

THE EFFECT OF CORPORATE
GOVERNANCE ON FIRM'S CAPITAL
STRUCTURE OF LISTED COMPANIES
(PLANTATION) IN MALAYSIA

CHAN SZE HWEI
CHARLOTTE LEONIE A CRUZ
FONG MEI KEI
ONG JUN XIN
PAVITRA A/P TANOIA RAJOO

BACHELOR OF BUSINESS ADMINISTRATION
(HONS) BANKING AND FINANCE

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF BUSINESS AND FINANCE
DEPARTMENT OF FINANCE

AUGUST 2018

CHAN, CRUZ, FONG, ONG & PAVITRA

CORPORATE GOVERNANCE

BBF (HONS)

AUGUST 2018

THE EFFECT OF CORPORATE
GOVERNANCE ON FIRM'S CAPITAL
STRUCTURE OF LISTED COMPANIES
(PLANTATION) IN MALAYSIA

BY

CHAN SZE HWEI
CHARLOTTE LEONIE A CRUZ
FONG MEI KEI
ONG JUN XIN
PAVITRA A/P TANOIA RAJOO

A research project submitted in partial fulfillment of
the requirement for the degree of

BACHELOR OF BUSINESS ADMINISTRATION
(HONS) BANKING AND FINANCE

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF BUSINESS AND FINANCE
DEPARTMENT OF FINANCE

AUGUST 2018

Copyright @ 2018

ALL RIGHTS RESERVED. No part of this paper may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, graphic, electronic, mechanical, photocopying, recording, scanning, or otherwise, without the prior consent of the authors.

DECLARATION

We hereby declare that:

- (1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the research project.
- (4) The word count of this research report is 21023 words.

Name of Student:	Student ID:	Signature:
1. CHAN SZE HWEI	14ABB05662	_____
2. CHARLOTTE LEONIE A. CRUZ	14ABB05191	_____
3. FONG MEI KEI	15ABB00355	_____
4. ONG JUN XIN	14ABB01573	_____
5. PAVITRA A/P TANOIA RAJOO	14ABB03896	_____

Date: 17 AUGUST 2018

ACKNOWLEDGEMENT

Firstly, we would like to express our utmost gratefulness and gratitude to Universiti Tunku Abdul Rahman (UTAR) for providing us the opportunity to pursue this research as it is a part of a requirement in Bachelor of Business Administration (HONS) Banking and Finance. While conducting this research project, we were able to gain knowledge about the subject and research area. We highly appreciate the facilities and resources provided by the university that help us to access and run our data, which was an important complete the project successfully.

Secondly, we are very fortunate to have Mr. Ahmad Harith Ashrofi bin Hanafi as our supervisor. We would like to use this opportunity to thank our supervisor for helping us with his guidance, information, advice and wise knowledge throughout the process of finishing our final year project. Furthermore, we would like to thank our examiner, Puan Nurul Ikma Binti Haris for her valuable comments and kind pieces of advice on our weaknesses and improvement that need to be made in our research. We have identified certain details that had been overlooked and the amendments were made with the help of our examiner.

Lastly, we would like to thank our family and friends who have been always there to support, encourage and motivate us during the process of completing this project before the submission date. And most importantly, his research would not be materialized without the guidance and support of everyone who was involved in this research project. Thank you for all the time, effort, patience and involvement throughout completing this research.

DEDICATION

First of all, we would like to dedicate this research project to our dear supervisor, Mr. Ahmad Harith Ashrofi Bin Hanafi for his guidance and advice on our progress in conducting research. We would like to give our highest appreciation for his effort and patience.

We also appreciate the support of our beloved families and friends who have provided help and resources needed to complete this project. We may be unable to complete this research without their support.

Moreover, the teamwork, commitment and contribution provided by every member of the research project should be acknowledged. We dedicate our study to those future researchers who have an interest in studying this topic. Thus, this paper can be referred to by them to enhance their understanding.

Lastly, this research would not be completed smoothly without the selfless and unconditional support from everyone involved.

TABLE OF CONTENTS

	Page
Copyright Page	ii
Declaration	iii
Acknowledgement	iv
Dedication	v
Table of Content	vi
List of Tables	x
List of Figures	xi
List of Abbreviations	xii
Preface	xiii
Abstract	xiv
CHAPTER 1 RESEARCH OVERVIEW	
1.0 Introduction	1
1.1 Research Background	3
1.2 Problem Statement	4
1.3 Research Objectives	6
1.3.1 General Objective	6
1.3.2 Specific Objective	6
1.4 Research Questions	7
1.5 Hypotheses of the Study	7
1.6 Significant of the Study	9
1.7 Chapter Layout	10
1.8 Conclusion	12
CHAPTER 2 LITERATURE REVIEW	
2.0 Introduction	13
2.1 Review of Relevant Theoretical Models	13
2.1.1 Agency Theory	13
2.1.2 Stewardship Theory	15

2.2 Review of the Literature	16
2.2.1 Capital Structure	16
2.2.2 Firm Size affecting Capital Structure	17
2.2.3 CEO Duality affecting Capital Structure	21
2.2.4 Managerial Ownership affecting Capital Structure	23
2.2.5 Board of Independence affecting Capital Structure	25
2.2.6 Profitability affecting Capital Structure	28
2.3 Proposed Theoretical / Conceptual Framework	30
2.4 Hypotheses Development	31
2.4.1 Firm Size	31
2.4.2 CEO Duality	31
2.4.3 Managerial Ownership	32
2.4.4 Board of Independence	32
2.4.5 Profitability	32
2.5 Conclusion	33
CHAPTER 3 METHODOLOGY	
3.0 Introduction	34
3.1 Research Design	34
3.2 Data Collection Methods	35
3.2.1 Secondary Data	36
3.3 Sampling Design	38
3.4 Data Processing	40
3.5 Data Analysis	42
3.5.1 Description Analysis	42
3.5.2 Correlation Analysis	42
3.5.3 Regression Model	43
3.5.3.1 Pooled OLS Model	44
3.5.3.2 Fixed Effect Model (FEM)	45
3.5.3.3 Random Effect Model (REM)	46
3.5.4 Model Selection	47

3.5.4.1 Poolability Hypothesis Testing	47
3.5.4.2 Breusch-Pagan Lagrange Multiplier Test	47
3.5.4.3 Hausman Test	48
3.5.5 Hypothesis Testing	49
3.5.5.1 T-test	49
3.5.5.2 F-test	50
3.6 Conclusion	51
CHAPTER 4 DATA ANALYSIS	
4.0 Introduction	52
4.1 Description Analysis	53
4.2 Correlation Analysis	56
4.3 Regression Model	58
4.3.1 Pooled OLS Model	59
4.3.2 FEM Model	61
4.3.3 REM Model	63
4.4 Panel Data Analysis and Diagnostic Checking	65
4.4.1 Poolability Test	65
4.4.2 Breusch-Pagan Lagrange Multiplier Test	66
4.4.3 Hausman Test	67
4.5 Inferential Analysis	68
4.5.1 T-Statistic	68
4.5.2 The Best Model	70
4.5.3 F-Statistic	71
4.6 Conclusion	72
CHAPTER 5 DISCUSSION, CONCLUSION AND IMPLICATION	
5.0 Introduction	73
5.1 Summary of Statistical Analyses	73
5.1.1 Descriptive Analysis	73
5.1.2 Correlation Analysis	74
5.1.3 Regression Model	75
5.2 Discussion of Major Findings	77

5.3 Implication of the Study	79
5.4 Limitations of the Study	81
5.5 Recommendations for the Future Research	81
5.6 Conclusion	83

LIST OF TABLES

	Page
Table 3.1 : Data Sources	36
Table 3.2 : Listed of Plantation Companies in Malaysia	39
Table 4.1 : Descriptive Analysis (2008 - 2017)	53
Table 4.2 : Correlation Matrix	56
Table 4.3 : Result of Pooled OLS Regression Model	59
Table 4.4 : Result of FEM Model	61
Table 4.5 : Result of REM Model	63
Table 4.6 : Poolability Test Result	65
Table 4.7 : Breusch-Pagan Lagrange Multiplier Test Result	66
Table 4.8 : Hausman Test Result	67
Table 4.9 : Summary result of T-test from POLS, FEM and REM Model	68
Table 4.10 : Summary result of F-test from POLS, FEM and REM Model	71
Table 5.1 : Summary result of Hypothesis Testing	77

LIST OF FIGURES

	Page
Figure 2.1 : The effect of Corporate Governance on firm's capital structure of Plantation Listed Companies in Malaysia	30
Figure 3.1 : Data Processing Chart	40

LIST OF ABBREVIATION

BOI	Board of Independence
BPLM	Breusch-Pagan Lagrange Multiplier
CEODUAL	CEO Duality
DR	Debt Ratio
FEM	Fixed Effect Model
FS	Firm Size
KLSE	Kuala Lumpur Stock Exchange
MCCG	Malaysian Code on Corporate Governance
MLE	Maximum Likelihood Estimation
MO	Managerial Ownership
POLS	Pooled Ordinary Least Square
PPMAC	Pearson product-moment Correlation Analysis
PROF	Profitability
ROA	Return On Assets
ROE	Return On Equity
REM	Random Effect Model
SC	Securities Commission

PREFACE

This research paper is for Final Year Project (FYP) which it was started from January 2018 until September 2018 as well as it is submitted in partial fulfillment of the requirement for the course of Bachelor Administration (HONS) Banking and Finance. The development of this research subject is supervised by Encik Ahmad Harith Ashrofi Bin Hanafi.

The main focus of this research is to explore into further details regarding the effect of corporate governance since it serves as one of the key factors to affect the development of the capital structure of public listed companies in the plantation sector, Malaysia. Next, a better and clear insight along with guideline will be provided to the regulatory authorities and management teams of huge and public listed corporations to improve their corporate governance practice.

The final year project is completed solely by the authors based on their researches and other resources which were quoted as in references. The outcomes of this research paper were based on secondary data which is collected from Bloomberg as well as Gretl played a vital role to analyse, measure and interpret the reliability of those data. Lastly, we strongly believe that the knowledge that obtained from this research will be valuable in the future.

ABSTRACT

This study has a purpose of examining the effects of corporate governance on the firm's capital structure of listed companies in Malaysia from the year 2008 to the year 2017. This study covered a period of 10 years over 43 plantation companies listed in Bursa Malaysia. Besides, Pooled Ordinary Least Square (OLS) method was used to analyze the relationship between the dependent variable and the independent variables. The responding variable of this study is the capital structure which was calculated using the debt ratio. Meanwhile, the explanatory variables are firm size, CEO duality, managerial ownership, board of independence and profitability. Based on the empirical findings, only firm size are positively correlated with the debt ratio and CEO duality, managerial ownership, board of independence, and profitability exhibits a negative correlation with debt ratio. According to the t-statistic output, the explanatory variables which affect significantly affects the capital structure are firm size, board of independence, and profitability. Moreover, variables that do not significantly affect the capital structure are CEO duality and managerial ownership. The results conclude that managerial ownership and CEO duality are not strong predictor variables that can affect the capital structure of listed plantation companies in Malaysia.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

According to Alnasser (2012), corporate governance can be defined as a system which it consists a wide variety of practices, processes as well as standard rules for a purpose to make decisions in corporate affairs by balancing the interests of different types of stakeholders in societies. For instance, local governments, shareholders in firms, customers, board of directors, communities, investors and so many. In addition, the issues about the responsibilities and duties that performed by the board of directors in a corporate to lead corporate to the world and the relationships between the stakeholders and shareholders will be significantly influenced and concerned through corporate governance.

