

# THE INFLUENCE OF CAPITAL STRUCTURE ON CONSTRUCTION COMPANY PROFITABILITY: A STUDY OF MALAYSIAN RESOURCES CORPORATION BERHAD (MRCB) AND WCT BERHAD

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"In the name of Allah, The Most Gracious, The Most Merciful and Selawat and

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## TABLE OF CONTENT

| CONTEN  | PAGE                  |      |  |
|---------|-----------------------|------|--|
| DECLAR  | I                     |      |  |
| LETTER  | OF TRANSMITTAL        |      |  |
| ACKNOV  | VLEDGEMENT            | III  |  |
| TABLE O | OF CONTENT            | IV   |  |
| LIST OF | TABLES                | VII  |  |
| LIST OF | FIGURES               | VIII |  |
| LIST OF | IX                    |      |  |
| ABSTRA  | CT                    | XI   |  |
| СНАРТЕ  | CR 1: INTRODUCTION    |      |  |
| 1.0     | Overview              | 1    |  |
| 1.1     | Background Of Study   | 1    |  |
| 1.2     | Background of Company | 3    |  |
| 1.3     | Problem statement     | 6    |  |
| 1.4     | Research objective    | 7    |  |
| 1.5     | Research Questions    | 7    |  |
| 1.6     | Scope of Study        | 8    |  |
| 1.7     | Theoretical Framework | 8    |  |
| 1.8     | Research Hypothesis   | 10   |  |
| 1.9     | Significant of Study  | 11   |  |
| 1.10    | The definition term   | 12   |  |
| 1.11    | Limitation of study   | 14   |  |
| 1.12    | Summary               | 14   |  |

#### **CHAPTER 2: LITERATURE REVIEW**

| 2.0                           | Overvie                         | Overview                |    |  |  |
|-------------------------------|---------------------------------|-------------------------|----|--|--|
| 2.1                           | Company Performance Measurement |                         |    |  |  |
|                               | 2.1.1                           | Company performance     | 15 |  |  |
|                               | 2.1.2                           | Return on Asset (ROA)   | 17 |  |  |
| 2.2                           | Capital                         | Structure Measurement   |    |  |  |
|                               | 2.2.1                           | Capital Structure       | 18 |  |  |
|                               | 2.2.2                           | Short-term debt (STD)   | 19 |  |  |
|                               | 2.2.3                           | Long-term debt (LTD)    | 20 |  |  |
|                               | 2.2.4                           | Total Debt (TD)         | 21 |  |  |
| 3.0                           | Overvie                         | RESEARCH METHODOLOGY    | 23 |  |  |
| 3.1                           |                                 | Research Design 2       |    |  |  |
| 3.2                           |                                 | ollection               |    |  |  |
|                               | 3.2.1                           | Secondary data          | 24 |  |  |
| 3.3                           | Samplin                         | Sampling Data 2:        |    |  |  |
| 3.4                           | Sources                         | Sources of Data 25      |    |  |  |
| 3.5 Variables of Measurements |                                 |                         |    |  |  |
|                               | 3.5.1                           | Dependent Variables     | 26 |  |  |
|                               | 3.5.2                           | Independent Variables   | 26 |  |  |
| 3.6                           | Data Aı                         | Data Analysis Method 26 |    |  |  |
| 3.7                           | Summa                           | Summary                 |    |  |  |

#### **ABSTRACT**

With contribution of Modigliani and Miller in 1958, capital structure has attained an important place in finance field. The path breaking contribution has stimulated subsequent researchers to put emphasis on this topic. Therefore, other theories and researches have been revealed and many aspects have been included to capital structure studies so far. However, it has always been controversial topic and the consensus has not been reached yet. Nevertheless, there are many important theories and hypotheses, which explain and investigate this topic very well such as agency cost theory, trade-off theory, pecking order theory, signalling theory, efficiency-risk hypothesis and franchise-value hypothesis.

When reviewed the literature and extended the understanding of these theories and hypotheses, the researcher found that the relationship between capital structure and firm performance is interesting aspect and worthwhile to research. Therefore, the researcher started an extensive literature review and found a research gap, which is the relationship between capital structure and company profitability in the Malaysian Resources Corporation Berhad (MRCB) and WCT Berhad during the period 2007-2012.

Accordingly, the study began with discussing the problem background. There also stated the research question, the objectives, and the expected contribution to clarify the scope of research. After that, the researcher will

present the existing theories regarding capital structure and provide their interplay with firm performance.

After constituted research question and reviewed literature, the kind of data needed will be utilized. Therefore, the researcher started to search the best database provider for this study. As a result, the researcher decided on using the data collected from company financial report. The study sample included 6 year quaterly data of the company. After collect the data, it will be imported it to SPSS and ran regression and descriptive analysis.

According to the empirical findings and analysis, the researcher identify that there is a significant relationship between capital structure and company profitability of WCT Berhad while for MRCB was insignificant.

With this study, we provide further evidence about the interplay between capital structure and Company profitability and make a contribution both to theory regarding capital structure and Company profitability as well as giving practical insight for CFO's and CEO's of the company.

#### **CHAPTER 1**

#### **INTRODUCTION**

#### 1.0 OVERVIEW

This section highlighted the topic of research background of study, background of company problem statement, research objectives, research question, theoretical framework, research hypothesis, significant of study, the definition of terms and the limitation of the study that will be faced by the researcher when conduct this research. All these information are required to define the area of study of the researcher.

#### 1.1 BACKGROUND OF STUDY

In today's highly dynamic, competitive and vibrant business environment, where each stakeholders have an interest, capital structure decisions play an important role in maximizing the performance of a company and its value. Capital structure involves the decisions about the combination of the various sources of funds. Capital structure and its influence on the firm financial performance and overall value has been remained an issue of great attention amongst financial studies since the decisive research of

(Modigliani & Miller, 1958) arguing that under perfect market setting capital structure doesn't influence in valuing the firm.

Capital structure is said to be closely link to the financial performance (Zeitun & Tian, 2007).

The determination of a company's structure constitutes a difficult decision, one that involves several factors such as risk and profitability. In this study, the researcher aims to examine and compared the capital structure of two giant construction companies which is Malaysian Resources Corporation Berhad (MRCB) and WCT Berhad regarding the factor profitability. This study used the capital structure measurement including Short Term Debt (STD), long term debt (LTD) and Total debt (TD) of both company from 2007 – 2012 and ROA as the profitability measurement.

#### 1.2 BACKGROUND OF COMPANY

The Malaysian national construction industry is not only one of the major industrial sectors, but also represents a matter of national pride. The Malaysian construction industry is generally separated into two areas. One area is generally construction, which comprises residential construction, non-residential construction and civil engineering construction. The second area is special trade works, which comprises activities of metal works, electrical works, plumbing, sewerage and sanitary works, refrigeration and air conditioning works, painting works, painting works carpentry, tiling and flooring works and glass works.

In this study, the researcher was investigating the comparison between 2 companies which is Malaysian Resources Corporation Berhad (MRCB) and WCT Berhad.



Malaysian Resources Corporation Berhad (MRCB) was incorporated in 1968 as a private company Perak Carbide Sdn Bhd. With its main business activity the manufacturing of carbide. It was converted into a public company in 1969 and listed on the Kuala Lumpur Stock Exchange in 1971. In October 1981, Perak Carbide Sdn Bhd became Malaysian Resources Corporation

Berhad, MRCB. MRCB's early ventures were in property development construction and investment. In 1993, it diversified into the print and electronic media business, having acquired the New Straits Times Press (Malaysia) Berhad (NSTP) and Televisyen Malaysia Berhad (TV3).

MRCB then added power generation and power transmission to its core activities establishing vital links of growth for the company and nation.

Today, MRCB is a leading and premier property developer and major construction player in the country. Specializing in civil and energy infrastructure development, it has built power plants, transmission networks, colleges, hospitals and roads all over the country. Enduring landmarks and testimonies are Kuala Lumpur Central and Bandar Seri Iskandar in Perak.



