

**ANALYSIS OF UNIT TRUST INVESTORS  
BEHAVIOUR: THE CASE OF SAHAM AMANAH  
SABAH**

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THE CASE OF SAHAM AMANAH SABAH**

**IJAZAH: MASTER OF BUSINESS (FINANCE AND BANKING)**

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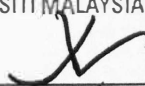
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## ABSTRACT

The study aimed to investigate the impact of behavioural biases on Saham Amanah Sabah (SAS) investors' financial decision making. SAS is a state government backed unit trust scheme. This research studies the behavioural biases including loss aversion, disposition effect, regret aversion and herding. Empirical data has been collected through the administration of questionnaires. The partial least squares structural equation modelling using SmartPLS version 2.0 was selected to analyse the data. The study concluded that the Loss Aversion, Regret Aversion and Herding biases have direct impact on the investors' decision making meanwhile Disposition Effect does not. As a result, these biases lead the investors of SAS to continue holding their units despite SAS did not perform well. These results are highly consistent with the results of many previous studies. Should the investors were not influenced by these biases and acted rationally, their current investment value or wealth would have been better. This situation may well happen to other state government backed unit trust scheme throughout Malaysia since they share the same similarity which is they have only one product under their umbrella. However the result may not be applied to private owned unit trust fund since they offer various products under their umbrella. This study may benefits state government backed unit trust provider in understanding the behaviour of their unitholders, meanwhile for individual investors, they may be aware of the impact of their behavioural biases towards their investment objective. In long term, hopefully, individual investors will increase their rationality in their investment decision making. Theoretically, this research suggested that behavioural finance theories may well explain the action of SAS unitholders irrational action rather than applying standard finance theories.

## **ABSTRAK**

### **ANALISIS KELAKUAN PELABUR UNIT AMANAH: KAJIAN KES SAHAM AMANAH SABAH**

*Kajian ini bertujuan untuk menyelidik kesan kelakuan berat sebelah dalam membuat keputusan kewangan oleh pelabur Saham Amanah Sabah (SAS). SAS adalah satu skim amanah saham yang disokong oleh kerajaan negeri. Kajian ini mengkaji tingkah laku berat sebelah termasuk Pengelakan Rugi, Kesan Pelupusan, Pengelakan Kesal dan Ikutan. Data kajian telah dikumpul melalui borang soalselidik. "Partial least squares structural equation modelling" menggunakan SmartPLS versi 2.0 telah dipilih untuk menganalisis data. Kajian ini menyimpulkan bahawa Pengelakan Rugi, Pengelakan Kesal dan Ikutan mempunyai kesan langsung kepada pembuatan keputusan pelabur manakala Kesan Pelupusan tidak mempunyai kesan ketara. Akibat daripada kesan berat sebelah ini, para pemilik unit amanah dalam Saham Amanah Sabah terus memegang unit amanah mereka walaupun prestasi SAS tidak memuaskan. Dapatan ini adalah konsisten dengan dapatan yang diperolehi dari kajian-kajian terdahulu. Seandainya para pemilik unit amanah ini tidak dipengaruhi oleh kelakuan berat sebelah dan bertindak secara rasional, nilai pelaburan mereka pada masa ini seharusnya berada pada nilai yang lebih tinggi. Situasi serupa dipercayai juga dialami oleh para pelabur skim unit amanah milik kerajaan negeri yang lain di seluruh Malaysia kerana ciri-ciri syarikat pengendali yang sama iaitu mereka hanya mempunyai satu produk di bawah pengurusan yang sama. Walaubagaimanapun, keputusan ini tidak boleh digunapakai bagi syarikat pengendali unit amanah swasta kerana setiap syarikat menawarkan pelbagai produk dibawah pengurusan mereka. Kajian ini bermanfaat kepada pengendali skim amanah saham yang disokong oleh kerajaan bagi memahami kelakuan kewangan pelabur mereka, manakala bagi pelabur individu pula, mereka akan menyedari kesan kelakuan berat sebelah ini terhadap objektif pelaburan mereka. Dalam jangka panjang, diharapkan pelabur individu akan dapat meningkatkan tahap rasional mereka dalam membuat keputusan pelaburan. Secara teoritikal, kajian ini mencadangkan bahawa teori kelakuan kewangan mampu menerangkan tingkahlaku tidak rasional pemilik unit amanah SAS lebih baik berbanding teori kewangan klasik.*