Due to it is considered one of the vital factors for the growth of economy in a country, it will provide benefits to companies such as it serves as a role to mitigate the exposure of risks by improving the performance of corporates and the investment capital from the foreigners or local investors will be attracted, resolving the conflicts of interest between the managers and company's owners, well-instilling internal controls to performance measurement and a sense of business ethics for every sphere of their management team (Borhanuddin, & Ching, 2011). In short, the aim for the companies applies the system of corporate governance is to facilitate the prudent, effective as well as entrepreneurial management for delivering the long-term profits in future.

Nowadays, it can be very tough and challenge to develop into a successful corporation by enjoying the high level of profitability if without maintaining a clean public image by building a high level of awareness and ethical behaviour among the employees (Kalyanaraman & Altuwaijri, 2016). When corporate governance is done properly by companies, they will take more responsibilities on

their shoulders as well as work smoothly since it exists a clear level of communication and accountability amongst the organization and an obvious understanding what their roles and responsibilities for their actions will be taken to influence the stakeholders, keep tabs on the current issues in local or foreign countries for affecting the strategic decision of their firms.

Moreover, good corporate governance that well-practiced by the corporates definitely will enhance the performances of firms by contributing to the shares prices of companies to increase the shareholders' values, bringing better management to create the environmental awareness and ethical behaviours and allocate the resources of companies in the most effective and efficient way. While the corporate governance is not demonstrated sufficiently will produce a doubt on the obligations, integrity as well as reliabilities of the company and it will greatly affect the financial health by decreasing the shareholders' values as soon as possible. Additionally, it will fail to produce the optimal incentive for their employees if applying the bad executive compensation packages as well as the ineffective corporate officers will be difficult for the shareholders to fire them when applying the poorly structured boards in companies.

Hence, it is a process for the businesses owners to direct and manage their businesses and affairs towards enhancing corporate accountability and business prosperity by realising the maximum shareholders' values while taking great care the other stakeholders' interests at the same moment.

1.1 Research Background

Initially, the concern of the corporate governance in Malaysia is originated from the event of Asian Financial Crisis which it has occurred in 1997 which made the failures of companies in public or private sectors as well as local or foreign investors that they lacked confidence started to withdraw their investment capital due to the depreciation of the currency. In addition, the term of corporate governance was decided by local governments to introduce and it is clearly stated in the codes and standard rules from the political economy perspectives to sustain the strong culture of corporate governance practice (Ponnu & Karthigeyan, 2010).

Besides, a voluntary code of prime practices for the corporate governance was introduced such as Malaysian Code on Corporate Governance (MCCG) in March 2000 to allow the shareholders and public to determine or access the criterion of corporate governance that practiced by all public listed corporations. Furthermore, there have several agencies for instance, Kuala Lumpur Stock Exchange (KLSE), Ministry of Finance, Securities Commission (SC) as well as the Registrar of Company will involve into the discussion of the corporate governance by generating a substantial amount of analysis about issues of macroeconomics, systematic stability as well as regulations of international investors for enhancing their good corporate management practices (Haniffa & Hudaib 2006).

After that, the code was revised few times during the recent years in 2007, 2012 and 2017 which is 2007 Code, MCCG 2012 as well as MCCG 2017 to improve its system to bolster the personification and obligations of the directors in the boards of corporations as well as to develop the culture of corporate governance in line with international standard (Singam, 2003).

1.2 Problem Statement

From the research studies of Salim and Yadav (2012), they had shown that the Asian Financial Crisis (1997-1998) is originated from Thailand, was due to the depreciation of Thai Baht to pay-off the massive borrowing in dollars. Nevertheless, this issue was spread through Asian markets and its neighbouring countries as a currency declines rapidly will cause the declining in stock market, reducing importing revenues as well as raising government upheaval. Additionally, the loss of confidence by local or foreign investors in all emerging market leads to a rapid growth in capital outflows and a fall in capital inflows which they are going to hamper the financial development and decrease the economic efficiency at the same moment. In short, the outcomes or result that obtained from the previous studies by the past researchers has confirmed that the corporate governance does influence the capital structure of the public listed corporations (Cheah, 2010).

The raise in a capital structure which it is leverage ratio of each public listed corporation is closely related to the limitations or weaknesses of corporate governance as well as this has been observed that the surge in leverage ratio has a formidable effect on the occurrence of Asian Financial Crisis (Elizabeth, Shobha & Amit, 2009). As a result, capital structure serves as an unsolved major problem to hit hard the 'Asian Tigers' which it includes the countries such as Indonesia, Singapore, Malaysia, Thailand, South Korea and China in the corporate sectors. Hence, the public listed corporations should maintain a low level of leverage ratio since it is the prime factor of corporate financing decision to ensure the best practices of corporate governance. Based on the research studies of Jiraporn, Jang-Chul, Young and Kitsabunnarat (2012), it reveals that the public listed corporations with poor corporate governance are significantly more leveraged as well as the daily operating profits during the financial crisis will be declined due to the poor financial performance in a country.

According to the research studies of Detthamrong, Chancharat and Vithessonth, 2017, they stated that a series of liquidity and profitability risks will be

encountered by the public listed corporations which it is caused by their capital structure, as it linked to corporation failures and financial crisis. Next, it does not only affect the total assets and liabilities from the particular corporate sectors and it will reduce the economic efficiency at the same moment. The higher the level of leverage ratio, the higher risk exposure will be faced by the corporations (Kumar, 2015). This is because when the leverage ratio is increased, it defines that the public listed corporations have a lot of debts relative to its assets as well as they could not meet the financial obligation on time since a bigger burdens are carried by them which the principal and interest payment will take a significant amount of the company's cash flows, and financial performance of corporations will be affected if there have any rising in interest rate will make default payment. Moreover, the high value in leverage ratio will create the failure of corporations because it indicates that the corporation has been aggressive in financing its growth with debts as well as there have a higher possible probability for financial distress if their business profits do not exceed the cost of borrowings.

Due to a vast array of internal factors that occurred in the huge and public listed corporations such as ineffective board of directors, weak internal controls, poor auditing as well as lack of inadequate disclosure had led to Asian countries to face severe problems with their economies along with the corporate sectors during the period of financial crisis (Naseem, Zhang, Malik & Rehman, 2017). Therefore, the purpose of this research study is to investigate the effect of corporate governance on capital structure of public listed corporations in the plantation sector of Malaysia. The explanatory variables are focusing around firm size, CEO duality, managerial ownership, board of independence and profitability while the responding variable is capital structure. In short, the association of those explanatory variables will be figured out whether they are significantly or insignificantly to affect the capital structure of the plantation public listed corporations which are located in Malaysia.

1.3 Research Objectives

1.3.1 General Objective

The general objective of this study is to investigate the effect of corporate governance of firm's capital structure of listed plantation companies in Malaysia. This investigation is carried out based on the study of 43 companies in Malaysia within the time period from 2008 to 2017.

1.3.2 Specific Objectives

The specific objectives of this study are to:

- i. To study the influence of firm size on capital structure of Malaysian plantation sector.
- ii. To study the influence of CEO duality on capital structure of Malaysian plantation sector.
- iii. To study the influence of managerial ownership on capital structure of Malaysian plantation sector.
- iv. To study the influence of board of independence on capital structure of Malaysian plantation sector.
- v. To study the influence of profitability on capital structure of Malaysian plantation sector.

1.4 Research Questions

The aim of this research is to indicate the effect of corporate governance of firm's capital structure of listed plantation companies in Malaysia. 5 research questions of the proposed study are as follows:

- i. Is the firm size significantly influences the capital structure?
- ii. Is the CEO duality significantly influences the capital structure?
- iii. Is the managerial ownership significantly influences the capital structure?
- iv. Is the board of independence significantly influences the capital structure?
- v. Is the profitability significantly influences the capital structure?

1.5 Hypotheses of the Study

1.5.1 Firm Size

H_0 : There is no significant relationship between the firm size and capital structure.

H_1 : There is a significant relationship between the firm size and capital structure.

1.5.2 CEO Duality

H_0 : There is no significant relationship between the CEO Duality and capital structure.

H_1 : There is a significant relationship between the CEO Duality and capital structure.

1.5.3 Managerial Ownership

H_0 : There is no significant relationship between the managerial ownership and capital structure.

H_1 : There is a significant relationship between the managerial ownership and capital structure.

1.5.4 Board of Independence

H_0 : There is no significant relationship between the board of independence and capital structure.

H_1 : There is a significant relationship between the board of independence and capital structure.

1.5.5 Profitability

H_0 : There is no significant relationship between the profitability and capital structure.

H_1 : There is a significant relationship between the profitability and capital structure.

1.6 Significant of the study

In this research, researcher narrow down the range of this study centres on the effect of corporate governance on firm's capital structure of plantation listed companies of Malaysia. The aim of this study is to investigate how powerful the corporate governance can affect the capital structure of plantation firm, and provide more information through the result. The variable of the corporate governance includes Firm Size (FS), CEO Duality (CEODUAL), managerial Ownership (MO), Board of Independence (BOI), and Profitability (PROF). This study helps to explain how the five variables affect the performance of the plantation firm and the relation between them.

Besides, this study promotes the importance of corporate governance to future researcher and plantation firm. This research provides more detailed information that helps the firm to improve their performance by using the corporate governance variables. Plantation firm is able to prevent losses when they understand the situation and the correlation between the variable of corporate governance and their capital structure. This motif of the research could help plantation based on the message of the study to overcome the problem of corporate governance.

Other than that, this study using leverage ratio to determine the capital structure, and leverage ratio is one of the key factors of global financial crisis. So that, this research will be more or less helping the future researcher to have more in-depth knowledge about the indirect effect of the financial crisis. This research, showing a lot of benefits for plantation companies to improve their performance, prevent losses from the variation in the corporate governance, and also can indirectly predict the financial crisis.

1.7 Chapter Layout

1.7.1 Chapter 1: Research Overview

This chapter explains the overview of this research by explaining the background of this research. It follows by the research background, problem statement which expresses the core idea of the study, research objectives to find out the purpose of the study, the research questions, the hypothesis of the study, and the significance of the study, the chapter layout and the conclusion. The research objectives are categorized into general objectives which outline the broad objective and specific objective which explain a more specific objective. The conclusion only provides the summary of chapter 1.

1.7.2 Chapter 2: Literature Review

This chapter allocate the literature and theoretical models of the previous study. The theoretical framework explains the relationship between the 5 variables which include the FS, CEODUAL, MO, BOI and PROF. Besides, it also provides the introduction, review of the literature, theoretical model, conceptual framework which provide the relation amid the important variables, hypotheses development shows the testable hypotheses to develop the reasoning in the framework and conclusion of chapter 2.

1.7.3 Chapter 3: Methodology

This chapter mainly focuses on describing how the data collection method and the test are carried out in this research paper. It consists of the introduction, sampling, and last but not least the conclusion of this chapter. The sampling includes the research design, data collection method used to collect the data, sampling design, data processing to describe the steps involved in analyzing the data, data analysis to show the technique applied in the study and lastly conclusion. This chapter accords a clear picture of this research from the process of collecting data stage to the final stage which altering the data into functional information.

1.7.4 Chapter 4: Data Analysis

This chapter will analyze the information took from Bloomberg of all the 43 listed plantation companies in Malaysia and it will be analyzed through the Gretl. Thus, the results from the Gretl output will be discussed in further. It includes the introduction, descriptive analysis, scale measurement, inferential analyses which examine the relationships between the variables, and conclusion of chapter 4.

