COMPARING THE RETURN ON PORTFOLIOS OF UNIT TRUSTS IN MALAYSIA USING FOLLOW-THE-WINNER AND BUY-AND-HOLD STRATEGY

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ABSTRAK

Kajian ini dilakukan dengan tujuan untuk meniliti prestasi amanah saham di Malaysia daripada jangkamasa 2001 sehinnga 2006. Analisa terhadap prestasi amanah saham dilakukan dengan menggunakan kaedah pulangan kasar dan risiko yang telah dihalusi terhadap senarai pemenang yang dikeluarkan oleh Edge-Lipper. Senarai pemenang itu adalah keluaran tahunan syarikat Edge-Lipper dimana senarai pemenang itu ditentukan dari kajian Edge-Lipper sendiri. Objektif utama kajian ini adalah untuk melihat atau meniliti satu strategi yang mudah digunakan oleh pelabur amanah saham yang daif untuk digunakan dalam memaksimakan pulangan mereka. Pulangan yang berasaskan amanah saham konvensional dan syriah juga dikaji. Pulangan menggunakan strategi yang disebutkan di atas dikaji menggunakan pulangan kasar, indek Treynor dan nisbah Sharpe dalam berbagai jenis kategori amanah saham. Keputusan keseluruhan mendapati strategi mengikut pemenang adalah berkesan terutama terhadap amanah saham konvensional. Terdapat beberapa limitasi didalam kajian ini dimana data yang digunakan adalah terhad kepada senarai pemenang Edge-Lipper sahaja dan tempoh waktu yang digunakan adalah pendek. Keputusan dari kajian ini dapat membantu pelabur amanah saham yang daif untuk menggunakan satu strategi yang mudah untuk mendapat pulangan yang lumayan dari pelaburan mereka.

ABSTRACT

This study examines the performances of unit trusts in Malaysia over the period of 2001 until 2006. Performance is analyzed from the main perspectives of raw return and risk adjusted return based on Edge-Lipper's winner list. Edge-Lipper publishes yearly list of the winner funds based of various categories according to their custom-made criteria. The main objectives of this study is to look into a simple strategy that naïve unit trust investors in Malaysia can used to maximize their return by buying a portfolio of unit trusts with different categories. Performances differences between Conventional and Islamic based unit trust is compared using the two strategies. Performance differences based on follow-the-winner and buy-and-hold strategy is analyzed using Raw Return, Treynor index and Sharpe ratio based on different risk categories of investors. Investor's investment horizon was also taken into account during the analysis. Overall findings of the analyses indicate that follow-the-winner strategy produced better return as compared to buy-and-hold. This strategy works particularly well with the conventional units trust. There are limitations in this study due to the limited number of unit trusts that belong to the Edge-Lipper's winner list and the short time frame of the period under study. The findings from this study can facilitate naïve unit trust investors to apply a simple strategy in order to maximize returns on their unit trust investment.

Chapter 1

INTRODUCTION

1.1 Background

Unit trust or mutual fund is an investment tools where money is pooled from individual investors and is professionally managed by fund managers. The funds are then invested in various assets classes like bonds, fixed income instruments and equities as provided for in the prospectus. There are many benefits of investing in a unit trust for investors since it involves low minimum investment amount, professionally managed, diversification which helps reduce investor's risks, access to specialized markets and overseas opportunities as well as liquidity where the trust unit can be bought and sold anytime on any business day. Investors, who decide to invest in unit trust, normally based their choices or decisions on their personal financial goals, risk tolerance and investment time horizon.

Unit trust invests in different asset classes, markets and sectors; depending on the investment objectives and strategies of that a particular fund chooses to diversify. Consequently, unit trust also has different levels of risks and returns. Like all investments where there are risks involved, unit trust is no exception since return cannot be guaranteed. Prices of unit trust can rise or fall and investors have to exercise their own judgments and caution when making their decisions. The minimum investment amount varies from fund to fund. Generally, the minimum initial investment amount for most unit trust is RM$1,000 and the charges or fees involved are sales charges, annual management fee charges and the trustee fee. Capital gains on unit trust are not taxable in Malaysia, however, the Trustee of the fund has to withhold tax at the corporate rate when

distributing their income to unit holders, regardless of whether the units are actually held by a corporation or an individual and dividends are paid out at the discretion of the fund managers.