Established on 14 January 1981, WCT Berhad (Company No. 66538-K) is a public-listed Malaysian real-estate developer and civil engineering construction company with global presence in 7 countries. The company operates in three business segments which is engineering and Construction, Property Development,

Investment and Management. WCT has successfully completed and delivered more than 300 construction projects comprising F1 circuits, international airports, expressway and highways, high-rise buildings commercial, retail and residential properties, hydroelectric and water dam, in excess of RM20 billion. WCT is also reputable developer of three sustainable integrated townships known as Bandar Bukit Tinggi with a gross development value (GDV) of RM9.2 billion.

They Creditial include ownership of the 1 million sq ft. Bukit Tinggi Shopping Centre and ownership and management of the 250-room Premiere Hotel in Klang South and 680,000sq ft Paradigm Mall in Petaling Jaya.

Headquarter in Glenmarie Shah Alam, Malaysia, WCT operates in Qatar, U.A.E,Bahrain, Oman, India and Vietnam, While the company's primary focus has been in Malaysia with the establishment of the presence on a national scale, the Company has also undertaken project in Qatar, UAE, Bahrain and India.

#### 1.3 PROBLEM STATEMENT

Now a days, construction industry has grown rapidly, there are lots of development in our country and this have to be the main reason of the growing for this industry. Because of that, the researcher had chosen 2 main construction company in this country which is Malaysian Resources Corporation Berhad (MRCB) and WCT Berhad as to examine and make comparison for the study. This is because both of this company is established construction company in Malaysia, besides that in this 6 years record (2007-2012), these company had grown rapidly and carrying lot of large project, so that the researcher was interested to find the influence of capital structure in that company performance regarding the profitability and find whether there are relationship between the company leverage with their performance.

#### 1.4 RESEARCH OBJECTIVE

This section discusses on the Research Objective (RO) construct in the structure. These RO were developed to help answer the main research topic at the study. The specific objectives of this research paper were:

**RO 1**: To investigate the relationship between capital structure measurement and company profitability in the company.

**RO 2**: To examine the effect of industry to the relationship between capital structure and company profitability.

#### 1.5 RESEARCH QUESTION

Several research questions have been constructed in order to answer the above Research Objective (RO). The research questions for this study were:

**RQ 1**: How could the relationship between capital structure and company profitability be describe during the period 2007-2012?

**RQ 2**: How the industry may affect the relationship between capital structure and company profitability during the period 2007-2012?

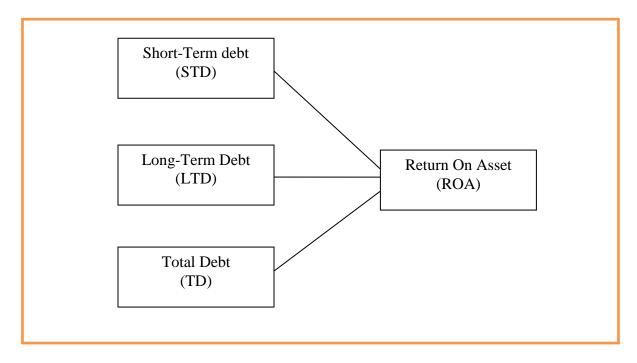
#### 1.6 THE SCOPE OF STUDY

The study will conducted in order to know about the relationship between the capital structure and the profitability on the company chosen. Because of that, the researcher had choose 2 company in order to run this study which is Malaysian Resources Corporation Berhad (MRCB) and WCT Berhad. The researcher focused on the 6 years data (2007- 2012) which gathered from financial report both of the companies

#### 1.7 THEORETICAL FRAMEWORK

A theoretical framework could be seen as the backbone of research and is connected to the research topic and the appropriate research methodology. It is essential for the reader to have a concrete frame of reference in mind before continuing the research journey. Most of all, a solid framework represent the coherence of the theories chosen. For this research study, the company performance will be the dependent variable. The researcher will used accounting based measurement which is Return on Asset (ROA) as the profitability measurement. Besides that, the researcher used measurements of capital structure as independent variables according to the research question, sub-question and objective. Concerning the

independent variables, we employed short-term debt, long-term debts and total debts.



Independent Variable

Dependent Variable

Figure 1.1: Theoretical Framework

#### 1.8 RESEARCH HYPOTHESIS

The hypotheses consist with null hypothesis (HO) and alternate hypothesis (H1). The hypotheses of this study are:

#### **Hypothesis 1 (Short Term Debt)**

H<sub>0</sub>: There is no significant relationship between Short Term Debt and Company Profitability

H<sub>1</sub>: There is significant relationship between Short Term Debt and Company Profitability.

#### **Hypothesis 2 (Long Term Debt)**

H<sub>0</sub>: There is no significant relationship between Long Term Debt and Company Profitability.

H<sub>1</sub>: There is significant relationship between Long Term Debt and Company Profitability.

#### **Hypothesis 3 (Total Debt)**

H<sub>0</sub>: There is no significant relationship between Total Debt and Company Profitability.

H<sub>1</sub>: There is significant relationship between Total Debt and Company Profitability.

#### 1.9 SIGNIFICANT OF STUDY

The significant of this study is to identify the influence of capital structure in the company profitability by doing comparison between Malaysian Resources Corporation Berhad (MRCB) and WCT Berhad. The final finding of this research paper is very useful to many members such as:

#### • To the Researcher

Helped the researcher to develop skills and enhance the knowledge on conducting a real research. Besides that, the researcher was able to gain new knowledge, information and experiences throughout this external training. It exposed the researcher to the real business environment and for the future undertakings.

#### • To the investor

In term of investor, through this research they will get the information about the condition of the company and can help them to make decision about their investment. This research also can give the opportunity to the investor to increase their asset.

#### • To the Company

Both of the company can able to know about their company performance. From the result of the research, These companies will be able to know their weeknesses and strength, beside that, it also can give idea to create and develop effective decision and strategy how to improve their company in terms of increase their profitability.

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#### 1.10 THE DIFINITION TERM

#### • Capital structure

Capital structure is a mix of a company's long term debt, specific short term debt, common equity and preferred equity. The capital structure is how a firm finances its overall operations and growth by using different sources of funds.

#### • Profitability

in the Accounting, profitability is the measure of the difference between the purchase price and the costs of bringing to market. As a simple definition, profitability is making more money then you spend, or put another way, revenue less expenses. But which revenues and which expenses should you include, and when to include them is not at all clear when we take a closer look at any business and its customer behavior.

#### • Return on Asset (ROA)

The return on asset (ROA) percentage shows how profitable a company's assets are in generating revenue. ROA can be computed as net income dividing to average total assets. This number tells you what the company can do with what it has. Return on assets gives an indication of the company intensity of the company, which will depend on the industry. Companies that require large initial investment will generally have lower return on assets.

#### • Long-Term Debt (LTD)

Long-term debt is the loans and financial obligation lasting over one year. Long term debt for a company would include any financing or leasing obligation that are to come due in a greater than 12 months period. Such obligation would include company bond issues or long-term leases that have been capitalized on a firm's balance sheet.

#### • Short-Term Debt (STD)

Short-term debt is an account shown in the current liabilities portion of a company's balance sheet. This account is comprised of any debt incurred by a company that is due within one year. The debt in this account is usually made up of short-term bank loans taken out by a company.

#### 1.11 LIMITATION OF STUDY

This study has clear and expected limitations in the amount of data that will be used, as we are only using data from the period of 6 years (2007 - 2012). In addition, as with all quantitative studies, the methodological approach has a limitation as the question of why a relationship may or may not exist can never be thoroughly answered.

More generally, the very limited time, just almost 6 months to produce this thesis, represents as limitation in its own right and thus prevents us from broadening the scope of the study further. The researcher needs to face the several obstacles such as lack of experience and knowledge about the field of study. It will become as a barriers to the researcher in order to achieve the tremendous level of study.

#### 1.12 SUMMARY

This paper is to determine the influence of capital structure in the firms performance, which the researcher will use the independent variable to examine the relationship with the capital structure measurement. Based on the result found, it may be differ from previous researcher as the factors used may not be the same and it will be other factors that may affect the final result.

#### **CHAPTER 2**

#### LITERATURE REVIEW

#### 2.0 OVERVIEW

This chapter will discuss about the literature review and views of other researcher related to the research topic. This chapter will explain and support the theoretical framework that has been chosen. The researcher compiled the literature from many sources such as books, articles, journals and internet. This chapter will discuss about literature review of the influence of the capital structure on the company performance by going through in each dimensions which is company profitability measurement and financial leverage measurements.