1.7.5 Chapter 5: Discussion, Conclusion and Implication

This chapter will be summarized the general conclusion throughout all the chapters. The research findings and relating hypotheses developed will be further discuss followed by the policy implication for the future researcher. Besides, the recommendation will be further discussed as well as the limitations of this research are disclosed and scopes faced by the future researcher.

1.8 Conclusion

This chapter had covered the overview of the corporate governance's background in Malaysia and to justify on the related variables to study the effect of firm's capital structure of listed plantation companies. Besides, the research questions and objectives and the significances of the study had been evolved in this study. In the following chapter, the literature review of the past relevant studies which are related to the capital structure and the relationship of the explanatory variable which include the FS, CEODUAL, MO, BOI and PROF will be further discussed.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter attempted to allocate analysis of the associated journals and articles which are related to this research topic which is the effect of corporate governance on firm's capital structure of listed plantation companies in Malaysia. Therefore, the literature review of our study will be discussed based on the relationship between the responding variable which is the capital structure and the five responding variables which include the FS, CEODUAL, MO, BOI and PROF. First, the disagreement of the past researcher's research or literature between the responding variable and all the explanatory variables will be discussed in this study. Lastly, the theoretical framework and hypothesis development will assess the relationship between the variables will also be conducted in this study.

2.1 Review of Relevant Theoretical Models

2.1.1 Agency Theory

The agency theory is defined as agency relationship and transaction relationship between principal and agent. The agency relationship is built when individual or group hires another person to exercise the task and

making the decision on their behalf, and they also delegating authority to the person (Jensen & Meckling, 1976; Ross, 1973). It can be applied to the different position, for instance, the nexus between the firm's owner and chief executive or regulatory agency and a utility under its jurisdiction. According to the research, there is two main function of the agency theory; it helps to explain the nature of contract when people making the decision without conscience, it also shows the negative consequence of social and economic systems of limited opportunities behavior (Noreen, 1988). However, the agent will be the barrier to shareholder wealth because the best interests of the agent are different from the best interest of shareholder (Jensen & Meckling, 1976).

Besides, the agency theory can be applied to test the internal auditing practice. According to the research of Adams (1994), it benefits the internal auditing profession in three areas of current interest, such as the agency theorists help to explain the employment of internal auditors as a strategy for the manager to reduce the cost of the statutory audit without reducing the coverage of the audit. Next, the outsourcing of internal audit services to public accounting firm is the emphasis on internal auditing profession internal. Agency theory could forecast the organization that operating in more complicated business environments will be less likely to outsourcing the internal auditing function compare to the organization that operating in the less complicated business environment. Other than that, it also helps to forecast how the internal auditors will be affected by organizational rearranging and rationalization (Adam, 1994).

There several restrictions of agency theory, first key prescription of the theory are principals using inner controls to limit the selfish behavior of the agent in order to minimize the agency cost (Jensen & Meckling, 1976; Davis et al., 1997). Besides, in the past research state that agency theory prescriptions have very weak relation or no association, there is only the objective of incentives compensation and partial ownership schemes amid the principal and agent (Bohren, 1998; Balkin et al., 2000). However, incentive received by the agent will lead them to maximize their utility and this will also raise the value of the firm.

2.1.2 Stewardship Theory

According to Larson (2013), stewardship theory assumes a manager as a steward of the company with behaviors and objectives are parallel with the owners of a particular business. Keay (2017) says that stewardship theory provides a substitute option in conceptualizing the principal and agent relationship and it also has been used by the board members and managers of the firm. According to Davis, Schoorman, and Donaldson (1997), this theory means a circumstance where the managers of a firm are not encouraged by individual objectives whereas there are stewards who are highly influenced to achieve the objectives and principals of the company. The agency theory and stewardship theory is almost similar but the difference between them is that stewardship theory says that agents or principals who act as stewards will not be concerned about their own economic interest like agency theory. Meanwhile, they would want to work in the best interest of their corporation and therefore they will prefer to work in collectivism rather than self-serving benefits because they believe that working towards their organizational goal makes their personal needs are fulfilled.

According to Donaldson and David (1991), under stewardship theory, the executive managers would always want to perform well and to be a good steward of the corporation. Applying stewardship theory, there are no general issues of executive motivations. Due to there are no problems among the executives, how well the executives can achieve a better corporate performance has been a question among the researchers. Therefore, stewardship theory explains that the performance of the executives may change due to structural situations in which the executives were placed makes it easier for the executives to take effective measures. Does the organization structure help the executives to plan for a much higher corporate performance (Donaldson, 1985). These structures are

useful especially for the CEO's of the company to deliver excellent performance.

Besides, Luan and Tang (2007) say those outside directors are unnecessary because they are not helpful for the growth of the firm. When this theory is applied, the executive managers or stewards are assumed to work collectively. Therefore, controlling and monitoring of outside directors are not needed and is not necessary. According to Davis et al. (1997), stewardship theory will benefit the outside owners because the profit and share dividends will increase and there will be positive effects with the principals of the firm because steward's objectives are aligned with the firm's objective and goal. A steward contributes a positive strong relationship with their principals because the success of an organization increases the principal's satisfaction. Thus, a steward elevates firm performance and helps the shareholders to maximize their wealth and this helps a steward to maximize their utility function.

2.2 Review of the Literature

2.2.1 Capital Structure

In this research, this study is using the leverage ratio to determine the responding variable which is the capital structure. The leverage ratio is an additional practical tool to replenish minimum capital adequacy requirement, it also an important tool that related to global financial crisis (Hulster, 2009). As the researchers know that financial crisis will occur every 10 years, due to this, this study is choosing the leverage ratio to determine the capital structure. According to Baker and Wurgler (2002), they said that the variation of leverage ratio can illustrate capital structure

outcomes; it means that the temporary fluctuation in the market valuation will cause permanent changes in capital structure.

Moreover, the leverage ratio is intensely influenced by the explicit and implicit investor insurance schemes of the financial firm such as deposit insurance (Rajan & Zingales, 1995). So that this study using plantation companies and reject the sample from the financial firm such as banks and insurance companies. Besides, Hildebrand (2008) argue that excessively high leverage are the main factor in making an ultimately financial system become extremely delicate and weak. Other than that, leverage also playing a critical role of driving force in generating the market conditions that would cause the crisis, for instance, the inevitable deleveraging on the downside of the cycle would severely magnify the size of the crisis (Corrigan, 2008).

According to the dedication of the past research, the leverage ratio rules shows that the leverage delivers the link between the maximum leverage ratio and the probability of bankruptcy (Jarrow, 2013). They prove that the higher the leverage ratio of companies, the higher the probability of companies getting insolvency. Furthermore, most of the researchers such as Baker and Wurgler (2002), Rajan and Zingales (1995), they determine that the leverage ratio using book debt to total asset and ratio of short term and long term debt divided by the total asset.

2.2.2 Firm Size affecting Capital Structure

First and foremost, definition of the firm size refers as the staffs per corporate, sales in monetary units per firm and value-added per company such as operating costs of the company (Onofrei, Tudose, Durdureanu and Anton, 2015). According to the academic journal of Blease, Kaen, Etebari and Baumann (2010), firm size can be measured in numerous ways such as total sales revenues of a firm, aggregate amount assets in a

company, some of the employees in corporate and market capitalization of a company. There will be several types of firm sizes in a country such as microbusiness, small business, medium-sized business as well as large-sized businesses. Furthermore, there are many empirical studies on the association amid firm size as well as the leverage ratio.

According to the finding that found by Antoniou, Yilmaz and Paudyal (2008), they have used the methods of panel data analysis as well as two-step system-GMM procedure to determine the nexus between the firm size and leverage ratio in 4,854 listed companies in five countries which were France, Germany, United Kingdom as well as United States. Similarly, from the findings done by Olawale, Ilo as well as Lawal (2017), the researchers also constituted that the firm size has a direct association with leverage ratio of a corporation by applying the panel data analysis on 12 listed firms in Nigeria Stock Exchange. From their past studies, they stated that the firm size has the positive effect towards leverage ratio. The larger the sizes of firms, the higher debt capacity of companies which it defines as the companies will easily to raise the debts as compared to the smaller firms. This is because the researchers believed that the larger corporates will have lower bankruptcy probability since they will diversify their investment portfolios to mitigate the exposure of a wide variety of risks such as financial distress risks. Thus, the larger size of companies will have less volatile earnings since they are well-diversified their portfolio which it may lead to the savings for debt issuance

Moreover, Chepkwony (2015) also showed that increasing in the size of a firm in term cost. of expansion through acquisition of assets and investments will more easily to raise the leverage level of a firm by applying the method of descriptive and inferential statistics to determine the relationship between these two variables in the listed company of Nairobi Securities Exchange, Kenya. He stated that when the leverage level of a firm is increased, then the riskiness of a company will grow at the same time. Hence, the company should make the wise investment

decision by diversifying the investment projects to decrease the leverage level of a company to prevent the shortage of cash flows for meeting the liabilities or obligations of the company. In short, the bigger the size of a company will more easily to gain the capitals from the outside parties such as local or foreign investors, households, governments and so on. At the same moment, the availability of these funds from these parties enables the companies will easily to access the investment opportunities to provide a high return for them as well as expand the company towards worldwide.

In the other hands, Marete (2015) found firm size has a direct relation with leverage ratio instead of negative sign by studying 64 listed companies in Nairobi Securities Exchange and he applied different types of econometrics test such as regression analysis, descriptive statistics as well as Pearson product-moment Correlation Analysis (PPMCA) for checking the association between these two variables. In his previous studies, he mentioned that the larger the size of firm will tend to have more information about financial market which it will decline the level of information asymmetries as well as it had high chance to obtain the financial resources from lenders for satisfying the liabilities that arising from contractual debt and improving the financial performance of company at the same time. In short, the larger firms are more steady and stable as compared to the smaller firms since they can lightly diversify their investment projects for preventing any substantial or potential losses will happen in future as well as they will enjoy the tax reduction and reputational advantage among prospective investors to create more investment opportunities.

In other hands, this outcome is similar to the findings obtained by Gonzalez and Gonzalez (2012). They also stated that the firm size has significant effect to leverage ratio of the company by using dynamic panel data tests on 349 firms in Spanish. This is because the solvency of large listed company will be monitored by credit rating agencies to reduce the issue of information asymmetries between two parties who are

the company as well as outside investors. Also, the information about the stock exchange of large listed companies is compulsory to submit frequently and they will allow the financial analysts to evaluate their company's performance on regular basis for minimizing the level of information uncertainty for these corporates. Unlike the smaller and unlisted firms are compulsory to produce an annual report on the annual basis as well as their performance of companies is seldom evaluated by external or internal auditors. In short, the capability of larger listed firms to decrease the problem of information asymmetric is higher than the smaller non-listed company.

Nevertheless, there have several studies found that the firm size and leverage ratio have a negative relationship instead of the positive relationship. According to Onofrei, Tudose, Durdureanu and Anton (2015), they discussed the size of the firm has negative association amid the leverage ratio in their research area which is in 385 listed companies that located in Romania by using correlation analysis to test the relationship between two variables. Also, the finding was similar to Abel (2008) who also mentioned that the firm size does not influence the leverage ratio of a company by studying 71 listed companies in Nigeria Stock Exchange. From their findings, they concluded that the larger listed corporates will have more chances to enter into equity market as well as they are more easily to accumulate the financial resources from shareholders in the companies for financing their daily business operations as compared to the smaller firms because they have difficulties to enter into external financial market to obtain the additional funds from external parties. Hence, the larger listed firms will have less external obligations when they are located in the countries along with the undeveloped capital markets.

