DOES BETTER PERFORMANCE ASSOCIATE WITH MANAGING MORE UNIT TRUST FUND?

By

Kaliammal A/P R. Santharen

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ABSTRAK

Kajian ini telah dijalankan untuk menganalisa prestasi amanah saham di Malaysia dalam jangka masa panjang. Kajian ini dilakukan dengan menggunakan nilai asset bersih (NAV) bulanan yang diambil dari bulan Januari 1990 hingga bulan Disember 2001, daripada suratkhabar tempatan 'The Star' dan 'The Sun'. Objektif utama kajian ini dilakukan adalah untuk menganalisa prestasi amanah saham dan juga sama ada syarikat yang menguruskan amanah saham yang lebih dari satu memberi pulangan yang baik kepada pemegang unit amanah saham. Bagi tujuan ini, Index Bursa Saham (KLCI) dan kadar KLIBOR telah digunakan sebagai penanda aras dalam kajian ini. Kajian ini dijalankan dengan mengunakan ujian regresi, ujian korelasi, ANOVA dan Kruskal-Wallis dengan menggunakan pelbagai ujian bagi amanah saham di Malaysia. Keseluruhannya, hasil kajian menunjukkan syarikat yang menguruskan amanah saham tidak ada perhubungan dengan prestasi amanah saham. Risiko, saiz and hayat sesuatu amanah saham juga tidak menpengaruhi syarikat yang menguruskan lebih dari satu amanah saham dan juga tidak ada bukti kukuh menunjukkan prestasi amanah saham dapat mengatasi prestasi KLCI and KLIBOR.

ABSTRACT

This research has carried out to analyze the performance of Malaysian unit trust funds

for the long-term periods. The period chosen for this research was from January 1990

to December 2001. The NAV values were obtained from 'The Star' and 'The Sun'

newspapers, published on monthly basis. The main objective of this study is to

explore further on the unit trust performance and also whether the managing

companies that managed more than one fund assures better returns to the investors.

The KLCI and KLIBOR rate was used as market benchmark in this research. The

study conducted by using regression test, correlation, one-way ANOVA and also

Kruskal-Wallis for the different performance measurement on unit trust funds in

Malaysia. Overall the results explained were not significant on number of fund

managing companies with the performance of the unit trust fund. The test on risk, size

and age were also not significant because it also didn't influence on the number of

fund managing companies. There is no evidence showing that the performance of the

unit trust companies is outperformed the market.

Chapter 1

Introduction

1.1 Background

Unit trust is a long-term investment, which assures good return to investors together with a very minimum risk. In Malaysia, the total Net Asset Value (NAV) of the unit trust funds as of 31st December 2006 was RM121.77 billion, an increase of 23.6% compared to the previous year's NAV value of RM98.49 billion. The NAV of RM112.60 billion was represented by the conventional unit trust funds while RM9.17 billion is from the Syariah based unit trust funds. The KLCI recorded an increase from 899.79 points in end of year 2005 to 1,096.24 points at the end of December year 2006, an increase of 14.4% of the market capitalization of Bursa Malaysia compared to 14.2% in year 2005 as shown in Table 1.1.

There were a total of 38 approved unit trust management companies in the end of December 2006, including 3 new unit trust management companies in the year 2006. Table 1 shows the number of approved unit trust funds increased from 340 in year 2005 to 416 as of December 2006, an increase of 22.4% (Securities Commission, Annual Report 2006). The total NAV for the conventional category was RM112.60 billion in the year 2006, whereby for the year 2005 was only RM90 billion. The Syariah category recorded RM8.49 billion in year 2005 and increased to RM9.17 billion in the year 2006. Hereby, many funds had been launched and offered to the investors providing a wide range of choices for them to invest by the unit trust management companies.

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Table 1.1

Overall Status of Unit Trust Industry (Source: Securities Commission, Annual Report, 2006)

	31-Dec-06	31-Dec-05
No. of funds Approved	416	340
- Conventional	316	257
- Syariah based	100	83
Total approved fund size (billion units)	339.88	267.33
Units in circulation (billion units)	154.07	139.39
No. of accounts (million)	11.40*	10.86*
Total NAV	121.77	98.49
- Conventional (RM billion)	112.60	90.00
- Syariah based (RM billion)	9.17	8.49
% of NAV to Bursa Malaysia market capitalization	14.35%	14.17%

* In 2005, the number of accounts was provided by unit trust management companies (UTMCs) only.

