STUDY OF MARKET TIMING, SELECTIVITY AND PERFORMANCE OF EQUITY UNIT TRUST FUNDS IN MALAYSIA

by

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ABSTRAK

Objektif utama penyelidikan ini adalah untuk melihat kembali prestasi industri dana saham amanah yang telah berkembang pesat pada masa ini. Data saham amanah yang di uruskan oleh pihak awam dan swasta dari Januari 1991 hingga Disember 2004 adalah di guna pakai di dalam penyelidikan ini dan ianya telah di bahagikan kepada sebelum krisis, semasa krisis dan selepas krisis. Fokus utama penyelidikan adalah untuk melihat kepada sumbangan pemasaan pasaran dan pemilihan terhadap pencapaian dana saham amanah. Kajian ini adalah lebih luas dari segi skop kerana penilaian saham amanah di jalankan secara berkumpulan dan juga secara individu. Penilaian asas dilakukan terhadap prestasi tanpa mengira pemasaan dan juga pemilihan dana. Pada keseluruhannya saham amanah gagal untuk mencapai prestasi yang membanggakan untuk pemegang saham. Penilaian adalah tertumpu kepada tiga aspek utama iaitu kesan praktis ini terhadap jangkamasa yang berlainan, indek yang berbeza dan penilaian terhadap dana saham amanah yang di uruskan oleh pengurusan yang sama. Khususnya ia mengkaji samada pemasaan pasaran dan pemilihan dipraktikan secara aktif oleh dana saham amanah dan samada ia boleh di guna pakai secara serentak oleh dana saham amanah. Juga kajian ini menilai keberkesanan kedua-dua strategi di dalam jangkamasa yang berbeza dan pengunaan indeks yang selaras dengan objektif dana saham amanah. Akhir sekali penilaian di buat terhadap strategi yang diguna pakai oleh dana saham amanah sebelum dan selepas penyatuan syarikat. Untuk mencapai objektif penyelidikan, data telah di analisa mengikut tatacara Jensen bagi mengukur pencapaian dana saham amanah secara menyeluruh. Ini di ikuti dengan tatacara Treynor dan Mazuy di gunakan untuk menilai kebolehan pemasaan pasaran. Penganalisaan mengunakan lima indek

yang dipadankan dengan objektif data seterusnya dibuat mengunakan tatacara Treynor dan Mazuy yang telah di ubahsuai. Akhir sekali penganalisaan adalah di lakukan terhadap sampel yang telah melalui penyatuan syarikat selepas tahun 2000 untuk mengesan kebolehan pengunaan aktiviti pemasaan pasaran dan pemilihan oleh dana saham amanah.

Keputusan kajian menunjukkan kebolehan pemasaan dan pemilihan aset adalah di praktikan secara meluas oleh dana saham amanah, akan tetapi ianya tidak memberikan hasil yang signifikan. Penilaian pencapaian ketiga-tiga tempoh masa menunjukkan kedua-dua praktis adalah hanya berhasil pada tempoh selepas krisis berbanding dengan tempoh masa yang lain. Jangkamasa pegangan unit amanah tidak memberi apa-apa perubahan kepada prestasi dana saham amanah secara keseluruhan dan juga terhadap kebolehan pemasaan dan pemilihan asset, akan tetapi ianya memberi kesan peningkatan kepada risiko sistematik yang di hadapi oleh dana saham amanah. Pengunaan indek yang berbeza juga tidak memberikan kesan terhadap pencapaian daripada penggunaan kedua-dua strategi ini akan tetapi ianya menyumbang kepada tahap pelbagaian dana. Penyatuan syarikat dana saham amanah telah mengujudkan satu pusat untuk pelabur memilih pelaburan yang di ingini, akan tetapi sumbangan penyatuan syarikat lebih kepada perubahan strategi dan bukannya menambah pulangan pelabur. Keputusan penyelidikan menunjukkan pelabur saham amanah tidak mendapat pulangan yang setimpal dari pelaburan dalam dana saham amanah berbanding dengan risiko yang di hadapi oleh pelaburan tersebut dimana saham amanah adalah terdedah kepada risiko perubahan naik turun harga seperti juga saham biasa. Hasil penyelidikan ini adalah berguna unutk pengkajian pasaran saham didalam negara membangun dan mengamalkan sistem kewangan yang terkawal.

STUDY OF MARKET TIMING, SELECTIVITY AND PERFORMANCE OF EQUITY UNIT TRUST FUNDS IN MALAYSIA

ABSTRACT

The main objective of this study is to re-look at the performance of the unit trust industry given that this industry has grown tremendously over the past years. Data of public and private funds from January 1991 to December 2004 was used, which were further sub divided into pre-crisis period, crisis period and post crisis period. The main focus of this study is on the contribution of market timing and selectivity strategies on the performance of unit trust funds. This study is a wider study on the subject of unit trust funds ad the evaluation focused at three aspects that is the effect of these practices over different time horizon, different benchmarks and the assessment of the funds under the same management.   More specifically it looked at whether market timing and selectivity are actively practiced by the unit trust funds and whether it can be practiced simultaneously by the unit trust funds. In addition, this study evaluates the usage of the strategies over different holding period as well as the over different benchmarks that correspond with the objective of the funds. Lastly, it looks at the continuity of the strategies used by management companies as a result of merger of the unit trust industry. In order to achieve the objectives, the data were evaluated using the Jensen method to evaluate the overall performance. It was followed by the use of Treynor and Mazuy measurement to capture both timing and selectivity ability. Further analyses were done using five different benchmarks that matched the funds objectives using the extension of Treynor and Mazuy methodology. Finally, a sub-sample of unit trust funds that had gone through the merger processes after year 2000 was analyzed to detect the effect of merger on timing and selectivity performance of funds.   The data was evaluated at both aggregate levels as well as at individual fund level.

