CHAPTER 3

LITERATURE REVIEW

3.1 INTRODUCTION

The theory and measurement of the performance of unit trusts or mutual funds has been the area of frequent research and inquiry especially in the West. The need to set a benchmark for the comparison of their performances with other forms of investment has made it indispensable a tool. The development of the Modern Portfolio Theory pioneered by Markowitz (1952) and risk-adjusted performance methodology founded by Jensen (1968), Sharpe (1966) and others have intensified work in this area.

This section discusses some of the major studies made in this area and their empirical results available in the literature.

3.2 EARLY EMPirical STUDIES OF UNIT TRUSTS AND PERFORMANCE MEASUREMENT

The theory and performance measurement techniques used by conventional investment securities can be also applied to the Islamic investment securities. The notion of combining securities into portfolios has important implications in many aspects
of investment and risk reduction. A landmark paper, Portfolio Selection by Harry M Markowitz that was published in March 1952 is accepted as the origin of the modern portfolio theory in the field of investment. From the study, it is revealed that combining risky securities into a portfolio can reduce the risk rather than holding them individually. The risk is measured by standard deviation of return of the securities. The concept of risk reduction in a portfolio is stemmed on the fact that the return on most securities is not entirely positively correlated.

The portfolio theory developed by Markowitz illustrates how to measure the risk but does not specify the relationship between the risk and the required rate of return. The risk-return relationship was later developed by John Linter, Jan Moissin and William Sharpe, and is known as the Capital Asset Pricing Model (CAPM). The CAPM relies on the perfect market assumption and specifies that the required rate of return on a risky security is a function of three factors namely risk free rate, the required rate of return on market portfolio and the volatility of the security's return in relation to the returns on the market. The models assume that every holder of a risky investment requires a return that is greater than the return he or she would get from a risk-free security. In other words, the investor receives a premium as compensation for his or her risk.

Later, in line with the development of Modern Portfolio theory, Sharpe (1966) developed a risk-adjusted measure of performance based on reward to variability ratio called the Sharpe Index. He applied this method to study the performance of 34 mutual funds over the period 1954 to 1963. The result shows that on the average, mutual funds
did not outperform the market proxied by the Dow Jones Industrial Average or DJIA. The mutual fund average ratio is 0.633 which is below the DJIA's 0.667. Only 11 out of the 34 funds had higher Sharpe Index value than the DJIA. His result also shows that the differences in performance over time can be predicted although imperfectly, and that no indication on the sources that account for the differences in performance can be obtained. Yet it does not confirm that past performance is the best predictor of future performance. However, when the reward to volatility ratio that is the Treynor Index is used, Sharpe shows that for funds that performed reasonable diversification, the Treynor Index may provide better prediction of future performance than the Sharpe Index. He also shows that good performance is associated with low expense ratio and that size of fund per se is an unimportant factor in predicting future performance.

Jensen (1968) developed a performance measure called the Jensen's Alpha which could be used to measure a fund manager's predictive ability of stock prices. He conducted a study on the performance of 115 open-end mutual funds of United States over ten year period (1954-1964). His study revealed that, on the average, the funds were not able to predict stock prices well enough to outperform unmanaged portfolio. There is so very little evidence that any individual fund was able to perform significantly better than that which can be expected from the random chance. The mean performance measure, Alpha, of 115 funds was -1.1% and only 39 funds had positive Alpha during the study period. His study shows that on the average, managers were unable to predict security prices well enough to outperform the naïve buy and hold strategy. Jensen (1968) also concluded that some of the funds did not even perform
well enough to recover their expenses of search, management and brokerage commission.

3.3 EMPIRICAL STUDY IN THE WEST

In the United States, some other studies on the unit trusts have also been done in the eighties. For instance, Cheng and Lewellen (1984) studied the performance of 67 mutual funds in the US which covered the period January 1971 through December 1979. They concluded that from the observed returns data, there was not much evidence that the fund managers had skillful market timing or good securities selection abilities. In the nineties, Cumby and Glenk (1990) studied the performance of 15 US-based internationally diversified mutual funds over the period 1982-1988. By using Jensen Index measure, they found that 11 out of 15 funds under performed when compared to the market. Even worse was that by using the positive period weighting measure proposed by Grinblatt and Titman (1989), 12 out of 15 funds under performed.

In the United Kingdom, Firth (1977) studied the performance of 72 British unit trust funds over the period 1965-1975 by using the Capital Asset Pricing Model and Sharpe Index. The results showed that fund managers had not been able to outperform the market portfolio. The result also indicates that unit trust managers failed to outperform the naïve buy and hold strategy even when management expenses are added back. It shows that managers do not have superior forecasting abilities and thus active management does nothing for performance. Firth could not find any consistency
in the performance ranking of the funds over the various time periods and also found no
difference in performance between the various types of the funds. However, the
systematic risks of the funds are found to be lower than market risks. He also shows
that the size of the unit trust, the relative number of investment holdings, the relative
numbers of unit holders, age of the fund, initial and annual management charges and
liquidity have no significant effect on Jensen's Alpha. The beta value cannot also be
explained by these variables. It suggests that the beta value of individual trusts
depends largely on the investment policies of the fund managers.

