Chapter 3

RESEARCH METHODOLOGY

3.1. Hypotheses Formulation

NEP has triggered the competitive spirit among the Malays and made them more aggressive in exploiting the country's wealth. Famous Malay entrepreneurs like Tunku Naquiyuddin ibni Tuanku Jaafar and Tunku Tan Sri Imran ibni Tuanku Jaafar who lead Antah Holdings Berhad, Tan Sri Dato Azman Hashim who controls Arab Malaysian Corporation, Dato Yahya Ahmad for Gadek Malaysia Berhad, and Dato Halim Saad for Renong Berhad, are among the Malays who have successfully taken the challenges and opportunities given by the government through the NEP. The 20.3% Malay ownership in the Malaysian public listed companies as of 1990, exactly after the NEP era, implies that NEP has specifically changed the Malay's economic status to be more competitive.

Although, NEP offers various helps to the bumiputeras, this does not seem to be a severe threat to the non-bumiputera or the Chinese entrepreneurs specifically. No doubt, the experience, exposure, productivity, and skills in entrepreneurial are the Chinese main strengths to consistently being competitive in this area. On the other hand, there is a claim that NEP has also brought about another phenomenon in the Malaysian corporate world. There exists a separation of ownership and control in a company between the Malays and Chinese.

In most of the cases, Malays will hold at least 30% equity; influential Malays will patronize, while the Chinese will take control of the companies. Influential Malays are chosen to patronize the companies as a mean to compensate them in order to get easy accessed to business opportunities. Meanwhile, those influential Malays are willing to take up the compensation with the intention to get quick profit or what Gomez (1999) described as to 'get rich quick.' Further, these influential Malays mostly are passive directors that do not take active role in the companies. In other words, NEP has actually benefited bumiputera and non-bumiputera companies either directly or indirectly.

This paper attempts to see the performance of the bumiputera companies in comparison to non-bumiputera companies after the NEP era. The assumption is that bumiputera has been given various privileges during the NEP era. Thus, the performance of companies after the era is to be observed in order to measure to what extend the bumiputeras have actually utilized and benefited from the privileges given.

The major focus in the study is to observe if the ethnic ownership has influence over the performance of bumiputera and non-bumiputera companies. The next focus is actually trying to zoom into each category, bumiputera and non-bumiputera, in order to see whether highly owned bumiputera and non-bumiputera companies would influence their profit performance. Thus, comparative analysis will be conducted between high concentrated and less concentrated bumiputera companies as well as between high concentrated and less concentrated non-bumiputera companies. The previous studies done on Malaysian companies, however, show no significant relationship between ownership structure and firms' performance, regardless of bumiputera or non-bumiputera firms.

Two hypotheses have been developed for the study:

> Hypothesis 1: Equity ownership does not have significant impact on firm performance. Bumiputera or non-bumiputera ownership is not a significant factor that could influence the performance of companies. The performance of bumiputera and non-bumiputera owned companies is highly dependent to the distinguished strong forces that each ethnic is having over another. Bumiputera, or Malays companies specifically, have

been receiving various kinds of supports and privileges from the government in helping them to compete in the business activities. The Chinese, on the other hand, is very well known for their excellent entrepreneurial skills in managing business activities. Therefore, ethnic ownership does not hold an important role in determining the performance of firms in Malaysia.

H_0 : Equity ownership *does have* impact on firms' performance.
H_1 : Equity ownership *does not have* impact on firms' performance.

