

CAPITAL STRUCTURE AND PERFORMANCE OF MALAYSIA
PLANTATION SECTOR

TAN SING LIN

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To my beloved family:

Low Siew Peng

Tan Ah Lek

Hoe Cheng Choon

Tan Mei Lin

Tan Khai Lin

Tan Ai Ting

Wong Kin Seam

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Dedicated to those who stand still with me on completion of this dissertation.

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ABSTRACT

The research is conducted on capital structure and performance of Malaysia plantation sector from year 2007 to 2011. The first objective of this study is to investigate the relationship between capital structure (short term debt to total assets, long term debt to total assets, total debt to total assets and total debt to total equity) and corporate performance (return on equity, return on assets, gross profit margin, earnings per share and price earnings) of the companies listed on the main board of Bursa Malaysia in the plantation sector. The second objective of this study is to identify whether capital structure significantly influence corporate performance of plantation sector. The third objective of this study is to identify which method of capital structure best explains relationship between capital structure and corporate performance. A total of 41 companies in the plantation sector have been chosen as the sample for this study from financial year 2007 to 2011. Correlation coefficient analysis is used to evaluate the relationship between capital structure and corporate performance of the plantation sector and multiple regression analysis is used to evaluate the influence of capital structure towards corporate performance. From coefficient correlation analysis, the study found that there is relationship between capital structure and corporate performance in Malaysia plantation sector firms. For multiple regressions analysis, the result shows that capital structure has significant influences towards corporate performance in Malaysia plantation sector firms.

ABSTRAK

Kajian ini dijalankan ke atas struktur modal dan prestasi dalam sektor pertanian di Malaysia dari tahun 2007 hingga 2011. Objektif pertama bagi kajian ini ialah untuk mengkaji hubungan antara struktur modal (hutang jangka pendek kepada jumlah aset, hutang jangka panjang kepada jumlah aset, jumlah hutang kepada jumlah aset dan jumlah hutang kepada jumlah ekuiti) dan prestasi korporat (pulangan ke atas ekuiti, pulangan ke atas aset, margin keuntungan kasar, pendapatan sesaham dan harga pendapatan sesaham) daripada syarikat-syarikat yang disenaraikan di papan utama Bursa Malaysia dalam sektor pertanian. Objektif kedua kajian ini ialah untuk mengenal pasti sama ada struktur modal mempengaruhi prestasi korporat sektor pertanian. Objektif ketiga kajian ini ialah untuk mengenal pasti teori struktur modal bagi menerangkan hubungan antara struktur modal dan prestasi korporat. Sebanyak 41 syarikat dalam sektor pertanian telah dipilih sebagai sampel kajian ini dari tahun kewangan 2007 hingga 2011. Analisis pekali korelasi digunakan untuk menilai hubungan antara struktur modal dan prestasi korporat sektor pertanian dan analisis regresi berganda digunakan untuk menilai pengaruh struktur modal terhadap prestasi korporat. Daripada analisis pekali korelasi, kajian itu mendapati bahawa terdapat hubungan antara struktur modal dan prestasi korporat di firma-firma sektor pertanian Malaysia. Untuk analisis regresi berganda, hasilnya menunjukkan bahawa struktur modal mempunyai pengaruh terhadap prestasi korporat di firma-firma sektor pertanian Malaysia.

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CHAPTER 1

INTRODUCTION

1.1 Introduction of Capital Structure

Capital structure is the financial framework of a company which includes debt and equity. It refers to the ability of a company to finance their capital that aligns with stakeholders' needs. In the financial terms, capital structure refers to the way of a company financing their assets with the mixture of debt as well as equity (Saad, 2010).

Capital structure is a combination of firm's debt and common equity as well as preferred equity. In short, capital structure is a crucial term on how a company finances their overall operations by using variety of sources and funds. Decision that related with capital structure is necessary for every company.

Based on Modigliani and Miller Theorem (1958), all companies are assume to operate under perfect market, which all are absent of transaction costs, default risk and

taxation. However, in the real world, capital structure of a company is very hard to determine. Financial managers have the difficulty to accurately figure out the optimal capital structure.

Besides Modigliani and Miller Theorem (1958), there are also few others theories of capital structure such as pecking order theory, agency theory and trade-off theory. Pecking order theory comes from Myers (1984) and Myers and Majluf (1984). They claimed that there are three main sources of financing available to organizations which are retained earnings, debts and equity. From these three main sources, organizations will choose first on retained earnings, second on debt and third on equity. In debt and equity, there will be risk premium but the risk for equity is higher than the debt. Hence, firms will fund their project using retained earnings if there is a chance and possibility.