1.2 History

Malaysia introduced its first unit trust in 1959, with the establishment of a unit trust company called Malayan Unit Trust Ltd. Since then, the industry has undergone a tremendous development. During its formation years, a few regulatory bodies such as Registrar of Companies, The Public Trustee of Malaysia, Bank Negara Malaysia and the Ministry of Domestic Trade and Consumer Affairs initially regulated unit trust. In 1981, Skim Amanah Saham Nasional (ASN) was launched by Permodalan Nasional Berhad (PNB) and it was well subscribed by the Malaysian Public. Obviously, this went to show that the Malaysian public was ready to accept unit trust as one of their investment tools. Subsequently, more unit trust companies were established and a remarkable growth was recorded in the industry. Further enhancing the development of the industry is the unit trust management companies, which are subsidiaries of financial institutions. They facilitated the marketing and distribution of unit trust through the bank's branch network with their widened investor reach. In 2005, the unit trust industry's Net Asset Value (NAV) of managed funds capitalization was at 14.2 percent of Bursa Malaysia's market capitalization which was at RM98.5 billion as of the end of 2005 (http://www.fmutm.com.my/).

With the recent development in the Malaysian capital market, the unit trust industry in Malaysia is expected to grow by another RM6 billion to RM8 billion over the

next few years following Bank Negara Malaysia's liberalizations of foreign exchange administration rules in April 2007. Under the liberalization policy announced, unit trust, insurance and fund management companies are allowed to invest up to 50 percent of their fund's Net Asset Value (NAV) overseas instead of the 30 percent previously (http://www.theedgedaily.com/cms/content.jsp?id=com.tms.cms.article.Article_79b74ad3-cb73c03a-1de8aa80-8add389e).

1.3 Types of Unit Trust in Malaysia

Generally, unit trust in Malaysia can be categorized into seven distinct types. They are Equity Funds, Fixed Income Funds, Money Market Funds, Real Estate Investment Trusts (REIT), Exchange Traded Funds (ETF), Balanced Funds and Syariah funds (http://www.fmutm.com.my/). These different types of unit trusts invest in diverse types of assets classes according to the level of risks that investors are willing to be exposed at. Some of the unit trusts are listed on Bursa Malaysia Exchange with the prices of the units fluctuate according to bid and ask quotation demanded by investors. This type of trust is known as open-ended unit trust. The most popular these days are the REITs. On the other hand, there are unit trusts, which are not listed on the Bursa Malaysia, and they are known as closed ended unit trusts.

The Net Assets Value (NAV) determines pricing of each unit of the trust of this type. The Net Asset Value (NAV) is the market value of a unit trust's total assets, minus liabilities, divided by the number of units or shares outstanding. This value is used to determine the prices for subscribing and redeeming units. Private companies run majority of the unit trusts in Malaysia or bank backed fund management companies while some

are state and government related companies such as Amanah Saham Kedah, Amanah Saham Johor and Permodalan Nasional Berhad (PNB).

Literally, unit trusts in Malaysia can be divided into two distinct categories. These categories are the conventional and the Syariah based unit trust. Conventional unit trusts operate within their own guidelines as proposed by its trustees. There are no restrictions as to the type of asset classes that they may hold in their portfolios. In contrast, the Syariah based unit trust operates under guidelines of the Syariah principles.

1.4 Risks of Investing in Unit Trust Funds

While fund managers believe that the investment policy will be effective and that investment in unit trust funds may be rewarding, investors should be aware that there are risks associated with their investment in unit trust funds. Such risks include inherent risks in respect of market risk and specific stock risks normally associated with unit trusts that invest mostly in equity or known as equity funds. While unit trusts that invest in bonds or money market seem save enough, they also exhibit certain risks such as credit and interest rate risks. Overall investment, regardless of the type of funds investors choose, are still subjected to many types of risks such as liquidity risk, inflation risk, risk of non-compliance, loan financing risk, management company risk, currency risk as well as country risk.