#### 2.1 COMPANY PERFORMANCE MEASUREMENT

#### 2.1.1 Company Performance

**Ibrahim** (2009) examined the impact of Capital structure choice on Firm Performance in Egypt, using a multiple regression analysis in estimating the relationship between leverage level and Firm's performance, the study cover between 1997 and 2005. The result revealed that capital structure choice decision in general, has a weak-to-no impact on firm's performance.

Mendell, et al., (2006) investigates financing practices across firms in the forest products industry by studying the relationship between debt and taxes hypothesized in finance theory. the study find a negative relationship between profitability and debt, a positive relationship between non-debt tax shields and debt, and a negative relationship between firm size and debt.

**Krivogorsky** (2009) in his study found, there is negative association between debt to equity and performance hence confirming prior research findings that companies with high debt to equity ratios are usually perceived as being risky investments and possibly affecting wealth transfer from debt holders to share holders.

**Ebaid** (2009), in his study found that STD and TD had give impact negatively on firm's performance measured by ROA. For measurement ROE, capital structure STD, LTD, TD has no significant impact on firm's performance.

**Kester** (1986) found a negative relation between capital structure and performance.

#### 2.1.2 Return on asset (ROA)

Abor (2007), found significantly negative relationship between all the measurement of capital structure and firm performance (ROA) and the case of Ghana. In the South African sample result between short term debt and return on asset is statistically significant positive relationship. Thus, it indicated that short term debt is seemed to be relatively less costly. For long term debt and total debt, the result show significantly association with ROA, Thus, it indicated long term debt has higher cost and this can lead low return on asset. Thus, this finding supports the previous empirical studies by Abor (2005).

Gleason (2000) had examined the relationship between performance and leverage by using return on asset. The result indicates that total debt has a significant, negative influence on performance. This result supported by **Agarwal (2001)** when debt has a negative influence on profitability. This result is parallel with **Hammes and Chen (2004)** when debt ratio is negatively related to ROA.

Ahmad and Abdullah and Roslan (2012) investigated the impact of capital structure on firm performance by analyzing the relationship between operating performance of Malaysian firms. Findings of the study validated that STD and TD have significant

relationship with return on asset (ROA) while Return on equity (ROE) and all capital structure indicators have significant relationship. The significant relationship between short-term debt, long-term debt and total debt with ROE is consistent with the findings of (Abor 2005; Mesquita and Lara 2003). The positive significant relationship between long-term debts with ROA is coherent with the findings of (Philips and Sipahioglu 2004; Grossman and Hart 1986). Which indicates that higher levels of debt in the firm's capital structure is directly, associated with higher performance levels and other finding is that Return on Equity (ROE) is not significant associated with all the capital structure variables.

#### 2.2 CAPITAL STRUCTURE MEASUREMENT

#### 2.2.1 Capital Structure

Several studies have been conducted to examine the theory of capital structure. One of these studies was carried out by **Modigliani and Miller (1958)**, Modigliani and Miller (MM) theory illustrated that under certain key assumptions, Firm's value is unaffected by its capital structure. The M-M theory argued that the value of a firm should not depend on its capital structure. The theory argued further that a firm should have the same market

value and the same weighted average cost of capital at all capital structure levels because the value of a company should depend on the return and risks of its operation and not on the way it finances those operations.

**Arbiyan and Safari** (2009) investigate the effects of capital structure on profitability using 100 Iranian listed firms from 2001 to 2007. The found short-term and total debts are positively related to profitability which indicate a negative relationship between long-term debt and ROE

#### 2.2.2 Short-term debt (STD)

According to **Abor** (2005) had performed an empirical study on the twenty two sampled firms which were listed in the Ghana and found short term debt has significantly positive relationship with ROE. He argues that short term debt to be less expensive leading to an increase in profit levels. The results also show profitability increases with size and sales growth. For long term debt, the result shows a significantly negative relationship. Thus, it implies that an increase in the long term debt is associated with decrease in profitability due to more expensive. For total debt, the result shows a significantly positive relationship. This implies that, an increase in the debt position is associated with an increase in profitability

thus; the higher the debt will be the higher profitability. Both, the result also show positive relationship between firm size and sales growth. This supports the findings of **Hadlock and James (2002)** where profitable firms use more debt.

According to Champion (1999), the use of debt or leverage is a way to improve performance of the firm. Besides that, Abor (2007) found that there is a positive relationship between short-term debt and return on assets in South Africa. He argued that this is attributed to the fact that short- term debt is cheaper than the long-term debt. Mesquita and Lara (2003) also found similar results in their study on Brazilian companies. Therefore, this study hypothesizes that there is a positive relationship between short-term debt and return on assets and return on equity. Following Abor (2005), Kyereboah and Coleman (2007), and Abor (2007) short -term debt is calculated as 'short-term debt divident by total capital'.

#### 2.2.3 Long-term debt (LTD)

**Roden and Lewellen (1995)** examines the capital structure of 48 US firms during the period 1981 – 1990 and revealed a positive relation between profitability and capital structure. Similar results

Were documented by Champion (1999) and Gosh et al. (2000). Handlock and James (2002) suggest corporations with high level of profitability use high level of debts. Gill, et al., (2011) seeks to extend Abor's (2005) findings regarding the effect of capital structure on profitability by examining the effect of capital structure on profitability of the American service and manufacturing firms. The findings show a positive relationship between short-term debt to total assets and profitability, long-term debt to total assets and profitability, and between total debt to total assets and profitability in the manufacturing industry.

Based on study by **Mesquita and Lara** (2003) and **Abor** (2005), found a negative relationship between the ratio of long-term debt to total assets and return on equity. This is explained by the fact that long-term debts are relatively more expensive and hence result in low profitability. Hence, in this study long-term debt is hypothesized to have a negative relationship with long-term debts.

#### **2.2.4** Total debt (TD)

Sarkar and Zapatero (2003) find a positive relationship between leverage and profitability. Myers and Majluf (1984) find firms that are profitable and generate high earnings are expected to use less debt capital comparing with equity than those that do not generate high earnings.

Chiang et al., (2002) results show that profitability and capital structure are interrelated, the study sample includes 35 companies listed in Hong Kong. Raheman et al., (2007) find a significant capital structure effect on the profitability for non-financial firms listed on Islamabad Stock Exchange.

**Abor** (2005) reports a positive relation between capital structure, which measured by STD and TD and performance over the period 1998-2000 in the Ghanian firms. **Arbiyan and Safari** (2009) investigate the effects of capital structure on profitability using 100 Iranian listed firms from 2001-2007. The found short-term and total debts are positively related to profitability (ROE).

#### **CHAPTER 3**

#### RESEARCH METHODOLOGY

#### 3.0 OVERVIEW

In this section, research methodology will discuss clearly about research plan. This research will explain the tools, techniques and instruments that will be used in conducting this research project. All method will use to gain understanding and to answer all the research objectives and research hypotheses.

#### 3.1 RESEARCH DESIGN

Research design is a framework or blueprint for conducting the marketing the research project (Malhotra, 2010). It details the procedure necessary for obtaining the information needed to structure or solve the research problem.

In this study of the influence of capital structure on the company performance in Malaysia, the research include six years data from 2007 until 2012 and use the data from annual report of **Malaysian Resources Corporation Berhad (MRCB)** and **WCT Berhad** to calculate the ratio such as Return on Asset, Short-Term Debt, Long-Term Debt and Total Debt to total Asset Ratio. All this data

represent dependent and independent variables. This data can be used to examine the relationship between the Capital structure leverage and company profitability and provides a reliable and stronger evidence to prove a significant result of this study.

Only secondary sources of data are utilized in this study, due to the fact that all variable used are quantitative and obtained from database and statistical departments. The data are personally compiled, analyzed, verified and administered by the researcher.

#### 3.2 DATA COLLECTION

This section is very important to researcher to get the clear view of their studies. Data collection can be divided into two types such as primary data and secondary data. In order to conduct this study, the researcher using secondary data to get all the information.

#### 3.2.1 Secondary data.

Secondary data refer to information gathered by someone other than the researcher conducting the current study. Such data can be internal or external to the organization and accessed through the internet or published information. The secondary data has two categories like internal sources which are information that have related to the company and another one is external sources which are not related to the company and etc.

