000) further asserted that in general, below 0.60 are considered inferior, 0.70-0.80 are acceptable, and 0.80 and above are good. The current study, reliability of 0.60, is set as the minimum level of acceptability.

Next, inferential statistics were used in the following manner. First, for a profile of the respondents as below:

**Table 7: Descriptive statistic on profile of respondents independent variables**

Items/Variables	Descriptive Statistic
Demographic Variable	Frequency and Percentage
Snake bite Effect.	Mean and Standard Deviation
House Money Effect	Mean and Standard Deviation

The measurement scale used in this study for dependent and independent variables is a five-point Likert scale. Pearson's product-moment correlation is used to observe the direction and effect of the relationship between variables in this study. The correlation coefficient is used to demonstrate the strength of a correlation. 0 (no

relationship) to 1 (perfect relationship) in absolute value, while a sign will show the direction of a correlation. (+) the sign shows a positive relationship, and a minus (-) sign shows a negative relationship.

To interpret the value differences from 0 to 1, Pallant (2005) provides the following guideline: 0.10 to 0.29 as small; 0.30 to 0.49 as medium and large 0.50 to 1.00. In sum, correlation coefficients range from +1.00 (indicating a perfect positive correlation), to -1.00 (indicating a perfect negative correlation (Bourne, 2009).

The widely accepted level of significance for the hypotheses test is 5% in conventional research (Bourne, 2009). The actual correlation between the two variables only happens 95 times out of 100. So, when the null hypotheses are rejected, it means only a 5% chance that a linear relationship exists. Hence the researcher can conclude that variables are associated or correlated if there is a relationship with  $p < 0.05$ .

Before generating Pearson's Product Moment Correlation, scatterplots are generated to enable to check violation of the assumption of linearity and homoscedasticity. It is used to check outliers, the distribution of data points and the direction of the relationship between the variables. If the shape of the cluster starts from narrow and getting fatter, it is a sign of violating the assumption of homoscedasticity. A cigar shape points to the roughly linear relationship between the variables.

The use of partial correlation as it allows the controlling variables to be controlled. By statistically removing the influence of this confounding variable, a clearer and a more accurate indication of the relationship between the variables of interest can be established (Pallant, 2005). The partial correlation will assist in understanding regression analysis. McNab et al. (2015) used partial correlation to study memory by inhibiting age, and Bailey et al. (2010) used the same method to study behavior by inhibiting age too.

## 4. RESULTS

### 4.1 Quantitative findings

Before proceeding with the analysis, data cleansing was carried out. Data cleaning, also called data cleansing, is the process of ensuring the data is correct, consistent and useable by identifying any errors or corruptions in the data, correcting or deleting them, or manually processing them as needed to prevent the error from happening again. Using descriptive statistics (frequency and percentages), three errors below were checked as recommended by Pallant (2005). The three errors checked based on the response from the respondents were variables scores out of range, errors in the data and rectifying any inaccuracy in the data file, and no errors were found.

Normality tests using Kolmogorov-Smirnov statistic and Shapiro-Wilk were normal except for house money effect as shown in Table 8. The result according to Pallant (2005) is prevalent to happen in large samples.

**Table 8: Test of normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Snake Bite	.106	333	.000	.977	333	.000
House Money Effect	.055	333	.017	.990	333	.025

a. Lilliefors Significance Correction



It took eight weeks to carry out this activity, and all respondents returned their questionnaires on time.

**Table 9: 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
Total	600	390	57	333

The profile summary of the respondents is in Table 10.

**Table 10: Demographic variables**

Demographic Variables	Frequency	Percentages
<b>Gender</b>		
Male	156	46.80%
Female	177	53.20%
<b>Age</b>		
20-30 years old	53	15.90%
31-40 years old	95	28.50%
41-50 years old	123	36.90%
51 years above	62	18.60%
<b>Education</b>		
Primary School	27	8.10%
MCE/SPM	54	16.20%
HSC/STPM	116	34.80%
Diploma	87	26.10%
Degree	44	13.20%
Postgraduate	5	1.50%
<b>Occupation</b>		
Public Sector (Executive Level)	154	46.20%
Public Sector (Support Level)	47	14.10%
Private Sector (Executive Level)	86	25.80%
Private Sector (Support Level)	46	13.80%
<b>Income per month</b>		
RM2000-RM3000	38	11.40%
RM3001-RM4000	102	30.60%
RM4001-RM5000	100	30%
RM5001 Above	93	27.90%
<b>Region</b>		
East Peninsular Malaysia	165	49.50%
West Peninsular Malaysia	168	50.50%
<b>States</b>		
Kelantan	104	31.20%
Terengganu	59	17.70%
Penang	103	30.90%
Kuala Lumpur	67	20.10%

