CHAPTER 1   INTRODUCTION

1.1   Background

One of the three financing decisions is capital structure decision. The questions on optimal capital structure and the factors contribute to it often being raised amongst the financial managers. Capital structure study examines the proportion of debt and equity financing of a firm. By knowing the capital structure of a firm, it tells us how the operations of a business are funded by both debt and equity. Different firms may choose to have different combinations of debt over equity ratio. In fact, despite some studies being undertaken by researchers, there is no conclusive optimal capital structure for a firm.

The variation in capital structure directly affects the cost of equity of a firm and thus further determines the cost of capital for that firm. A highly leverage firm which is having a high debt ratio is always associated with a requirement of higher return rate. This is because the firm is exposed to a greater risk which could cause the firm in a distress condition leading to bankruptcy if the risk is not managed properly. Therefore, it explains why a highly leverage firm requires a higher return rate in order to compensate the associated risk. On the other hand, the interest payment of debt is tax deductible. Therefore a higher debt ratio is beneficial to the firm by enjoying a greater tax deduction. As such, optimal capital structure should be achieved by the firm to enjoy the maximum tax benefit but at the same time not to introduce excessive distress to the firm which could lead to bankruptcy risk.

Many factors have been studied by various researchers as the determinants of capital structure of a firm. The results are in a mixture for different studies. Some factors are found to be consistent but other determinants are inconclusive. This is because certain factors are more specific to some of the industries and thus unable to be generalized for all firms. Amongst the frequently used groups of factors are macroeconomic factors, firm characteristics, time variant attributes, legal factors, and political patronages. Amongst these groups of factors, macroeconomic factors and firm characteristic latent variables are the most commonly tested variables.

The studies of capital structure across the countries and firms have been carried out by Psillaki and Daskalakis (2009). They conclude that there are similarities in the determinants of capital structure across the countries which attributed to the commonality of the institutional and legal characteristics amongst the sampled countries. However, firm differences in capital structure choices do exist in small and medium enterprises (SMEs). In another study by Deesomsak, Paudyal, and Pescettto (2004) on capital structure of firms operate in Asia Pacific region, they argue that environment in which firms are operating does contribute to the differences in capital structure. The corporate governance, legal framework, and institutional environment of the countries lead to the differences in debt and equity preference. Besides, the difference in accounting practices across the countries also make it difficult to compare and interpret the financial data in a fairly manner. The study conducts by Jong, Kabir, and Nguyen (2008) indicates that firm-specific determinants of leverage differ across countries and there is indirect impact of country-specific factors

on the capital structure of firms. This is because country-specific factors also influence the roles of firm-specific determinants of leverage. This study only concentrates on one country and within manufacturing sector. Therefore, the potential differences in capital structure due to country-specific and industry-specific influences are minimized.

In Malaysia, several studies have been conducted to examine capital structure in construction sector (Wong, 2005; Wan Mohamad, 2007), a combination of trading-services and plantation sectors (Foo, 2002), and a mixture of companies from different sectors (Fraser, Zhang, and Derashid, 2006; Pandey, 2004; Tan, 2005). Although a few studies cover manufacturing firms in Malaysia, it is relatively lacking in this sector. Therefore, manufacturing firms are chosen for this study. Besides, it is also lacking in the study of the effect of interest coverage ratio for Malaysian firms. Therefore, interest coverage ratio is included in this study to investigate the ability of firms in serving their obligated interest payments. This could provide additional information to the managers in determining the capital structure of firm in relation to interest coverage ratio.

A dummy variable with a cut off of fifty (50) percent in debt ratio is applied in this study to investigate the capital structure between manufacturing firms listed in Bursa Malaysia that use heavy debt capital and those that use less debt capital. This model is first proposed (to the best knowledge of the author) by Eriotis, Vasilou and Neokosmidi (2007). It is then re-modelled by Mat Kila and Wan Mahmood (2008) with a modification in cut off debt ratio at thirty (30)

percent. This dummy variable provides an insight on the potential difference in capital structure between firms that use heavy debt capital and those that use less debt capital in financing the activities of firms.

Despite some studies being undertaken by researchers, there is no conclusive optimal capital structure for a firm. This study includes a few areas which are lacking of studies by the researchers for Malaysian firms. The firm characteristics that determine the capital structure of manufacturing firms listed in the Main Market of Bursa Malaysia are examined in relation to firm debt ratio.

1.2   Statement of the Problem

The financing decision of a firm plays a vital role in determining the capital structure of the firm. The sources of capital funding could be coming from internal retained earning or external debt and equity. The various decisions of capital funding could shape the financial condition of the firm differently. The use of debt financing could help the firm to gain the greatest benefit of interest tax shield. However, increase in financial leverage also causes the firm in facing more financial distress and thus leads to a higher tendency in bankruptcy. Therefore, it is very important to achieve an optimal capital structure for a firm. Although both theoretical research and empirical research suggest that there is an optimal capital structure, there is no specified methodology that can be used by financial managers in order to achieve an optimal debt level. This study investigates how the chosen firm characteristics

affect firm capital structure which provides valuable information to the managers in setting up an optimal capital structure for their firms later.