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## LIST OF ABBREVIATION

<b>CFA</b>	:	Confirmatory Factor Analysis
<b>EMH</b>	:	Efficient Market Hypothesis
<b>EPF</b>	:	Employees Provident Fund Malaysia
<b>EUT</b>	:	Expected Utility Theory
<b>FIMM</b>	:	Federation of Investment Managers Malaysia
<b>FMUTM:</b>		Federation of Malaysia Unit Trust Managers. Currently changed to FIMM
<b>IPO</b>	:	Initial Public Offering
<b>IUTA</b>	:	Institutional Unit Trust Adviser
<b>NAV</b>	:	Net Asset Value
<b>PLS</b>	:	Partial Least Squares
<b>SAS</b>	:	Saham Amanah Sabah
<b>SC</b>	:	Securities Commission of Malaysia
<b>SEM</b>	:	Structural Equation Modeling
<b>US</b>	:	United States of America
<b>UTMC</b>	:	Unit Trust Management Company
<b>UTS</b>	:	Unit Trust Scheme

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# CHAPTER 1

## INTRODUCTION

I should have computed the historical covariance of the asset classes and drawn an efficient frontier. Instead I visualized my grief if the stock market went way up and I wasn't in it--or if it went way down and I was completely in it. My intention was to minimize my future regret, so I split my [pension scheme] contributions 50/50 between bonds and equities. Harry Markowitz.<sup>1</sup>

### 1.1 Background of the Study

Generally, the primary objective of investing would be to maximize profit. If an investment doesn't earn positive returns over time, then why would anyone invest? In the process of making a decision on where to invest, investors will be influenced by many factors such as the level of education, age, income, family or friends, advertisement and many more. Different investors have different level of tolerance towards risk and may also differ in their investment objective.

RM600 million of Employee Provident Fund (EPF) saving has been lost through investment in unit trust. The huge losses may be attributed to the misunderstanding of unit trust investment by EPF contributors when they decided to withdraw their EPF savings in the hope of obtaining a higher return from their investment in unit trust. Campbell (2006) concluded that household who did not seem to be well prepared when making investment decision has led them Utusan Malaysia dated 6<sup>th</sup> and 7<sup>th</sup> August 2006 reported a shocking news that to serious

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<sup>1</sup> As quoted in Zweig (1998). How the Big Brains Invest at TIAA-CREF. Money, 27(1), page 114.



investment mistakes. In July 2012, Private Retirement Scheme (PRS) was launched. The scheme is a tax exempted scheme which will encourage investors. Therefore, wise investment decision making is important. PRS was designed to help its participant to accumulate savings for their retirement. PRS is a voluntary long term investment vehicle. Each PRS will include a range of retirement tools that individuals may choose to invest based on their own retirement needs, goals and risk preference.

Malaysian unit trust industry's growth for the past 15 years has been impressive. The industry's total Net Asset Value (NAV) which stood at RM43.26 billion in 2001, increased to RM121.41 billion in 2006, representing 180.65 percent growth or an average of 36.13 per annum. By 2010, the total NAV was RM226.81, an increase by 86.81 percent or an average of 21.70 percent per annum. In 2014, the total NAV was RM343.02 billion, an increase by 34 percent or average 8.5 percent per annum. However, in 2015, the total NAV increased only by 1.04 percent to RM346.58 billion. This is due to the facts that the Malaysian Ringgit has dropped 20 percent of its value against the dollar and a nine percent fall in its stock market. This is further aggravated by falling prices for its commodity exports and slowing demand from China. The tremendous growth in NAV of unit trust industry was encouraged by the decision of Employees Provident Fund (EPF) to allow its members to withdraw a portion of their EPF savings and invest it in the approved Fund Management Institutions (FMI) through its Members Investment Scheme.