As demonstrated in Table 11, snake bite effect ( $M=4.00$ ;  $SD=.69$ ) has a stronger effect on the choice of the fund compared with past success ( $M=3.68$ ;  $SD=.94$ ).

**Table 11: Descriptive for independent variables**

Variables	Mean	Standard Deviations
Snake Bite Effect	4.00	.69
Past Success	3.68	.94

Correlation analysis was conducted to provide a picture of the interrelationships among the variables of interest. Table 12 and 13 summarises the result of the Pearson product-moment correlation and partial correlation.

Preliminary analysis for correlation was carried out by using a scatterplot to check for violation of the assumption's extreme outliers and linearity. It shows that the point is from left to right and upward trend and indicates a positive relationship except for snake bite effect where it appears to be slightly dispersed. There is no violation of normality as checked by using the histogram. Correlation between behavioral variables and the choice of unit trust funds are shown in the table below. The correlation test result is presented in the table below accordingly.

**Table 12: Correlation between independent variables and dependent variable**

Control Variable			X1	X2	X3	X4	X5	X6
None	Choice of funds X1	Correlation	1.000					
		Significance (2 tailed)						
		df	0					
	Snake bite effect X2	Correlation	0.101	1.000				
		Significance (2-tailed)	0.067					
		df	331	0				
	House money effect X3	Correlation	0.736	-0.081	1.000			
		Significance (2-tailed)	0.000	0.143				
		df	331	331	0			
Age	X4	Correlation	-0.057	0.088	0.014	1.000		
		Significance (2-tailed)	0.298	0.109	0.798			
		df	331	331	331	0		
Education	X5	Correlation	0.106	0.054	0.120	0.249	1.000	
		Significance (2-tailed)	0.053	0.329	0.029	0.000		
		df	331	331	331	331	0	
Income	X6	Correlation	-0.146	0.016	-0.109	0.379	0.358	1.000
		Significance (2-tailed)	0.008	0.777	0.047	0.000	0.000	
		df	331	331	331	331	331	0

Note: Correlation is significant at 0.01 level

The correlation table indicates that there is a significant positive correlation between house money effects ( $r = 0.736$ ;  $p < 0.05$ ) with the choice of fund. It was discovered that there is no significant correlation between snake bite effect ( $r = 0.101$ ;  $p > 0.05$ ) with the choice of funds. The controlling variables (age, education level and income per month) have no significant correlation with choice of funds except for income ( $r = -0.146$ ;  $p < 0.05$ ). From the above result, there is a strong indication that the investor's choice of the fund was related to the house money effect.

The table below shows the result of partial correlation, which allows the researcher to control the controlling variables (age, education level and income per month). By statistically removing the influence of this confounding variable, the researcher can get a more precise and more accurate indication of the relationship between the variables (Pallant, 2005).

**Table 13: Partial correlation between independent variables and dependent variable with control variables**

Control Variables			X1	X2	X3
Age Education Income	Choice of funds X1	Correlation	1.000		
		Significance (2-tailed)			
		df	0		
	Snake Bite X2	Correlation	0.099	1.000	
		Significance (2-tailed)	0.072		
		df	328	0	
	House money effect X3	Correlation	0.726	-0.093	1.000
		Significance (2-tailed)	0.000	0.091	
		df	328	328	0

Note: Correlation is significant at 0.01 level

The result depicted that snake bite effect has no correlation with choice of fund ( $r = .099$ ;  $p > .05$ ), and house money effect ( $r = 0.726$ ;  $p < 0.05$ ). It indicates that the controlling variable (age, education level and income per month), which represent risk tolerance does not affect the choice of fund.