The results at aggregate level were mixed and differ slightly than individual fund level. Results indicated that market timing and selectivity were extensively practiced by the unit trust funds but the contribution to the funds' performance is not significant. Most of the time, funds determine the wrong direction of the market with negative timing ability. The three sub period of evaluation indicated that both practices were only successful during the post crisis period. Different time periods of holding the assets do not have an impact on the performance of the funds but it contributes towards increases on the level of systematic risk. Usage of different benchmarks to evaluate the funds indicated no improvement in performance from the use of both these strategies but it improved the diversification level of the funds. Mergers created one stop centers for investors to shop for funds but the contribution is more of change of strategy rather than increase of wealth to investors. The findings demonstrated that the investors are not compensated accordingly by the funds as the returns provided by investment in unit trust funds are low based on risk adjusted basis. Investment in unit trust funds is actually volatile as the funds movements are highly influenced by the equity market. This study contributes to the body of knowledge on unit trust investment in a developing country especially in an emerging economy that is in the process of liberating a regulated financial system. It adds to the literature that portfolio managers are unable to challenge the Efficient Market Hypothesis even in a weak form of efficiency and are unable to gain abnormal return.

CHAPTER ONE

INTRODUCTION

1.1   Background of study

The Federation of Unit Trust Management [FMUTM] defines unit trust as a form of investment where investors with similar objectives pool their funds for the purpose of investment in a single portfolio of securities. The funds are managed by professionals who charged fees for services provided. As of December 2007 there are 40 funds management companies managing funds with the Net Assets Value worth of RM169.414 billion Net Assets which represents about 15.32 % of total market capitalization. In 1990, the total Net Assets Value was only RM11.7 million with a total of 11 funds management companies managing a total of 31 funds. Figure 1.1 showed in detail the growth in this industry from 1990 to 2007.
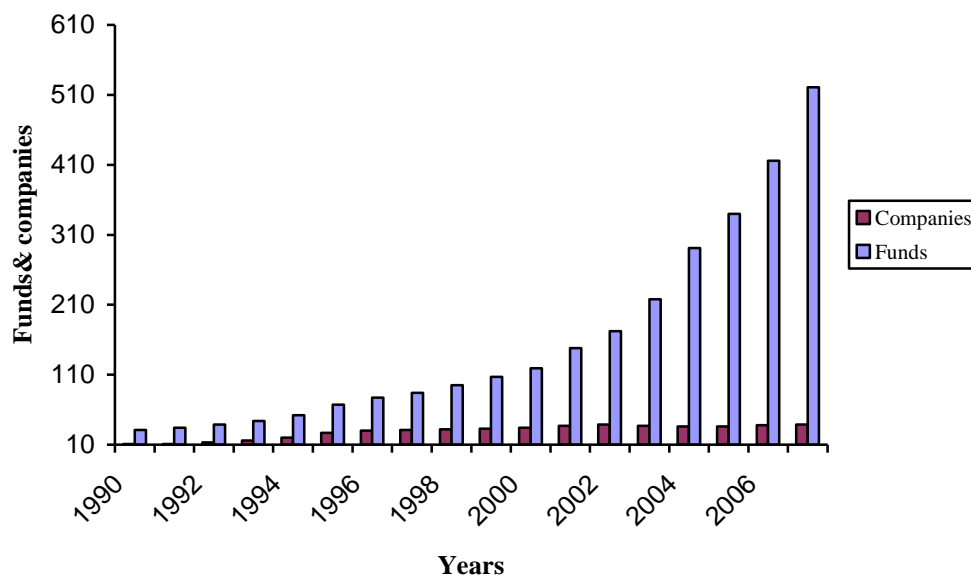
Figure 1.1:   Management companies and number of funds (1990 -2007)
(Data sources: *www.sc.com.my*)

The industry had grown tremendously since 1990 and the government is more involved with the unit trust funds scheme. The trading in this industry was governed

by the Securities Commissions, and the Securities Commission (Unit Trust Scheme) Regulation was enforced in 1996. Incentives were also given to this industry; the earliest being the launching of Amanah Saham Bumiputra in 1992. A provision to purchase the scheme under an interest-free loan was provided for "eligible Bumiputras". In 1995, another incentive was introduced where contributors to Employee Provident Fund [EPF] were allowed to withdraw up to 20% of the balance exceeding RM50, 000 from their retirement accounts for the purpose of investing in funds managed by approved institutions. In 1996 the total value of investments was RM9.76 million. However, in December 2006 the value decreased to RM9.15 billion. The rationale given was poor market performances and fees charged by the fund managers (Mohamad; 2006). These developments did not stop the industry from growing and as of February 2008, EPF reduced the charge for withdrawing money for the purpose of unit trust investment from 6% to 3%.