EPF is Malaysia's most prominent retirement savings institution for private sector and non-pensionable public sector employees in the country. EPF was established on 1<sup>st</sup> October 1951 under the Employees Fund Ordinance 1951. Currently, it operates under the EPF Act 1991, amended in 1995. As at end of 2013, the EPF has a total member of 13.9 million of whom 6.5 million are active and contributing members. The total accumulated asset as at 31<sup>st</sup> December 2013 was RM597.82 billion (members' fund RM593.45 billion). In Pensions & Investment / Tower Watson World 300: Largest Retirement Fund, as at 31<sup>st</sup> December 2013, EPF was ranked the 11<sup>th</sup> among the world's largest retirement fund valued at USD182.22 billion (RM538.63 billion). According to EPF (2015), the EPF Members Investment

Scheme (EPF-MIS) in the approved fund management institutions withdrawal was valued at RM6.64 billion in 2012 and the EPF-MIS withdrawal increased to RM7.84 billion in 2013, representing 18 percent rise. However, in 2014 the EPF-MIS scheme withdrawals dropped to RM4.87 billion, a sharp decline by almost 39 percent.

The withdrawal in the EPF in favour of private unit trust investment through the EPF-MIS scheme indicates the growing confidence of the public towards the unit trust industry rather than keeping their savings in EPF. EPF is obliged to give minimum 2.5 per cent dividend return per annum to its member in whatever condition under Section 27 of the EPF Act 1997. Further to this guaranteed dividend, EPF's investment in Malaysia is also exempted from tax. It could be the evidence of the existence of some of the behavioural biases shown by investors as they believe they could manage their saving better than EPF. As reported by Norashikin and Paul (2012), the most important factors influencing EPF-MIS withdrawal was the attractive returns followed by the feeling of better control on the choice of investment types rather than their intention to really want to participate.

The studies on mutual fund/unit trust literatures have proven two notable anomalies. First it was proven that investors do buy mutual fund or unit trust which imposed high fees. Barber, Odean and Zheng (2005), found that retail investors purchased big amount of units in high expense funds. In US market otherwise, a contradicting finding by Elton, Gruber and Busse (2004) claimed, a large amount of money have entered into index funds which normally impose high fees for passive holdings of broad indexes such as S&P 500. Secondly, retail investors were found to chase returns. This may be influenced by the reporting style of mutual fund performance which normally put high emphasize on past returns. Del Guercio and Tkac (2008), Sirri and Tufano (1998), Sapp and Tiwari (2004) studies also supported this findings.

Studies by Odean (1998, 1999) and Barber and Odean (2002), found that the choice making on securities by individual shows many types of behavioural biases. Unfortunately, studies on what are the relationship between purchasing

mutual fund investment and behavioural biases action was limited. Understanding the influence of behavioural biases towards the decision making process of individual investor is important for many reasons. First is the increasing participation of mutual fund investing in equity market rather than to trade in single stock. French (2008) reported that interest towards mutual fund investment has grown significantly from 1980 to 2007 when he wrote that in 1980, individual investor holding percentage in the market was 47.9 percent, but in 2007 it decline to 21.5 percent. This change was in tandem with holdings by individual in open-end mutual fund that shows increment from 4.6 percent in 1980 to 32.4 percent in 2007.

Therefore, with major shift in the investment platform, it is worth to know how individual investors purchase and select their mutual fund scheme and the duration of holding the unit. Secondly, as per argued by Coval and Stafford (2007), mutual fund investment by individual can affect stock return indirectly even though their holding in individual stock has declined. This is because; large movement by individual investor in mutual fund may force the mutual fund to change their investment in individual stock. This may put pressure on the price of securities held by various mutual funds. Various studies have documented the above argument.

Further evidence show changes of household holdings in stock market have shifted towards the mutual fund has been discovered by Rydqvist, Spizman and Strebulaev (2014). In their study, they found drastic changes in US household direct equity ownership. After World War 2, the household holding of the stock market was 90 percent but the holding decline to below 30 percent in 2010. From 1991 to 1999 in the U.S., being the largest economy in the world, the value of corporate equities held by mutual funds has increased ten-fold, from US\$309 billion in 1991 to US\$3.4 trillion in 1999. In 2014, the value was US\$8.27 trillion, an increase by 143 percent for a 15 year period. However, the increment of direct ownership of securities was only three-fold from US\$2.6 trillion to US\$7.8 trillion. In 1991, securities held indirectly by mutual fund were 6.4 percent, but in 1999, the amount has increased to 18 percent. By 2014, almost half of US household, being the largest economy in the world had participated in mutual fund. As can be seen by the dramatic emergence of mutual fund investors, it is important for mutual

fund/unit trust providers to gain a better understanding of their investors' behaviour.