## 4.2 Qualitative findings

This section demonstrates the qualitative analysis based on the two questions by using thematic analysis to produce grounded theory lite by (Virginia, 2013). Its objective is to explore, expand, explain and reaffirm the finding of the quantitative finding and to enrich the answer for the research question.

The background of the respondents who took part in the qualitative study is as below.

**Table 14: Background of respondents**

Respondent	Gender	Age	Education level	Years invested in a unit trust fund	Occupation	State
1	Female	55	HSC	15	Principal	Kelantan
2	Female	57	MCE	10	Salesperson	Penang
3	Female	33	Degree	8	Businessperson	Penang
4	Female	43	Degree	9	Teacher	Kelantan
5	Female	53	MCE	12	Housewife	Terengganu
6	Female	53	Degree	14	Teacher	Kelantan
7	Male	50	Degree	12	Teacher	Terengganu
8	Male	43	Master	10	Teacher	KL
9	Male	32	ACCA	9	Accountant	KL
10	Male	46	Degree	9	Teacher	Terengganu
11	Male	35	SPM	8	Unit Trust Consultant	Kelantan
12	Female	40	Degree	8	Unit Trust Consultant	Terengganu

Twelve respondents were needed to reach the theoretical saturation level and criteria set; seven females and five males, aged from 32 years to 57 years old.

Below is the analysis.

**Table 15: Qualitative analysis - snake bite and house money effect**

Snake Bite Effect or House Money Effect	
Researchers' Quotes	
- Snake bite effect refers to past losses in their investment (Nofsinger, 2005).	- House money effect refers to profit in their past investment (Nofsinger, 2005).

- Snake bite effect emerges when having experienced huge losses, investors are afraid to take a risk and avoid investing in riskier securities (Jekaterina, 2014).		- House money effect is 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 (Peng et al., 2013).	
Verbatim Transcripts			
Respondents	Transcribe	Respondents	Transcribe
Respondent 1	I will ask and listen more and more careful.	Respondent 2	I will talk to the consultant about it and make a decision.
Respondent 2	I will take my time to scout around as this saving is significant to me.	Respondent 3	Sure, I will talk to the consultant to get their view before a decision is made.
Respondent 3	I need to be more careful and learnt from what I did wrong.	Respondent 5	Sure, I will consider it.
Respondent 9	Sure, it will. I need to look at the fund that I will purchase in the future.	Respondent 6	Sure, but I do consult the consultant and ask the view of others.
Respondent 7	Definitely, I look back and study everything and not to repeat the same mistakes.	Respondent 7	Sure, and I will talk to my brother-in-law too.
Respondent 8	Very sure and not to repeat the mistake. I will talk to the consultant and friend too.	Respondent 4	I will consider that experience.
Respondent 4	Sure, and I will seek more information on why it happened.	Respondent 8	Yes, and also from my consultant. Experience is essential
Respondent 5	Sure, I consider and hope not to repeat the mistake.	Respondent 10	Yes, at the same time I will talk to the consultant, friend, and relatives.

The above respondents demonstrated that snake bite effect and house money effect had influenced their choice fund. This investment was for their future, and they will be extra careful.

Investors tend to be extra careful in their choice of funds after a snake bite effect and more motivated when experiencing past success. These findings further strengthen the quantitative finding (hypothesis 1 and 2), and it enriches the answer to research question on how investors choose their fund and behavioral factors influencing it. In line with Prospect theory, snake bite effect and house money effect are the relative reference point, and profit and loss of the investment are used to decide their future actions.

#### 4.2. Mixed methods finding

The mixed methods of finding are demonstrated using side by side comparison table as mentioned under methods. Below are the findings.

**Table 16: Results of mixed methods**

Snake Bite Effects		
Hypothesis 1: There is a significant relationship between snake bite effects in investment choice of the unit trust fund.	Questions 1: Does your experience in loss of your investment influences your choice of the fund?	
Quantitative Findings	Qualitative Findings	Comments
- Conclusion:	When respondents were asked whether their losses in their	The quantitative findings show a significant