A year later, Firth (1978) expanded his previous study to include 360 unit trusts
in the United Kingdom over the period 1967 to 1975. Apart from obtaining the similar
conclusion as that of previous study, he found that there was lack of consistency
performance of the unit trusts over the years in term of their stated objectives.

However, some other studies in European countries have shown positive
results. For instance, McDonald (1973) studied 8 French funds over the periods 1964-
1969 and 1967-1969 by using Jensen Alpha and Sharpe Index. He found that all the
funds outperformed the market with average Beta value of 0.387 and alpha value of
0.25.

By and large, the studies from the West showed that unit trust funds did not
perform better than the market portfolio.
3.4 EMPIRICAL STUDIES OF UNIT TRUSTS IN THE REGION

While numerous studies on the performance of unit trusts have been done in the West, not many studies have been done in this region.

In Singapore, Koh, Koh and Cheng (1987) analysed 19 unit trust funds over a five-year period (1980 to 1984). Their results of the study showed that 16 funds out of the 19 funds were unable to outperform the market. The average Adjusted Sharpe Index (ASI) value of the funds was -0.0576 which was well below those of the market indices used in the evaluation; ASI value for SES 1-Share Index is 0.017, OCBC Index is 0.018 and STIC Index is 0515. The Coefficient of Determination (R-square) of the funds with a mean of 0.2513 also indicated that generally these funds were poorly diversified. In addition, their performance was not consistent over the five-year period and their actual returns also not entirely consistent with their stated objectives.

In the same decade, Koh, Phoon and Tan (1989) also conducted a study on the performance of four listed investment trusts for the period 1978-1987. On average, three out of the four investment trusts did outperform the market portfolio. However, they reached the same conclusion as that of Koh, Koh and Cheng (1987); all the funds were poorly diversified, inconsistent performance over time and the returns were not consistent with the stated objective of the funds.

A year later, Ariff and Johnson (1990) studied the performance of 14 unit trusts in Singapore for the period 1984 to 1989, using weekly dividend adjusted returns. They
found that, on the average, these funds underperformed when compared to the market portfolio and were also not well diversified.

In a more recent study by Lee (1993) on 21 unit trusts over a five-year period from 1986-1990, an almost similar result and conclusion with all the previous studies was also obtained. In general, from the above studies, we can conclude that most of the unit trust funds in Singapore did not put up a better performance than the market portfolio.

In Malaysia, Chua (1985) conducted a study on the performance of 12 unit trusts (9 funds from Amanah Saham Mara and 3 funds from Asia Unit Trusts) for a period of ten years from 1974 to 1984. The results showed that, on the average, the unit trusts outperformed the market with the average Sharpe Index value of 0.161 as against the market's value of 0.083. Based on Treynor Index, it indicated that on the average all funds have a fairly consistent performance over time. Besides, the unit trusts' risks and performance characteristics adhere to their stated objectives and were well diversified. Their ability of stock price prediction was well enough to outperform the naive buy-and-hold strategy.

However, the study by Tan (1995) revealed that the funds underperformed the market. He studied the performance of a sample of 21 funds for a ten-year period from January 1984 to December 1993. The mean monthly return of the sample was 0.73 compared to the market portfolio of 1.6692. The Adjusted Sharpe Index of the sample was merely 0.049 whereas the value of the market portfolio was 0.1497. In addition,
none of the fund managers could forecast stock prices well and also did not adhere very well to their stated objective. Nevertheless, the sample did show some other encouraging result. Over time, the funds performed quite consistently and were well diversified with systematic risk lower than that of the market portfolio.

At the same time, Shamsher and Annuar (1995) also studied the performance of 54 unit trusts funds, which include some foreign unit trust funds for the same period. They found that the average returns of the total sample was 3.5% which is significantly below the risk-free treasury bill's 6.55% and the market portfolio's 7.8%. Out of the 54 funds, only 2 funds outperformed the market portfolio but, by contrast, there were 26 funds, which have negative returns. In addition, 72% of the sample funds were poorly diversified with R-square values below the 0.5 cut-off point. In general, the performance of the funds was also not consistent over time.