To run this study, the researcher was used several types of secondary data such as internet search, annual report, business journals, books and articles.

#### 3.3 SAMPLING DATA

The data of internal and external variables were collected from the Company website of Malaysia Resources Corporation Berhad (MRCB) and WCT Berhad. Beside that, the data also getting from company's annual report for the year 2007 until 2012.

#### 3.4 SOURCES OF DATA

The data for Return on Asset, Short-term debt, Long-term debt and Total debt on total asset ratio was collected from company's annual report. The information about the company studied was collect from company's website. Most of the journals and articles related to this study were collected from the search engine which is Google. This search engine can provide an accuracy and efficiency of information.

#### 3.5 VARIABLES AND MEASUREMENTS

The variable used in this study can be divided in two categories:

#### 3.5.1 Dependent variable

The dependent variable for this study is Company Profitability and the researcher was used Return on Asset ratio to measure the variable.

#### 3.5.2 Independent variable

The independent variable involving in this research are Short-Term Debt, Long-term Debt, and Total Debt to the total Asset .

#### 3.6 DATA ANALYSIS METHOD

After the data were collected, we needed to use software to analyze the raw data. Therefore, we choose SPSS, which is abbreviation of Statistical Package for the Social Sciences, and is most widely used for analyzing data in social sciences. We imported the data to SPSS and ran regression and descriptive analyses. Two kinds of statistical techniques were used for this study. These techniques are descriptive statistics and regression analysis. It also involves the process of hypothesis testing.

#### i. Descriptive Statistics

Descriptive analysis for a single variable is provided by measures of central tendency and dispersion. The application of SPSS enables the researcher to generate the figures of descriptive statistics. Descriptive statistics are used to describe the main features of the dataset in quantitative terms. They provide simple summaries about the sample and the measures by which enables the researcher to get a 'feel' on the overview of the data.

In descriptive statistics, summary statistics are used to summarize a set of observations, in order to communicate inferences regarding the amounts as simply as possible. The researcher will try to describe the observations in the measures of central tendency and the measures of statistical dispersion.

The measures of statistical dispersion are the likes of standard deviation, variance and coefficient of variation. From the investor's perspective, one can look at the increase in volatility by computing the mean return for unit of risk which also known as the Coefficient of Variation- CV to investor or the Sharpe ratio. Additionally, descriptive statistics explains influence level of capital structure to company performance.

#### ii. Coefficient of Correlation (R)

A correlation coefficient (R) shows how much and in what direction the two variables move together. The tabulated interpretation mention is as follows.

| R = + 1          | Perfect positive linear correlation |
|------------------|-------------------------------------|
| 0.5 < R < 1      | Strong positive linear correlation  |
| 0 < R < 0.5      | Weak positive linear correlation    |
| R = 0            | No linear correlation               |
| -0.05 < R < 0.05 | Weak negative correlation           |
| -1 < R < -0.05   | Strong negative correlation         |
| R = -1           | Perfect negative correlation        |

Table 3.1: coefficient of correlation

#### iii. Coefficient of Determination (R<sup>2</sup>)

Coefficient of Determination  $(R^2)$  is used to test the explanatory power of the entire regression equation. The square of the entire coefficient of correlation shows how well a regression model explains the changes in the value of the independent variable. The value of  $R^2$  ranges from zero to one. If the value is close to zero, there is not much linear relationship between the dependent and independent. If the value of  $R^2$  is close to 1, a study linear

relationship exist between dependent and independent variables, if the value is zero, it shows that none of the independent variables explained the changes in the dependent variables. If the value is 1, it shows that all changes in the dependent variable are explained by the dependent variable used in the regression.

#### iv. Hypothesis testing with T-Statistic

T-statistic will be used to test the null hypothesis, whether there is a significant relationship between the dependent and independent variables. In order to test the significant of T-Statistic, the comparison between the absolute value of the T-statistic to the tabulated value of T-distribution table with degree of freedom (df) will be done and normally at 5% level of significant (95% of confidence interval). The formula used is as follows:

Df = n-k-1

Where,

df= degree of freedom (from output regression)

n = no of observation

k = no of independent variable

therefore, the decision rule is:

| T-Statistic > T-Critical | Reject Ho and do not reject |
|--------------------------|-----------------------------|
|                          | На                          |
|                          |                             |
| T-Statistic < T-Critical | Reject Ho and accept Ha     |
|                          |                             |

Table 3.2: T-Statistic

If the numerical value of the statistic is greater than the critical value of t or less than –t, it is fall in the rejection region, where the null hypothesis is rejected and the alternate hypothesis is accepted.

#### v. Hypothesis testing with F-statistic

The study use F-Statistic in order to know how reliable the overall model. F-Statistic provides an overall model. F-Statistics provides an overall appraisal of the regression equation to evaluating the significant of each individual component of the entire regression model. Besides that, F-statistic is whether a significant proportion of total variation independent is explained by the estimated regression equation. If calculated F-Statistic more than critical value of F, the regression equation is significant to explain the changes in dependent variable.

| F-Statistic > 5% | Significant relationship between IV and DV |
|------------------|--|
|                  |  |
| F-Statistic < 5% | The model is not valid for forecasting     |
|                  |  |

Table 3.3: F-Statistic

In the determination of rejection region of F-Statistic, the one tail used in order to determine the significant of the combination among the variables. Through one tail test, it will explain the direction of relationship between both dependent and independent variable. It is computed as the ratio of two samples variance if the F-Statistics is bigger than the critical value of F. The regression equation is significant to explain the change in dependent variable.

The formula of F-Statistics define as follows:

$$F = [R2/k]/[(1-R^2)/(n-k-1)]$$

Figure 3.1: formula F-statistics

Whereby,

F: F-Statistics

R<sup>2</sup>: Coefficient of Determination

n: no of observation

k: no of independent variable

Otherwise, the critical value of F defined as follows:

$$F = a (k-1, n-k-1)$$

Where,

a : significant level at 0.05

k : no of independent variable

n: no of observation

# vi. Multiple linear regression

In order to do hypothesis testing, the multiple linear regression model can be used to measure the type of relationship between two or more variable, the relationship is expressed in the mathematical equation, which give the basis of estimating value of dependent variable based on the value of independent variables.

Multiple Linear Regression model includes all the variables as follows

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Whereby:

Y = Return on Asset

A = Constant

 $X_1$  = Short-Term Debt

 $X_2 = \text{Long-Term Debt}$ 

 $X_3 = \text{Total Debt}$ 

E = Error Term

## 3.7 **SUMMARY**

In chapter 3, the researcher has discussed the sources of secondary data collected. The financial ratio technique and microeconomic data will be adopted to estimate the determinant factors. In this study, the researcher had choose Malaysian Resources Corporation Berhad (MRCB) and WCT Berhad and discussed the method of data analysis and Statistical Package Social Science (SPSS) has been used for conduct the data to provide the empirical result of this study. The next chapter will discuss about the finding and analysis such as propose the result of regression model and discussion on major findings.

#### **CHAPTER 4**

#### DATA AND FINDING ANALYSIS

### 4.0 OVERVIEW

This chapter entails the discussion regarding the empirical evidences presented from the group of data. The researcher will seek to dig out some literal meanings behind every figure and then bring what the data has to say onto the discussion table.

As mention earlier, the objective of this study is to investigate the relationship or correlation between company profitability which is return on asset (ROA), with the financial leverage such as short-term debt (STD), long-term debt (LTD), and total debt (TD). The Multiple Linear Regression method was used in order to explain the relationship between the dependent variable which is the company profitability and independent variable which is financial leverage. After collected and regress all the data by using Microsoft Excel and Statistical Package for Social Science (SPSS), the summary of the empirical finding as well as the interpretation of the designed. The Pearson method was used to analyze the data of dependent variable and independent variables.

In this chapter, the result are interpreted by procedure of data analysis such as descriptive statistics, correlation test, coefficient, regression test and hypothesis testing that early stated by researcher.

## 4.1 DESCRIPTIVE ANALYSIS

Measures of descriptive analysis will be providing the information about the mean, while measures of dispersion provide information about the distribution of the values of the variable. It measures the Standard deviation.