<p>There is a significant relationship between snake bite effects in investment choice of the unit trust fund.</p> <ul style="list-style-type: none"> <li>- Correlation <math>r = 0.099</math>; <math>p &gt; 0.05</math></li> <li>- Descriptive Statistic: Snake Bite Effect (<math>M=4.00</math>; <math>SD=0.94</math>)</li> </ul>	<p>investment influence their choice of fund, respondents have this to share:</p> <ul style="list-style-type: none"> <li>- Respondent 9: <i>Sure it will</i>, I need to look at the fund that I will purchase in the future.</li> <li>- Respondent 2: <i>Sure</i>, I will be extra careful and talk to my friend and relatives.</li> <li>- Respondent 3: <i>Definitely</i>, I need to be more careful and learnt from what I did wrong.</li> <li>- Respondent 6: Learned from it and never repeat the same mistake. <i>That experience will guide me to make next move</i>. I will be cautious in making the next move.</li> <li>- Respondent 1: I will ask <i>my brother</i>, who is a unit trust consultant.</li> <li>- Respondent 4: <i>I will follow the advice of the agent</i>; he advises me to keep the fund and invest the dividend.</li> <li>- Respondent 5: <i>I will talk to my brother to seek his guidance</i> on what the next step should be as he is a professional in it.</li> </ul>	<p>relationship between snake bite effects in a choice of fund. The qualitative findings are able to merge with the quantitative findings in the following way:</p> <p>First, after a snake bite effects, the choice of fund will largely depend on the intermediary as seen in respondent 1, 4 and 5.</p> <p>Second, respondents agreed that snake bite effects had influenced their choice of fund. Due to that, they will be more careful and learned from this painful experience.</p> <p>Thirdly, for a more confident investor, they act on their own. They have their own reasons for it.</p> <p>The qualitative findings are able to add richness to quantitative findings.</p>
<p>House Money Effect</p> <p>Hypothesis 2: There is a significant relationship between house money effect on investment choice of the unit trust fund.</p>	<p>Question 2: Does your past success influence your choice of the fund?</p>	
<p>Quantitative Findings</p> <ul style="list-style-type: none"> <li>- Conclusion: There is a significant relationship between house money effect on investment choice of the unit trust fund.</li> <li>- Correlation: <math>r = 0.726</math>; <math>p &lt; 0.05</math></li> <li>- Descriptive Statistic: House Money Effect (<math>M=3.68</math>; <math>SD=0.94</math>)</li> </ul>	<p>Qualitative Findings</p> <p>When posed with the above questions, the respondent's responses are as below:</p> <ul style="list-style-type: none"> <li>- Respondent 9: <i>Sure</i>, it built my confidence and will be an excellent guide to depend on</li> <li>- Respondent 11: <i>Yes</i>. It will open the eyes of all investors.</li> <li>- Respondent 12: <i>It had influenced</i>. I will look for the same type of fund.</li> <li>- Respondent 7: <i>Sure</i>, and I will talk to <i>my brother-in-law</i> too.</li> <li>- Respondent 8:</li> </ul>	<p>Comments</p> <p>The quantitative findings show a significant relationship between past success and choice of fund. The qualitative findings can merge with the quantitative findings in the following ways:</p> <p>First, it shows that past success has a definite influence on the choice of fund.</p> <p>Second, some respondents will talk to their intermediary and let their intermediary advise them.</p>

---

Yes, and also from my consultant. Experience is essential	In sum, the qualitative finding provides a good insight into the situation.
- Respondent 10: Yes, at the same time, I will talk to the consultant, friend, and relatives.	
Some respondents will depend on the intermediary only:	
- Respondent 1: I ask my brother as I do not know what to do. He knows what fund I bought.	

---

From the side-by-side table, the merging of the quantitative and qualitative findings result in the finding of mixed methods. This finding provides a clearer picture of the research questions.

**5. DISCUSSION**

Investors will consider snake bite effect (past losses) and house money effect (past success). It was discovered that snake bite effect was more painful than the joy of gain (M = 4.00; SD= 0.94), but it does not correlate with choice of the fund (r = 0.099; p > 0.05). Investors will consult their intermediary for advice and usually, they will follow it. This is in line with Merli and Roger (2011). It is because there was a relationship between them. Due to the relationship, there is trust between them and will result in herding behavior. Some investors will be more careful, and they will learn from it. The more confident investor will seek their information and advice and only confirm with their intermediary if they are not sure. This indicates that there are many groups of retail investors, and their further actions are different.