Hypothesis 2: Concentration ownership should have influence over the performance of Bumiputera and Non-Bumiputera controlled companies given the fact that large ownership normally takes lead over the management. Thus, it should exist checks and balance between owners and managers to ensure the superior performance of firms.

a. H_0 : Concentration of ownership *does not have* influence over the performance of bumiputera companies
   H_1 : Concentration of ownership *does have* influence over the performance of bumiputera companies

b. H_0 : Concentration of ownership *does not have* influence over the performance of non-bumiputera companies
   H_1 : Concentration of ownership *does have* influence over the performance of non-bumiputera companies

3.2. Sample Selection

3.2.1. Definition of Bumiputera and Non-Bumiputera Controlled Companies:

Kuala Lumpur Stock Exchange (KLSE) has defined Bumiputera Controlled companies as companies with at least 35% bumiputera ownership. According to the Malaysian Code on Take-over and Mergers, control is set at 33.3%. However, in the case of dispersed ownership structure, 15% - 20% could also be regarded as controlling shareholders. Cheong (1993) in her book, "*Bumiputera Controlled Companies in the KLSE*," control is defined as 50.1%. For the purpose of the study, 50.1% equity ownership is adopted in defining Bumiputera controlled companies. This is to ensure that each sample is purely belonged to bumiputera or non-bumiputera category. As a matter of consistency, the same measure applies to the non-bumiputera companies. The public listed companies with at least 50.1% non-bumiputera ownership are regarded as non-bumiputera controlled companies.

3.2.2. Definition of Concentrated Companies:

Holderness and Sheehan (1987) had defined concentrated companies when the majority shareholders hold at least half of the common equity. However, According to Xiaonian and Yan (1997), in China, ownership concentration is when the top five shareholders hold 58% of the outstanding stocks, 57.8% in Czech Republic, 42% in Germany, and 33% in Japan. For the purpose of this study, the definition by Holderness and Sheehan is adopted, as 50% ownership seems to be the average of the five opinions. Thus, the measure used in this study to define concentrated ownership is when the top five shareholders hold at least 50% of the company's equity.

3.2.3. Period of the Study:

This study analyzes the Malaysian companies listed on the KLSE for the period of 1993 up to the first quarter of 1997. In July 1997 Malaysia experienced a sudden economic downturn. Therefore, the study stops at the first quarter of 1997, as the performance of companies after the period would be quite extreme. Thus, in order to observe the impact of ownership structure on performance of companies, the period of the study is only restricted to the period of Malaysia's economic booming. A sudden economic downturn could have a dominant impact on firms' performance, which would make it difficult to analyze the impact of other factors on performance. In addition, the study's main concern is to make a comparative analysis between bumiputera and non-bumiputera companies. Thus, foreign controlled companies are not included.

3.2.4. Sample size

In testing for the first hypothesis, based on the definition on bumiputera controlled companies, 40 bumiputera and 40 non-bumiputera controlled companies have been chosen. These companies have been consistently being in their category throughout the period. It should be noted that the component of bumiputera and non-bumiputera companies would change over time according to the fraction of equity ownership. Therefore, bumiputera or non-bumiputera companies who failed to maintain at least 50.1% bumiputera or non-bumiputera ownership are disregarded.

In testing for the second hypothesis, based on the definition described above, the concentrated companies and less concentrated bumiputera and non-bumiputera companies are differentiated. The concentration of ownership is based on the companies' top five equity holdings, as of 1996 and 1997 reports. It is found that for bumiputera sample, 34 companies are having concentrated ownership and only 6 companies are having ownership concentration less than 50.1%. Meanwhile, as for the non-bumiputera sample, 18 companies are having concentrated ownership and 22 companies are having ownership concentration less than 50.1%.

3.3. Empirical Analysis

3.3.1. T-Test

In order to see the differences in performance of bumiputera samples and non-bumiputera samples, T-test has been conducted. The T-distribution or T-test is used to compare the means of variables measured for both groups. Performance is measured from the aspect of profitability, sales, debt management, and income growth. Profitability measure is represented by the percentage of profit generated from equity (Return on Equity), profit generated from assets (Return on Assets), and profit generated from sales (Net Profit Margin). Sales indicate the total revenue of companies. Debt management is analyzed using the percentage of long-term debt as of equity (Debt-to-equity). Finally, the increase and decrease in the annual net income measures the growth of companies (Growth).