Ch'ng (1997) studied the performance of 34 unit trusts and 4 property trusts in Malaysia for the six-year period from January 1991 to December 1996. The analysis was also subdivided into two sub periods; first sub period is from 1991 to 1993 and second sub period is from 1994 to 1996. His findings showed that the unit trust funds as a whole performed better than the property trust funds. In addition, the performance of the funds was better for the sub period 1991 to 1993 than for the sub period 1994 to 1996. On the other hand, some of the funds earned lower returns than the risk-free treasury bills over the second period. However, generally, unit trust funds outperformed the market portfolio in the whole period. He also found that the risk-returns characteristics of the unit trust funds are not fully consistent with their stated objectives.
The results also showed that the unit trust funds are not well diversified in their investment portfolio with mean R-square value of 0.5326. Nevertheless, the beta value of all the unit trust funds is lower than that of the market portfolio. Finally, neither the performance of unit trusts nor property trusts is consistent over time.

From what we have discussed in the above, it seems that despite a few positive study results, in general, the performance of unit trusts in Malaysia was inferior to that of the market portfolio and inconsistent over time. These results were mostly similar with those obtained in the West and Singapore.

In conclusion, numerous studies on the performance of unit trust and mutual funds have been done throughout the past few decades. In brief, most of the studies conducted by researchers in this area generally found at least some evidence that those mutual funds as a whole did not outperform the market portfolio and the fund managers did not possess a superior forecasting ability. However, there were a few findings suggesting of superior performance of fund managers, but again as a whole, their performance was inconsistent over time.

3.5 EMPIRICAL STUDIES ON ISLAMIC UNIT TRUST IN MALAYSIA

On the contrary, unlike the conventional unit trust and mutual funds, there are not much studies carried out in the context of Islamic unit trusts. Most of the relevant articles on the Islamic unit trust in Malaysia are merely institutional and descriptive
materials explaining the characteristics and principles, concepts and management structure, value and composition of the holding, and performance without risk adjustment.

However, Kemal Rizadi (1999) attempted a study on the performance of Islamic unit trust in Malaysia. The findings revealed that for the six and a half year period from January 1992 to June 1998, the sample of 9 Islamic unit trust funds as a whole performed worse than the market portfolio with the RHB Islamic Index being the proxy. Nevertheless, it was also shown that most of the Islamic funds held quite well diversified portfolios with mean R-square value of 0.67502 and almost all of the funds recorded a systematic risks lower than that of the market portfolio. The research also shows that none of the Islamic fund managers had the ability in forecasting security prices and all failed to outperform the naive buy and hold strategy with some Islamic funds showing significant poor forecasting ability.

Finally the data was also grouped into 2 sub-periods that is from July 1996 to June 1997 and from July 1997 to June 1998. The research shows that some of the Islamic unit trust funds could outperform the market portfolio during the first sub-period that is before the economic/currency crises began. However, most of them were not able to do so in the second sub-period (during the economic crises) and the overall period.

In another study, Suhaili (2001) made a comparative analysis of 8 Islamic unit trust funds and conventional unit trust funds each. From the study, the result shows that
the mean-monthly return of unit trusts in the sample and Sharpe Index for conventional funds is slightly higher than that of the Islamic ones. However, the standard deviation of return showed that Islamic funds have lower value compared to the conventional funds. It means that even though Islamic unit trust has lower return and lower Sharpe Index, it still has an advantage over the conventional one with a relatively lower risk.

In addition to that, the t-tests conducted shows that there is no significant evidence to conclude that the conventional funds were better than that of the Islamic counterpart with respect to mean monthly return of portfolio and the Sharpe Index value. Hence, he concluded that Islamic unit trust is as good and viable as the conventional funds. In addition to that, consistent with the past studies, the findings of Suhaili (2001) also shows that most of the funds in the sample could not outperform the market. After adjusting with risk and used Sharpe Index as a performance measure, there are only three out of sixteen funds that have better performance than the market even though the return unadjusted with risk shows that more than 50 percent of the funds in the sample have better return as compared to the market. Unfortunately, there is no single fund that is able to outperform risk free return based on three months Treasury Bills.

In this context, the study made here is a continuity of research work in the effort to enrich the literature with findings with respect to the Islamic unit trust sector in Malaysia in particular and the overall unit trust industry as a whole. It will cover a longer period of assessment which constitutes a decade of operation since its first debut in the Malaysian financial market, and with larger sample size of the Islamic trust funds. This
will give us a clearer picture of the sector's performance in the presence of greater number of managers and funds under study and a longer track record. This paper also will provide a trend analysis of the development and growth of the Islamic unit trust sector for the past decade. In addition, attempt is also made to determine if the Islamic unit trust funds' risk and returns characteristics are consistent with their stated objectives as disclosed to investors. On top of that, this research work will also look into the risk structure and diversification level of the Islamic funds portfolio. In addition to that, the consistency of the funds performance over time will also be evaluated. All of these findings will give us useful insights into the development and performance of the Islamic unit trust operating in Malaysia. It is hoped that from the findings, efforts can be made to improve the products further to be as competitive and attractive as its conventional counterpart and hence increase public confidence on the viability and quality of the product. Subsequently, developmental measures can be planned and taken to ensure the continued success of the sector.
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