2.2.3 CEO Duality affecting Capital Structure

According to Fama and Jensen (1983), they recommended that management function should be separated from controlling function whereas decision-making function should be separated from decision function. These means that the role of highest manager of the decision-making process (CEO) and the highest controller of the decision-making process (BOD Chairman) should be separated. Different researchers found mixed result during the testing on the link between CEO duality and leverage. According to Abor (2007), it is proven in his research that CEO duality is positively associated to the leverage ratio. In this research, debt ratio is the responding variable which measure the relationbetween the left-side variable and the right-side variable. He also revealed that listed company usually has high debt policies with CEO duality. Besides, Bokpin and Arko (2009) also observe a statistically direct and irrelevant relation between CEO duality and leverage ratio. It is said that established CEOs preferably use debt capital to finance the operations run by the company rather than issuing new equity. According to Ranti (2013), it is proven in the research that CEO duality is positively significant to debt to equity ratio. This relationship designate that CEO duality in a business usually minimizes the complications involved in the split of ownership and control and it also mitigates asymmetry issues. Thus, this can be explained as CEO duality increases a company's debt usage. CEO duality is found to have the positive insignificant relationship with three debt ratios in the research conducted by Abobakr and Elgiziry (2015). The three debt ratios that were used are total debt to asset ratio, long-term debt to asset ratio, and short-term debt to asset ratio. In the research made by Uwuigbe (2014), the findings designate there is the positive significant relation amid the CEO duality and the capital structure of listed companies in Nigeria. Furthermore, CEO duality reduces communication problems in unpredictable situations hence this

creates a strategic decision since. This result is parallel with the result of Mokarami et al (2012) which proves that CEO duality has the positive correlation with debt ratio which indicates CEO duality use more debts in their capital in the study made in Iran.

In contrast, CEO duality is said to have the reverse relation with total debt ratio and long-term debt ratio but it is statistically irrelevant (Sheikh and Wang, 2012). They reveal that if the CEO becomes the moderator of the board in a company, he or she might favour to use less debt to mitigate strain and problems involved along high leverage. In this research, they used two leverage ratios as their responding variable to examine their relationship with CEO duality. The first ratio used is the total debt to total asset, where the total debt is the sum of short-term debt and long-term debt. The second ratio used is long-term debt ratio. According to Fosberg (2004), companies with a split in the CEO position and the post of the Chairman of the board, have enough debt ratios using high leverage ratio meanwhile the relationship was not statistically significant. In aligning with this statement, Fosberg (2004) also said duality leadership companies possess high debt to equity ratio (leverage ratio). This can be explained as separation of ownership and control problems can be minimized with duality leadership. In his research, Forsberg initiate that CEO duality has the negative significant relation with leverage. The responding variable used in this research is the debt to equity ratio which was utilizes to calculate the relation between the explanatory variable and the responding variable. He explained that firms with two-tier leadership have higher debt to equity ratio but it has a statistically insignificant relationship.

Hence, CEO duality will be valuable for part of the companies although the division of CEO position and Chairman Post is likely valuable for other firms.

2.2.4 Managerial Ownership affecting Capital Structure

The managerial ownership is owned by the block holders and insiders, where the insiders are well known as the company's director and the officers. Besides that, the managerial ownership has a stake in the businesses with the board members shareholdings (Davies et al., 2005). The board of directors has the competence to assemble the importance of financial policies, and hence it is sensible that the members have a suitable stock ownership that can incentivize to distribute the effective monitoring and supervision of the importance in the corporate settlement (Bhagat & Bolton, 2008).

From the research of Leland and Pyle (1977), Kim and Sorensen (1986) and Stulz (1988) also mentioned that there was a direct relation amid managerial ownership and leverage ratio. These authors indicated the firms with the remarkable managerial ownership have the higher leverage ratios compared with the companies with the lower managerial ownership, and this served to circumvent the cost of the outermost equity. The employ of the debt resolve lessen the needs from the outermost sources thus it will improve the managerial ownership.

Kim and Sorensen (1986) reported there is a direct relation amid managerial ownership and leverage ratio. The results stated that owners with a huge managerial ownership firm will attempt to circumvent to reduce their control over the companies by distributing more debt. The benefit of issuing debt occurs from minimizing the agency cost of external equity financing. This benefit offsets the margin by the agency costs of the debt in the incremental with the disadvantage of the debt financing. It depends on the observational issue whether it is certain that the agency costs of external equity can reinforcement to enlighten the corporate debt policies. However, if the agency costs of external equity are certain to influence by the corporate debt policies, it might have to

absorb the effective features of either the agency costs of debt or costs of equity.

Besides, the findings of Agrawal and Mandelker (1987) had proven that there is a positive interconnection amid the managerial ownership and leverage ratio. The studies implicated that the greater the managerial ownership, the higher the outstanding of the manager's enthusiasm to obtain the financial risk that affiliated upon the rising of the debt that is significant if the manager claps an outstanding share of capital.

Berger et. al. (1997) explained that there is a positively related to the managerial ownership and leverage ratio. These findings are compatible with the interpretation that the managers who have a financial incentive that is more closely tied to the stockholder's wealth will seek for more capital structures that will escalate the value of the firm. However, the findings also encourage the belief of Stulz (1988) that the managers might vigour the leverage by consolidating the voting control.

On the other way, Friend and Lang (1988), Jensen et al. (1992), Bathala et al. (1994), Chen and Steiner (1999) mentioned that there is a reverse interrelation amid the managerial ownership and leverage ratio. The high leverage ratio will increase the risk of the managers who have ownership of the firm relative to shareholders. This might because the managers to face a high possibility of losing their career if the firm utilizes a higher level of the leverage ratio and the risk of bankruptcy will tend to increase the excessive utilize of debt according to the quantity of the value reduced in the firm. Thus, the managers will attempt to lessen the risk of their job losses and personal wealth by decreasing the leverage.

However, the research of Abor (2008) documented that there is a negatively to the managerial ownership and leverage ratio. It can be made clear that SMEs with the higher members of shareholding perhaps to be preferred to choose the lesser leverage to lessen the insolvency risk. The insider members of shareholder acquire the tendency on a huge proportion of the particular wealth which is devoted in the company's shares; therefore, it frequently unwilling to employ more debt to finance

into the corporation due to the bankruptcy risk which is correlated with the use of the debt financing.

As a conclusion, these study certain that there is a direct interconnection amid the managerial ownership and leverage ratio.

2.2.5 Board of Independence affecting Capital Structure

Board of independence is commonly known as board composition that it will reflect the company structure of ownership. For instance, they are non-executive or external directors who are not dominated by the executive power of board members as well as they are independent of the shareholders and management of companies. It is a majority group of board of members who are outsiders which it defines as that they do not have any relationship with the firms and they have never worked in the companies as key players or major employees.

Many researchers had studied the relationship between the board of independence and leverage ratio. In spite of this, most of the results pointed out that board of independence and leverage ratio are highly negatively related. However, there are opposing viewpoints between these two variables.

First and foremost, Rajangam, Sundarasan & Rajagopalan (2014) have used Maximum Likelihood Estimation (MLE) to found out the relationship between the board of independence and leverage ratio of listed companies in Malaysia. The finding mentioned that the number of independent directors on corporate boards will not influence to the better leverage ratio of their companies. This is because the board of independence will play a critical role or responsibility to low down the level of gearing ratio by monitoring the companies more effectively and efficiently for surviving in the particular industry. Similarly, Almania (2017) also mentioned that there has an inverse connection amid the

relative amount of non-executive directors in companies with leverage ratio of listed firms in Arab Saudi by applying the method of panel data. Generally, the independent directors are the experienced individuals that appointed by the main shareholders to monitor the management team of companies for accomplishing preferable performance in corporations which is low leverage ratio. As a result, the corporations that they have the high percentage of independent directors on their boards appear to have a low leverage ratio since they can raise the debt financing more easily to improve the credibility of companies and corporate standards in future.

The board of independence contains a negative reaction to the leverage ratio of one company (Chepkwony, 2015). Based on this journal, the leverage ratio is declined due to the high number of non-executive board members in the firms which listed in Nairobi Securities Exchange by applying the methods of correlation and regression. This is because the non-executives board members will make the independent decisions to reduce the fault for the business operations as well as they do not have any self-interest unlike the managers in the company. By increasing the number of external directors may improve the performance of the board of independence since they can direct the top management effectively and efficiently which it will decrease leverage ratio as compared to those companies which it consists less amount of members of board endence.

Besideindeps, Abdoli, Lashkary & Dehghani (2012) had stated that the board of independence has an inverse relationship with the leverage ratio in the listed companies of Tehran Stock Exchange by applying the method of fitted model and varieties types of Pearson correlation coefficient. According to this journal, the previous researchers found that the non-executives members are not reliable in the companies which are located in Iraq because they are not the internal auditors of corporates as well as they have low chances or probabilities to alter the financial reports of firms. When the board of independence is increased in companies, it can improve the performance of firms and mitigate the conflicts of interest for monitoring management in the most effective and

efficient way. In short, the leverage ratio will be decreased when the numbers of non-executive members in companies are increased in future.

According to the academic journal of Ganzeboom (2014) also figured out there has inverse association amid the board of independence and leverage ratio in his study which is Dutch listed company by applying multiple regression analysis respectively. The findings mentioned that the leverage ratio will tend to be lower when the per cent of members on the board of independence within the listed company in Dutch is high. When the top management is directed more effectively and efficiently by outside directors, they will lead the employees to adopt the lower leverage which it will decline the level of liabilities for avoiding the possibility the company will face the bankruptcy issue. In short, the managers will follow the instructions of outside directors by lowering the debts of the companies to prevent performance pressures associated with the commitment to their wages and commissions, and then the performance of companies will be improved in future.

From the findings done by Jaradat (2015) as well as Abor (2007), the researchers had mentioned that the board of independence is positively related to the leverage ratio. They carried out their studies and explored a different viewpoint to the board of independence will increase leverage ratio in Jordanian and Ghanaian listed firms. Next, they also explained that the board of independence will monitor the actions of management teams in companies and force them to create the value of companies and maximum shareholders' wealth at the same moments. On the other hands, the researcher had pointed out the non-executives directors will pursue the high debt policy to increase the leverage ratio and additional external funds or capitals and tax shield benefit will be obtained by increasing the amount of non-executives directors in companies.

2.2.6 Profitability affecting Capital Structure

Profitability is the revenue gain of the company; it can be measured in several ways such as Return on Assets (ROA), Return on Equity (ROE), and the depreciation to total assets, the ratio of earnings before interest and tax. From this research, we found that the profitability can also be one of the determinants that affect the leverage ratio. According to the research of Chen (2004); Huang & Song (2006); Bahbra, et al. (2008); Qian et al. (2009) they found that the profitability and leverage have a reverse relationship. Their research area was located in China listed company. However, Kester (1986) also found that negative interrelation between profitability and leverage in US and Japan.

According to Chen (2004), there is a reverse relation between the profitability and debt, they utilize the measurement of deflation of total debt to total assets ratio, total assets ratio, earnings before interest and tax for leverage along with profitability respectively. Owing to the reason of the capital resources, the strained and the bond market is underdeveloped. In order to get numerous capital gains in the secondary markets, the listed firm will have to utilize the equity finance in preference than the debt financing. Thus, equity finance is preferred to the debt. From the research of Huang & Song (2006), the profitability is intensely reversely related to the leverage, because the results show that the empirical analysis proves that when the ROA increases, the total liabilities and market total liability ratio will decrease sharply.