1.5 Unit trust Funds in Comparison with Other Forms of Investments

Malaysians are encouraged to invest in unit trust as it is considered not prudent for them to put their cash in fixed deposits or investment accounts. To maintain a substantial

proportion of one's assets in cash and bank deposits over the medium to long-term periods may results in lower returns as typically, returns from these investments are subjected to low interest rate environment. Unit trust funds may offer a better rate of returns by virtue of its investment in securities or instruments, which traditionally, have higher rate of return over time.

Investment in unit trust funds may offer better protection against inflation rather than cash or deposits through the capital appreciation of its underlying assets, especially in a high inflationary environment. Direct investments by individual investors who invest directly in the equity market may not have the advantage of diversification owing to their financial constraints in the amount available to invest as compared to unit trust funds. Furthermore, with the reduced capability to diversify, individual investors may be exposed to various risks including risks associated with specific stocks, liquidity risk and credit risk.

1.6 Current Issues in the Unit Trust Industry

Recently, there has been allegation by the Employees Provident Fund (EPF) that almost 80 percent of its contributors who withdrew their money from the EPF accounts to buy unit trusts have been suffering losses. The Federation of Malaysian Unit Trust Managers (FMUTM) who claimed that unit trust funds have posted respectable returns over the mid to long-term period citing a report by Standard & Poor refuted this allegation. The report claimed that the Malaysian unit trust performance as at July 28, 2006 recorded an average return of 56 percent and 26 percent respectively for equity funds in the three-year period

and five-year period (http://www.theedgedaily.com/cms/content.jsp?id=com.tms.cms.article.Article_ecee30a1-cb73c03a-e3fda400-105691f2).

The US mutual fund industry was also plagued by inconsistencies in performances of their mutual fund. In 2003, New York Attorney General Eliot Spitzer accused Janus Strong, Nations Bank, Bank of America, Prudential, Alliance, and Alger for conducting illegal and improper trading of their funds. These mutual fund firms were also allegedly to have overcharged certain customers, according to the filing of Securities and Exchange Commission (http: //www.businessweek. com/bwdaily /dnflash/nov2003/nf20031110_8009_db035.htm).

1.7 Future of Unit Trust Industry in Malaysia

Promotion of the unit trust in Malaysian has been carried out by Federation of Malaysian Unit Trust Managers and Permodalan Nasional Berhad (PNB). Public education on the mechanism of unit trust isalso carried out by the Securities Commissions (SC). PNB, through its "Minggu Amanah Saham Malaysia" has been educating the public on the importance of investing in unit trust. This yearly event showcased PNB's investments as well as promoting unit trust as a save investment scheme. Get-rich-quick-schemes which have deceived Malaysian investors into unscrupulous investing activities have been the main concern of the Malaysian authority lately. Thus, unit trust is seen as one of the safest investment tools that the public can use to earn better returns.

1.8 The Islamic Fund - Basic Principles

There are two areas of concern for the Islamic Unit trusts. First is that the choice of the portfolios must be in accordance with the Syariah. In order to ensure this compliance, investment in stocks is considered lawful if the stock's main activity does not involve any of the prohibited practices, namely riba or interest, gharar or uncertainty or doubt and production or trading of prohibited products. Currently, there are almost none of the Malaysian public listed companies that completely conduct their financial transactions in the Islamic way and the Syariah requirement is temporarily lifted merely on practical grounds. In the future, there will be sufficient facilities for all financial transactions of companies to be conducted in the Islamic way and there is a possibility that the temporary condition will be withdrawn.

1.9 Research Problem

The findings on the performance of unit trusts in Malaysia have been mixed. However, most findings indicate negative overall performance as shown by Ewe (1994), Shamsher and Annuar (1995), and Tan (1995). Performance with either the KLCI or the EMAS Index also pointed to the underperformance of Malaysian unit trusts. Taib, Lai and Shahnon (2002) postulated that there is little variation in the manager's market timing and selectivity performance across alternative market benchmarks. Low (2005) reported that manager's poor timing ability contributes significantly to the fund's negative overall performance. Shamsher and Annuar (1995) also found that the returns on investment in unit trust are well below the risk free and market returns. The results also indicate that not only the degree of portfolios diversification is below expectation but the actual returns

and risk characteristics of funds are also inconsistent with their stated objectives. Fauziah et al. (2002) also concluded that the poor performance of unit trust managers continues into later decades and unit trust returns are not significantly above risk free and market returns. They discover that unit trusts do not exhibit consistent investment performance over time and there is no evidence to indicate that Malaysian fund managers have superior forecasting ability