Traditional economics theorist assumed that, investors think and act rationally when it comes to purchasing and disposing securities, and the same is also applied to unit trust investment. Rational investors believe that financial markets are stable and efficient. In the event that stock prices fall or increase drastically, the market will soon adjust itself and move towards its general equilibrium. The general equilibrium is defined as a situation where the total quantity bought is equal to the total quantity sold for each asset, reflected in the current prevailing price. Hence, equilibrium means that there is no tendency for price to deviate from its current level because investors are satisfied with their current profits given their wealth constraints.

However, this assumption is not valid in various circumstances. Shiller (1999), argued that investors do not necessarily act rationally. Instead, they speculate stocks between unrealistic high and low price stocks due to their greed and fear. The risk preference of an investor varies depending on how he frames his choices. As suggested by Harry Markowitz (1998) quote, the expectation on future regret had turned him against his own portfolio theory when met with financial decision on his pension plan. Bernstein (1998) stated that the evidence reveals repeated patterns of irrationality, inconsistency, and incompetence in the ways human beings arrive at decisions and choices when faced with uncertainty.

Psychologist has recorded the assumption on rationality and unbiasedness of individual for a long time (Nofsinger, 2001). Two psychologists, Daniel Kahneman and Amos Tversky through experimental and theoretical works in 1970s have contributed to the foundation and rise of Behavioural Finance, which studies how people actually behave in a financial setting. Specifically, it is the study of how psychology affects financial decisions, corporations, and the financial markets (Nofsinger, 2001).

## 1.2 Problem Statement

This study was motivated by the observation that certain group of people behave irrationally in the Malaysian unit trust industry and specifically in the scheme that being investigated namely Saham Amanah Sabah. From issued price of RM1.00 in year 1995 to currently hovering at RM0.35 – RM0.38 level, it is therefore puzzling why the investors still holding the units. As per reported that EPF-MIS scheme had lost RM600 million, this further motivated this study. Witnessing the growth of the unit trust industry and its potential in Malaysia and globally makes this study worth to doing since the sum of money involved is big. Should the trend in Saham Amanah Sabah scheme continued to happen in the market at a large scale, it is feared that billions of investor money will disappear into thin air unnecessarily. From what is happening in Saham Amanah Sabah, where investors experience some early gain in its first two years but thereafter continue to drop and still unrecovered until today, and yet the investors still holding their unit, it was suspected that irrationality was dominating their decision. Some studies has been made on similar situation in Malaysia and globally by past researcher in securities market and it was found that the market do show irrational behaviour which could not be adequately explained by the classical finance theories. The behavioural biases commonly appear in the past studies are loss aversion, herding, regret aversion and disposition effect. This prompted the research shift focus to behavioural theories which has been proven to be capable of explaining the reasons behind the irrational action in the market.

Research on behavioural biases in unit trust investment in Malaysia can be considered as still at an early stage. Early studies done by Mohamed and Nasir (1995), Tan (1995), Leong (1997), Leong and Aw (1997), Soo (2007) and Nurasyikin and Paul (2012) focused more on the performance of the fund and the selection of fund. Fabian and Andrean (2009) and Agnes (2010) said that the knowledge of unit trust fund and selection criteria needs more attention. Other studies on behavioural biases were undertaken by Lai, Low and Lai (2001) who studied about the rationality of Malaysian investors, meanwhile Lai and Lau (2004) studied about the herd behaviour.