In 2006, the Securities Commission was able to consolidate the number of accounts from both UTMC's

and the institutional unit trust agents.

The Federation of Malaysian Unit Trust Managers (FMTUM) was established to educate and develop the public awareness on the investments in unit trust fund companies, which will benefit them in the long term. Besides that, Securities Commission (SC) was introduced in Malaysia, entrusted to protect the investors of their investments in the Malaysian capital market. They had created a form of protection to the investors with a high standard of disclosure prevail and where all the management companies hold themselves accountable for the information they provide to the investors. Lack of information provided to the investors will be a disadvantage to them, which may mislead them in making any decisions, which will not benefit them at all. Hence, the SC plays a very important role to improve the quality and timeliness of information being disclosed to the investors, which will benefit them.

Even though the historical data of the fund performance is just a guideline or key evaluator to identify a better choice for the investment but it cannot be used as a main factor to make decision for any kind of investments in the unit trust funds. There are also other factors that will help to make a good decision in choosing unit trust funds such as changes of valuation of the securities, the rate of return that fluctuates with market condition and others factors as well. As an investor, one must study the objectives of the funds, fund manager's style of investment, strategy and also fund policies before making any decision to invest in any unit trust funds.

From an investor's perspective, arises questions like which unit trust to be invested and is it possible to judge unit trust future performance based on its past performance remains? There is a relationship between the principal (investors) and the agents (mutual fund managers) where the investors entrust their money to the unit trust for their investments and the fund managers have their responsibility to provide a good service to their investors and act accordingly to the interest and benefits of their clients. Do the management companies perform well and do the naïve investors able to make judgments from the past performance of the unit trust management companies, are the questions in this research to further explore.

1.2 Performance awards in Malaysia

In Malaysia, awards given to the management companies that performed well for a term of one year, three years and five years for the funds they manage and able to give profits to their investors. Funds are ranked based on the highest returns over the periods within its sector.

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Awards are given for the units trust funds that performed well by The Star / Standard & Poor's Investment Fund and also The Edge-Lipper Malaysia Unit Trust funds. The awards are based on the fund performance and the ranking of their performance for the periods of one year, three years and five years among their peer groups. The funds must have consistent returns, which will be rated and reflects the funds historical risk, adjusted returns, adjusted for volatility and relative to their peers. Total returns rating will reflect the funds historical total return performance relative to their peers. Where as, the reservation ratings will reflect the funds historical loss avoidance relative to other funds within the same asset class. Therefore, investors have a more convenience way of checking the performance of the various unit trusts as the winners of these awards are publicized.

1.3 Fund classifications

Basically there are four categories in the unit trust funds, which are equity funds, balanced funds, bond funds and money market funds. Figure 1 shows the asset allocation in percentage for the year ended December 2006, published in Securities Commission Annual Report. The equities having higher allocation, which was 66% in year 2006, an increase compared to 57% in year 2005. The second highest allocation was for fixed income but it has been dropped from 18% in year 2005 to 16% in year 2006. The equity fund denotes that higher portion of the fund assets will be invested in stocks / shares in order to secure capital growth for unit trust holders. A balanced fund would focus on attaining between long term capital growth and income by investing partly in stock / shares and partly in fixed income securities. Where as the bond fund will invest in fixed income securities to secure and distribute annual income to unit trust holders, with capital growth considered incidental to the