Study on market timing and selectivity criteria to determine unit trust performances were also carried out by Low (2005) against the KLCI and EMAS Index. He used a model developed by Henriksson and Merton (1981) to test for market timing and security selection ability of fund manager. His finding indicates that the unit trust does not exhibit superior performances against the market benchmark. As such, investors who want to invest in the unit trust might have to look for another benchmark that may guide them in their selection process. Taib and Isa (2007) discovered in their study that unit trusts did not performed well over the period of 1991 until 2001 as compared to the performance of the market portfolio. However, they observed that funds which were categorized as bond fund, showed superior earnings pre and post crisis period, as the funds benefited from the high interest rate regime adopted by the Malaysian Central Bank at that time. Persistency evidence was also lacking in the Malaysian unit trust industry. The lack of performance persistency is not confined to the Malaysian market alone. Earlier studies by Brown and Goetzmann (1995) of the mutual fund industry in the US also came up with a similar conclusion as to absence of persistency in their mutual fund industry. Despite these facts, Malaysian government seems to be encouraging investors to invest in unit trust and the promotions on the attractiveness of returns based on the past

performances has been used as the main theme in the marketing efforts. Even the government's owned agencies such as Permodalan Nasional Berhad and the Securities Commission have been encouraging the Malaysian public to buy unit trusts. Given the actual fact that return on unit trust has not been superior to that of the market, it seems that there hasn't there been any effort to explain this actual fact to the general investment community. Naïve Malaysian investors would be the prime target of the promotional campaigns by the unit trust companies since Malaysia is among the countries in Asia with high saving rates. Given the status of the Malaysian capital market as being categorized as an emerging market, naïve unit trust investors would have little access to the data on unit trust to do their research or analysis on the past performances of the unit trust industry.

This study seeks to discover simple investment strategies that naïve investors can adopt in order to maximize their return on their investment in unit trust knowing the fact that unit trust cannot outperform the market return. This empirical study analyzes the performances of the unit trust using active management strategy (follow-the-winner) and passive investment strategy (buy and hold) based on Edge-Lipper lists of winners. The winner list is produced on a yearly basis in Malaysia. By constructing a portfolio of unit trust based on the Edge-Lipper's recommendation, comparative performances on the returns can be tested according to the two different types of strategies. Since unit trust is a portfolio in itself, the portfolios created for this study can be considered as portfolio of portfolios.

1.10 Research Objectives

The studies on the performances of unit trust in Malaysia have yielded mixed results. Most of these studies were conducted with small data sizes except for Taib and Isa (2007). Data that have been used in the past studies were selected without taking into considerations the ratings that have been accorded to the selected unit trusts. This study chooses to analyze unit trusts that belong to the winner list. Consequently, naïve unit trusts investors who are searching for the best unit trusts to invest would be attracted by the winning status of these unit trust companies. Therefore, it can be assumed that the investment in the winning unit trusts can generate better returns for investors as compared to the unit trust that do not belong in the list. Blake and Morey (2000) conducted a study on the cash inflows into the mutual funds that belonged to the Morningstar fund rating service based on its stars ratings. The conclusion of the study indicated that funds that belong to the Morningstar were able to predict performing funds. Funds with less than three stars generally had much worse future performance than other groups with higher stars. They also discovered that Morningstar ratings did only slightly better than alternative predictors (mean monthly returns, Sharpe Indexs and Jensen and four-index alphas) in forecasting future fund performance. Similarly, the Edge-Lipper winner lists can be considered as a strong indicator for predicting future performances by looking at its Average Raw Return, Sharpe Ratio and Treynor Index. Maximization of returns can be enhanced if proper strategies are used in managing these unit trusts. None of the studies in Malaysia so far have been conducted to analyze returns based on the strategies that investors can use in buying unit trust based on the selected winner lists.