Besides, there are reasons that indicate why the profitability is reversely related to the leverage. If the company is making a profit but unable to repurchase the shares and pay the large dividend; it will cause the debt ratio to decrease or at least below (Bahbra et al., 2008). Other than that, the firm cash flow of the year can be used partially to cut down the level of its debt even when the current profitability is a major factor of the

firm's leverage (Qian et al., 2008). Moreover, there is a finding said that the debt ratio of more profitable firm declines less than other firms with the high stock return (Kayhan & Titman, 2007).

According to Titman and Tsyplakov (2005) and Strebulaev (2004), they stated that if more profitable firms turn into more valuable, the profitability will lead to decreasing the debt ratio, which holding their debt level constant, results in the lower debt ratio. Furthermore, some of the research claims that the high levels of profitability continue to be regularly correlative with the low levels of debt (Booth et al., 2001). Besides, according to the research of Wald (1999), coefficients of profitability are negative in five countries, which are France, United State, Japan, Germany, and United Kingdom, especially in United State and Japan. From the results, if one standard deviation increases in the profitability, the long-term debt to asset ratio in Japan and United State will decrease to 4.8% and 9.6% respectively. Thus, they claim that the profitability is the single largest determinants of debt over the asset ratio (Myers, 1989).

2.3 Proposed Theoretical / Conceptual Framework

Figure 2.1 : The effect of Corporate Governance on firm's capital structure of Plantation Listed Companies in Malaysia.

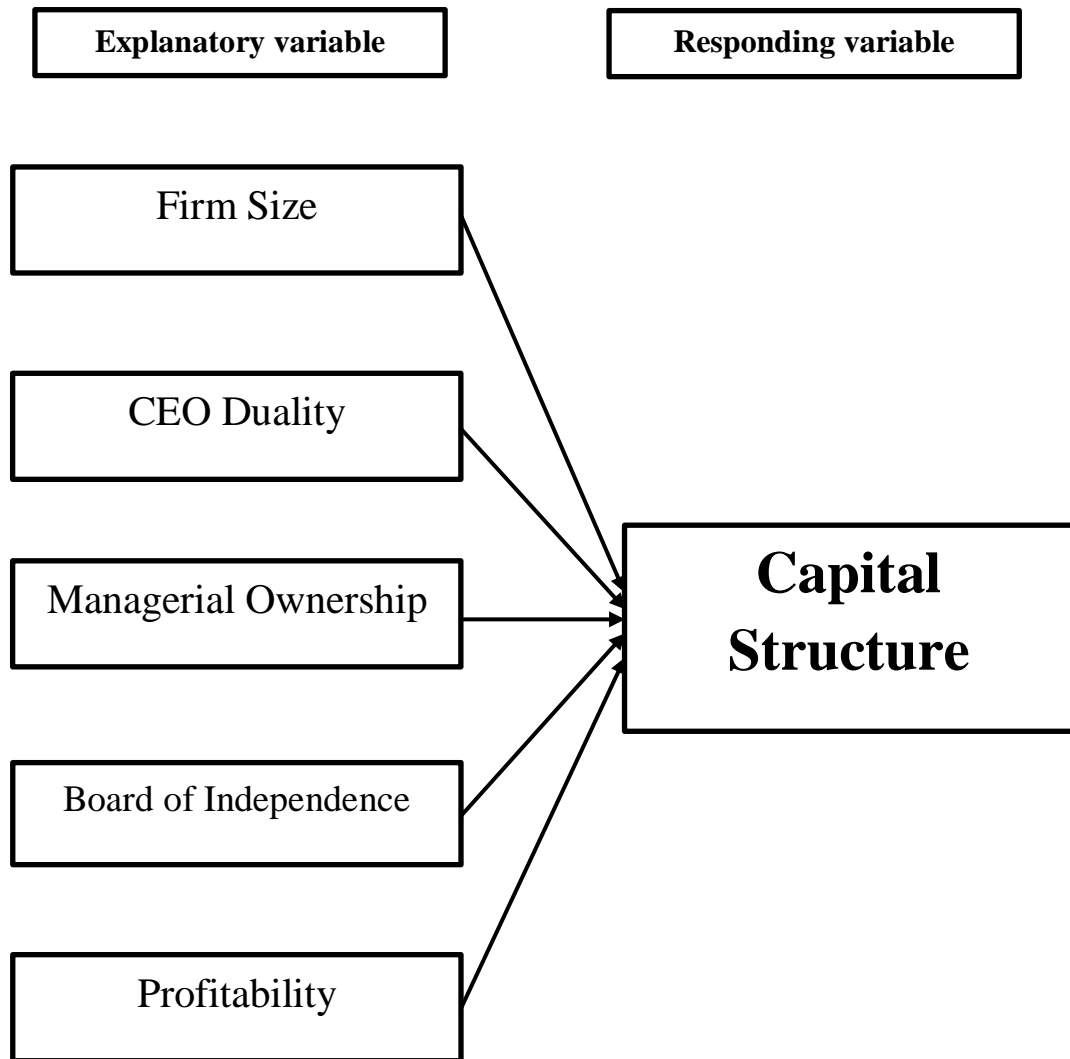


Figure 2.1 indicated to ascertain the relation between the responding variable and five explanatory variables. The conceptual framework of this research is to investigate the effect of corporate governance on firm's capital structure of the listed plantation companies in Malaysia. Based on the figure above, the responding variable is the capital structure while the five explanatory variables include the FS, CEODUAL, MO, BOI and the PROF.

2.4 Hypotheses Development

The hypothesis testing is composed to explore the between responding variable as well as the explanatory variables. In addition, H_0 will describe the explanatory variable has not corresponding interconnection towards the responding variable while H_1 will describe the explanatory variable has important interconnection towards responding variable. Assumed that if this study reject H_0 and accept H_1 which it mentions that there has an important interconnection amid explanatory and responding variables. The hypotheses are formulated as below:

2.4.1 Firm Size

Olawale, Ilo and Lawal (2017) found that the firm size is directly related with the leverage ratio of firm by applying the panel data analysis on 12 listed firms in Nigeria Stock Exchange. They stated that the larger the sizes of the firms, the higher the debt capacity of the companies which it defines as the companies will easily raise the debts as compared to the smaller firms.

H_0 : There is no significant relationship between the firm size and capital structure.

2.4.2 CEO Duality

According to Abor (2007), stated that the listed company usually has a high debt policy with the CEO duality. Ranti (2013), proven that the CEO duality in a company usually minimizes the issues related to the disconnection of the ownership and control. Besides, it also mitigates information asymmetry problems.

H_0 : There is no significant relationship between the CEO Duality and capital structure.

2.4.3 Managerial Ownership

Kim and Sorensen (1986) stated owners with a high managerial ownership firm will attempt to circumvent the diluting of their command over the firm by furnishing more debt. The advantage of issuing more debt usually occurs from minimizing of agency cost of the external equity financing.

H_0 : There is no significant relationship between the managerial ownership and capital structure.

2.4.4 Board of Independence

Rajangam, Sundarasan & Rajagopalan (2014) have indicated the number of the independent directors on the corporate boards will not influence the leverage ratio of their companies. This is due to the board of independence because they play a critical role or responsibility to lower down the level of gearing ratio by monitoring the companies more effectively and efficiently for surviving in a particular industry.

H_0 : There is no significant relationship between the board of independence and capital structure.

2.4.5 Profitability

According to Chen (2004), he says that due to the reason of the capital resources, the strained and the bond market were underdeveloped. However, in order to get numerous capital gains in the secondary markets, the listed firm must use the equity finance rather than the debt financing.

H_0 : There is no significant relationship between the profitability and capital structure.

2.5 Conclusion

The previous literatures that done by past researchers have summarized in sequence to investigate how the explanatory variables will impact on the leverage ratio of Malaysia listed companies in plantation sector in chapter two. The relevant theoretical model have provided with the relevant explanatory variables which are PROF, BOI, MO, CEODUAL as well as FS and responding variable which is companies' capital structure. Moreover, the methodology of this research will confer in the upcoming chapter.

CHAPTER 3: METHODOLOGY

3.0 Introduction

The methodology will be further explained in details in Chapter 3. The intention of this research study is to classify the variables, namely Firm Size, CEO Duality, Managerial Ownership, Board of Independence and Profitability. The data are collected from Bloomberg for each company is used in various forms of methodologies. Besides, the method that employed to carry out in this research is Gretl. This chapter consists of several parts to describe how this research study will be implemented in connection with the research design, data collection methods, sampling design, data processing and data analysis.

3.1 Research Design

Firstly, the aim of this research is to investigate how the corporate governance effect on the firm's capital structure of Malaysia public listed companies in the plantation sector. There are a total of 43 plantation companies under Bursa Malaysia which had been chosen as a target population in this research. Due to the knowledge from the past research studies about corporate governance systems and practices in plantation sector which it is located Malaysia is still limited. Hence, a brief justification which it is regarding the independent variables are required in this research will be written for better understanding.

A global financial crisis was happened during the period of the years 1997 to 1998 due to the weak corporate governance and worse economic prospects (Johnson,

Boone, Bewach and Froedman, 2000). This study consists of a relationship between the responding variables which is the Capital Structure and five explanatory variables which includes the FS, CEODUAL, MO, BOI and PROF.

Moreover, panel data analysis will be practiced for conducting this empirical research as well as 43 plantation corporations for 10 years period are chosen to be explore in the research. Following that, a quantitative research design will be implemented by applying secondary data which it can be obtained from the annual report for each selected companies. Quantitative research is subjected and quantified to the statistical methods adapted to encourage or confute the information of the relation (Creswell, 2003). The secondary data were assembled from the Bloomberg for the time period of the sample annually from 2008 until 2017 which are provided in the Universiti Tunku Abdul Rahman (UTAR) Library. The diagnostic tests of correlation analysis, Poolability hypothesis testing, Breusch-Pagan Lagrange Multiplier (BPLM) test, Hausman test, T-test, F-test are carried out to be observed in the regression model. The software mechanism (Gretl) is utilized to compute the data of the variable to further study the responding and explanatory variable.

3.2 Data Collection Methods

There are two ways data collection can be collected which include the primary data and secondary data. However, the secondary data utilizes in this research to acquire nexus amid the corporate governance and capital structure of firms. Furthermore, secondary data are collected from the Bloomberg on the listed plantation companies in Malaysia. Also, the data for this study is a panel data where there are a total of 43 companies as well as the data were collected from the Bloomberg for each company within the year 2008 to 2017.

3.2.1 Secondary Data

Secondary data is being congregated from other sources (BusinessDictionary.com, n.d.). This study is executed based on the secondary data. The data is obtained from the Bloomberg, which able to further justify the effect of corporate governance towards capital structure of the firms. Meanwhile, the responding variable is the capital structure of the selected companies in plantation sector while the explanatory variables include the FS, CEODUAL, MO, BOI and PROF. The main sources of this study are taken from journals, articles and online information that are able to strengthen in this research objective for determining the effect of corporate governance on the capital structure of firms in the listed plantation companies in Malaysia.