## **MRCB**

**Descriptive Statistics** 

|                    | N | Minimum | Maximum | Mean   | Std. Deviation |
|--------------------|---|---------|---------|--------|----------------|
| ROA                | 6 | .215    | .429    | .27967 | .078744        |
| STD                | 6 | .008    | .229    | .09817 | .090334        |
| LTD                | 6 | .000    | .244    | .14967 | .095124        |
| TD                 | 6 | .009    | .378    | .24800 | .125352        |
| Valid N (listwise) | 6 |         |         |        |                |

From the table that shows a summary of the descriptive statistics for the dependent and independent variable for MRCB. It shows that Return on Asset (ROA) for MRCB has an average value 0.27967 and a standard deviation of 0.078744. The highest ROA is 0.429 and the lowest ROA is 0.215.

Short-term debt (STD) which is measured by the ratio of short-term debt to total asset has an average value of 0.09817 and a standard deviation of 0.090334, while the maximum STD is 0.229 while the lowest STD is 0.008.

The average long-term debt (LTD), measured by the ratio of long term debt to total asset is 0.14967 and its standard deviation is also 0.095124. The range value LTD is from 0.000 to 0.224.

The total debt to total asset (TD) has a mean 0.24800, the highest TD is 0.378 while the lowest is 0.009

## **WCT BERHAD**

#### **Descriptive Statistics**

|                    | N | Minimum | Maximum | Mean   | Std. Deviation |
|--------------------|---|---------|---------|--------|----------------|
| ROA                | 6 | .290    | 1.042   | .61450 | .321383        |
| STD                | 6 | .046    | .173    | .11100 | .051552        |
| LTD                | 6 | .103    | .248    | .17950 | .047078        |
| TD                 | 6 | .223    | .359    | .29050 | .051683        |
| Valid N (listwise) | 6 |         |         |        |                |

From the table that shows a summary of the descriptive statistics for the dependent and independent variable for WCT Berhad. It shows that Return on Asset (ROA) for WCT Berhad has an

average value 0.61450 and a standard deviation of 0.321383. The highest ROA is 1.042 and the lowest ROA is 0.290.

Short-term debt (STD) which is measured by the ratio of short-term debt to total asset has an average value of 0.111 and a standard deviation of 0.051552, while the maximum STD is 0.173 while the lowest STD is 0.046.

The average long-term debt (LTD), measured by the ratio of long term debt to total asset is 0.17950 and its standard deviation is also 0.047078. The range value LTD is from 0.103 to 0.248.

The total debt to total asset (TD) has a mean 0.29050. The highest TD is 0.553 while the lowest is 0.359

## 4.2 PEARSON CORRELATION ANALYSIS

In this section, Pearson Correlation Coefficient is used to test the hypothesis. The hypothesis tested is the relationship exists between two variable, dependent and independent variable. For this study, the researcher have decided to use the suggested interpretation for value of "r" in determining the strength of coefficient as proposed by Guilford (1956). The table below shows the interpretation for value of "r" as being proposed by Guilford (1956).

| R value        | Interpretation                                   |
|----------------|--|
| Less than 0.20 | Slight, almost negligible relationship           |
| 0.20 - 0.40    | Low correlation, definite but small relationship |
| 0.40 – 0.70    | Moderate correlation, substantial relationship   |
| 0.70 – 0.90    | High correlation, marked relationship            |
| 0.90 – 1.00    | Very high correlation, very independent          |
|                | relationship                                     |
|                |  |

Table 4.1: correlation coefficient test

### Correlations

|     | -                   | ROA   | STD  | LTD  | TD    |
|-----|---------------------|-------|------|------|-------|
| ROA | Pearson Correlation | 1     | 615  | 703  | 973** |
|     | Sig. (2-tailed)     |       | .194 | .120 | .001  |
|     | N                   | 6     | 6    | 6    | 6     |
| STD | Pearson Correlation | 615   | 1    | 081  | .657  |
|     | Sig. (2-tailed)     | .194  |      | .878 | .156  |
|     | N                   | 6     | 6    | 6    | 6     |
| LTD | Pearson Correlation | 703   | 081  | 1    | .698  |
|     | Sig. (2-tailed)     | .120  | .878 |      | .123  |
|     | N                   | 6     | 6    | 6    | 6     |
| TD  | Pearson Correlation | 973** | .657 | .698 | 1     |
|     | Sig. (2-tailed)     | .001  | .156 | .123 |       |
|     | N                   | 6     | 6    | 6    | 6     |

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

After measure the correlation of the return on asset in both company between the capital structure factors by using the SPSS, based on the result for MRCB for Pearson Correlation, show the negative correlation between short term debt and return on asset is r=0.615 which is moderate correlation with substantial relationship. Long term debt also gather negative relationship where the result r=0.703 and the correlation is high correlation

and marked relationship. Correlation between total debt and return on asset is also negative which is  $\, r = 0.973 \,$  and the correlation is very high correlated with very dependable relationship.

Level of significant < 0.05 = Null hypothesis Ho is rejected

- Short-term debt: the P-value is 0.194 means higher than 5 percent the level of significant (P<0.05), means there is insignificant relationship between short-term debt and return on asset.
- **Long-term debt**: the P-value is 0.120 means higher than 5 percent the level of significant, means there is **insignificant** relationship between long-term debt and return on asset.
- Total debt: the P-value is 0.001 means lower than 0.05. its shows
  that there is significant relationship between total debt and return
  on asset.

### WCT BERHAD

#### Correlations

|     | -                   | ROA              | STD  | LTD  | TD               |
|-----|---------------------|------------------|------|------|------------------|
| ROA | Pearson Correlation | 1                | 538  | 404  | 904 <sup>*</sup> |
|     | Sig. (2-tailed)     |                  | .271 | .427 | .013             |
|     | N                   | 6                | 6    | 6    | 6                |
| STD | Pearson Correlation | 538              | 1    | 454  | .584             |
|     | Sig. (2-tailed)     | .271             |      | .366 | .224             |
|     | N                   | 6                | 6    | 6    | 6                |
| LTD | Pearson Correlation | 404              | 454  | 1    | .458             |
|     | Sig. (2-tailed)     | .427             | .366 |      | .361             |
|     | N                   | 6                | 6    | 6    | 6                |
| TD  | Pearson Correlation | 904 <sup>*</sup> | .584 | .458 | 1                |
|     | Sig. (2-tailed)     | .013             | .224 | .361 |                  |
|     | N                   | 6                | 6    | 6    | 6                |

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

For WCT Berhad, the Pearson Correlation shows that, the short-term debt, long term debt and total debt also get the negative relationship with the Return on asset. Its mean that when the short-term debt increase by 1 percent, the return on asset will reduce by 0.538, while the increase of 1 percent long-term debt will decrease 0.404 of the return on asset and the return on asset will decrease by 0.904 when the total debt increase by 1 percent.

Figure 4.0 : Significant level

Level of significant<0.05 = Null hypothesis Ho is

- **Short-term debt**: the P-value is 0.271 means higher that 5 percent significant level. It shows that the hypothesis is accepted and there is **insignificant** relationship between short-term debt and return on asset.
- Long-term debt: the P-value is 0.427 means higher than 5
  percent. It shows that the hypothesis is accepted and there is
  insignificant relationship between long-term debt and return on
  asset.
- **Total debt**: the P-value is 0.013 which is lower than 0.05, meaning that, the hypothesis should be rejected and there is **significant** relationship between total debt and return on asset.

## 4.3 REGRESSION ANALYSIS

Regression analysis is a powerful and flexible procedure for analyzing associative relationship between a matric dependent variable and one or more independent variable. Regression analysis was chosen to fits the hypothesis testing and analyzing how independent variable can be used to predict a dependent variable, the analysis show how much of the total variance in the dependent variable which is return on asset is possible to explain by the independent variable such as short-term debt, long-term debt and total debt.