When an investment provides profit (M = 3.68; SD = 0.94), it influences their choice of the fund. The correlation between house money effect and choice of the fund was significant (r = 0.726; p<0.05). When this happens, an investor tends to be risk-seeking; they will consult their intermediary and co-investors for advice. Herding will be employed in decision making as they have more fund to invest. Investors will reinvest or invest in the new fund, and their decision largely depends on the intermediary. Investors will use their experience to guide them in making financial decisions. They may follow the same strategy, and herding is largely employed due to familiarity and availability. It shows that house money effect. The profit is treated as house money and not their fund. This is in line with Nofsinger (2005)

Prospect theory demonstrates where profit and loss of an investment is the subjective reference point. It established that the investor considers further action through the outcome of the investment and not their own wealth.

**6. IMPLICATIONS AND CONTRIBUTION OF THIS STUDY**

This advanced triangulation method study to address the behaviour of retail investors in investing unit trust funds has several intended implications. As many studies on unit trust funds were carried out by using a quantitative method, none were carried out by mixed methods which can provide a complete answer to the research questions. This indeed will provide a clearer picture of what is happening on the ground.

Secondly, the study will provide learnings on how mixed methods of research can be used to comprehensively understand the behavior of retail investors in investing unit trust funds. The use of Behavioral Finance to bind mixed methods research study is not typically done in behavioral study but has a high likelihood of generating results that would help plan interventions and investment decisions. Planning interventions will help in generating more guidance for the retail investors who are investing for their retirement.

Thirdly, it is essential for retail investors to recognize that each investor exhibits unique investment behavior. By reflecting on the reasoning behind their decisions, investors can identify patterns of irrational behavior that may influence their financial choices. To mitigate these tendencies, continuous learning and adherence to a well-defined investment strategy are crucial in promoting rational decision-making and long-term financial success.

Finally, the proposed study will lead to future inquiry related to retail investors and their behavior in unit trust fund investment. Sequential studies will include a broader scope of respondents such as intermediary, government agency and unit trust fund companies. Not forgetting other types of investment such as gold, property and currency, this method can be replicated to enable study on it.

## 7. CONCLUSION

This mixed-methods study intends to improve the understanding of the behaviour of retail investors in the unit trust fund and to take practical steps forward to address the prevalent problem. The structure of the study and the potential study findings are well-positioned to have utility to inform and influence the unit trust fund industry and consequently prevent the harmful behavior of the retail investors.

## REFERENCES

- Ackert, L. f., & Deaves, R. (2010). *Behavioral Finance: Psychology, Decision Making and Markets*: South Western Cengage Learning.
- Albaity, M., & Rahman, M. (2012). Behavioural finance and malaysian culture. *International Business Research*, 5(11), 65-76.
- Altman, M. (2011). Prospect theory and behavioral finance. In *Behavioral Finance: Investors, Corporation and Markets*. Wiley.
- Aspara, J., Wittkowski, K., & Luo, X. (2018). Types of intelligence predict likelihood to get married and stay married: Large-scale empirical evidence for evolutionary theory. *Personality and Individual Differences*, 122, 1-6.
- Bailey, W., Kumar, A., & Ng, D. (2010). Behavioral biases of mutual fund investors. *Journal of financial economics*, 102(1), 1-27.
- Bikhchandani, S., & Sharma, S. (2000). Herd behavior in financial markets. *IMF Staff Papers*, 47(3), 279–310.
- Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation. *Qualitative Health Research*, 26(13), 1802-1811.
- Bourne, P. A. (2009). *A Simple Guide to the Analysis of Quantitative Data: An Introduction with hypotheses illustration and reference*. Kingston: University of West Indies, Mona Campus.