Table 3.1 Data Sources

Variables	Proxy	Description	Unit Measurement	Sources
1. Explanatory Variable				
Firm size	FS	Natural logarithm of total asset (Siromi and Chandrapala, 2017).	Natural log	Bloomberg
Firm size = Log (total asset)				
CEO Duality	CEO dual	CEO duality is a dummy variable. Value of (1) is assigned if the same person occupies both the post and (0) if otherwise (Gill and Mathur, 2011; Siromi and Chandrapala, 2017).	Dummy	Bloomberg

THE EFFECT OF CORPORATE GOVERNANCE ON FIRM'S CAPITAL STRUCTURE OF
LISTED COMPANIES (PLANTATION) IN MALAYSIA

Managerial Ownership	MO	Measures by the per cent of shares held by the directors (Zondi and Sibanda, 2015).	Ratio	Bloomberg
-------------------------	----	---	-------	-----------

Managerial ownership =

$$\frac{\text{Total number of shares owned by all board members}}{\text{Total number of shares outstanding}}$$

Board of Independence	BOI	According to Manna, Sahu and Gupta (2016), independent directors are under the category of non-executive directors. Therefore,	Ratio	Bloomberg
--------------------------	-----	--	-------	-----------

Board of Independence =

$$\frac{\text{Total number of non – executive directors}}{\text{Total members in the board of directors}}$$

Profitability	Prof	Profitability can be calculated as earning before tax divided by total asset.	Ratio	Bloomberg
---------------	------	---	-------	-----------

Profitability =

$$\frac{\text{Earnings before tax (EBIT)}}{\text{Total asset}}$$

2. Responding Variables

Debt Ratio	DR	Debt ratio measured the proportion of the total assets financed by the firm's leverage.	Ratio	Bloomberg
------------	----	---	-------	-----------

Debt Ratio =

$$\frac{\text{Total debt}}{\text{Total Asset}}$$

3.3 Sampling Design

Besides, the sampling frame of this research consists of all the listed plantation company in the stock market. There have the total of 43 listed plantation companies in this research, which mean 43 sets of data collection from all those listed companies. The data is collected in 10 years from the year 2008 to 2017. The sampling location of this research is the plantation company listed in Malaysia. Sampling elements are commonly known as sampling method which it defines as each unit of individuals, groups, companies and organizations has equal opportunities to be chosen in the sample of research (Element Sampling, n.d.). The aim of this research is to investigate the factors to affect the corporate governance on the capital structure of listed companies in the plantation sector of Malaysia. In short, there will have 43 plantation companies which are located in Malaysia will be selected to conduct different types of tests for showing the relationships with each variable.

In addition, Econometrics Views is generally known as Gretl as well as it is a type of software to use for the researchers of econometrics to calculate, forecast and provide analysis result of data for their studies (Chen, 2010, p. 2). This data will be managed efficiently and effectively to generate the econometric and statistical analysis and produce the high qualities of graphs and tables for research purpose through this software. Gretl had been applied by us for checking the diagnostic results, panel data analysis and empirical outcomes. There have several data analysis tests will be ran such as the correlation analysis, poolability hypothesis testing, BPLM test, Hausman test, T-test, F-test, multicollinearity, heteroscedasticity to obtain the outcomes of the relationships between explanatory and responding variables.

In this research, the secondary data will be used to exercise the empirical test. All of the secondary data was obtained from 43 listed plantation companies in Malaysia are stated as below:

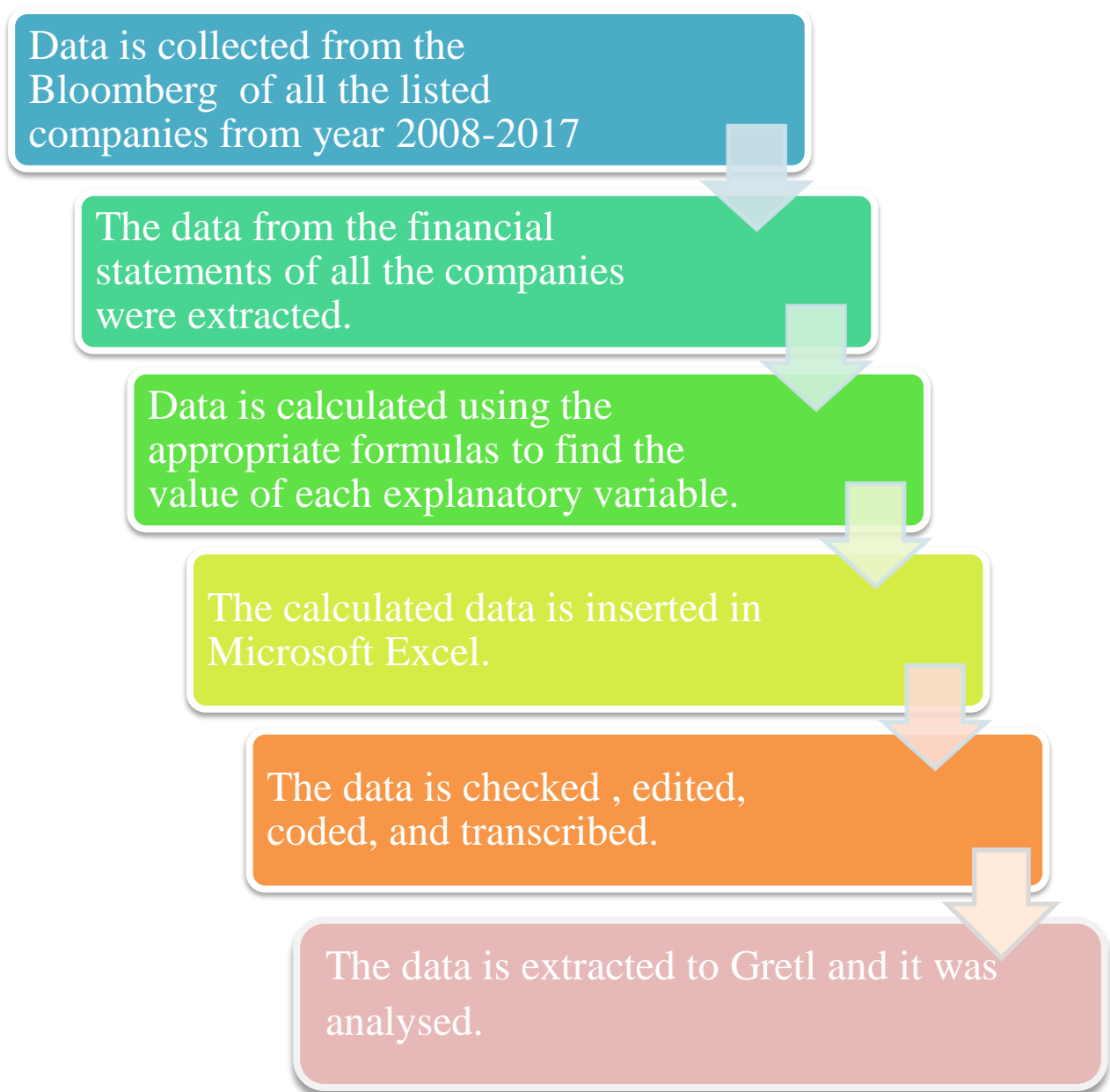
Companies	
1. Astral Asia Berhad	23. Kretam Holdings Berhad
2. Batu Kawan Berhad	24. Kwantas Corporation Berhad
3. BLD Plantation Bhd.	25. Malpac Holdings Berhad
4. Boustead Plantations Berhad	26. Matang Berhad
5. Cepatwawasan Group Berhad	27. MHC Plantations Bhd
6. Chin Teck Plantations Berhad	28. NPC Resources Berhad
7. Dutaland Berhad	29. Negri Sembilan Oil Palms 4Berhad
8. Far East Holdings Berhad	30. Pinehill Pacific Berhad
9. Felda Global Ventures Holdings Berhad	31. PLS Plantations Berhad
10. Genting Plantation Berhad	32. Rimbunan Sawit Berhad
11. Golden Land Berhad	33. Riverview Rubber Estates Berhad
12. Gopeng Berhad	34. Sungei Bagan Rubber Company (Malaya) Berhad
13. Harn Len Corporation Bhd	35. Sin Heng Chan (Malaya) Berhad
14. Hap Seng Plantations Holdings Berhad	36. Sime Darby Plantation Berhad
15. IJM Plantations Berhad	37. Sarawak Oil Palms Berhad
16. Inch Kenneth Kajang Rubber Public Ltd co	38. Sarawak Plantation Berhad
17. Innoprise Plantations Berhad	39. TDM Berhad
18. IOI Corporation Berhad	40. TH Plantations Berhad
19. Jaya Tiasa Holdings Berhad	41. TSH Resources Berhad
20. Kuala Lumpur Kepong Berhad	42. United Malacca Berhad
21. Kluang Rubber Company (Malaya) Berhad	43. United Plantations Berhad
22. Kim Loong Resources Berhad	

Table 3.2: Listed of Plantation Companies in Malaysia

3.4 Data Processing

This research paper is using data observed from the secondary resources. The data is obtained from the Bloomberg of plantation listed companies in Malaysia by referring to Bursa Malaysia. Before the data are being analysed, it was collected and compiled to make the process to become easier.

Figure 3.1: Data processing chart



The flowchart above shows the processes involved in the data processing. There are six steps involved in this process. Firstly, the data is collected from Bloomberg of all 43 listed plantation companies from Bursa Malaysia. The data is collected from the year 2008 to 2017 because this research paper only analyses data of plantation companies for 10 years. Secondly, all the data were collected from financial statements in the Bloomberg such as Statement of Comprehensive Income and Statement of Financial Position. Thirdly, all the data is calculated using the appropriate formula ascertain the value of each of the explanatory variables. Next, calculated data is arranged and inserted into Microsoft Excel. Then, the data will be checked, edited, coded and transcribed. Finally, after all the above steps are done, the data will be extracted into Gretl to be analyzed and interpreted.

3.5 Data Analysis

3.5.1 Description Analysis

As mentioned by Thompson (2009), the definition of descriptive analysis is a statistical technique by arranging a set raw data given in a summary form along with a graphic analysis which it allows the researchers easily to manipulate and understand sample or population. There have three major types of estimates of central tendency in this study which are mean, median as well as mode for further description and analysis of data. For instance, the journal of Ganzeboom (2014) also applied the method of descriptive analysis to illustrate the relationship of boards of independence and leverage ratio in 72 Dutch listed companies within 2010-2012. Nevertheless, descriptive analysis is not similar with inferential analysis. Descriptive analysis is used to portray the data into a summarized way while inferential analysis is applied to infer the information and make a conclusion according to the data given (Jaggi, 2003, p. 4).