This study focuses on examining unit trust performance in Malaysia over the period of 2001 until 2006. Performance is analyzed from the main perspectives of raw return and risk adjusted return. Published daily data on unit trust's NAV in local newspapers is easily accessible by investors but the data might carry little value to naïve investors, as it does not show the historical performances of the unit trusts. Another way that investors can determine the performances of unit trust is through the unit trust rating agencies such as the Lipper and Standard and Poors (S&P). These companies publish yearly list of the winning funds based of various categories according to their custom-made criteria. These ratings are similar to the Morningstar or the Lipper Leader funds rating in the US. They provide the sources of references for normal investors to choose mutual funds according to their financial aim or objectives.

Performances between conventional and Islamic based unit trusts will be compared using the two strategies. Performance of the Islamic unit trusts is studied due to the facts that the Malaysian government is trying to promote Malaysia as an Islamic financial center and also due to the ethnic composition in Malaysia, which is made up of majority Malay Muslim who have money to invest. Return on portfolio of unit trust, which is based on the risk tolerance of Malaysian investors, will also be compared using the two strategies.

1.11 Research Questions

This study will seek to address the following questions:

a) Does active portfolio management (follow-the-winner) strategy produces better portfolio return compared to passive portfolio management (buy-and-hold) strategy?

b) Does conventional based unit trust gives a better portfolio return than Islamic based unit trusts using two different strategies mentioned above?

c) Do returns based on risk categories (risk averse and risk takers) for conventional and Islamic unit trust differ using the two strategies?

1.12 Significance of the Study

Shamsher et al. (2000) conducted a study on the performance of 41 actively and passively managed funds in Malaysia from 1995 through 1999. The study used normal performance measurement of Sharpe's ratio, Treynor's index and the Jensen's alpha index to measure returns. There had also been a study conducted by Abdullah, Hassan and Mohammed (2007) on the performance of Islamic based unit trust and conventional based unit trust from the period of 1992 to 2001. The study compared the returns from investing in the two different types of unit trusts as well as the government linked unit trusts and privately managed unit trusts during the period of pre crisis, Asia financial crisis and post crisis. However, this study is different from the previous studies literally due to several factors. Firstly, the period used in this study is post Asian financial crisis where the economy and the stock market in Malaysia grew at a constant and healthy phase. Secondly, this study compares unit trust's returns based on portfolios of unit trust

consisting of different categories. Another distinct difference of this study is that return on portfolios which is based on the investor's risk appetite, is also examined. This study is free from survivorship biased and portfolio returns are compared with standard risk adjusted return measurements of Treynor index and Sharpe's ratio. Assumptions included are:

a) Naïve investors are not limited to the amount of available fund to invest.
b) For the passive portfolio analysis, it is assumed that investors have not added any capital since his initial investment in 2001.
c) For the investor's risk type, it is assumed that risk averse investors would be buying unit trusts that invest in bond, currencies and balanced assets while the risk taker investors would be investing in unit trusts that invest mostly in equities.

1.13 Definition of Key Terms

1.13.1 Mutual fund (Unit Trust)

Mutual fund is an investment company with diversified portfolios of investment consisting of stocks, bonds, real estate, and other securities that is managed by professional fund managers for outside investors. The term "open-end" refers to the fact that mutual funds consistently offer new shares to the public. When an investor wishes to sell their shares, the mutual fund will purchase the shares back at their net asset value, or NAV. The net asset value is based on the value of the underlying portfolios of the mutual fund. Shares of mutual funds are not traded, since new shares are continually being issued and shares are always redeemable.

1.13.2 Active portfolio management

Active management refers to allocation of resources based on an active strategy. Usually active management is performed against a benchmark, which requires active portfolio rebalancing at regular interval.

1.13.3 Passive portfolio management

Passive management means following an index benchmark or another portfolio using quantitative techniques in order to replicate the performance of the particular index.

1.13.4 Follow-the-winner

This is a type of investment strategy in active portfolio management where investors change the composition of their assets in their portfolio on regular intervals. This strategy normally involves buying assets based on the previous period winners or based on recommended winner's list. Investors who subscribed to this strategy believe that there exist hot hand phenomena where past winners will continue winning in the next few periods Zwirlein, Reddy and Doyle (1995).

1.13.5 Buy-and-hold

A strategy associated with passive portfolio management where assets in a portfolio are rebalanced only after a certain period. Assets are changed or revised because investors view that long-term investment produced better returns and at the same time transactions cost can be minimized in order to produce superior returns Busse and Irvine (2002).