investment process. On the other hand, a money market fund invests primarily in short-term debentures and money market instruments to secure and distribute annual income to unit trust holders.
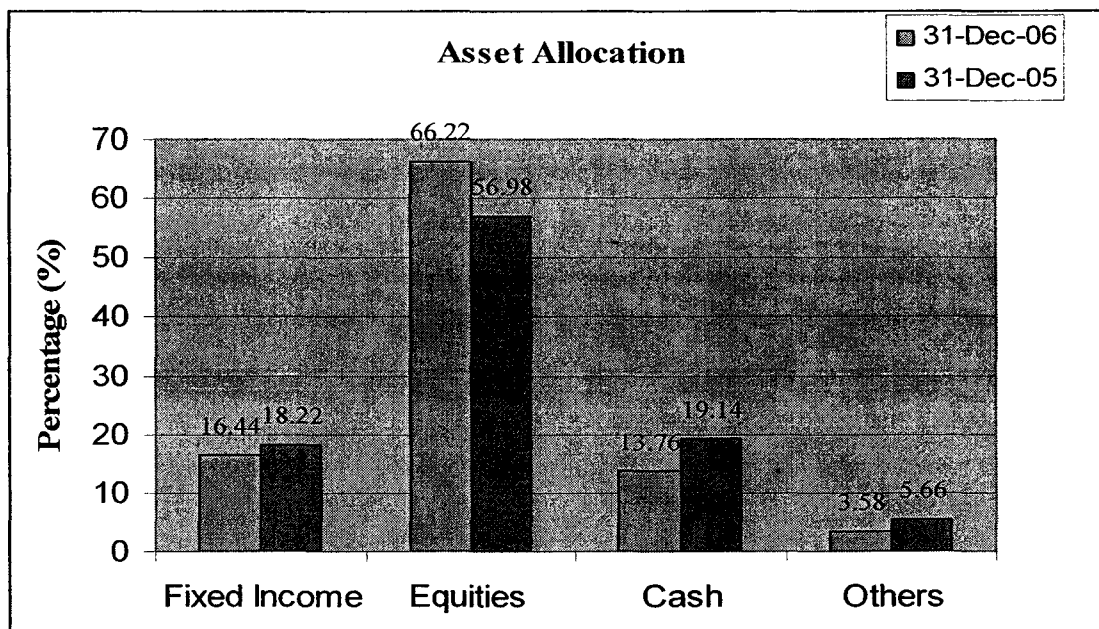
Figure 1.1

Asset Allocation (Source: Securities Commission, Annual Report, 2006)

1.4 Research Problem

Most of the investors have a mindset that good performing management companies from the past few years will be a good choice to invest. This view may not be accurate as it has been proved by the earlier studies made by Sharpe (1966), Jensen (1968) and Firth (1977), the unit trust funds in developed countries does not outperformed the market and the managers have less ability to consistently beat the market. The findings totally contradict with the later studies carried out by Malkiel (1995) and Goetzmann and Ibbotson (1994), which showed that unit trust managers are able to outperform the market.

Although past performance records are available, studies suggests that winners cannot predict future winners as mentioned in the research done by Md. Taib & Isa, (2007) and Afizar (2005). New comers (investors) may not have sufficient knowledge on the unit trust performance and typically this will lead them to blindly invest in any funds based on whatever information they have. The most convenient way of making the investment selection would be to follow the winners of the awards. However, as mentioned earlier the past performances do not determine future performance. This phenomenon may leave the investors in dilemma. Previous study has suggested that asset management and insurance companies are the better management companies of unit trusts (Zulkifli, 2005) based on Jensen Alpha.

However, investors would appreciate more information with regard to further characteristics of the unit trust managing companies. In Malaysia, it is not extraordinary to find management companies of unit trust to be handling more than one unit trust at a time. On the average, a management company of unit trust in Malaysia manages 10 funds. This brings in an interesting phenomenon to be studied in the search of extra characteristics that can be used to assist fund investment selection. One of the central issues in this study is if the investors do not have an idea which unit trust fund to invest; can they just look at the number of funds managed as an indicator of good performance? In other words, does better performance associate with managing more funds?