However, Myers and Majluf (1984) argued that, there is a circumstance so called “information asymmetry” between the insiders which refers to managers and outsider which refers to investors. In this case, it is assumed that the managers (insiders) have more and exact information about the financial situations in the company rather than the investors (outsider). Managers will work or invest based on the level of risk on that project without considering the level of dividend of that project. Managers mostly are risk adverse and this make the investors losing the chance of investing in high rate return project.

Another theory of capital structure which is trade-off theory refers to how a company finances their capital on debt finance and equity finance in order to balance their cost and benefits. The advantage of trade-off theory is that, one could gain the tax benefits if financing through debt. However, while enjoying the advantage of tax

benefits, at the same time company will also have to bear with the potential financial distress cost which included bankruptcy costs of debt. Financial distress costs or bankruptcy cost occur when the company is not able to manage with the debtor's obligations.

On the top of above mentioned trade-off theory, agency cost theory is another important theory of capital structure (Jensen and Meckling, 1976). There is an existence of agency cost in every company if the managers are not the shareholders or owners. Agency cost occurs when the shareholders (principal) and manager (agent) did not have mutual expectation on the action taken on maximizing shareholder wealth. In a big company, there might be hundreds or thousands of shareholders (principals) which the ownership of the company is divided across many people. In this type of company, normally it involves agency problem due to the unclear ownership of management. Thus, manager (agent) might choose to maximize their own interest rather than maximize shareholder's wealth because the high risk project fail, then the manager might lost their job, although if the project succeed it would maximize shareholder's wealth.

Previous studies have been done related to capital structure and corporate performance. Some of the studies show that there is no relationship between capital structure and corporate performance and there are also studies that show there is positive relationship between capital structure and corporate performance. A study done by Abu-Rub (2012) based on 28 companies in Palestinian Stock Exchange (PSE) from the year 2006 to 2010, shows that there is a positive relationship between capital structure and corporate performance based on accounting measures and market measures. In addition, there is also another study done is by Nawaz *et al*, (2011) on the relationship between capital structure and firms performance on 173 organizations in the textile sector of Pakistan. In this study, the results show that there is a positive effect between capital structure and corporate performance.

However, there are also studies which show that there is a negative relationship between capital structure and corporate performance. A study by Pratheepkanth (2010) on capital structure and financial performance on selected business companies in Colombo stock exchange Sri Lanka” from the year 2005 to 2009, shows that there is negative relationship between capital structure and firm’s performance. In addition, another study by Tian and Zeitun (2007) on capital structure and corporate performance: in Jordan, based on 47 defaulted organizations and 120 non default organizations from the year 1989 to 2003, also shows that there is a negative relationship between capital structure and corporate performance.

1.2 Capital Structure of Malaysian Listed Companies

According to Fan *et al.* (2006) in their study of capital structure among 39 developed and developing countries, the result shows that developed economies have lower range of leverage ratio as compare to developing economies with the median leverage of 0.27 and 0.32 respectively. Based on their study, as compared to other developed and developing countries, Malaysia has a lower leverage ratio with the median leverage of 0.23. This shows that Malaysia is in a good position in terms of leverage ratio.

Another study by De Jong *et al.*, (2008) of capital structure of 42 countries, found that there is a very low leverage in some emerging markets including Malaysia. This result is also supported by Fan *et al.*, (2006) and Booth *et al.*, (2001). In Booth *et al.*, (2001) study of capital structure among 10 developing countries, it shows that Malaysia is in a low-debt group along with Brazil, Mexico and Zimbabwe. Study by Deesomsak *et al.*, (2004) on capital structure determinants of four pacific countries including Australia, Malaysia, Singapore and Thailand before and after financial crisis found that

Malaysia stands between Thailand and Australia in the case of leverage. This result is also consistent with study by Fan *et al*, (2006). Teh, and Azrbaijani, (2012) in their study conclude that firm-specific factors, legal system, financial and institutional environment, country's public policies and political patronage have an impact on Malaysian public listed companies' capital structure. Based on these previous studies, it justified the reason of this study to choose Malaysia as the country to do the research on how capital structure affects the corporate performance. In addition to that, based on the previous studies discussed above, it can be concluded that pecking order theory explains better the capital structure in Malaysia due to the lower leverage ratio. Therefore, it is also the purpose of this study to provide the capital structure evidence of whether this same theory or maybe other theory can explain the capital structure in Malaysia plantation sector.