1.13.6 Permodalan Nasional Berhad

A Malaysian government linked company (GLC) that was established in 1978 to increase the participation of Malay Bumiputra in the key economic sectors. It aims is getting the Malays to participate in the New Economic Policy (NEP) of the country by having substantial stakes in major companies listed on the Bursa Malaysia as well as overseas. It offered unit trust investment to Bumiputra through which it maintains a substantial portion of Bumiputra's investment in the growing economy.

1.13.7 Syariah Unit Trust

Unit trust that complies with the Syariah principals. It invests in assets that do not involve any of the prohibited practices, namely riba or interest, gharar or uncertainty or doubt and production or trading of prohibited products. Since there is no possibility that any of the public listed companies in Malaysia completely conduct their financial transactions in the Islamic way, this requirement is temporarily lifted merely on practical grounds.

1.13.8 Conventional unit trust

Unit trust which does not complies with the principal of Syariah. There is no restriction on the type of assets that can be purchased in their portfolios as long as the assets comply with its investment guidelines and objectives.

1.13.9 Risk averse

Low risk tolerance level which investors are willing to take for a certain amount of returns. In modern portfolio theory, risk is being measured as standard deviation of the

return on investment. Risk averse investors are willing to take a little risk with an expectations of receiving a normal return.

1.13.10 Risk takers

Risk takers prescribed to the idea of high risk with high reward. Thus, these types of investors are willing to tolerate high-risk level with the expectation that the return from assuming higher risk would produces superior returns.

Chapter 2

Literature Review

2.1 Introduction

Methodologies which are commonly used to study portfolio performances was a result of Modern portfolio theory (MPT) or portfolio theory which was introduced by Harry Markowitz in his paper "Portfolio Selection," which appeared in the 1952 Journal of Finance Markowitz (1952). Thirty-eight years later, he shared a Nobel Prize with Merton Miller and William Sharpe for what is known now as a broad theory for portfolio selection.

Prior to Markowitz's work, investors would focus on assessing the risks and rewards of individual securities in constructing their portfolios. Most investment advice was to identify securities that offered the best opportunities for gain with the least risk. Following this advice, an investor might conclude that the selected stocks offered good risk-reward characteristics and compile a portfolio entirely from the selected stocks. Markowitz formalized this perception. Using mathematics of diversification, he later proposed that investors focus on selecting portfolios based on their overall risk-reward characteristics instead of merely compiling portfolios from securities individually that have attractive risk-reward characteristics. In a nutshell, inventors should select portfolios of securities and not individual securities Markowitz (1952).

Markowitz treated single-period returns for various securities as random variables and then assigned them expected values, standard deviations and correlations. Based on these variables, the expected return and volatility of any portfolios constructed with those

securities can be calculated. Volatility and expected return can be assumed as a proxy for risk and reward. Out of the possible portfolios, a few portfolios will optimally balance risk and reward. Markowitz called this finding as an efficient frontier of portfolios. An investor should select a portfolio that lies on the efficient frontier. There are ten assumptions and fundamentals that Modern Portfolio Theory relies on. Markowitz's (1952) assumptions have been the key concepts around which MPT has been constructed:

a) There are no transaction costs in buying and selling securities.
b) There is no brokerage, no spread between bidding and asking prices.
c) Investors pay no taxes of any kind and only risk plays a part in determining which securities an investor will buy.
d) No one can move the market and liquidity is infinite.
e) Investors do not consider taxes when making investment decisions, and is indifferent to receiving dividends or capital gains.
f) Investors are rational and risk adverse. They are completely aware of all risk involved in an investment and will take positions based on a determination of risk, demanding a higher return for accepting greater volatility.
g) All investors have the same information and will buy or sell based on an identical assessment of the investment and expect the same thing from the investment.
h) Investors seek to control risk only by the diversification of their holdings.
i) All assets, including human capital, can be bought and sold on the market.
j) Investors can lend or borrow at the 91-day T-bill rate or the risk free rate and can also sell short without restriction.