**MRCB** 

Model Summary<sup>b</sup>

|       |       |          | Adjusted R | Std. Error of the |               |
|-------|-------|----------|------------|-------------------|---------------|
| Model | R     | R Square | Square     | Estimate          | Durbin-Watson |
| 1     | .974ª | .949     | .914       | .023064           | 2.577         |

a. Predictors: (Constant), TD, STD

b. Dependent Variable: ROA

**WCT Berhad** 

Model Summary<sup>b</sup>

|       |       |          | Adjusted R | Std. Error of the |               |
|-------|-------|----------|------------|-------------------|---------------|
| Model | R     | R Square | Square     | Estimate          | Durbin-Watson |
| 1     | .904ª | .818     | .696       | .177113           | 2.182         |

a. Predictors: (Constant), TD, LTD

#### Model Summary<sup>b</sup>

| Ī     |       |          | Adjusted R | Std. Error of the |               |
|-------|-------|----------|------------|-------------------|---------------|
| Model | R     | R Square | Square     | Estimate          | Durbin-Watson |
| 1     | .904ª | .818     | .696       | .177113           | 2.182         |

b. Dependent Variable: ROA

## **4.3.1** Coefficient of Correlation (R)

#### **MRCB**

Coefficient of correlation for MRCB is 0.974 means that, there a strong relationship between return on asset and all three independent variables such as short-term debt, long-term debt and total debt. It means if any changes of the independent variables will give strongly effect to return on asset. R= 0.974, its means 97.4% return on asset in MRCB can be explained by the capital structure measurement and only 2.6% cannot be explained by the independent variables.

## **WCT Berhad**

The coefficient of correlation for WCT Berhad is 0.904 means that, there a strong relationship between return on asset and all three independent variables such as short-term debt, long-term debt and total debt. It means any changes of the independent variables will give strongly effect to return on asset. R= 0.904, its means 90.4% return on asset in WCT Berhad can be explained by the capital

structure measurement and the other 9.6% cannot be explain by the independent variable.

For the comparison of both company shows that the coefficient of correlation (R) for MRCB are more better than WCT Berhad. It is because, the higher value of R, the higher possible changes of independent variable can affect the dependent variable.

## **4.3.2** Coefficient of Determination (R<sup>2</sup>)

The coefficient of determination R-square (R<sup>2</sup>), explain the higher explanatory power of the estimated equation and more accurate for forecasting purpose.

### **MRCB**

From the table shows the R<sup>2</sup> is 0.949 means that 94.9% of the dependent variable can be explained by the independent variable and only 5.1% cannot be explain by independent variable such as short-term debt, long-term debt and total debt.

### **WCT Berhad**

R<sup>2</sup> for WCT Berhad is 0.818 means that 81.8% of the dependent variable can be explained by the independent variable while another 18.2% cannot be explain by independent variable such as short-term debt, long-term debt and total debt. It means there are

other factors that can be used to determine the influence of capital structure on the company profitability.

By looking at the result shows the clearly different which is the R<sup>2</sup> for MRCB is more better than WCT Berhad. It means this model are more suitable to use in MRCB compared in WCT Berhad.

# 4.4 HYPOTHESIS TESTING WITH F-STATISTIC

F-statistics is used to measure how well a linear model fits a sets of data to know the significant of the whole model. If the F-statistic is higher, it shows there is significant effect between the independent and dependent variable.

### **MRCB**

**ANOVA**<sup>b</sup>

|   | Model      | Sum of Squares | Df | Mean Square | F      | Sig.  |
|---|------------|----------------|----|-------------|--------|-------|
| 1 | Regression | .029           | 2  | .015        | 27.642 | .012ª |
|   | Residual   | .002           | 3  | .001        |        |       |
|   | Total      | .031           | 5  |             |        |       |

a. Predictors: (Constant), TD, STD

b. Dependent Variable: ROA

Figure 4.1 : the rule of F-test

 $H_0 = \beta_2 + \beta_3 + \beta_4 = 0$ 

 $H_a$  = at least one of the  $\beta$  is not equal to zero

$$Df = n-k/k-1$$

$$=$$
  $6-4/4-1$ 

$$=$$
  $2/3$ 

F-Table 
$$= 27.624$$

= Reject  $H_0$ , Do not reject  $H_1$ , it is significant

# **WCT Berhad**

## **ANOVA**<sup>b</sup>

| Mode | I          | Sum of Squares | Df | Mean Square | F     | Sig.  |
|------|------------|----------------|----|-------------|-------|-------|
| 1    | Regression | .422           | 2  | .211        | 6.732 | .078ª |
|      | Residual   | .094           | 3  | .031        |       |       |
|      | Total      | .516           | 5  |             |       |       |

a. Predictors: (Constant), TD, LTD

b. Dependent Variable: ROA

$$Ho = \beta 2 + \beta 3 + \beta 4 = 0$$

Ha = at least one of the  $\beta$  is not equal to zero

$$Df = n-k/k-1$$

$$=$$
 6-4/4-1

$$=$$
  $2/3$ 

F-Table 
$$= 6.732$$

 $= \qquad \text{do not reject } H0, \text{ reject } H1, \text{ it is not} \\$  significant

From the test of F-statistic for both company, the decision is reject the null hypothesis and do not reject the alternate hypothesis in MRCB. This is because the F-table is 27.624 which is higher than the F-statistic = 19.16. Thus there is significant relationship. Compared to WCT Berhad, the F-table is 6.732 which is lower than the F-statistic. Thus there is no significant relationship between return on asset and all the capital structure leverage factors in this company.

## 4.5 HYPOTHESIS TESTING WITH T-STATISTIC

To measure either the independent variables are significant or insignificant with the dependent variable the researcher was do the hypothesis testing by using the T-Test for every independent variable.

## **Hypothesis 1 (Short Term Debt):**

**H<sub>0</sub>:** There is no significant relationship between Short Term Debt and Company Profitability

**H**<sub>1</sub>: There is significant relationship between Short Term Debt and Company Profitability.

## **Hypothesis 2 (Long Term Debt):**

**H<sub>0</sub>:** There is no significant relationship between Long Term Debt and Company Profitability.

**H**<sub>1</sub>: There is significant relationship between Long Term Debt and Company Profitability.

# **Hypothesis 3 (Total Debt):**

**H<sub>0</sub>:** There is no significant relationship between Total Debt and Company Profitability.

**H**<sub>1</sub>: There is significant relationship between Total Debt and Company Profitability.

$$Df = n-k-1$$

$$=$$
  $6-2-1$ 

$$T$$
-table =  $2.353$ 

# **MRCB**

**Coefficients**<sup>a</sup>

|       |            | Unstandardize | ed Coefficients | Standardized<br>Coefficients |        |      |
|-------|------------|---------------|-----------------|------------------------------|--------|------|
| Model |            | В             | Std. Error      | Beta                         | t      | Sig. |
| 1     | (Constant) | .432          | .023            |                              | 19.064 | .000 |
|       | STD        | .038          | .151            | .043                         | .249   | .819 |
|       | TD         | 629           | .109            | -1.002                       | -5.764 | .010 |

a. Dependent Variable: ROA

from the degree of freedom at confidence interval of 95%, it is equal to 2.353 or in the range T-Critical value which is +2.353 or -2.353, might be taken into consideration.

• **Short-term debt**: As we can see, from the above table, T-statistic for STD is 0.249. that means this study rejest the null hypothesis

and do not reject the alternate hypothesis. Thus, there is the **significant** relationship between the STD and return on asset

- Long-term debt: for the long-term debt, the data cannot be accepted and was excluded from this model because the Beta was too high and is was excluded from this model. So we conclude that the variable of long-term debt was cannot be explain for this model.
- Total debt: the T-statistic value is -5.764 which is more that the tcritical value, means that, should rejecting HO and accepting H1.
  Thus, there are significant relationship between total debt and
  return on asset.

### **WCT Berhad**

Coefficients<sup>a</sup>

|       |            | Unstandardized Coefficients |            | Standardized<br>Coefficients |        |      |
|-------|------------|-----------------------------|------------|------------------------------|--------|------|
| Model |            | В                           | Std. Error | Beta                         | t      | Sig. |
| 1     | (Constant) | 2.243                       | .464       |                              | 4.830  | .017 |
|       | LTD        | .089                        | 1.893      | .013                         | .047   | .965 |
|       | TD         | -5.660                      | 1.724      | 910                          | -3.283 | .046 |

a. Dependent Variable: ROA

- Short-term debt: for the short-term debt, the data cannot be accepted and was excluded from this model because the Beta was too low and is was excluded from this model. So we conclude that the variable of short-term debt was cannot be explain for this model.
- Long-term debt: As we can see, from the above table, T-statistic for long-term debt is 0.047. that means this study should accept the null hypothesis and reject the alternate hypothesis. Thus, there is the insignificant relationship between the long term-debt and return on asset
- Total debt: the result was shown the T-statistic value is -3.283 which is more that the t-critical value, means that, should rejecting HO and accepting H1. Thus, there are significant relationship between total debt and return on asset.