1.3 Plantation Sector in Malaysia

Plantation is referring as the production of food and goods through farming, animal husbandry and forestry. Plantation has played a major role in the development of world civilization where most of the world's population is working on plantation until the start of the industrial revolution (Ariff and Mamat, 2012). In Malaysia, plantation sector is one of the important sectors that contributes in the economy (Bank Negara Malaysia, 2000). In year 1998, the economic started to decline due to the economic crisis occur at whole world at the time. This economic downturn was caused by the effects of trade and investment that related among all countries. According to Bank Negara Malaysia (1999) in year 1998 of economic crisis, all sectors in Malaysia were being affected and impaired. At this time, plantation sector has big contribution to the economy especially in the oil palm plantations. Hence, plantation sector has made positive changes in the economy of the country.

Malaysia plantation sector has a major role in providing food for their people; meanwhile, this is also can reduce the dependence on imported food from abroad. Furthermore, plantation sector contributes to national income through exports especially of commodities such as palm oil, rubber and cocoa (Ariff and Mamat, 2012). Malaysia government was also put an effort to promote plantation through Third National Agricultural Policy which refer as “*Dasar Pertanian Negara Ke-3*” (DPN 3) for year 1998 to 2010.

The main objective of DPN 3 is to increase the revenue of plantation sector. It includes the efforts to increase the contribution of plantation to the Gross Domestic Product (GDP), export earnings and income of farmers, breeders and fishermen. In specific, objective DPN3 is to:

- a) Increase food security
- b) Increase the productivity and competitiveness of the plantation sector
- c) Strengthen the relationship with other sectors
- d) Create a new source of growth for plantation
- e) To conserve and use natural resources in a sustainable manner by reason the DPN3 introducing two new strategic approaches are:
 - i) agroforestry approach
 - ii) product-based approach

Besides DPN 3, Malaysian Budget was also giving support to plantation sector. In Malaysian budget 2005, government has been allocated an amount of RM1.5 billion to plantation sector. Furthermore, in budget 2005 also mention that plantation sector has growth of 2.8 percent (Malaysian Budget, 2005). Next, budget year 2006, government

allocated an amount of RM2.8 billion and for year 2007 an amount of RM3.6 billion for plantation sector. For year 2006, government emphasize on modernization of plantation sector while for year 2007, government emphasize on transformation of plantation sector (Malaysian Budget, 2006 and 2007).

In Malaysia budget 2008, an amount of RM6.5 billion has been allocated and in year 2008 the main purpose is on plantation sector development (Malaysian Budget, 2008). While, for Malaysia budget 2009 and 2010, an amount of RM5.6 billion and RM6 billion has been provided for plantation sector (Malaysian Budget, 2009 and 2010). Based on the annual report by Bank Negara Malaysia (2011), gross domestic product of Malaysia plantation sector was contributed RM54 299 million in year 2011. Hence, all of these proved that plantation sector is one of the important sectors in Malaysia, which have a big contribution for the economy which posits the increase of budget for plantation sector from year to year.

1.4 Problem Statement

According to Bank Negara Malaysia (2011), plantation sector is one of the major contributors to the economy where gross domestic product of plantation sector in year 2011 was RM54 299 million which is the fourth highest in Malaysia. Besides that, based on ninth Malaysia plan (EPU, 2006), plantation sector has the high potential to become the engine growth in Malaysia. In ninth Malaysia plan (EPU, 2006), an amount of RM11.4 billion is allocated to plantation sector for enhancing productivity, research and development, land consolidation and new land development. From this it shows that plantation sector have the strong support by government. In line with the continuous support from government, it is in best interest of this study to find out

whether these supports will enhance the long term performance of Malaysia plantation sector? The study also intended to identify what are the determinants to the long term performance of plantation sector. Does capital structure is one of the determinants of plantation sector long term performance?

Capital structure has a close relationship with firm performance (Tian and Zeitun, 2007). Variety of variables can be used to measure the firm performance which includes productivity, growth and profitability. All of these measurements are linked between each other. This financial measurement can be the tools to determine the financial strengths, financial weaknesses, financial opportunities and financial threats of a company. According to Tian and Zeitun (2007), by using accounting based and market measures, organization's capital structure has a significant as well as negative impact towards the firm's performance. Bistoval *et al*, (2011) found that there is negative significant relationship between level of debt and firm performance. Roden and Lewellen (1995) investigate the capital structure of 48 firms in US from year 1981 to 1990 and the result indicates that there is positive relationship between profitability and capital structure. Abor (2005) in his study found that there is positive relationship between capital structure and firm performance during the period 1998 to 2002 in the Ghanaian firms.