The incentives promoted development in the unit trust industry and led to extensive research in this industry. Academicians and practitioners alike are interested in this industry especially in the issue of performance. This is due to the fact that the unit trust fund is a collective investment scheme where small investors are able to be market participants. The pools of funds are large enough to create a well diversified portfolio.

The research on unit trust funds performance was pioneered by Treynor (1965), Sharpe (1966), and Jensen (1968). These researches concluded that funds are not able to generate enough return to compensate investors with the level of risk exposed. Performance is important because this help in determining investors choice for funds as well as managers. Later studies by Fama (1972) identified that performance can be sub divided into the ability to time the market and the ability to

pick the right security for the fund's portfolio in view of higher return. The distinction between these two sources of performance is essential for a superior appraisal on the services provided by the fund's manager to the investors.

Market timing referred to the ability to forecast movement of the assets and shifting funds held between a portfolio with a safe asset such as Treasury-bills or a money market fund (Farrel, 1983 and Bodie, Kane, and Marcus, 2001). A good portfolio manager will decide for the right time to move from one asset to another. The manager attempts to buy the assets when it is low and gains profit by selling it at a higher price (Dorf, 1991, and Levy, 2000). Research by Treynor and Mazuy (1966) revealed that only one out of fifty seven funds in the sample managed to outguess the market. Sharpe (1975) concluded that market timing provided not more than 4% of incremental return to the unit trust funds over the long run. Becker, Ferson, Myers and Schill (1999) and Jiang (2003) concurred with the earlier research that indicated market timing performances were insignificant and can at times gave negative results. However, the findings of studies by Vandell and Stevens (1989) and Wagner, Shellan and Paul (1992) found that practitioners were able to practice market timing successfully. Using a sample of 25 firms, Shellan and Paul found that timing strategy contributed around 12.88 % return on the portfolio mix as compared to 7.62 % return from S & P 500 that served as the benchmark on the study. This showed that an incremental return of more than five percent was evident from the professional market timers. Frequency of data was also observed as a factor that will influence the result as proven by Bollen and Busse (2000) and Chance and Hemler (2001). A later study by Jiang, Yao and Yu (2007) on 2294 equity funds found that the equity funds had positive timing abilities that were statistically significant. This adds to another contradictory finding in this area.

Selectivity can be defined as the ability of the fund manager to pick the correct assets for the portfolio. Selectivity can also contribute to the performance of the fund. Strategic assets mix or selectivity will diversify the risk accordingly to achieve the objective of superior performance. Grinblatt and Tittman (1989, 1992) and Hendricks, Partel and Zeckhauser (1993) investigated whether selectivity abilities of fund managers could result in superior performance. The findings were markedly different. Grinblatt and Titman found that superior performances were predictable. Funds that did well on the first half of the sample continued to do so throughout the period studied. Using quarterly data, Hendricks et.al. (1993) identified non performer as funds with a median return of less than 2.01% per quarter. Selectivity was apparent with the non-performers while timing existed among top performers and the funds managed a median return of 2.46% per quarter. Selectivity and timing has always been discussed as strategies that experienced negative correlation and as a result, funds that are good in market timing will not be able to practice selectivity to achieve abnormal profit (Henrikson and Merton; 1983, Kon 1983; Low; 2003 and Romacho and Cortez; 2006). This may be because the assets that are fundamentally good may not move in line with the market direction, as the assets pricing are left to the law of supply and demand.

Funds performance may be influenced by the investment objectives of the funds. The fund objectives provide investors information with regards to the style, strategy and philosophy of a unit trust. Assets are then allocated according to the investment objectives to create superior performance. Proper identification can create a better understanding on the nature of the funds, as it will give an indication on the risk associated with the funds. Friend and Blume (1970) and McDonald (1974) found that risk was associated with funds objective. Thus, proper style identification gave

an impact to the performance of the fund. This is consistent with the findings of a later study by Sharpe (1992). Further studies looked at several other influences of funds styles or objectives to performance of funds. Lobosco and DiBartolomeo (1997) estimated the sensitivity of return to assets factors and Lobosco (1999) further evaluated the effects of style towards risk adjusted performance. Horst, Nijma, and deRonn (2004) concluded that better estimation of portfolio holding could be achieved through cross correlation between asset classes and fund manager selected assets that matched the risk associated with the funds.

Efficient Market Hypothesis rejects the belief that market can be predicted. According to the Hypothesis, it is impossible for anyone to consistently outperform the market especially using information that is already known. It further states that diversification is a better tool than market prediction as the frequency of assets' switching will increase transaction cost, thus reducing profits. Past findings on the issue are mixed. Sharpe (1966), Treynor and Mazuy (1966), Hendrikson and Merton (1981), and Jeffry (1984) argued that it is not possible for the market to be predicted and as a result abnormal profit will not materialized. However, proof of the ability to predict the market was found by Vandell and Stevens (1989), Wegner, Shellan and Paul (1992), Chance and Hemler (2001), and Bollen and Busse (2000).