Table 1.2

Average funds managed in Malaysia as of year 2006

Management Companies	No of Funds Managed
AMANAH SAHAM KEDAH BERHAD	1
AMANAH SAHAM SARAWAK BERHAD	1
AMPROPERTY TRUST MANAGEMENT BERHAD	1
AXIS REIT MANAGERS BERHAD	1
GLM REIT MANAGEMENT SDN BHD	1
PELABURAN HARTANAH NASIONAL BERHAD	1
PENGURUSAN KUMIPA BERHAD	1
PERMODALAN BSN BERHAD	1
PTB UNIT TRUST BERHAD	1
SAHAM SABAH BERHAD	1
KENANGA UNIT TRUST BERHAD	2
KSC CAPITAL BERHAD	2
AFFIN TRUST MANAGEMENT BERHAD	3
AMANAHRAYA UNIT TRUST MANAGEMENT SDN BHD	3
ARECA CAPITAL SDN BHD	3
PELABURAN JOHOR BERHAD	3
PHILLIP MUTUAL BERHAD	3
BIMB UNIT TRUST MANAGEMENT BERHAD	4
KLCITY UNIT TRUST BERHAD	5
PHEIM UNIT TRUSTS BERHAD	5
ASIA UNIT TRUSTS BERHAD	6
CMS TRUST MANAGEMENT BERHAD	6
APEX INVESTMENT SERVICES BERHAD	7
ALLIANCE UNIT TRUST MANAGEMENT BERHAD	9
AMANAH SAHAM NASIONAL BERHAD	10
AVENUE INVEST BERHAD	10
TA INVESTMENT MANAGEMENT BERHAD	13
ASM INVESTMENT SERVICES BERHAD	15
ING FUNDS BERHAD	15
PACIFIC MUTUAL FUND BERHAD	15
MAAKL MUTUAL BERHAD	18
MAYBAN UNIT TRUST BERHAD	19
CIMB-PRINCIPAL ASSET MANAGEMENT BERHAD	21
HLG UNIT TRUST BERHAD	22
RHB UNIT TRUST MANAGEMENT BERHAD	22
HWANG-DBS INVESTMENT MANAGEMENT BERHAD	23
OSK-UOB UNIT TRUST MANAGEMENT BERHAD	26
PRUDENTIAL FUND MANAGEMENT BERHAD	26
CIMB WEALTH ADVISORS BERHAD	30
AMINVESTMENT SERVICES BERHAD	32
PUBLIC MUTUAL BERHAD	42
Average of funds managed	10.49

1.5 Research objectives

The objectives of this study are as follows:

1. To study the association between performance and number of funds managed through correlation analysis.

2. To confirm if companies managing more funds could offer better returns than those with less funds.

1.6 Research questions

In order to achieve the above-mentioned objectives, this study attempts to find an answer to the following questions: -

1. Is there any association between performance and number of funds managed?

2. Do companies that manage more funds could offer better returns than those with lesser funds?

1.7 Significance of the studies

The decision to invest in the unit trust practically is a good idea for the investors that are having a long term goal to achieve a good returns but how to judge that which are the most profitable unit trust funds that can give a good return and consistent return over the periods is a question that all the investors that need to be emphasized. Therefore this thesis will help the investors to determine which management companies performed well over the periods and also give consistent returns to their investors from the fund that managed by them. This study will benefit investor's decision if some rule of thumbs can be developed, i.e. if a number of funds managed by companies can be associated with good performance.

1.8 Definition of key terms

Unit Trust – Its an investment products that was created by asset management companies to pool resources from individual investors and invest in diversified portfolio of securities in order to add more value to their financial wealth in the future period (Wee-Yeap Lau, 2007). Unit trust is an indirect investment that was created to serve as an alternative to direct stock market investment for investors (Soo-Wah Low and Noor Azlan Ghazali, 2007).

Securities Commission (SC) – The Commission is the sole regulatory agency for the regulation and development of capital markets in Malaysia. The Commission has direct responsibility for supervising and monitoring the activities of market institutions (Securities Commission Annual Report, 2005).

Unit trust persistency – known as "hot hand" phenomenon, which was the ability of the fund managers to pick the stock that can be, forecasted for future returns by taking the past unit trust returns. (Afizar, 2005)

1.9 Organization of the chapters

This research paper organized into five chapters. Chapter 1 will provide background of the study. Chapter 2 will review all related literature review that done previously to strengthen this study. Chapter 3 will discuss further on the methodology used in this research. Chapter 4 will analyses the outcome of this research and Chapter 5 will summarize the findings, implications, limitations and conclusion based on the findings.

Chapter 2

Literature Review

2.1 Introduction

This chapter will explore on the theories and studies that has been done previously that related to the research of this topic to get a better understanding on the performance and persistency of the unit trust funds in Malaysia.