In Malaysia, there are many stakeholders and investor that did not emphasize on the effect by capital structure towards their company's performance where they might believe that capital structure has no influence to their company's value (Ong and Teh, 2011). Hence, this issue will be further investigating in this research. The problems are, does the capital structure effect corporate performance? If so, is/are there any specific capital structure(s) that will affect the corporate performance? Is capital structure affecting the performance of plantation firms listed in Bursa Malaysia?

1.5 Research Objectives

In this research, there are three objectives which are:

- (i) To investigate the relationship between capital structure and corporate performance in Malaysia plantation sector.
- (ii) To identify significance influence of capital structure towards corporate performance in Malaysia plantation sector.
- (iii) To examine the relationship between capital structure and corporate performance in Malaysia plantation sector as implied by the trade-off theory and the pecking order theory.

1.6 Research Questions

In this research, there are three research questions which are:

- (i) What is the relationship between capital structure and corporate performance in Malaysia plantation sector?
- (ii) Is capital structure significantly influence corporate performance in Malaysia plantation sector?
- (iii) What is the theory that best explains the relationship between capital structure and corporate performance in Malaysia plantation sector?

1.7 Scope

Based on The Ninth Malaysia Plan (EPU, 2006), it mentioned that government continues supports three main economic sectors, which are manufacturing, services and plantation. These three sectors are nourished with new growth sources to gain more income and to develop new supply of economic wealth. From this statement, it shows that plantation sector is also one of the sectors which are crucial and have contribution towards Malaysia economy.

In addition, as refer to the Tenth Malaysia Plan (EPU, 2011) which mainly concentrates on 12 national key economic areas (NKEAs) where government believes that it have high potential to generate high income. Plantation was included as one of the twelve of NKEAs. This statement again shows that plantation sector was one of the sectors that able to generate income and contribute to our economy.

Hence, this study is mainly focus on the company that listed in the main board of Bursa Malaysia from the year 2007 to year 2011 in plantation sector. Performance of the company will be assessed based on the financial statement that been audited in the annual report.

1.8 Limitation

This research is only focused on the companies in plantation sector which are listed in main board Bursa Malaysia from the year 2007 to year 2011. The findings of this study will be just true and limited for companies in plantation sector from the year

2007 to 2011. Hence, the results of this study might not represent the other sectors in Malaysia.

In addition, the companies that are selected as samples might have variety of accounting policies. This means that they have different financial period for the annual closing account. These differences might also influence the accuracy of the results. Furthermore, the firm performances are only evaluated using accounting profitability based on ratio analysis.

1.9 Hypotheses

In the test of regression model, hypotheses of the study are established for plantation sector. In first objective, it is aim to investigate the relationship between capital structure and corporate performance in Malaysia plantation sector. Thus, hypotheses 1 to 20 are created as below:

- H1: Short term debt to total assets (STDTA) has positive relationship with return on assets (ROA).
- H2: Long term debt to total assets (LTDTA) has positive relationship with return on assets (ROA).
- H3: Total debt to total assets (TDTA) has positive relationship with return on assets (ROA).
- H4: Total debt to total equity (TDTE) has positive relationship with return on assets (ROA).

- H5: Short term debt to total assets (STDTA) has positive relationship with return on equity (ROE).
- H6: Long term debt to total assets (LTDTA) has positive relationship with return on equity (ROE).
- H7: Total debt to total assets (TDTA) has positive relationship with return on equity (ROE).
- H8: Total debt to total equity (TDTE) has positive relationship with return on equity (ROE).
- H9: Short term debt to total assets (STDTA) has positive relationship with gross profit margin (GPM).
- H10: Long term debt to total assets (LTDTA) has positive relationship with gross profit margin (GPM).
- H11: Total debt to total assets (TDTA) has positive relationship with gross profit margin (GPM).
- H12: Total debt to total equity (TDTE) has positive relationship with gross profit margin (GPM).
- H13: Short term debt to total assets (STDTA) has positive relationship with earnings per share (EPS).
- H14: Long term debt to total assets (LTDTA) has positive relationship with earnings per share (EPS).
- H15: Total debt to total assets (TDTA) has positive relationship with earnings per share (EPS).
- H16: Total debt to total equity (TDTE) has positive relationship with earnings per share (EPS).