Researches regarding unit trust industry are also growing in this part of the world. The results are also mixed. Yeoh (2003) postulated that performance track record is important for unit trust investment in Malaysia. Investors preferred to hold on to funds that were winners and to redeem funds that were losers (Shu,Yeh and Yamada;2003). Researchers such as Ewe (1994), Mohamed and Nassir (1996), Taib, Shahnon and Lai (2002), and Isa and Taib (2004) concurred that unit trust funds were not performing. While Leong and Lian (1998) found that unit trust funds were

performing better than the market index. The issue of market timing and selectivity was evaluated by Nassir and Mohammed (1997), Low and Ghazali (2003) and Kok, Goh and Wong (2004). All these researchers agreed that market timing ability does not exist in Malaysian market. At the same time, Nassir and Mohammed (1997) also recorded positive selectivity and performance in their research. Low (2007) found that usage of both KLCI and EMAS index gave a similar result regarding market timing and selectivity. The mixed results were probably due to the limited sample size and the different time period used by each researcher. Thus this provides an impetus for a thorough investigation on the unit trust funds as the industry had not stopped growing. Despite empirical researches reporting negative performances of the unit trust industry, it remains robust and vital in Malaysian's financial market. This is evident from the growth in the wide array of funds offered to the general public and the increasing number of fund managers in Malaysia.

The industry was also affected by the financial crisis of 1997. The Net Assets Value went down by more than 50% from 1996 to 1997 (Insun, 2003). Another outcome of the financial crisis that affected the unit trust industry was the merger of financial institutions as announced by Bank Negara Malaysia [BNM] on July 1998. This led to the creation of larger unit trust companies with larger range of funds and greater resources. The growth via merger is still in line with the guideline stipulated in Chapter Four of the Securities Commission's Guideline for Unit Trust Funds, that states; "unit trust companies are not allowed to set up a unit trust subsidiary if there already exists in the company another unit trust management company" (www.sc.com.my). Unlike the reason suggested by Ding (2006), Zhao (2005) and Khorana (2001), funds were merged not for non-performance but rather to ensure the soundness of the banking industry as a whole.

Nevertheless, the issue of the fund not performing was not fully addressed even though the industry had the target of achieving 40% market capitalization by the year 2020. The loss in Net Assets Value of almost RM0.6 billion of funds invested in 1996 to 2005 as experienced by the Employee Provident contributor was another setback to the unit trust industry. Fund managers are professionals with knowledge on the market and thus should have better strategies to ensure that the investors are compensated accordingly.

To make fund management more liberal, further tax incentives were given to promote investment in managed funds. Consequently in 2005 two new developments occurred in the industry. Firstly, unit trust fund companies were allowed to invest 10% of their NAV overseas. Secondly, the Securities' Commission allowed for five foreign fund management companies to operate in Malaysia. However, as of November 2007, only three fund management companies had been approved by the Security Commission to provide service in this country. This development nonetheless created a more competitive market for the local management companies. Hence, this study focused on the market before the changes took place in 2005. This would thus eliminate the effect of the existence of international fund management companies on the findings.

Many scholars and practitioners had proposed that the study of timing and selectivity would create a better understanding on the cause and effect of performance. Past research in other markets generated mixed findings on the presence and effect of timing and selectivity on performance. Researches in Malaysia in this area are limited and the results are inconclusive. This may be due to the limited sample sizes used and the time periods evaluated. Thus, a research on the presence and influence of market timing and selectivity on unit trust performance

that considers the various objectives of the unit trust funds, wider population of the managed funds and having much longer time horizons could provide more conclusive findings. In such a research, benchmarks that correspond with the objectives of the fund should also be used.

1.2   Problem Statements

Investors look at past performance to predict future performance of unit trust funds. Ramasamy and Yeung (2004) found that past performance played a role in deciding the fund to purchase for investment purposes. However, past research showed that the performance of unit trust funds was not in tandem with their rapid growth. This scenario could eventually result in the industry becoming less attractive to investors and further growth will be impeded. The question arises as to whether a major underlying reason for the poor performance is the fund management strategies employed by the managers or an erroneous choice of the benchmark for the evaluation.   The creation of bigger fund management companies resulted in more funds under the same management and offers choices to the investors. This begs the following questions.   Are the fund managers implementing the right strategy? Are they picking the right assets for their fund? Are strategies implemented by fund managers geared towards performance?

Fund managers are considered to be informed professional investors and have better accessibility to information than individual investors. Therefore, they can position their funds toward a better profit. However, the market scenarios indicated otherwise as there are winners and losers. The findings of this study shed some light on the possible reasons for the poor performance and could help guide the efforts of the industry to improve. Result from past studies has showed mixed results which

may be attributed to the frequency of data, period of study and usage of benchmark. Using twice-a-week observations, this study examines market timing and selectivity performance of unit trust funds and focuses on three aspects. Firstly, what are the effects of strategies on the performance over different time horizon? Chia and Tse (2000) suggested that more conclusive findings would be obtained if the analysis involved comparing the performance over varying time horizons. This is to capture any changes in the strategy employed. This study thus looked at the performance over four different time horizons. The effect of the financial crisis on the unit trust funds was also evaluated. This gives an insight on the actual impact of the crisis on unit trust funds.