#### 4.6 MULTIPLE LINEAR REGRESSION

#### **MRCB**

### Y = 0.432 + 0.038 Short-term debt – 0.629 Total debt

The beta coefficient tells about the relationship between the return on asset and several factors such as short-term debt, long-term debt, and total debt. Based on the coefficient table, the coefficient has a positive sign which is 0.432. it means the positive coefficient between dependent and independent variables.

Refer to the short-term debt, the result was shown that positive sign of short-term debt coefficient. By the sign, it was bring the meaning of positive or direct relationship with the return on asset in the company. The short-term debt can influence the changes of return on asset on the company and conclusion for the relationship both of them is increasing of every 1 unit of short-term debt, the return on asset will increase by 0.038.

For the long-term debt, the data cannot be accepted because the Beta was too high and is was excluded from this model. So we conclude that the variable of long-term debt was cannot be explain for this model.

From the result was shown there have negative coefficient between the return on asset and total debt. It is mean the return on asset have negative relationship with the total debt. Thus, when the total debt decrease by 1 unit, it will influence the decreasing of return on asset by 0.629.

#### WCT berhad

## Y = 2.243 + 0.089 Long-term debt – 5.660 Total debt

For this company, the coefficient has a positive sign which is 2.243. It means the positive coefficient between dependent and independent variables.

For the short-term debt, the data cannot be accepted because the Beta was too low and is was excluded from this model. So we conclude that the variable of short-term debt was cannot be explain for this model.

Refer to the Long-term debt, the result was shown that positive sign of long-term debt coefficient. By the sign, it was bring the meaning of positive or direct relationship with the return on asset in the company. The short-term debt can influence the changes of return on asset on the company and conclusion for the relationship both of them is increasing of every 1 unit of short-term debt, the return on asset will increase by 0.089.

From the result was shown there have negative coefficient between the return on asset and total debt. It is mean the return on asset have negative relationship with the total debt. Thus, when the total debt decrease by 1 unit, it will influence the decreasing of return on asset by 5.66.

## 4.7 SUMMARY

In chapter 4, the researcher has done on the discussion of empirical results and major findings. Besides that, the discussions of empirical result also include F-statistic, coefficient of determination and testing of each independent variable. The next chapter will discuss about the implications and conclusions of the study.

#### **CHAPTER 5**

### CONCLUSION AND RECOMMENDATIONS

### 5.0 OVERVIEW

With the completion of data analysis in the previous chapter, the researcher continues with the recommendations and conclusion in chapter five. Recommendations will be discussed in the section 5.1 and conclusion of the study will be presented in the last section.

#### 5.1 CONCLUSION

This section concludes the overall study. The objective of the study is to describe the relationship between the capital structure and the company performance. This study focus on 6 years data period of 2 giant construction company which is Malaysian Resources Corporation Berhad (MRCB) and WCT Berhad. Besides that the researcher also aims to determine how the industry may affect the relationship between capital structure and company profitability during the period 2007- 2012 of the both company.

Theoretical literature of capital structures, specifically the Modigliani-Miller theory were review to provide a sufficient understanding of how capital structure could affect firm performance. Extensive amount of related empirical literature was

reviewed to identify the proxies and measurements for capital structure and company profitability. As a result, in this study return on asset (ROA) were used as the measures for company profitability. Capital structure is represented by short-term debt (STD), long-term debt (LTD) and total debt (TD).

This study covers the 2 construction companies which is Malaysian Resources Corporation Berhad (MRCB) and WCT Berhad and focus on 6 years annual data from 2007- 2012. By taking more than 1 company the researcher want to find how the industry may affect the relationship between capital structure and company profitability during the period.

A series of regression analysis were executed for each company, where either one of the capital structure proxies is included each analysis and lag values for the proxies were used to replace the non-lag value In order to achieve the best fitted relationship between capital structure and company profitability.

For the coefficient, the study of both companies finds that only total debt has significant relationship with ROA.

For the hypothesis test of each variable, both of the company had 1 variable excluded in the model. For MRCB, all the variable are significant except long-term debt which is the excluded data.

While for WCT Berhad, theres only total debt are significant, longterm debt are not and short-term debt was the excluded data.

The study also shows that for all the model tested, MRCB data model are not significant compared to WCT Berhad.

The significant relationship between short-term debt, long term debt and total debt with ROA is consistent with the findings of Abor (2005) and Mesquita and Lara (2003) for short-term debt. This suggest that short-term debt tends to be less expenses and therefore increasing short-term debt with a relatively low interest rate will lead to an increase in profit levels. However, the finding has contracted result with Saeedi and Mahmood (2011) when they found there is no significant effect between STD, LTD and TD with the company profitability.

The negative relationship between long-term debt with ROA in both companies is contras with the finding of Philips and Sipahioglu (2004) and Grossman and Hart (1986) which indicate that higher levels of debt in the company's capital structure will be directly associated with higher performance levels. However, the effect is short-term in nature since the lagged long-term debt variables do not significantly influence ROA. This findings implies

that the management of the firm can use long-term debt decision to increase the return on the company.

Furthermore, this study uses annual data over the year 2007 untul the year 2012. For a more accurate result, future research could use quarterly data instead of yearly data. It is also suggested that one can extend the analyzed time to cover the turbulent period at the beginning, as the longer time period would be more violate. This will give a full understanding of how debt works over the business cycle and affect the overall performance of the company including the profitability.

Moreover, the research focused only on the 2 company in construction sector which is Malaysian Resources Corporation Berhad (MRCB) and WCT Berhad.

Hence, to get a better picture for future study, it can include more company into the list.

## 5.2 **RECOMMENDATION**

Obviously, our results indicates that debt financing is not generally a good way to go for achieving a good financial performance in the company, which should prompt the company CFO's to seek out other ways of financing the company's operations before resorting to debt.

However, individual country, industry and firm characteristics are of course of higher importance than a general rule of thumb for the individual manager to consider when making capital structure decisions at the company level. Hence, as long as the CFO makes a wellthought tailor-made capital structure decision, based on the environment and the characteristics of the particular company, chances are that it could lead to a good financial outcome for the firm.

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# **APPENDICES**

# Table data

# **MRCB**

|      | ROA   | STD   | LTD   | TD    |
|------|-------|-------|-------|-------|
| 2007 | 0.429 | 0.008 | 0     | 0.009 |
| 2008 | 0.268 | 0.187 | 0.081 | 0.268 |
| 2009 | 0.296 | 0.019 | 0.239 | 0.258 |
| 2010 | 0.243 | 0.081 | 0.185 | 0.266 |
| 2011 | 0.227 | 0.065 | 0.244 | 0.309 |
| 2012 | 0.215 | 0.229 | 0.149 | 0.378 |

# **WCT Berhad**

|      | ROA   | STD   | LTD   | TD    |
|------|-------|-------|-------|-------|
| 2007 | 0.798 | 0.168 | 0.103 | 0.271 |
| 2008 | 0.852 | 0.068 | 0.186 | 0.254 |
| 2009 | 1.042 | 0.046 | 0.177 | 0.223 |
| 2010 | 0.375 | 0.111 | 0.248 | 0.359 |
| 2011 | 0.33  | 0.1   | 0.197 | 0.297 |
| 2012 | 0.29  | 0.173 | 0.166 | 0.339 |

# **SPSS Descriptive Data**

# **MRCB**

# **Descriptive Statistics**

|                    | N | Minimum | Maximum | Mean   | Std. Deviation |
|--------------------|---|---------|---------|--------|----------------|
| ROA                | 6 | .215    | .429    | .27967 | .078744        |
| STD                | 6 | .008    | .229    | .09817 | .090334        |
| LTD                | 6 | .000    | .244    | .14967 | .095124        |
| TD                 | 6 | .009    | .378    | .24800 | .125352        |
| Valid N (listwise) | 6 |         |         |        |                |