2.2 Previous Studies

The unit trust performance measurement has interest many researchers to study on this area. The risk adjusted performance that was introduced by Sharpe (1966) and Jensen (1968) that can measure the performance to variability ratio as a criteria measurement the unit trust performance in US. Another introduction Modern Portfolio Theory by Markowitz (1952) has also interested the researchers to measure the unit trust performance in US. The CAPM model was derived from Markowitz, which was later, was extended the measurement of the performance of the unit trust by Sharpe (1966), Jensen (1968) and Treynor (1965).

Davis (1999) has confirmed that the analysis done on US mutual funds does not have any evidence to proof that the market has been out performed. Another study done by Malkiel (1995) confirmed that the poor performance of mutual funds in US persists but not the good performance. Persistence of performance over the periods is very important factor, which can be related to the expenses incurred on portfolio of the funds. The highest expenses can affect the funds performance that was highlighted by Garrett and Rex (2000). They examined on UK unit trust and confirmed that the

money managers were unable to out perform the markets after taking into consideration of the exposure to market, risk and value.

The fund managers has to market their funds by advertising their fund performance by showing the past performance to their investor to gain more convincing method to attract them to invest in their fund that has good performance for several years. The expert investors will collect additional information (e.g. a prospectus) before make any decision. How this will help for the naïve investors that were not aware of the additional information? So this will lead them to buy a sub-standard unit trust that was promised by the fund managers that will give a high return, no risk, transaction costs which might be high compared to other funds in the industry or industry averages (Bruce & Nalinaksha, 2005). They also concluded that 88.8% of the advertisement by the unit trust companies does not contain all the required information on the principal-agent conflict, transaction costs and risk-return trade-off.

More than half of the respondents agreed that the funds must be "consistently good results over a long period of time" as an important factor when the surveyed was done among 100 fund professionals in US (O'Bryant, 2001). This confirms the unit trust funds are a long-term investment strategy rather than short term. Jeffery and Sandeep (2005) also finds that the current promotional activity do stress the past performance as important factor but it should be modified to include professional competence and expertise of both employees individually and the organization as a whole. They studied on the factors that important in the purchase of investment management services by examining both business relationship-related criteria and

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financial performance-related criteria, which also compare between different categories of assets (equities, real estate, fixed income and derivatives/currencies/commodities). The criteria for relationship-related: -

- Fee charges

- Services that specialized and availability

- Personal contact

- Professionalism of the employees

- Trust in the employees and management companies

- Direct communication

- Choices of support services and availability

The criteria of financial performance-related: -

- Past performance

- Results according to the standards

- Risk-adjusted of returns

- Past experience in specific asset class

- Past experience in general

- Assets under management

- Reporting of the results

As a result the management companies should stress on both criteria's (financial and relationship) to market their services.

Article written by Shana Croome (2003) "Can you pick the winners as the mutual fund track?" has mentioned three reasons why there is no guaranteed way to find the best funds. There were:-

2.2.1 The Ever Changing Behavior of the Market

Even tough the fund managers are good in managing the fund but the investors still can lose the money due to normal cycles within the market. Each mutual fund manager has their own specific investment objectives and it can perform well in any given years with specific sectors and types of investment compared to other funds that perform poorly. If the sector or classes of asset in which the funds assets are heavily allocated perform well over the year, the fund will be listed as winner for that year. If the industry, region or asset class is doing poorly, of course it will affect the fund managers even tough there are very good in managing the fund over the years.

2.2.2 Top Performers Don't Always Stay On Top

Another strategy that investors can do is by picking the funds with the best past performance, which would give them a better chance to enjoy the benefits in the future. This statement was contrary with Malkiel (1995) which he compares the performance of the 20 top funds in 1980's and finds that the funds could not keep up their above average returns.

2.2.3 So many funds, So Little Time

There are too many funds in the market and performing a reasonable amount of research on every individual fund within certain time period is virtually impossible to the investors. Sifting from one fund to another fund is not an easy way out to invest in

the unit trust fund which difficult to find the top performers who keeps on performing in future.