James Tobin (1958) expanded on Markowitz's work by adding a risk-free asset to the analysis. This made it possible to leverage or deleverage portfolios on the efficient frontier. His work led to the notions of a super-efficient portfolio and the capital market line. Through leverage, portfolios on the capital market line are able to outperform portfolio on the efficient frontier.

Sharpe (1964) formalized the capital asset pricing model (CAPM) and later he discovered that not only does the market portfolio sit on the efficient frontier, but it is actually Tobin's super efficient portfolio. According to CAPM, all investors should hold the market portfolio, leveraged or de-leveraged with positions in the risk-free asset. CAPM also introduced beta and relates an asset's expected return to its beta. Portfolio theory provides a clear understanding of the interactions between systematic risk and reward. It has shaped how institutional portfolios are managed, and motivated the use of passive investment management techniques. The mathematics of portfolio theory is used extensively in financial risk management and the most common theories for measuring value-at-risk Hendricks and Zeckhauser (1993).

The opponents of this theory argue that there are many problems with the concept. Murphy (1977) argued that there actually wasn't any permanent correlation between risk (when defined as volatility) and return. High volatility did not give better results, nor did lower volatility give lesser results. Some of the conclusions were startling for the Efficient Market Hypothesis (EMH) believers. Murphy cited four studies where it was found that realized returns appeared to be higher than expected low-risk securities and lower than expected for high-risk securities and that the risk-reward relationship was far weaker than expected. He also cited that other important studies concluded that there

wasn't necessarily be any stable relationship between risk and return and that there often may be virtually be no relationship between return achieved and risk taken. In other words, high volatility mutual funds were not compensated by greater returns.

Haugen and Heins (1975) concluded that the results of their empirical study did not support the conventional hypothesis that risk, systematic or otherwise, generated a special reward. Their findings created quiet a controversy in the mid to late 70s when EMH and MPT were considered as the "revolutionizing" way to invest money in the Wall Street. The total absence of a correlation between volatility and return for individual stocks is not the only thing that troubles this method and its exponents. Even more fundamental is the failure of volatility measures to remain constant over time. Volatility does not stay the same for any period of time and varies drastically from one time period to another.

Fama and French (1992) who developed the Efficient Market Hypothesis examined 9,500 stocks between 1963 and 1990. They concluded that a stock's risk, measured by beta, was not a reliable predictor of performance. Fama stated, "Beta as the sole variable in explaining returns on stocks ... is dead. ... What we are saying is that over the last 50 years, knowing the volatility of equity doesn't tell you much about the stock's return."

2.2 Portfolio Strategy

This strategy uses all available information and forecasting techniques to get a better performance than a just a simple approach of diversifying portfolios. Jegadeesh and Titman (1993) in their study of mutual fund in the U.S used the strategy of buying the

past winner and selling the past loser using portfolio return from 1965 to 1989. They concluded that return from buying past winners are superior to that of buying the past losers. Carhart (1997) also argues that funds that earn higher one-year returns do so not because fund managers successfully follow momentum strategies, but because some mutual funds happen, by chance, to hold larger positions in last year's winning stocks. This suggests that the specific sector or theme investment strategy chosen by a particular fund could have a bigger effect on the performances of the fund rather than diversified funds. Zhao (2005) concluded in his study of the U.S mutual fund using the benchmark portfolio or estimation model discovered that the selectivity measure is positive on average while the timing measure is negative on average. However, selectivity and timing do show its sensitiveness to the choice of a benchmark when managers are classified by investment style. Chan, Jegadeesh and Lakonishok (1996) did a study on the US stocks by using momentum strategy to observe mutual fund returns. They used standardized unexpected earnings (SUE) variable, abnormal stock return around the most recent announcement date of earnings (ABR) and changes in analysts' forecasts of earnings. They concluded that past return and past earnings surprises can be used as indicators for future returns while market risk, size, and book-to-market do not effect the changes in future earnings. They also found that the return on a stock also includes other sources of news that are not directly related to near-term earnings such as stock buybacks, insider trading, and new equity issues.