- Carlson, J. A. (2010). Avoiding traps in member checking. *The Qualitative Report*, 15(5), 1102–1113.
- Chavali, K., & Mohanraj, M. P. (2016). Impact of demographic variables and risk tolerance on investment decision: An empirical analysis. *International Journal of Economics and Financial Issues*, 6(1), 169-175.
- Chen, Y. (2012). *Herding: Investors Psychology*. Pulau Pinang: Universiti Sains Malaysia.
- Chui, A. C. W., Titman, S., & Wei, K. C. J. (2010). Individualism and momentum around the world. *The Journal of Finance*, 65(1), 361–392.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches (3rd ed.)*. Thosand Oaks, CA: Sage Publication, Inc.
- Creswell, V. P. C. (2011). *Designing and Conducting Mixed Methods Research (2nd ed.)*. Los Angeles: Sage Publications Inc.
- Creswell, J. W. (2015). *A Concise Introduction to Mixed Methods Research*. Los Angeles: Sage Publications, Inc.
- Das, U., & Mohapatra, S. R. (2017). Behavioural biases in investment decision making: A research study on snakebite and house money effects on Indian Individuals. *Asian Journal of Management*, 8(3), 460-470.
- DellaVigna, S. (2009). Psychology and economics: Evidence from the field. *Journal of Economic Literature*, 47(2), 315–372.
- Denzin, N. K. (2009). *The Research Act: A theoretical introduction to sociological methods (1st ed.)*. Routledge.
- Department of Statistic Malaysia (2024). Retrieved from [www.statistic.gov.my](http://www.statistic.gov.my).
- DeVellis, R. F. (2003). *Scale Development: Theory and Application (2nd ed.)*. Thousand Oaks: Sage Publications Inc.
- Engel, C., & Moffatt, P. G. (2012). Estimation of the house money effect using hurdle models. *MPI Collective Goods Preprint*, (2012/13).
- Esterberg, K. G. (2002). *Qualitative Methods in Social Research*. Boston: McGraw Hills.
- Fagereng, A., Gottlieb, C., & Guiso, L. (2017). Asset market participation and portfolio choice over the life-cycle. *Journal of Finance*, 72(2), 705–750.
- Federation of Investment Managers Malaysia. (2024). Retrieved 08/03/2024 from [www.fimm.com.my](http://www.fimm.com.my).
- Federation of Investment Managers Malaysia. (2015). Retrieved 10/03/2015 from [www.fimm.com.my](http://www.fimm.com.my).
- Federation of Investment Managers Malaysia. (2016). Retrieved 14/05/2016 from [www.fimm.com.my](http://www.fimm.com.my).
- Fehr-Duda, H., Bruhin, A., Epper, T., & Schubert, R. (2010). Rationality on the rise: Why relative risk aversion increases with stake size. *Journal of Risk and Uncertainty*, 40(2), 147-180.
- Fernandes, D., Lynch, J. G., Jr., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science*, 60(8), 1861–1883.
- Fisher, K. & Dellinger, E. (2015). *Beat the Crowd: How you can out-invest the herd by thinking differently*. Wiley.
- Gibson, B., & Hartman, J. (2014). *Rediscovering Grounded Theory*. London: Sage Publication Inc.