3.5.2 Correlation Analysis

The correlation analysis is a term that is utilizes to analyze the stability of the two variables. A higher correlation is signifying that the two variables have a close relationship whereas for the low correlation is indicated as that the two variables are barely related. Besides, the range of the correlation analysis is from the range from -1.00 to +1.00. For instance, if the results show the value is closer to +1.00, this indicated that the two variables have a positive relation whereas if the value of correlation is

resulted as -1.00, this indicated that the two variables have a negative relationship. The formula for calculating the correlation analysis is shown below:

$$\frac{n \sum xy - \sum x \sum y}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

3.5.3 Regression Model

The panel data regression model is based on the panel data that are obtained. This data is also known as the longitudinal that referred to the data to analysis regarding of two or more than two specified periods of time. There are few advantages of the panel data, for instance, the panel data permit the researcher to analysis on complex behavioural models. Besides, impart on the more precise inference of the model parameters and the sample size can also be enlarged. However, for the panel data, there are 3 models which are involved, which is the Pooled OLS Model, Fixed Effect Model (FEM) and the Random Effect Model (REM). The model specification of this study is stated below:

$$\text{Capital structure}_{it} = \beta_0 + \beta_1 FS_{it} + \beta_2 CEO\ dual_{it} + \beta_3 MO_{it} + \beta_4 BOI_{it} + \beta_5 Prof_{it} + \epsilon_{it}$$

Where,

Y = Capital structure

FS_{it} = Firm size

CEO dual_{it} = CEO duality

MO_{it} = Managerial ownership

BOI_{it} = Board of independence

$Prof_{it}$ = Profitability

ε_{it} = Error term

3.5.3.1 Pooled OLS Model

Pooled OLS model is a most common model used by the researcher and it is one of the models from panel data regression model. The researcher can use this model when the data has the component of time series data and cross-sectional data. At the same moment, the data that use to run the POLS model must have time invariant; it means that the data should be no time effect. Other than that, in order to use this model, the explanatory variables of the research do not consort with error term, because the error term is considered to be normally distributed. The purpose of the POLS model is to estimate the interconnection amid the explanatory variables and responding variable in the regression analysis, this able to increase reliability of the test (Bass & Wittink, 1975).

$$Y_i = a + \beta X_i + \varepsilon_i$$

Where:

Y = Responding variable of company i at time t

a = intercept

β = Coefficient of X

X = Explanatory variable of company i at time t

ε = error term

3.5.3.2 Fixed Effect Model (FEM)

Fixed effect model is one of panel data models that used to denote to an estimator for the coefficient in the regression. If FEM model in the individual unit, the sample of the individual is fixed. Some of the researcher they using FEM model to derive estimates free from selection bias (England et al., 1988). Moreover, FEM model is one of the estimators to examine if the intercepts vary across the group or time period. According to the research, least squares dummy variable (LSDV) is the main estimator to estimate FEM model (Nilssen, 2014). In addition, there is three scenario appropriated for FEM model, first is the intercept are different across companies. The second scenario is the slopes are different across companies and the last is no time effect.

$$Y_{it} = \alpha + \beta_{it} + u_i + \varepsilon_i$$

Where:

Y = Responding variable of company i at time t

α = Intercept

β = Coefficient of X

X = Explanatory variable of company i at time t

u = Company fixed effect

ε = Error term

3.5.3.3 Random Effect Model (REM)

Random effect model is in the individual unit, the sample of individuals will be drawn randomly from the larger population (Gujarati & Porter, 2009). Compared to FEM model, the confidence interval of REM model will be broader and weight are more similar (Borenstein et al., 2010). REM model assumes individual effects are not correlated with all the observed variables (Allison, 2009). The use of REM model is to estimate the mean of a distribution of effects.

$$Y_{it} = \beta_{1i} + \beta_2 X_{it} + u_{it}$$

$$Y_{it} = (\beta_1 + \varepsilon_i) + \beta_2 X_{it} + u_{it}$$

$$Y_{it} = \beta_1 + \beta_2 X_{it} + \varepsilon_i + u_{it}$$

Where:

β_1 = Mean for intercept

β_2 = Slope of explanatory variable X

X_{it} = Explanatory variable X

ε_i = Cross-section or individual-specific error component is random or not constant

u_{it} = Combination between time series and cross sectional error component

3.5.4 Modal Selection

3.5.4.1 Poolability Hypothesis Testing

Poolability hypothesis testing is also noted as the likelihood ratio test which it is adopted to analysis whether the POLS model or the FEM is proper to estimate the equation. Besides, the test is utilizes to decide whether the panel data is poolable and the slopes of all the explanatory variables are at the same specific periods of time. The poolability hypothesis test will be conducted as below:

H_0 : There is a common intercept on all the companies.

H_1 : There is no common intercept on all the companies.

Decision rule: Reject H_0 , if the F-test statistic is greater than the critical level. Otherwise, do not reject H_0 .

3.5.4.2 Breusch-Pagan Lagrange Multiplier Test

Breusch-Pagan Lagrange Multiplier test is to investigate whether to utilize the REM or the POLS regression. Breusch and Pagan (1980) introduced that the Lagrange Multiplier test for heteroscedasticity which appears to permit for the general types of alternatives. The main incentive for BPLM test is to evaluate the conditional of

heteroscedasticity. The null hypothesis for BPLM is there is no random effect and if the results indicated to reject the null hypothesis, it can be concluded that the REM is preferable. BPLM test will be conducted as below:

H_0 : There is no random effect, σ_i^2 , where $i = 1, 2, 3 \dots$

H_1 : There is random effect, σ_i^2 , where $i = 1, 2, 3 \dots$

Decision rule: Reject H_0 , if the test statistic is greater than the critical level. Otherwise, do not reject H_0 .

3.5.4.3 Hausman Test

The Hausman test is employed for testing the implication of the hypothesis when inconsistency exist (Holly, 1982). It also can be applied to differentiate FEM and REM in the panel data directed towards in determining the greatest model to be used. The null hypotheses will be indicated as consistent and efficient or vice versa. Next, Hausman test will be conducted as below:

H_0 : Random effect model is preferred (Homoscedasticity).

H_1 : Fixed effect model is preferred (Heteroscedasticity).

Decision rule: Reject H_0 , if the H-test statistic is greater than the critical level. Otherwise, do not reject H_0 .

3.5.5 Hypothesis Testing

3.5.5.1 T-test

Based on the findings of Jones, Schlomer & Wiggs (2014), t-test statistic is known as Student's T-Test as well as it is a procedure to use for hypothesis testing by comprising the values on some continuous variables within two groups or samples. Hence, the raw data is collected by researchers will be tested by applying statistics T-test to determine its significance level in term of p-value. Also, the significance level will mention how significant the differences between the variables which it states that the probability that the individuals will obtain the outcomes by chances. When the p-value of T-test is decreased below 0.01 (1%), 0.05 (5%) or 0.1(10%), then the researchers will reject the null hypothesis which it is H_0 and they will conclude that the explanatory variable is significantly related with the responding variable. In short, the lowest the p-value will state that the data for research will not happen by chance.

The hypothesis test is conducted as following:

$$H_0 : \beta_i = 0$$

$$H_1 : \beta_i \neq 0 , \text{ where } i = 1, 2, 3, 4, 5$$

Decision rule: Reject H_0 , if the test statistic is greater than the critical value or lesser than the lower critical value.
Otherwise, do not reject H_0 .

3.5.5.2 F-test

The F-test is embraced to find out all of the significance of estimated regression model under the F- distribution. F statistic is the ratio among the estimate of variance and within the estimate of the variance. The first and important steps of F test are stating the null and alternative hypothesis. The null hypothesis (H_o) always has a coefficient of zero whereas the alternative hypothesis (H_1) does not equals to zero and it is the statement that needs to be found evidence to support and this statement is always the opposite of the null hypothesis. Additionally, the significance level acts as the chance of rejecting the null hypothesis given that H_o is connect at a certain level. The normal significance levels set by the researchers are at 1%, 5%, and 10% level. On the other hands, if the p-value is less than certain figures which are 0.01, 0.5 or 0.1, there will be sufficient evidence to reject H_o and it can conclude the model is significant. Meanwhile, when figure of p-value is more than 0.01, 0.05 or 0.1, it can be concluded that there will be not enough evidence to reject H_o and the model is insignificant. The hypothesis test is conducted as following:

$$H_o : \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$$

$$H_1 : \text{At least one of } \beta_i \text{ is different from zero ,}$$

where $i = 1, 2, 3, 4, 5$

Decision rule: Reject H_o , if the f-test statistic is greater than the upper critical value. Otherwise, do not reject H_o .

3.6 Conclusion

This chapter is to allocate the measurement of all the explanations variable and overall statistical test using by researcher. The data was acquired from Bloomberg for 43 companies in annual from year 2008 to 2017. The main measurement using by researcher is the POLS estimator to examine the interrelation between the responding variable and explanations variables. The remaining model uses in this research had executed by following the methodologies in this chapter. Last yet important, all of the statistical tests will be run by the researcher using Gretl software.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

The outcomes are based on the collected data which are derived from Bloomberg for the variables that affect the firm's capital structure of 43 plantation listed companies which are located in Malaysia from year the 2008 till 2017 will be analysed and interpreted in this chapter. Gretl is used to execute the test for data analysis. Descriptive analysis will provide the mean, median, maximum and minimum value and standard deviations for all the variables either it will present in graph or table form, panel data regression is utilize to test the significance of the explanatory variables. Lastly, the details of explanatory and clarifications will be written in the manner of precise and clear according to the results that obtained from tests.

4.1 Descriptive Analysis

	Mean	Median	Maximum	Minimum	Std. Dev	Skewness	Kurtosis
DR	13.932	10.357	54.610	0.0000	14.060	0.61878	-0.76369
FS	9.0534	8.9794	10.830	7.8506	0.57800	0.82497	0.49436
CEODUAL	0.038741	0.0000	1.0000	0.0000	0.19321	4.7805	20.853
MO	12.657	0.88300	126.02	0.0000	22.900	2.4729	6.8889
BOI	0.71006	0.71429	1.0000	0.30000	0.17241	-0.23803	-0.61301
PROF	0.055573	0.046129	0.29945	-0.096555	0.056578	0.83084	0.81282

Table 4.1 : Descriptive Analysis (2008-2017)

Notes:

1. Company's panel data for ten years period, from the years 2008 to 2017.
N= 43 companies. Number of observation for ten years= 430.
2. DR= Debt Ratio, FS= Firm Size, CEODUAL= CEO Duality, MO= Managerial Ownership,
BOI= Board of Independence and PROF= Profitability

The table 4.1 indicates the result of descriptive statistics for the responding and explanatory variables. The responding variable used in this research is debt ratio (DR). Meanwhile, the explanatory variables are firm size (FS), CEO duality (CEODUAL), managerial ownership (MO), board of independence (BOI) and profitability (PROF). The sample company's panel data runs from 2008 to 2017 for ten years. Besides, this research covers the plantation sector in Malaysia and the data was collected from 43 listed plantation companies in Bursa Malaysia. The descriptive analysis gives a summary of the sample being examined. The main information reveal by descriptive analysis are mean, median, minimum value, maximum value and standard deviation.

The mean and median are usually used to measure central tendency. According to the table, the debt ratio has a mean value of 13.932 and a median of 10.357. Besides, it also has a maximum of 54.610 and minimum of 0.0000. These show that Malaysian plantation companies have a high mean and median which is considered a good sign. On the other hand, the maximum debt ratio is 54.610 and the minimum debt ratio is 0.0000. The standard deviation of Malaysian plantation companies is 14.060. The skewness of debt ratio is 0.61878 and its kurtosis is -0.76369.

In addition, the table shows the mean value of FS is 9.0534 and median is 8.9794. The maximum FS is 10.830 and the minimum is 7.8506 for all the 43 plantation companies. Moreover, skewness after running the analysis is 0.82497 while its kurtosis is 0.49436. The amount of standard deviation is 0.57800. However, Liao, Mukherjee and Wang (2015) stated in their study period from year the 1996 to year the 2008, the FS of 1589 firms has a greater mean and median that are 5941 and 1686.

Besides, the mean of CEODUAL is 0.038741 as shown in the table. The median value of this dummy variable is 0.0000. The maximum and minimum of CEODUAL are 1.0000 and 0.0000 because it has been treated as a dummy variable in this research. The standard deviation of CEODUAL is 0.19321. The skewness is 4.7805 and kurtosis is 20.853 the highest among other variables.

Furthermore, the table shows that the descriptive analysis mean and median of MO is 12.657 and 0.88300. In addition, the maximum and minimum of MO are 126.02 and 0.0000. MO has the highest standard deviation compared to other variables that are 22.900 shows that it has a wide range of data. The skewness and kurtosis of MO are 2.4729 and 6.8889 respectively.