Empirical study conducted by Silva, Sapra and Thorley (2001) using Morningstar database of mutual fund discovered that variation in mutual fund performances are actually caused by the return of dispersion in the stocks that mutual fund have in their

portfolio rather than the talent or the strategy that the fund managers or the management have exhibited. Findings by Baks, Metrick and Wachter (2001) on the risk-free asset, index funds, and actively managed mutual funds in the U.S using Bayesian method of performance evaluation also concluded that investors should not be investing at all in the actively managed mutual funds. Grinold (1989) in his study discovered that by using Einstein's famous formula of MC^2, active management strategy can be broken down into two components that consist of the skills of the fund manager and the breadth of the strategy. By adopting Einstein formula, value added active portfolio management can help enhancing portfolio's return. Berk (2005) observed the behavior of actively managed mutual funds and his finding is consistent with rational value-maximizing investors who compete with each other. He concluded that returns alone couldn't be used to measure managerial skill. Since most researchers use returns to measure skill to benchmark active managers or active management skills, they might be using a wrong measurement. He added that managers who are best at using their skills are actually already compensated with the fees accorded to them. Bodie, Kane and Marcus (2005) posit that hedge funds involve in many styles of investing in order to maximize their returns rather than just long and short arbitrage trading. Hedge funds use many trading strategies to maximize their returns and these strategies are difficult to define. Ferson and Schadt (1996) used conditional performance evaluation to analyze 67 mutual funds over the period of 1986 to 1990. They discovered that fund managers changed their risk exposures based on the availability of public information on the economy. As such, the use of performance measurement such as Jensen's alpha or CAPM is prone to misinterpretation, as they would normally show negative rather than positive numbers. Conditional performance

evaluation is more accurate at predicting the market timing ability of fund managers. Investors who are more active and shift their portfolio quite often run the risk of incurring high transaction cost. Kinnel (1997) advised investor of choosing the right mutual fund to invest in as the chances of beating the market return is quite low. Therefore, in order to maximize returns, investors should be looking to buy low-cost index funds if they are to be active investors

Research on the performance of hedge funds discovered that superior returns or otherwise will continue to the next three years period. This is in contrast to the mutual funds, which do not show persistency in performances. Hedge funds are more flexible in term of their investment strategy compared to the normal mutual fund. This flexibility enables hedge fund to show more persistency in returns and as such contributed to its trillion dollar growth. Jagannathan, Malakhov and Novikov (2006) and Shukla (2000) discovered that realized returns by the mutual funds with different investment strategy produced different potential returns. Passive investment portfolio has been found superior than active portfolio. An average loss of 0.13 percent per month is due to active portfolio management. Close examination of the U.S off-shore hedge fund from 1989 to 1995 reveals that in terms of their investment styles and managerial skills, most have shown positive results using traditional measurement of Sharpe's ratio and Jensen's alpha and this is evidenced by the fact that even the famous investment guru George Soros, is not able to beat the market returns constantly. However, in the long run his fund's return is quite strong compared to the market's return Brown, Goetzmann, and Ibbotson (1998).

Evidences from international market like Sweden has shown that active portfolio management recorded superior returns especially on the small cap funds which managed

to outperform the market returns. A buy-and-hold approach of small cap funds on the other hand has not been able to beat the market due to its management style, which does not exploit short term information asymmetries and also lacking superior strategic decision Engström (2004).

Indexing is another investment strategy where fund's asset classes are comprised of assets that are highly correlated with a certain benchmark index. This strategy has been gaining popularity due to its sophistication of investment option and technology. This passive type of investment styles is considered more appropriate for fund managers since they can create portfolios according the risk's profile of their client. However, there has been many debates about index fund since it doesn't include enough diversification as the index itself mirrors the portfolio of certain indices. These indices are normally consist of large cap assets classes whereas the small and mid cap assets are ignored. Therefore, it was suggested that investors can mix their portfolio holdings by buying index funds that combine different mix of asset classes (big cap and small cap) in order to maximize their returns Murguía and Umemoto (2005).

Study by Fletcher and Forbes (2002) on the unit trust performances in the UK discovered that measurement benchmark using CAPM, APT, single factor benchmark specification and multi factor benchmark specification showed bias in terms of their measurement. Results and the degree of underperformance also vary according to the benchmark used.

Survivorship biased has been demonstrated to have a big impact on the study of persistency. Earlier study by Carhart (1997) on the US mutual funds discovered that annual performance measurement is affected by the survivorship bias problem. Fund