CHAPTER 3

RESEARCH METHODOLOGY

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Selections of Measures

In order to explore the performance of the Domestic Equity Funds and International Equity Funds, Jensen measure (Jensen, 1968) has been selected in this study. The Jensen measure will be used in order to derive the alpha and beta of the funds based on two different time frames. The Jensen (1968) equation as below,

$$R_{jt} - RFR_t = \alpha_j + \beta_j [R_{mt} - RFR_t] + e_{jt}$$

where

R_{jt} = Yearly returns of the fund

RFR_t = Yearly treasury bill returns

R_{mt} = Yearly returns of KLCI, MXWO, MXAPJ, MXEA

Based on the above equation, the value of the alpha (α) and beta (β) can be found by regress the fund returns on the market returns. The alpha represents how much is the excess rate of returns for the fund when compare with the equity market indexes. The beta represents the systematic risk of the fund. Jensen measure was selected for the performance measurement as it has a few advantages over others. Besides easier to interpret, it is possible to make statements about the statistical significance of the fund performance or performance between two funds as the excess returns is estimated from a regression equation.

3.2 Sampling Design

The sample population that intended to investigate is referring to the entire private conventional equity unit trust fund in Malaysia. By the end of year 2009, there are only total 115 private conventional equity funds fall in this population. After exclude the equity funds that are specially designed to cater for different market, the total funds left to 97. The specially designed equity funds are such as closed-ended funds or funds that is having special theme. After excluded the funds which has less than three years history, the final number of equity funds that subject to study left only 75. The sample size is sufficient to reflect the overall performance as it represents most the equity funds from various major private unit trust management companies. Furthermore, these samples have covered a large market share of the unit trust industry in the equity category.

Besides, all the unit trust funds that have been selected are having continued operation on the study period. This is to prevent the potential survivorship bias in any unit trust funds data set stemming from the problems of dealing with failed or merged funds during the period under study. The funds that were selected do not had merged, liquidated or changed its name between the beginning and ending of the sample period.

Due to its small sample size, all the 75 equity funds will be used as the study sample. These samples are consists of 52 Domestic Equity Funds and 23 International Funds. Total 46 funds were already in the market for five years and above while 29 funds have less than five years history. Yearly data are used in this study. There are total 317 observations on yearly returns draw from the equity funds. The 46 funds have provided 230 observations while 29 funds provided 87 observations.

3.3 Data Collection Procedure

Multiple methods were used when doing the data collection. Multiple methods were chosen in order to have a more complete data in this study and also provide broader and richer understanding. Initially, complete funds list was obtained from the securities commission of Malaysia. The list is then been segregated according to the type of funds. With the sorted fund list, required information about fund for this study was start collecting from various sources such as prospectus, annual reports of the unit trust management companies and etc.

The time series data which showing the yearly returns of the individual funds and the market indexes were gathered from the Blooomberg database. For the equity funds that launched before year 2005, yearly returns were collected from 2005 till 2009. As for the equity funds that launched within 2005 to 2006, the data only gathered starting from 2007 till 2009. However, no data collected for the equity funds that are launched less than three years as these there is not sufficient data to do the analysis.

3.4 Data Analysis Techniques

The information of the selected funds such as the yearly returns will be tabulated using a descriptive format. Pair-wise correlation method will be applied on the equity unit trust funds returns and all four equity market returns. It will help to understand the movement between both types of returns. The hypotheses state above will be tested by using the regression analysis.

The testing method are adopted from the study done by Droms and Walker (1994) which is using the total returns, Jensen (1968), Sharpe (1966) and Treynor (1965) to measure the performance of the unit trust funds. However, this study will focus only on the Jensen method. The regression analysis will apply on individual funds against four market returns in order to find the alphas and betas. After gathering the alphas and betas for all the funds, it will be summarize into a table. Besides, dummy variable will be used to differentiate between Domestic

Equity Funds and International Equity Funds in order to answer the last research question.