As a conclusion there will be always be a chance that the investors can pick the winning fund as a choice of an investment by looking at the management company, the nature of the funds investments, the structure of the funds and also the brand name that was well established based on the past track performance.

2.3 Unit Trust in Malaysia

The unit trust management companies in Malaysia had been increasing tremendously compared to only 13 companies that managing the unit trust fund in 1992 to 36 companies in 2006. The increase also caused by the interest of the public that wanted to have a save investment in the unit trust. Chua (1985) with his studies as proved that the funds are outperformed the market and it's consistent over time from 1974-1984 but only with 12 samples size. He also mentioned that there are few factors that have contributed to the growth of the industry which were the success of privatization companies, economic growth, expansion of stock market and market performance. Other than that he also finds that the private funds are not performing well compared to government-sponsored funds.

Ewe (1994) has done research on 32 unit trust funds from year 1988 to 1992 and summarizes that the market are not performing well and less volatile. The fund managers are not able to managed the funds and unable to forecast the movement of the prices and other investments. This explains that the market not performing well

compared to market portfolio. The result on individual funds shows that not even one has a greater volatility of return compared to the market.

Even tough the Asian economic crisis has given a great impact on this industry but the performances are much better compared to before crisis. This has been explained by the studies done by Ong (2000), which he stated that the market is 'better' than before the economic crisis. He also confirmed that the private companies are not performing well compared to government funds before the crisis but the situation changed during the economic crisis when the private funds are performing better compared to government funds.

Bala and C.H. Yeung (2003) who studied on factors that matter to financial advisors on unit trust also confirmed that the past performance is considered most important factor compared to other factors discussed in their studies to the financial advisors that can help them to promote the funds to their investors. They also confirmed that there is a leaning towards diversified funds rather than single funds and the financial advisor look for large funds that were linked to the government rather than public sector. That's why the investors are more attracted to large size of funds that linked with government compared to public sector funds. They have used conjoint analysis in their research to study on attributes of the unit trust selection which they have distributed 75 questionnaires to financial advisors in unit trust and insurance field for their research.

Besides that there was a study that has been done by Tan (1995), Shamsher and Annuar (1995), Low and Noor A. Ghazali (2005) has concluded that the funds

could not out-perform the market. Studies have been done using Kuala Lumpur Composite Index (KLCI) as the benchmark in Malaysia, using both KLCI and Exchange Main Board All-Share Index (EMAS) as the market benchmark with only two studies. Only Leong and Aw (1997) and Low (2007) have examined it. Low (2007) has concluded that regardless of which benchmark was used on the average the funds are reporting negative performance. But the studies done by Leong and Aw (1997) have mentioned that choosing the appropriate market benchmark is very important in measuring the funds performance in Malaysia, yet they only measure the overall fund performance in their studies. In another study, Lau (2002) noted that the performance of the unit trust also can be measured against their respective peer groups rather than using usual market benchmark as a comparison, yet he didn't explained much on this statement.

Md. Taib and Isa (2007), has done the studies on the aggregate performance by unit trust performance in Malaysia. They examined on the performance of unit trust from 1991-2001, which covers before, during and after crisis by using KLCI as a benchmark to test the return performance of the unit trust. They find that there is no persistency in performance of the unit trust in Malaysia and on average the performance was below returns and market portfolio. However, the bond funds show better performance during financial crisis, which benefited it.

Afizar (2005) has done research on 43 unit trust funds performance in Malaysia for the period of January 1995 to December 2004. Based on his result the persistency did occur in Malaysian unit trust industry. However he didn't agree with past performance as a good indicator for the future performance of the funds.

Another study by Zulkifli (2005) explains that the unit trust performance has not outperformed the market and the fund managers have less ability to forecast and predict the future prices of the stock. He studied 33 management companies with 187 funds managed by them from year 1990 to 2004. He also tested on the age and beta, which influenced the performance of the unit trusts in Malaysia. The study concluded that the higher the risk the better is the return, while age is negatively related to performance. Number of unit trust managed by the company has been identified at a useful way forward to better understand the unit trust performance in Malaysia. Hence, this study will investigate the issue raised; i.e. the relationship between performance and number of unit trust managed.