Secondly, as pointed out by Gruber (1996) and Bodie and Kane (1999), proper benchmarking gives better results on the evaluation. Given the correlation between KLCI and EMAS Index is at 0.9775, it is not surprising that Low (2007) found the performance using two highly correlated indexes to be the same. This study used benchmarks that correspond to the major assets of the funds. Another benchmark that is relevant to a second asset holding was used to assess the performance. In doing so, it ensured that the funds were evaluated against a benchmark that was associated with their objectives. Lastly an assessment of funds performance managed under the same management company was also conducted. This is to detect if the funds will perform equally as other funds under the same management team. Thus it would show if the fund managers were using the same strategies for all funds under their management. The assessment was done for the period before the merger of the unit trust funds management companies effective from 2000, as well as the period after the merger happened.

1.3   Research Objectives

The general objective of this study is to look at the performance of unit trust funds, specifically using market timing and selectivity strategies.   It covers both publicly and privately managed funds. The specific objectives of this study are listed as follows:

a. to evaluate if market timing and selectivity are practiced by fund managers in the unit trust industry

b. to identify if market timing and selectivity can be practiced simultaneously as a strategy to enhance performance.

c. to identify the effect of time horizon on market timing and selectivity performance of unit trust funds.

d. to compare the market timing and selectivity performance of unit trust funds measured with the benchmark that corresponds with the fund's objective.

e. to evaluate the performance of the funds after merger or consolidation of management companies .

1.4   Research Questions

This study tries to address the main issues of the performance of unit trust funds in Malaysia with respect to market timing and selectivity strategies. Based on the above specific objectives, the research questions are:

a. Are market timing or selectivity strategies practiced by unit trust funds industry?

b. Is it possible for managers to practice both market timing and selectivity at the same time to enhance funds performance?

c. What is the effect of market timing and security selection strategies when used over the short-term period, medium term (five-yearly) or long term period?

d. What is the effect of market timing and selectivity performance of funds when evaluated with the benchmark that match the fund's objective?

e. Will merger or consolidation of management companies affect the performance of funds?

1.5   Significance of the Study

Researches on unit trust funds performance are of interest to both academicians and practitioners. This research provides further detailed evidence on the unit trust industry. A big sample size and high frequency data were analysed at both aggregate and individual level. This choice of the data and analysis created findings that provide broad empirical evidence for rejecting the premise that portfolios created by the Malaysian fund managers will follow the propositions of the three finance theories used in this study. These finance theories are the portfolio theory, the efficient market hypothesis and the capital asset pricing model.

The portfolio theory assumes that in an efficient market, investors prefer to maximize return at the lowest possible level of risk. The way to accomplish this is through portfolio diversification as mentioned by Haim and Levy (1979). A study of diversification strategy by fund managers tests the portfolio theory on its position that creating a fully diversified fund with a good asset mix will minimize risk, and that as such the investor will be compensated accordingly. The Efficient Market Hypothesis (EMH) also essentially posits that diversification is the way to generate return and that an attempt to time is a wasted effort that can give lower return with high transaction costs. However, any ability of fund managers to generate abnormal

profit and hence outperform the market will prove that the market is not efficient, thus nullifying the position of EMH. According to Sharpe (1964), Litner (1965) and Mossin(1966), the capital asset pricing model stresses on market equilibrium. It proposes the Capital Market Line which is the equilibrium relationship between expected return and total risk for efficient portfolio. The model also proposes the Security Market Line which is the equilibrium relationship between expected return and systematic risk.

Investors look at past performance to predict future performance of a unit trust fund. Ramasamy and Yeung (2004) found that past performance played a role in deciding the fund to purchase for investment purposes. However, as earlier mentioned, the performance of unit trust funds in Malaysia is relatively poor despite their rapid growth. This scenario can eventually result in the industry becoming less attractive to investors and impeding further growth. The findings of this study enlighten on the performance of unit trusts with respect to market timing and selectivity. Individual investors will benefit as unit trust attracts small investors who have limited access to capital and are relatively risk aversive. If fund managers are able to strategize so that the unit trust performs above the market, the unit trust industry would earn the confidence of its investors and lead to continued growth.

Practitioners or fund managers may use the results from performance measures to show the attractiveness of their funds. Fund managers play important roles in maintaining the health and sustainability of unit trust funds under their charge. Advances in information technology provide tools for managers to create analytical models to thoroughly study each financial asset and the market movement. This has enabled the managers a basis to create a portfolio that should give an above average return against risk. Some managers managed to generate profitable

investment for their unit holders while others failed. The findings of this study illuminate the relevance of market timing and selectivity. In addition, the findings should assist fund managers in adopting a strategy that improve the funds' integrity and enhance the manager's reputation as well as increase the investor's wealth.

The findings of this study should provide the policy makers such as Bank Negara Malaysia and the Securities Commissions an insight on the current environment of the unit trust industry. It provides possible evidence for determining the effectiveness of the current policies. This again is to ensure the attractiveness and growth of the industry as well as protecting the interests of the unit trust investors, as this industries received incentives in the form of tax rebate from the government.