- H17: Short term debt to total assets (STDTA) has positive relationship with price earnings (P/E).
- H18: Long term debt to total assets (LTDTA) has positive relationship with price earnings (P/E).
- H19: Total debt to total assets (TDTA) has positive relationship with price earnings (P/E).
- H20: Total debt to total equity (TDTE) has positive relationship with price earnings (P/E).

The second objective of this study is to identify significance influence of capital structure towards corporate performance in Malaysia plantation sector. Hence, hypotheses 21 to 40 are created as below:

- H21: Short term debt to total assets (STDTA) significantly influences return on assets (ROA).
- H22: Long term debt to total assets (LTDTA) significantly influences return on assets (ROA).
- H23: Total debt to total assets (TDTA) significantly influences return on assets (ROA).
- H24: Total debt to total equity (TDTE) significantly influences return on assets (ROA).
- H25: Short term debt to total assets (STDTA) significantly influences return on equity (ROE).
- H26: Long term debt to total assets (LTDTA) significantly influences return on equity (ROE).

- H27: Total debt to total assets (TDTA) significantly influences return on equity (ROE).
- H28: Total debt to total equity (TDTE) significantly influences return on equity (ROE).
- H29: Short term debt to total assets (STDTA) significantly influences gross profit margin (GPM).
- H30: Long term debt to total assets (LTDTA) significantly influences gross profit margin (GPM).
- H31: Total debt to total assets (TDTA) significantly influences gross profit margin (GPM).
- H32: Total debt to total equity (TDTE) significantly influences gross profit margin (GPM).
- H33: Short term debt to total assets (STDTA) significantly influences earnings per share (EPS).
- H34: Long term debt to total assets (LTDTA) significantly influences earnings per share (EPS).
- H35: Total debt to total assets (TDTA) significantly influences earnings per share (EPS).
- H36: Total debt to total equity (TDTE) significantly influences earnings per share (EPS).
- H37: Short term debt to total assets (STDTA) significantly influences price earnings (P/E).
- H38: Long term debt to total assets (LTDTA) significantly influences price earnings (P/E).
- H39: Total debt to total assets (TDTA) significantly influences price earnings (P/E).

H40: Total debt to total equity (TDTE) significantly influences price earnings (P/E).

In order to examine the relationship between capital structure and corporate performance in Malaysia plantation sector as implied by the trade-off theory and the pecking order theory for third objective, hypothesis 41 has been created as per below:

H41: As the pecking order hypothesis, we hypothesize that capital structure has negative relationship with firm's profitability, and based on the trade-off theory, we hypothesize that capital structure has positive relationship with firm's profitability.

1.10 Significance

The significance of this study is the implication on company's financing policy. Capital structure refers to long term financing of a company based on their debt and equity. Decisions that related with capital structure should pay high attention because making wrong decision on capital structure will lead the company to face financial distress. In this study, the results would provide good insights on the relationships between capital structure and corporate performance in Malaysia plantation sector. This will add knowledge in providing the benchmark or the standard in making decision on organization's performance. This would assist management team of the firms and investors in plantation sector to have more information when financing their capital.

In addition, this study also provided value-added to the field of the study. The literature related to capital structure which involves all of the vital theories of capital

structure and the results obtained would also contribute to the body of knowledge for researchers on the subject of capital structure and firm performance. The study explores on whether capital structure does influence the firm performance and which will be an adding literature to the field.

Furthermore, the study also explores the sustainable capital structure specifically on plantation sector in Malaysia. There are a lot of studies about capital structure but there is none that specifically study on capital structure in plantation sector. Hence, this study is able to provide a clear view of capital structure in plantation sector. In addition, this study also provides an opportunity to investigate the uniqueness type of capital structure for plantation sector. Every company or firms were using different type of capital structure for financing. In this case, this study would able to investigate the type of capital structure that used by plantation sector. The policy of capital structure is important because its highlight financing method which might be different from other sectors. One of the main objectives of this study is to verify the existence of any capital structure theory in plantation sector and eventually to study whether the existence of this capital structure theory influence the plantation sector firms' long term performance. This study will enlighten the understanding how capital structure play a role in corporate performance as plantation sector is strongly supported by the Malaysia government.

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