1.3   Research Questions

This study attempts to fill up the gap of capital structure study for Malaysian firms by focusing specifically in manufacturing sector which is relatively lacking of study. The result of this study will help to answer the following questions:

a) How does firm size affect the capital structure of manufacturing firms in Malaysia?

b) How does interest coverage ratio affect the capital structure of manufacturing firms in Malaysia?

c) How does tangibility affect the capital structure of manufacturing firms in Malaysia?

d) How does profitability affect the capital structure of manufacturing firms in Malaysia?

e) How do growth opportunities affect the capital structure of manufacturing firms in Malaysia?

f)   Is there any difference in capital structure between firms that use heavy (more than fifty percent) debt capital and those that use less (less than fifty percent) debt capital?

g) Are there any differences in firm size, interest coverage ratio, tangibility, profitability, and growth opportunities between firms that use heavy (more than fifty percent) debt capital and those that use less (less than fifty percent) debt capital?

1.4 Objectives of the Study

The objectives of this study are as follows:

a) To examine the relationship between firm characteristics, i.e. firm size, interest coverage ratio, tangibility, profitability, and growth opportunities, and capital structure of firms.

b) To determine if there is any significant difference in capital structure between firms that use heavy (more than fifty percent) debt capital and those that use less (less than fifty percent) debt capital.

c) To investigate if there are any significant differences in firm size, interest coverage ratio, tangibility, profitability, and growth opportunities between firms that use heavy (more than fifty percent) debt capital and those that use less (less than fifty percent) debt capital.

1.5 Summary of Hypotheses

Eleven hypotheses are formed in conducting this study. The null hypotheses are summarized as follows:

a) $H1_0$: There is no relationship between firm size and debt ratio.

b) $H2_0$: There is no relationship between interest coverage ratio and debt ratio.

c) $H3_0$: There is no relationship between tangibility and debt ratio.

d) $H4_0$: There is no relationship between profitability and debt ratio.

e) $H5_0$: There is no relationship between growth opportunities and debt ratio.

f) $H6_0$: There is no significant difference in capital structure between firms with more and less than 50% of debt ratio.

g) $H7_0$: There is no significant difference in firm size between firms with more and less than 50% of debt ratio.

h) $H8_0$: There is no significant difference in interest coverage ratio between firms with more and less than 50% of debt ratio.

i) $H9_0$: There is no significant difference in tangibility between firms with more and less than 50% of debt ratio.

j) $H10_0$: There is no significant difference in profitability between firms with more and less than 50% of debt ratio.

k) $H11_0$: There is no significant difference in growth opportunities between firms with more and less than 50% of debt ratio.

1.6   Significance of the Study

This study could shed some lights on the determinants of capital structure for financial managers in manufacturing line. The inclusion of a construct for interest coverage ratio helps to study its effect to the capital structure. Interest coverage ratio is found to be lacking in the study of capital structure for Malaysian market as well as worldwide markets. To the best knowledge of the author, so far only one research paper which is conducted by Mat Kila and Wan Mahmood (2008) studies the impact of this factor for Malaysian firms.

A new approach is applied in this study by differentiating the firms that rely heavily on debt capitalizing with those that rely less on debt capitalizing. This approach is relatively new in the study of capital structure and is believed to be started by Eriotis et al. (2007). Such approach so far is only re-modelled once (to the best knowledge of the author) by Mat Kila and Wan Mahmood

(2008). The firms are distinguished by debt ratio through the introduction of a dummy variable of debt ratio. Two categories of firms are identified in this study by a debt ratio of more than fifty (50) percent or otherwise as per the model applies by Eriotis et al. (2007). This could help to understand the characteristic of capital structure for manufacturing firms in Malaysia. In addition, the study of the potential difference in firm characteristics between firms that use heavy debt capital and those that use less debt capital provides in-depth information on these two categories of firms. The results of this study are expected to help the managers in making vital decisions to achieve their optimal capital structure later. Consequently, firms could enjoy the greatest benefits of interest tax shield and a better control in agency cost with a balance in bankruptcy risk.

1.7 Scope of the Study

This study only focuses on the firms listed in the Main Market of Bursa Malaysia under the sector of Industrial Products. A five years period data from year 2004 to 2008 is analyzed. Secondary data from Bloomberg database is used in this study.

1.8 Organisation of the Study

This dissertation is organized into five chapters. Current chapter is an introduction which provides the layout to the fundamental framework of this study. Then, it follows by second chapter which conducts a literature review to substantiate the study. It is divided into subchapters on capital structure theories, the preference in terms of market value versus book value, and the

definitions for dependent variable, five independent variables, and one dummy variable. Chapter three discusses on research methodology that is inclusive of hypotheses, research design, data collection, and regression model. Chapter four focuses on the various analyses being performed for this study and the results are summarized and tabulated. Lastly, chapter five summarizes and concludes the findings of this study. The limitations of the study are outlined, recommendations are provided for future research, and the implications of this study are discussed.