Since the market is made of ordinary people, it is acceptable fact that their psychological attributes would affect the movement of the market. The evidence from numerous psychological studies showed that people have various psychological biases which hold them from acting rationally. According to Kahneman and Riepe (1998), investors do not look at final wealth when they are evaluating risky investment. Instead, they make some reference points and they determine the possibility of a loss or gain relative to the reference points. Loss aversion also influences investors to make irrational decisions (Shefrin and Statman, 1985). Due to limited ability of human being in processing information, they incline to simplify the decision making process and as such, prompted them to make wrong decision which is considered to be optimum level in many situation (Kahneman and Tversky, 1979), (Tversky and Kahneman, 1974). Few studies have found that behavioural biases such as loss aversion and herding had caused investors to make irrational decision which caused them to make additional losses and flawed from fundamental analysis (Shefrin and Statman, 1985), (Chong, Chen and Khorana, 2000).

This study examines the irrational behaviour of a unit trust investor. It was observed that some unit trust investors continue to keep their investment in non-performing unit trust scheme that has suffered significant drop in their unit trust price or paying very little or no dividend at all. Despite the poor performance however, the investors continue with their investment rather than selling or switching the non-performing unit trust schemes into other profitable investments. Therefore, this study focuses on analyzing the behaviour of unit trust investors in Sabah particularly the subscribers of Saham Amanah Sabah (SAS).

SAS was launched in 1994. Over the past 20 years, the performance of the SAS unit price was rather less impressive. In 1995 the NAV was RM1.12 after giving 13 percent distribution. The company managed to give the same amount of dividend in 1996 but the NAV started to decrease to RM1.00. In 1997 the NAV dropped to RM0.45 and by 1998, the NAV dropped to RM0.24. The lowest NAV recorded was in 2005 when it dropped to RM0.174. Its NAV improved slightly to RM0.38 in the middle of 2017, however, the NAV was still well below the original issued price of RM1. The complete table showing SAS NAV and distribution is shown

in Table 2.2. It can be interpreted that the SAS fund has lost about RM380 million only after four years of its inception. (Estimated unit in circulation is 500 million). Therefore, the observation that SAS investors continue to keep their investment in SAS despite the poor fund performance was rather puzzling. If SAS investors act rationally, they will be expected to sell their SAS unit to cut their losses and invest in other performing or safer unit trust fund such as ASB. Hence, this study intends to examine the factors that cause SAS investors to retain their investment in the poor performing SAS fund instead of switching their investment into more profitable unit trust investment.

This type of investors behaviour is known as behavioural biases which explain how emotions and cognitive errors / biases influence investors and their decision making process. Behavioural Finance has been defined in various perceptions. Barber and Odean (1998) defined it as the process where people move away from being rational and take new way of decision making process as accepted model in the financial world. Meanwhile, Sewell (2007) defined it as how the financial market decision making was influenced by psychological factors and therefore expound the reasons that the financial market is not efficient. Behavioural finance is based on the perception that individual or partial of the market participant behaviour was influenced by behavioural biases, and as a result their final investment decision will be less than assumed by standard financial model which states that individual will act rationally. Cognitive psychology literatures have been documented proof of these biases and how it was applied in the financial market or financial decision making. Researchers recently have recorded many specific biases, exceeding more than 50 types applicable to individual investors. The forthcoming biases awaiting to be discovered and its derivatives that may applicable in individual financial decision making list could be very long. Generally behavioural biases can be divided into two sections as described below.

## **(i) Cognitive Biases**

Cognitive biases can be identified as the inclination by individuals to make decisions and thereafter decide based upon limited knowledge or processing information ability. Their action was influenced by the tendency of overconfidence and to the best of their self interest and link their decision based on past actions or experience. Cognitive biases may lead to various actions that sway from assumptions of standard finance theory such as irrational, perceptual blindness, wrong judgement and bad decisions. Amongst behaviour categorised under the cognitive biases are:

### **(a) Availability**

Availability bias generally can be described as a situation where human being heavily incline to make decisions based on latest information and based their opinion on that most recent news (de Bont and Thaler, 1985).

### **(b) Anchoring / Conservatism**

Anchoring is a perception bias that arises when investors are attempting to make a guess of something about which they have limited information. (Pompian, 2006)

### **(c) Overconfidence**

Overconfidence exists when people have a tendency to overestimating their own abilities and reject accepting the help of others in decision making process. (Mahajan, 1992)