- Gözbaşı, O., & Çıtak, L. (2010). An evaluation of the attributes considered by investment professionals in selecting mutual funds: The case of Turkey. *International Research Journal of Finance and Economics*, 36(1), 180-195.
- Harvey, L. (2015). Beyond member checking: A dialogic approach to the research interview. *International Journal of Research & Method in Education*, 38(1), 23-38.
- Herbert, S., John, E., Murray, M., & Peter, N. (1987). Bounded Rationality. *The New Palgrave: A dictionary of economics*, 1, 266-267.
- Hsu, Y., & Chow, E.H. (2010). House money and investment risk taking. In *23rd Australasian Finance and Banking Conference*.
- Jamaludin, N., Smith, M., & Gerrans, P. (2012). Mutual fund selection criteria: evidence from Malaysia. *Asian Review of Accounting*, 20(2), 140-151.
- Jidwin, A. P., Tuyon, & J., Ali Rosaln. (2011). The Malaysian employees provident fund members' investment scheme: A survey of fund selection, performance perception. *Asia Pacific Management Accounting Journal(APMAJ)*, 6(1), 47-79.
- Kannadhasan, M. (2015). Retail investors' financial risk tolerance and their risk taking behaviour: The role of demographic as differentiating and classifying factors. *IIMB Management Review*, 27(3), 175-184.
- Korniotis, G. M., & Kumar, A. (2011). Do older investors make better investment decision? *The Review of Economics and Statistic*, 93(1), 244-265.
- Mallouk, P. (2014). *The 5 Mistakes Every Investor Makes and how to Avoid Them*. Wiley.
- McNab, F., Zeidman, P., Rutledge, R. B., Smittenaar, P., Brown, H. R., Adams, R. A., & Dolan, R. J. (2015). Age-related changes in working memory and the ability to ignore distraction. *Proceedings of the National Academy of Sciences*, 112(20), 6515-6518.
- Merli, M., & Roger, T. (2013). What drives the herding behavior of individual investors? *Finance*, 34(3), 67-104.
- Moreschi, R. W. (2005). An analysis of the ability of individuals to predict their own risk tolerance. *Journal of Business and Economics Research*, 3(2), 39-48.
- Morse, J. M. (2000). Determining sample size. *Qualitative Health Research*, 10(1), 3-5.
- Nkukpornu, E., Gyimah, P., & Sakyiwaa, L. (2020). Behavioral finance and investment decisions: Does behavioral bias matter? *International Business Research*, 13(11), 65-76.
- Nofsinger, J. R. (2005). *The Psychology of Investing (2nd ed.)*. Routledge.
- Pallant, J. (2005). *SPSS Survival Manual (2nd ed.)*. Berkshire: Open University Press.
- Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods (3rd ed.)*. Thousand Oaks, CA: Sage Publications Inc.
- Peng, J., Miao, D., & Xiao, W. (2013). Why are gainers more risk seeking. *Judgment and Decision making*, 8(2), 150-160.
- Praba, R. S. (2011). Investors' decision making process and pattern of investment: A study of individual investors in Coimbatore. *SIES Journal of Management*, 7(2), 1-12.
- Rao, K. L. (2011). Analysis of individual investors' behaviour towards mutual fund schemes. *Journal of Banking Financial Services & Insurance Research*, 1(7), 65-78.

- Salthouse, T., A. (2000). Aging and measures of processing speed. *Biological Psychological*, 54(1-3), 35-54.
- Schwartz, B. (2004). *The Paradox of Choice*. New York: Ecco.
- Securities Commission Malaysia. (2014). Retrieved from [www.sc.com.my](http://www.sc.com.my).
- Securities Commission Malaysia. (2025). Retrieved from [www.sc.com.my](http://www.sc.com.my).
- Sekaran, U., & Bougie, R. (2000). *Research Methods for Business*. Wiley.
- Sian, F., Chuan, S., Kai, B., & Chen, B. (2010). Culture and consumer behaviour: Comparison between Malays and Chinese In Malaysia. *International Journal of Innovation, Management and Technology*, 1(2), 180-185.
- Subramaniam, V. A. & Athiyaman, T. (2016). The effect of demoraphic factors on investor's risk tolerance. *International Journal of Commerce and Management Research*, 2(3) 136-142.
- Taylor-Powell, E., & Renner, M. (2003). Analyzing Qualitative Data. Madison, Wisconsin: University of Wisconsin-Extension Cooperative Extension.
- Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, 1(1), 77–100.
- Thaler, R. H., & Johnson, E. J. (1990). Gambling with house money and trying to break Even: The effects of prior outcomes and risky choice. *Management Science*, 36(6), 643-660.
- Thaler, R. H. (2015). *Misbehaving*. United States of America: Penguin Random House.
- Torrance, H. (2012). Triangulation, respondent validation, and democratic participation in mixed methods. *Journal of Mixed Methods Research*, 6(2), 111-123.
- Tversky, A., & Kahneman, D., (1981). The framing of decisions and the psychology of choice. *Science*, 211(4481), 453-458.
- Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: Guidlines for conducting mixed methods research in information system. *MIS Quaterly*, 37(1), 21-54.
- Virginia, B. (2013). *Successful Qualitative Research: A Practical Guide For Beginners*. London: Sage Publication Inc.
- Wright, R. A. (2000). Behavioral Finance: Is it impacting the way you look at investing? Retrieved from [AdvantageInvesting.com](http://AdvantageInvesting.com).
- Yoanna Fransisca Sri Widayanto, A. J. W. (2013). Gender, Ethnicity and Religion in Investment Behaviour while taking a risk. *Universitas Atma Yogyakarta*.
- Zohrabi, M. (2013). Mixed method research: Instruments, validity, reliability and reporting findings. *Theory and Practice in Language Studies*, 3(2), 254-262.