2.4 Hypotheses Development

Naïve investors generally do not have an idea which funds to invest. Typically they would rely on the advice of their financial advisors who normally have a vested interest in promoting certain unit trusts funds.

Previous studies have tried to look at various factors in order to simplify the decision-making; i.e. unit trust or fund selection. Various factors were considered including age, size and risk of the funds (unit trust). Thus far, only age and risk are fund to be negatively and positively related to returns (Zulkifli, 2005). There is evidence to indicate that better tends to be associated with insurance and asset management companies (Zulkifli, 2005). However, questions remain with regard the expertise developed when managing companies manages more funds (Zulkifli, 2005). Essentially, this is the focus of this study first to find out there is a correlation

between performance and number of unit trust managed. Therefore the following hypothesis is developed: -

H_1 : There is an association between performance (return) and number of funds managed by managing companies.

Even if the correlation evidence is proven, this does not indicate that there is a relationship between performance and number of unit trust managed. The relationship between the two factors is formally tested via the following hypotheses which uses six variants of performance measures and below hypotheses have been developed: -

H_2 : Companies managing more funds have better performance (return) than companies managing fewer funds.

H_{2a} : Companies managing more funds have better raw returns (Rj) than companies managing fewer funds.

H_{2b} : Companies managing more funds have better excess return (Er) than companies managing fewer funds.

H_{2c} : Companies managing more funds have better Jensen Alpha than companies managing fewer funds.

H_{2d} : Companies managing more funds have better Sharpe Index than companies managing fewer funds.

H_{2e} : Companies managing more funds have better Adj. Sharpe Index than companies managing fewer funds.

H_{2f} : Companies managing more funds have better Treynor than companies managing fewer funds.

The reason why six variants of performance measures are used is to test the relationship rigorously through various ways of defining performance before a conclusion about the relationship between performance and number of unit trust managed can be made.

2.5 Summary

The studies on the past literature review gave a mix results on the performance and the persistency of the unit trust but the past performance seems like showing that it's most important factor to predict future returns. Indeed the studies also concluded that, the past performance is not a good indicator to predict the future returns.

Chapter 3

Research Methodology

3.1 Introduction

The research has been done on Malaysia unit trust funds performance from year 1990 to 2001. In this chapter, the different performance measures have been discussed in further details in order to measure the performance of the unit trust companies. The Jensen Alpha, Sharpe Index, Adjusted Sharpe Index, Treynor and raw return has been discussed which were used as a tool of performance measurement.

3.2 Data collection .

The study period chosen for this research was from 1990 to 2001. Even tough the period chosen was not latest but it includes the period of economic boom to recession. The monthly NAV was obtained from The Star and The Sun newspapers from the year 1990 to 2001. Even tough the data has been collected until year 2006 but due to unavailable information of the dividend given to the investors from year 2002 to 2006 was not published; the research done from year 1990 to 2001.

There are two market benchmark was used in this studies which were Kuala Lumpur Composite Index (KLCI) as market return and one month rate Kuala Lumpur Inter-Bank Offer Rate (KLIBOR) to determine for the risk-free rate. There are only 106 funds was analyzed with 28 managing companies that managing these funds in Malaysia that was listed in the Table 3.1 and 3.2. The list of the fund names and the management companies was attached to Appendix A.

Table 3.1

List of unit trust Management Companies in Malaysia

Companies	No. of Funds
AFFIN TRUST MANAGEMENT BHD	1
AMANAH SAHAM BSN	1
AMANAH SAHAM DARUL IMAN	1
AMANAH SAHAM KEDAH BERHAD	1
AMANAH SAHAM SABAH BHD.	1
AMANAH SAHAM SELANGOR BHL	1
BIMB UNIT TRUST MANAGEMENT (ASBI)	1
CMS TRUST MANAGEMENT BHD	1
KENAGA UNIT TRUST	1
PENGURUSAN KUMIPA BHD	1
ALLIANCE UNIT TRUST MANAGEMENT BHD.	2
AMANAH SAHAM NASIONAL BHD.	2
TA UNIT TRUST MANAGEMENT BHD	2
APEX UNIT TRUST BHD	3
MAAKL MUTUAL BHD.	3
OSK-UOB UNIT TRUST MANAGEMENT BHD	3
PERLABURAN JOHOR BHD	3
AMINVEST	4
AVENUE ONEINVEST	4
MAYBAN UNIT TRUST	4
ASIA UNIT TRUST	5
PACIFIC MUTUAL FUND BHD	5
RHB UNIT TRUST MANAGEMENT BHD	5
CIMB-PRINCIPAL ASSET MANAGEMENT BERHAD	7
HLG UNIT TRUST BHD	8
CIMB WEALTH ADVISORS BERHAD	10
PUBLIC MUTUAL BHD	11
ASM MARA UNIT TRUST MANAGEMENT BHD.	15
Total Funds	**106**