Group with higher mean is said to have superior performance over the other group. The significant different will be observed at 1% or 5% significance level. Thus, variable with significance of more than 5% should be regarded as not statistically different, thus the performance in terms of that particular variable is rather competitive for both groups. Variables with significant value less than 5% could be notable as statistically different, the group with higher mean is considered superior over the other group.

3.3.2. Regression Analysis

Regression model is conducted in order to observe how ownership structure is related to firms' profit performance.

a. *Dependent Variables*

Firms' ability to generate profit is regarded as the major indicator of firms' performance. Thus, profitability ratios have been employed as the dependent variables for the regression analyses. Three indicators for firms' performance (P) used in the study are Return on Equity (ROE), Return on Asset (ROA), and Net profit Margin (NPM). ROE could be regarded as the primary performance determinant as it indicates the rate of return on owners' investment. ROA is actually a component of ROE that tells the effectiveness of management at generating profits on the firms' assets. NPM is also part of ROE that tells how much of the firms' sales are actually left as the firms' profit and also how much has to be devoted to various costs and expenses.

Ki, Suk, and David (1999) used ROE in their study as a measure for firms' performance. They found no significant relationship between ROE and ownership structure. However, when performance was replaced with the component of ROE like ROA and NPM, they found some positive evidence of the relationship between performance and concentration of insider ownership.

The tools to measure the firms' performance is computed as follows:

P = ROE = net income available to common stockholders divided by common equity

= ROA = net income + (1 – tax rate)(interest expense) + minority interest divided by total assets

= NPM = net income available to common stockholders divided by sales

b. *Independent Variables*

In order to control the performance of firms, Ki, Suk, and David (1999) had used insider ownership, ratios of total capital to the number of employee, size of total assets, ratio of long term debt to market value, and dummy variables. Meanwhile, Xiaonan and Yan (1997) used sales, concentration ratio, mixed ownership ratio, debt ratio, growth of net income, and dummy variables. Apparently, variables like debts and assets are used in both studies, which indicate those elements are important in measuring performance. On the other hand, insider ownership ratio, concentration ownership ratio, as well as mixed ownership ratios are used depending to the objectives of study. This study, thus, combines the models adopted by the two studies. In order to control for the performance of firms, this study adopts independents variables like size of sales (SA), debt ratio (DT), growth of net income (G), ownership concentration ratio (C), and dummy variables to distinguish between bumiputera and non-bumiputera companies.

In short, the independent variables adopted to control the performance of companies are as the following:

SA	= average operating sales for 1993 –1997, as a measure of firm size
DT	= average ratio of long term debt to equity for the period of study
G	= average growth rate of net income for the period
C	= concentration ratios or percentages of shares controlled by top five shareholders of the firms in the sample
DUMMY	= 1 = bumiputera controlled companies 0 = non-bumiputera controlled companies
β	= coefficient of independent variables with the dependent variables
α	= constant
e	= error term

c. *Regression Model for Testing the Hypotheses*

Hypothesis 1 : Ethnic ownership, bumiputera ownership or non-bumiputera, is not an outstanding factor affecting the firms' performance, thus, coefficient of DUMMY variable would not be significant.

$$P = \alpha + \beta_1 SA + \beta_2 DT + \beta_3 G + \beta_4 DUMMY + e$$

Hypothesis 2 a: Concentration of ownership should have a significant impact on Bumiputera companies, thus, coefficient of C_{Bumi} should be significant.

$$P_{Bumi} = \alpha + \beta_1 SA_{Bumi} + \beta_2 DT_{Bumi} + \beta_3 G_{Bumi} + \beta_4 C_{Bumi} + e$$

Hypothesis 2 b: Concentration of ownership should have significant impact on Non-Bumiputera companies, thus, coefficient of $C_{non\text{-}Bumi}$ should be significant.

$$P_{non\text{-}Bumi} = \alpha + \beta_1 SA_{non\text{-}Bumi} + \beta_2 DT_{non\text{-}Bumi} + \beta_3 G_{non\text{-}Bumi} + \beta_4 C_{non\text{-}Bumi} + e$$