This study adds to the literature on unit trust industry in a developing country (in this case, Malaysia), that practices a regulated financial system and offered incentives to the development of unit trust industry. At the same time the consequences of merger are highlighted in this research as the reasons are different then any other unit trust merger. Given that unit trust industry are offered not only by private fund managers but also by government body such as Permodalan Nasional Berhad, the findings of this research will contribute towards the improvement, further development and growth of the unit trust industry.

1.6   Organization of Chapters

The remaining chapters are organized in the following manner. Chapter 2 reviews the past literature on unit trust funds. The review includes performance, market timing, and security selections of unit trust funds. Chapter 3 describes the data and sample of this study. This is followed by the statements of hypothesis and methodology of the research. Chapter 4 presents the empirical results and analyses

the findings. Finally Chapter 5 provides a summary and discussion of the findings.

Then, the limitations of the study and suggestions for future research are elaborated.

CHAPTER TWO

LITERATURE REVIEW

2.0   Introduction

This chapter reviews the theoretical and empirical literature related to market timing, security selections and related issues. Firstly, the definitions of the key terms of this study are discussed. This is followed by an elaboration of the study's underlying theory, fund performance, funds style and performance, and market timing. Next, the types of unit trust funds available in Malaysia are described and the findings of past studies and the related issues pertaining to unit trust in Malaysia are reviewed. Finally, the research framework for this study is provided.

2.1   Definition of Main Terms

The main terms that will be discussed in this section are market timing, selectivity and style of unit trust funds.

2.1.1 Market timing

Market timing refers to the strategy used by investors and fund managers to predict the movement of the market; as a result they will position their assets according to the anticipated market movement for the purpose of maximizing their return.

Farrel (1983) defined market timing as the process of forecasting short-term movement of the stock and varying the asset accordingly. Bodie, Kane and Marcus (2001) defined market timing as shifting funds between a market index portfolio and a safe asset such as T-bills or a money market fund, depending on whether the market as a whole is expected to outperform the safe asset. Levy (2000) gave an

almost similar definition where he argued that market timing is a portfolio management strategy that is employed by money managers in an attempt to time the market that is, deciding when to move into and out of different asset categories. These three definitions highlight the extensive movement of assets and implied that managers who implemented this strategies fall under the categories of active managers that do analysis on the market movement. Their decision on buying and selling of assets are based on the result of their analysis and they do not practice the traditional buy and hold strategy.

Dorf (1991) explained that the essence of market timing in any investment is to buy low and sell high. This means that the "timely" shifting of assets into or out of the market is an attempt to take advantage of market rallies while avoiding major decline. He further elaborated that a successful market timer strives to position his portfolios of funds to achieve higher beta values prior to market rises and lower betas before market decline. Farrel(1997) further explained that the way to analyze market timing ability is by calculating a series of returns for the funds and a market index over a relevant performance period and plotting these on a scatter diagram. The characteristic line obtained represents the relationship between the portfolio and the index. The best portfolio will be the portfolio that will achieve high return at the lower possible risk. A portfolio manager who managed to create an optimal portfolio that minimizes risk and maximized return will be on the characteristic line.

2.1.2 Selectivity

Stock selection is the process of picking an asset using a given criteria. The criteria can be based on the objective of the investment as well as the risk associated with the assets. Past researchers have referred to stock selection as selectivity. Fama

(1972) referred to this process as micro forecasting or security analysis. Analysis needs to be done thoroughly to ensure that the right security is selected to be part of the portfolio. It involves looking at factors such as value, momentum, earnings revisions size and liquidity. Sears and Trennepohl (1993) defined selectivity as the process of choosing a security that does better than average given a same level of risk. Admati, Bhattachaarya, Pfleiderer and Ross (1986) defined selectivity as the ability of a manager to pick individual assets. The assets can either be of same or different assets class. Successful portfolio managers must be able to pick the right security for its holding so that abnormal return can be achieved.

Bodie and Kane (2001) explained that the basic principle of selection is to diversify. Diversification will lead to reduction of risk among securities held and thus increase return. The role of a portfolio manager is to create a portfolio that is optimal based on investors' needs through diversification using various available tool to help perform analysis to facilitate the decision making process.

2.1.3 Objectives

Objectives are sometimes referred to as style of the fund. It involves the process of creating a portfolio of different asset class with a single purpose of achieving a financial objective. Asset class normally refers to assets such as bonds, stocks, cash and other assets. All these assets are exposed to different types of risks.

Brown and Goetzmann (1997) referred to investment objectives of mutual funds as style and suggested that these funds are grouped according to securities held and the style of their managers. Barberis and Schleifer (2003) defined style as the process of classifying assets to different class and referred to allocation of funds among style as style investing. Both researchers agreed that style is about objective

of the funds and it is reflected in the types of securities held by the fund. Ahmed (2001) defined style investing as a situation when managers invest in stocks that have similar characteristics. Lucas ,Dijk and Kloeli (2002) referred to value and size strategies used to discriminate future performance as style investing. The usefulness of style or objectives analysis is in determining the future exposure of the funds and measuring performance (Horst et al, 2004). The objectives will help in determining the correct assets allocation, thus resulting in better performance by the funds.

In evaluating performance, managers or researchers have preferred to compare performance between managers of funds with similar objective. This will create a ranking on the performances among the funds and thus serves as marketing tools for future investors. Investors normally prefer to be associated with a fund that received maximum return.