Table 3.2

Management companies that managing funds

Managing Companies	Total
Managing 1 fund	10
Managing 2 funds	3
Managing 3-4 funds	7
Managing 5-8 funds	5
Managing >8 funds	3
Total	**28**

3.3 Capital Asset Pricing Model (CAPM)

Sharpe (1964) has continued the Capital Asset Pricing Model (CAPM) from Markowitz's model, which describes the relationship between risk and required rate of return on assets when it was held in diversified portfolios. Even Jensen (1968) and Treynor (1965) has also introduced on the measurement of the performance from the CAPM model.

The measurement is mainly to measure the expected return of the fund in align with the market return. The investors need to compensate by placing their money in any investments over a period of time and the time value of money is represented by the risk free (rf) rate in the formula. If the expected return does not meet or beat the required return then the investors should not undertaken that investment.

The CAPM model is written as below:

$$E(Rj) = Rf + \beta j \ (E \ (Rm) - Rf \ )$$

Where: -

E (R_j) – Expected return from fund j

Rf – Risk free rate (KLIBOR)

Bj – Beta (Systematic Risk Measurement of the fund)

E (Rm) – Expected return from the market

From the CAPM equation it can be explained that the expected return from fund j is equals to risk free rate plus beta and risk premium from the market.

3.4 Sharpe Index (SI)

The Sharpe Index also known as "reward-to-variability ratio" is used to measure the performance of unit trust. The ratio computed using the average excess return and divided by standard deviation (total risk) of a differential return (Sharpe, 1994). Interpretation of the ratio was if the ratio is more than one then the fund is performing better than the market whereas if it less than one then it was considered as underperformed.

The ratio is used to determine if a mutual fund is able to outperform the market. The Sharpe ratio also cannot predict the future performance of the funds even tough it can give positive Sharpe ratio for the last five years and able outperform in next coming years. The equation can be written as per below:

$$\textbf{Sharpe Index (SI)} = \frac{\underline{R_{aj} - R_{af}}}{\sigma j}$$

Where,

R_{aj} - Average return on unit trust fund j

R_{af} - Average risk-free rate (KLIBOR)

σj – Standard Deviation of return on unit trust fund j

3.5 Adjusted Sharpe Index (ASI)

The Adjusted Sharpe Index (ASI) was introduced by Jobson and Karkie (1981), because they felt that the Sharpe Index was biased and the below equation was used to calculate the ASI.

$$ASI = \frac{SI\ (K)}{K+0.75}$$

Where,

SI = Sharpe Index

K = Number of return in the sample period

3.6 Jensen Alpha

Jensen Alpha was also derived from the CAPM equation model whereby the investors can diversified their risks by holding diversified portfolios but whichever that cannot be diversified then it should be included in the performance measurement. This measure also helps the investors to determine if a portfolio is earning the proper return for its level of risk. If the ratio gives a positive value then the portfolio earning an excess return. If Jensen Alpha is higher it indicates that it has been performing well. The Jensen equation can be written as below:

$$R_{jt} - R_{ft} = \alpha_j + \beta_j (R_m - R_{ft}) + \varepsilon_j$$

Where,

R_{jt} - Average return on unit trust fund j in the month of t

R_{ft} - Average return of KLIBOR in the month of t

α_j – Average increased rate of return on the portfolio per unit time

βj – Beta (Systematic Risk Measurement of the fund)

R_m – Average Return of KLCI

ε_j – Expected value of zero (error term)