# **WCT Berhad**

# **Descriptive Statistics**

|                    | N | Minimum | Maximum | Mean   | Std. Deviation |
|--------------------|---|---------|---------|--------|----------------|
| ROA                | 6 | .290    | 1.042   | .61450 | .321383        |
| STD                | 6 | .046    | .173    | .11100 | .051552        |
| LTD                | 6 | .103    | .248    | .17950 | .047078        |
| TD                 | 6 | .223    | .359    | .29050 | .051683        |
| Valid N (listwise) | 6 |         |         |        |                |

# **SPSS Correlation Data**

# **MRCB**

## Correlations

|     |                     | Oomolatio | _    |      |       |
|-----|---------------------|-----------|------|------|-------|
|     |                     | ROA       | STD  | LTD  | TD    |
| ROA | Pearson Correlation | 1         | 615  | 703  | 973** |
|     | Sig. (2-tailed)     |           | .194 | .120 | .001  |
|     | N                   | 6         | 6    | 6    | 6     |
| STD | Pearson Correlation | 615       | 1    | 081  | .657  |
|     | Sig. (2-tailed)     | .194      |      | .878 | .156  |
|     | N                   | 6         | 6    | 6    | 6     |
| LTD | Pearson Correlation | 703       | 081  | 1    | .698  |
|     | Sig. (2-tailed)     | .120      | .878 |      | .123  |
|     | N                   | 6         | 6    | 6    | 6     |
| TD  | Pearson Correlation | 973**     | .657 | .698 | 1     |
|     | Sig. (2-tailed)     | .001      | .156 | .123 |       |
|     | N                   | 6         | 6    | 6    | 6     |

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

# **WCT Berhad**

# Correlations

|     |                     | Correlatio       |      |      |                  |
|-----|---------------------|------------------|------|------|------------------|
|     |                     | ROA              | STD  | LTD  | TD               |
| ROA | Pearson Correlation | 1                | 538  | 404  | 904 <sup>*</sup> |
|     | Sig. (2-tailed)     |                  | .271 | .427 | .013             |
|     | N                   | 6                | 6    | 6    | 6                |
| STD | Pearson Correlation | 538              | 1    | 454  | .584             |
|     | Sig. (2-tailed)     | .271             |      | .366 | .224             |
|     | N                   | 6                | 6    | 6    | 6                |
| LTD | Pearson Correlation | 404              | 454  | 1    | .458             |
|     | Sig. (2-tailed)     | .427             | .366 |      | .361             |
|     | N                   | 6                | 6    | 6    | 6                |
| TD  | Pearson Correlation | 904 <sup>*</sup> | .584 | .458 | 1                |
|     | Sig. (2-tailed)     | .013             | .224 | .361 |                  |
|     | N                   | 6                | 6    | 6    | 6                |

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

# **SPSS Regression Linear Analysis Data**

# **MRCB**

Variables Entered/Removed<sup>b</sup>

|       | Variables            | Variables |        |
|-------|----------------------|-----------|--------|
| Model | Entered              | Removed   | Method |
| 1     | TD, STD <sup>a</sup> |           | Enter  |

a. Tolerance = .000 limits reached.

b. Dependent Variable: ROA

Model Summary<sup>b</sup>

| Model | R     | R Square | Adjusted R<br>Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------|----------|----------------------|----------------------------|---------------|
| 1     | .974ª | .949     | .914                 | .023064                    | 2.577         |

a. Predictors: (Constant), TD, STD

b. Dependent Variable: ROA

### **ANOVA**<sup>b</sup>

| Model |            | Sum of Squares | Df | Mean Square | F      | Sig.  |
|-------|------------|----------------|----|-------------|--------|-------|
| 1     | Regression | .029           | 2  | .015        | 27.642 | .012ª |
|       | Residual   | .002           | 3  | .001        |        |       |
|       | Total      | .031           | 5  |             | i.     |       |

a. Predictors: (Constant), TD, STD

b. Dependent Variable: ROA

### Coefficients<sup>a</sup>

|   |            | Unstandardized Coefficients |            | Standardized<br>Coefficients |        |      |
|---|------------|-----------------------------|------------|------------------------------|--------|------|
|   | Model      | В                           | Std. Error | Beta                         | t      | Sig. |
| 1 | (Constant) | .432                        | .023       |                              | 19.064 | .000 |
|   | STD        | .038                        | .151       | .043                         | .249   | .819 |
|   | TD         | 629                         | .109       | -1.002                       | -5.764 | .010 |

a. Dependent Variable: ROA

Excluded Variables<sup>b</sup>

|   |      |          |     |      |             | Collinearity |
|---|------|----------|-----|------|-------------|--------------|
|   |      |          |     |      | Partial     | Statistics   |
| М | odel | Beta In  | Т   | Sig. | Correlation | Tolerance    |
| 1 | LTD  | -33.681ª | 291 | .798 | 202         | 1.843E-6     |

a. Predictors in the Model: (Constant), TD, STD

b. Dependent Variable: ROA

Residuals Statistics<sup>a</sup>

|                      | Minimum | Maximum | Mean    | Std. Deviation | N |
|----------------------|---------|---------|---------|----------------|---|
| Predicted Value      | .20279  | .42667  | .27967  | .076691        | 6 |
| Residual             | 024691  | .025613 | .000000 | .017865        | 6 |
| Std. Predicted Value | -1.002  | 1.917   | .000    | 1.000          | 6 |
| Std. Residual        | -1.071  | 1.111   | .000    | .775           | 6 |

a. Dependent Variable: ROA

# **WCT Berhad**

## Variables Entered/Removed<sup>b</sup>

| Model | Variables<br>Entered | Variables<br>Removed | Method |
|-------|----------------------|----------------------|--------|
| 1     | TD, LTD <sup>a</sup> |                      | Enter  |

a. Tolerance = .000 limits reached.

b. Dependent Variable: ROA

# Model Summary<sup>b</sup>

|       |       |          | Adjusted R | Std. Error of the |               |
|-------|-------|----------|------------|-------------------|---------------|
| Model | R     | R Square | Square     | Estimate          | Durbin-Watson |
| 1     | .904ª | .818     | .696       | .177113           | 2.182         |

a. Predictors: (Constant), TD, LTD

b. Dependent Variable: ROA

# **ANOVA**<sup>b</sup>

| Model |            | Sum of Squares | Df | Mean Square | F     | Sig.  |
|-------|------------|----------------|----|-------------|-------|-------|
| 1     | Regression | .422           | 2  | .211        | 6.732 | .078ª |
|       | Residual   | .094           | 3  | .031        |       |       |
|       | Total      | .516           | 5  |             |       |       |

a. Predictors: (Constant), TD, LTD

b. Dependent Variable: ROA

### Coefficients<sup>a</sup>

|       |            | Unstandardized Coefficients |            | Standardized<br>Coefficients |        |      |
|-------|------------|-----------------------------|------------|------------------------------|--------|------|
| Model |            | В                           | Std. Error | Beta                         | t      | Sig. |
| 1     | (Constant) | 2.243                       | .464       |                              | 4.830  | .017 |
|       | LTD        | .089                        | 1.893      | .013                         | .047   | .965 |
|       | TD         | -5.660                      | 1.724      | 910                          | -3.283 | .046 |

a. Dependent Variable: ROA

### **Excluded Variables**<sup>b</sup>

|       |     |         |   |      |             | Collinearity |
|-------|-----|---------|---|------|-------------|--------------|
|       |     |         |   |      | Partial     | Statistics   |
| Model |     | Beta In | t | Sig. | Correlation | Tolerance    |
| 1     | STD | a.      |   |      |             | .000         |

a. Predictors in the Model: (Constant), TD, LTD

b. Dependent Variable: ROA

### Residuals Statistics<sup>a</sup>

|                      | Minimum | Maximum | Mean    | Std. Deviation | N |
|----------------------|---------|---------|---------|----------------|---|
| Predicted Value      | .23288  | .99633  | .61450  | .290630        | 6 |
| Residual             | 249266  | .142120 | .000000 | .137191        | 6 |
| Std. Predicted Value | -1.313  | 1.314   | .000    | 1.000          | 6 |
| Std. Residual        | -1.407  | .802    | .000    | .775           | 6 |

a. Dependent Variable: ROA