2.2 Theoretical Background

This section reviews the literature relating to three theoretical models that are important to this study. The theoretical models are the basis for most studies on portfolio management and performance. The models are Portfolio Theory, Efficient Market Hypothesis and Capital Asset Pricing Model or the Market Theory.

2.2.1 Portfolio Theory

Markowitz (1952) won the Nobel Prize for developing a portfolio model that quantifies the expected rate of return and risk of holding a portfolio. He showed that diversification is the essence of lowering risk in investment. Markowitzs' diversification strategy is all about the degree of covariance between an asset and return in a portfolio. However, this theory assumes that the market is efficient,

investors are risk adverse, investors prefer a higher rate of return and investors seek to maximize return while reducing risk for a given level of risk (Dorf, 1991). Haim and Levy (1979) showed that diversification, especially across industries is better than random diversification especially for a one year holding period. This finding suggests that a portfolio manager should not hold on to their asset for more than one year as Haim and Levy found the results are less favorable over a longer period. This is true as portfolio management is a continuous process. Portfolio manager are required to constantly evaluate and reposition securities held according to past performance and market movement. It is evident especially among active portfolio managers who do not practice the buy and hold strategy. They will continuously look for anomalies. These are identified through constant analysis and evaluation on the fundamentals as well as the technical aspects of the market, industry and individual assets. These will serve as the basis of a portfolio creation.

The risk associated with investing in a portfolio is less than that from investing in individual assets. Investment in unit trust or mutual funds is one type of portfolio investment. Fund managers will diversify their portfolio in ways that will generate better profits. They can diversify the portfolio according to either the objective of the funds or style of the fund. Another way of doing so is by spreading the investments across the various industries or assets. The main purpose is to minimize risk that can be quantified either as standard deviation, which represents total risk, or beta that represents systematic risk. Portfolios that are able to beat the market will achieve abnormal return and thus provide evidence that the efficient market hypothesis can be challenged.

2.2.2 The Efficient Market Hypothesis

The Efficient Market Hypothesis (EMH) looks at pricing of securities according to information. The essence of this theory is that investors will purchase and sell securities according to information available in the market. Fama (1970) defined an efficient market as "a market in which prices always fully reflect available information" The market is said to be in a weak form when current prices are reflected by the historical prices of the securities. When the securities are fully reflected by publicly available information it is said to be in the semi-strong position. The market is considered strong when all information regardless being public or privately held, is reflected on the securities prices. There are believers and non-believers of EMH In the context of dealing with a managed portfolio such as the unit trust. The EMH believers advocate better diversification by using the selection of assets to maximize return rather than attempting to time the market. They believe that active portfolio management is a wasted effort, as it involves hefty transaction costs. The frequent switching of the assets to maximize return will ironically reduce the actual return. If market is truly efficient, securities will always be correctly priced, abnormal profit will not exist and investors will enjoy equal profits. Yet, in reality, abnormal profit and investment losses do exist. Bodie and Kane (1993) points out that the main contention about efficient market is that skilled investors are able to make consistent abnormal profits. Therefore, the consistent performance of investors such as Peter Lynch, Warren Buffet, John Templeton and John Neff made it hard for people to acknowledge that making a profitable investment is not possible.

Portfolio managers are professional investors and they are the most documented investor group in studies on EMH. This is because their performances are representations of skilled investors as pointed out by Bodie and Kane (1993).

Thus, such studies on unit trust funds focused on the ability of the fund managers to achieve abnormal return. The performance of the fund managers were assessed against a given benchmark and in most studies the benchmark used was the market portfolio.

Jensen (1968) used the Standard & Poor 500 as benchmark and found evidence that fund managers were not able to achieve above the given benchmark. This is similar to the earlier findings by Sharpe (1966), Treynor (1965). Jensen (1965) concluded that the mutual funds manager did not challenge EMH, as managers were not able to forecast the direction of the market and receive abnormal return to compensate all transaction costs. These researchers agreed that mutual fund managers failed to challenge EMH and were unable to outperform the market. Ross, Westerfield and Jaffe (2005) agreed with the previous finding and believed that even when the market's efficiency is at semi-strong, fund managers should be able to achieve average returns similar to the market as a whole. This is because information is publicly available and there are technologies to help create tools to forecast the market movement. Malkiel (1995) and Carhart (1997) pointed out that high expenditure on trading reduced net return on holdings as it is expensive to move the market continuously as transaction cost will always be incurred at all levels of transaction. Thus, it is the job of the manager to ensure that profit is adequate to cover transaction cost as well as being distributed as income.

Market efficiency theory, however, rejects the belief that the market can be predicted and posits that market timing is a wasted effort. Past research proved that fund managers are not able to beat the market and in a good number of times under-perform a given benchmark. Real life results of the existing fund managers proved that abnormal profits did exist and efficiency of the market can be questioned. Most

of the previous researches on market efficiency focus on the western market with a few looking at the efficiency of the Malaysian market. Barnes (1993), Yong (1993) and Liew (1993) agreed that the Malaysian market is in the weak form of the EMH. Yong (1993) posited that past historical price does not affect future prices. Non-randomness of the price gave an indication that the changes on the stock prices follow a certain trend and if the trend were identified, abnormal return will be possible. Later research by Lai, Balachandher and Nor (2003) and Lim and Habibullah (2004) further confirmed that the market is in the weak-form of the EMH. It was shown by Kim and Shamsuddin (2008) that Malaysian market had been inefficient since the early nineties and the financial liberalization implemented by the authority did not improve the inefficiency of the market. These empirical findings confirm that Malaysian is in weak form of EMH and investors should not depend on past prices to gauge on their investments decisions. Investors should focus on trends and track anomalies in the trend to create abnormal return. Given that fund managers are professional investors, with the knowledge on the market and given a proper instrument will be able to detect any anomalies that are available in the market through fundamental and technical analysis and achieve a better return for their investors.

2.2.3   Capital Assets Pricing Model (CAPM)

While portfolio theory deals with the selection of a portfolio that could maximize return at an acceptable level of risk, the capital market theory looks at the effects of decisions towards securities priced. This theory was developed independently by Sharpe (1964), Litner (1965) and Mossin(1966) and enhances the importance of portfolio theory. Their studies explained the relationship of risk and

return on both holding individual assets and in a portfolio. This model was created on several assumptions and market equilibrium is necessary. Two important relationships are in this model. The first relationship is the Capital Market Line that defines the equilibrium relationship between expected return and total risk for efficient portfolio. The second relationship is the Security Market Line that specifies the equilibrium relationship between expected return and systematic risk.

Bodie and Kane (1993) pointed out that CAPM was built on the insight that appropriate risk premium is determined by the risk of the overall portfolio. The risk of the portfolio is fundamental to investors. CAPM deals with the return-beta relationship that shows the relationship between systematic risk and expected return. Securities that are priced fairly will be on the Security Market Line. This is where the expected returns of the security are proportionate with their risk. A security analyst will be able to identify any security that is not on the SML and make an attempt to capitalize from this. Thus, anomalous profits are created from the anticipated future market movement. This is the basic principle used by portfolio managers in their security selection process.

2.3   Mutual Fund Performance

Performance refers to how a managed portfolio performs after a certain period, especially the attainment of the objectives or goals that have been set by the manager for the portfolio. Performance measurement looks at how well the management had implemented the policy that had been set. Studies on mutual funds performance had been done extensively overseas but to a lesser extent in Malaysia. Most of these studies had focused at the return of the mutual funds over a period.

Treynor (1965) included risk-free rate in his measurement model that was based on the Capital Market Theory. Treynors' measurement looks at reward to volatility ratio. It uses systematic risk as the denominator of the equation it (T value).The numerator is the portfolio return net to risk-free rate. It is computed as $\dfrac{R_p - R_f}{\beta_p}$. A portfolio that achieves performance with a higher T value is a portfolio that achieves a superior risk adjusted performance. The main limitation of this model is that it ignores the existence of non-systematic risk that makes up the total risk as it uses Beta as a measurement of risk.

Sharpe (1966) also studied the reward to volatility ratio and built the performance measurement model based on Capital Market Theory. The difference between Sharpe measurements with Treynor's is the denominator. Sharpe seeks to measure total risk of the portfolio by using standard deviation as the denominator. This measurement is suitable to be used for a portfolio. This is due to the fact that a portfolio that is well diversified, therefore, it is exposed to total risk consists of both systematic and unsystematic risk.

Both measurements provide different information on the performance of portfolios. Sharpe applied the measurement on 34 mutual funds and the result indicated that the funds reward-to-volatility ratio range from 0.78 to 0.43. He argued that this result is a representation of the manager's skill of managing the respective funds. When Treynor's methods of measurement were used by Sharpe, the result was dissimilar. Sharpe suggested that this was due to how risk was being treated differently in both methods.

Jensen (1968) also built his measurement based on the Capital Market Theory. It is a direct implication of the Capital Asset Pricing Model. He proposed the used of alpha (α) as a measure of performance. It is computed as

$$\alpha_p = [R_p - (R_f + \beta_p(R_m - R_f))] \qquad \textit{Equation 2.1}$$

Where: α_p = Jensen's measure of portfolio performance

R_p = average return on the portfolio

r_f = risk-free rate

β_p = systematic risk

R_m = return on a market portfolio

Jensen's measurement defines the concept of portfolio performance in two distinct dimensions: that is, firstly, the ability of a portfolio manager to increase the return on the portfolio through prediction ability and, secondly, the ability of a portfolio manager to minimize risk bore by the portfolio's holders. The term alpha (α) measures how well the managers perform against the risk taken on the portfolio. A positive alpha will indicate whether a manager is good at either predicting the market or picking the right stock for the portfolio.

Jensen applied this measurement on 115 open-end mutual funds over the period of 20 years. The findings indicated that seventy-six funds had alpha of less than zero. This was interpreted as the funds' inability to forecast the future price and earn enough to cover their expenditure. Throughout the period of study, Jensen found little evidence of funds performing above the market. Performance of funds is related to risk and he concluded that funds are not able to beat the passive buy-and-hold strategy, as they are not good at predicting the movement of the market. The measurement only take into consideration that the fund managers pick assets for their portfolio and ignore the existent of market timing activities amongst unit trust funds.