Moreover, the mean of the BOI of plantation companies in Malaysia is 0.71006. The median value according to descriptive analysis is 0.71429. To add on, the maximum of the BOI is 1.0000 and a minimum of 0.30000. The skewness and kurtosis of these explanatory variables are -0.23803 and -0.61301.

Lastly, the descriptive analysis of PROF has a mean value of 0.055573 while it has a median of 0.046129. It has a maximum of 0.29945 and PROF has a minimum of -0.096555. Moreover, PROF has a standard deviation of 0.056578. The skewness is 0.83084 and its kurtosis is 0.81282.

4.2 Correlation Analysis

	DR	FS	CEODUAL	MO	BOI	PROF
DR	1.0000	0.3693	-0.0142	-0.0182	-0.1125	-0.0660
FS		1.0000	0.0374	-0.3176	-0.0037	0.1963
CEODUAL			1.0000	-0.1114	0.0036	-0.0248
MO				1.0000	-0.1336	-0.0784
BOI					1.0000	-0.2518
PROF						1.0000

Table 4.2: Correlation Matrix

According to table 4.2, debt ratio has a direct relation with FS with a coefficient of 0.3693. Whereas, the CEODUAL, MO, BOI, and PROF of plantation companies are reverse related to the responding variable which is debt ratio. The output shows that DR and the FS have the highest correlation among the other variables. It can be concluded that DR of the plantation companies highly rely on the FS of the firm. Gonzalez and Gonzalez (2012), found in their research using 3439 Spanish firms from year 1995 to year 2003 also state that DR correlates positively with FS.

Besides, the correlation output above reveals that DR has an inverse relation CEODUAL, MO, BOI and PROF. On the other hand, CEODUAL and PROF have a positive relation with FS with a coefficient of 0.0374 and 0.1963. Gill and Mathur (2011) stated in their research on 400 Canadian services companies from year 2008 to year 2010 that PROF shows a positive relation with the FS.

Moreover, MO reveals a reverse relation with BOI and PROF with the coefficient of -0.1136 and -0.0784. As expected, PROF and FS are positively related. This shows that when total asset of a firm increase the FS gets bigger and the PROF increases. Hence, the FS increase makes the PROF of a company to improve proves that both PROF and FS are positively related.

According to the results in Table 4.2, the FS has an inverse relation with MO and BOI with coefficient value of -0.3176 and -0.0037. Meanwhile, CEODUAL shows a positive relation with BOI and its coefficient is 0.0036. CEODUAL reflects a negative relation between MO and PROF. The output results are -0.1114 and -0.0248. Despite, BOI has an inverse relation with PROF where its value is -0.2518. Alshetwi (2017) says in his research made on 329 firms in Saudi Arabia from year 2013 to year 2015, when low profitability firms are replaced by outside directors, it improves the firm's performance, in other word; it enhances the firm's profitability as well. This can also reduce the agency cost when more independent boards are recruited replacing the ineffective management by internal directors who causes poor performance.

4.3 Regression Model

In this study, this research uses the regression model to examine the relation between Capital Structure (DR) and the explanatory variable which is FS, CEODUAL, MO, BOI and PROF. The regression model is shown below:

Model 4.1

$$\text{Capital structure}_{it} = \beta_0 + \beta_1 FS_{it} + \beta_2 CEO\ dual_{it} + \beta_3 MO_{it} + \beta_4 BOI_{it} + \beta_5 Prof_{it} + \varepsilon_{it}$$

$i = 1, 2, 3, \dots, 43$ (plantation companies in Malaysia)

$t = 2008, 2009, \dots, 2017$ (Annual data from year 2008 to 2017)

Where:

Capital structure_{it} = Debt ratio (in percentage)

β_0 = Constant coefficient

β_1 = Coefficient of Firm Size

FS_{it} = Firm Size

β_2 = Coefficient of CEO Duality

$CEO\ dual_{it}$ = CEO Duality (in dummy)

β_3 = Coefficient of Managerial Ownership

MO_{it} = Managerial Ownership

β_4 = Coefficient of Board of Independence

BOI_{it} = Board of Independence

β_5 = Coefficient of Profitability

$Prof_{it}$ = Profitability

ε_{it} = Error term

4.3.1 Pooled OLS Model

Table 4.3 Result of Pooled OLS Regression Model

Model 1 : Pooled OLS, using 411 observations
Included 43 cross-sectional units
Time-series length : minimum 9, maximum 10
Dependent variable : DR

	coefficient	std. error	t-ratio	p-value	
Const	-67.2073	11.1464	-6.029	3.71E-09	***
FS	10.1844	1.17888	8.639	1.32E-016	***
CEODUAL	-1.84739	3.29155	-0.5613	0.5749	
MO	0.0471471	0.0296759	1.589	0.1129	
BOI	-12.0288	3.84337	-3.130	0.0019	***
PROF	-46.3222	11.8176	-3.920	0.0001	***

Notes : 1. Significance level at 10%*, Significance level at 5%**,
Significance level at 1% ***

$$\text{Capital Structure}_{it} = -67.2073 + 10.1844FS_{it} - 1.84739CEO\ dual_{it} + \\ 0.0471471MO_{it} - 12.0288BOI_{it} - 46.3222Prof_{it} + \epsilon_{it}$$

According to the table 4.3 shows that FS and MO have a direct relation with capital structure (DR). However, CEODUAL, BOI, and PROF have a reverse relation with DR. When explanatory variables are equal to zero DR will be equal to -67.2073. Next, FS has the direct relationship with DR, it means that each percent raises in FS, DR will rise to 10.18%, while other explanatory variables remains unchanged. Same goes for MO, when each per cent raise in MO it will cause the DR to rise to 0.05%, while other explanatory variables remain unchanged. Furthermore, when 1% drops in

FS, the DR will drop to 10.18% on average. When 1% drops in MO it will cause DR to drop 0.05% also because they are a direct relation. On the other hand, the CEODUAL has a reverse relation with DR so when each 1% rise in CEODUAL, while other explanatory variables will remain unchanged, DR will reduce 1.85% on average. Other than that, DR also affected by BOI, when 1% increment in BOI, the DR will reduce in 12.03% on average, holding other explanatory variables constant. Moreover, PROF has the most influential power compare to other explanatory variable. When 1% grows in PROF, DR will reduce 42.32% on average, when other explanatory variables will remain unchanged.

In additions, due to the reason of reverse relation in the DR and CEODUAL, when CEODUAL reduces to 1%, while other variables remain constant, the DR will have 1.85% of increment. Continue with BOI, when each per cent drop in BOI, it will cause an addition of 12.03% in the DR, holding others variable constant. PROF will also affect the DR when it has a decline in 1%, DR will rise 42.32% on average, holding other explanatory variable constant.

In this study, according to the result of POLS regression model, the researcher using p-value to test the significant relation between DR with the explanatory variable FS, CEODUAL, MO, BOI and PROF. The researcher uses the significance level of 1% (0.01) to make the decision. Based on the analysis states null hypothesis should be reject, if p-value of explanatory variable less than 0.01. However, if the p-value is more than the significant level 0.01, null hypothesis should not be rejected. Besides, the p-value of CEODUAL and MO was more than the significance level 0.01 which is 0.5749 and 0.1129, so, the researcher should not reject a null hypothesis. Therefore, CEODUAL and MO have the insignificant relation with the responding variable DR. Furthermore, the p-value of FS, BOI, and PROF was less than the significance level 0.01 which is 1.32e-16, 0.0019, and 0.0001; the null hypothesis should be rejected. Therefore, FS, BOI, and PROF have the significant relation with the responding variable DR.

4.3.2 FEM Model

Table 4.4 Result of FEM Model

Model 1 : Fixed-effects, using 411 observations
 Included 43 cross-sectional units
 Time-series length : minimum 9, maximum 10
 Dependent variable : DR

	Coefficient	std. error	t-ratio	p-value	
Const	-45.7750	12.0589	-3.796	0.0002	***
FS	7.94593	1.28937	6.163	1.90E-09	***
CEODUAL	-0.119495	3.35402	-0.03563	0.9716	
MO	0.0107767	0.0327231	0.3293	0.7421	
BOI	-11.552	3.93026	-2.939	0.0035	***
PROF	-66.0885	12.4183	-5.322	1.80E-07	***

Notes : 1. Significance level at 10% *, Significance level at 5% **, Significance level 1% ***

Based on table 4.4, it shows that firm size (FS) and managerial ownership (MO) have a direct relation with the capital structure (debt ratio). On the other hand, CEO duality (CEODUAL), the board of independence (BOI), and profitability (PROF) have a reverse relation with capital structure (debt ratio). When the explanatory variable is equal to zero, the debt ratio will be equal to -45.7750. Next, when FS has a positive relation with debt ratio, this will lead to an increase in each percentage of FS, the debt ratio will increase to 7.95%, while other explanatory variables will remain unchanged. As for MO, it will be similar with FS, which it defines that when an increase in each percentage, the debt ratio will increase by 0.01%, while other explanatory variables will remain unchanged. Furthermore, when there is a decrease of 1% in FS, the debt ratio will decrease by 7.95% on average, same with MO, when there is a decrease in 1% in MO,

the debt ratio will decrease in 0.01% because both of these explanatory variables have a positive relation with the responding variable.

Besides, CEODUAL has a reverse relation with the debt ratio, it will lead to an increase of 1% of CEODUAL, debt ratio will decrease 0.12%, by holding other variables constant. When BOI will rise by 1%, the debt ratio will decrease by 11.55%, by holding other variables constant. Other than that, the debt ratio is affected by PROF, it also has a strong affecting power compared to other variables. According to the result which is collected by researchers, when PROF increase by 1%, on average, the debt ratio will decrease by 66.09%, while other variables will remain constant. In addition, there is a reverse relationship between CEODUAL and debt ratio. When CEODUAL decreases by 1%, the debt ratio will increase 0.12%, by holding other variables constant. Next, as for BOI will be the same with CEODUAL, which it defines that when there has a decreasing trend in BOI by 1%, the debt ratio will increase by 11.55%, when other variable remain unchanged. Moreover, when PROF decreases by 1%, the debt ratio will increase by 66.09%.

According to the table, there are significant variables and insignificant variables in the model and p-value is stated in the table form. The variable is considered significant if the p-value is less than the significant level. From the result of the table above, there are three explanatory variables are significant and two explanatory variables are insignificant. As for FS, the p-value from the table is 1.90e-09, it shows that FS is significant because the result is less than significant level. There are similar outcomes for BOI and PROF, the p-values for BOI and PROF are 0.0035 and 1.80e-07. Based on this result, the decision can be concluded that BOI and PROF are significant variables because the p-values of the variable are less than the significant level. Next, CEODUAL has a p-value of 0.9716, it means that this value is greater than the significant level. This result shows that CEODUAL is an insignificant variable while for MO, it has a p-value of 0.7421, which it is considerable than the significant level. In short, this result will be concluded that MO is also an insignificant variable in the research study.

4.3.3 REM Model

Table 4.5 Result of REM Model

Model 1 : Random-effects (GLS), using 411 observations

Included 43 cross-sectional units

Time-series length : minimum 9, maximum 10

Dependent variable : DR

	coefficient	std. error	Z	p-value	
Const	-67.2073	11.1461	-6.029	1.64E-09	***
FS	10.1844	1.17888	8.639	5.67E-18	***
CEODUAL	-1.84739	3.29155	0.5613	0.5746	
MO	0.0471471	0.0296759	1.589	0.1121	
BOI	-12.0288	3.84337	-3.130	0.0017	***
PROF	-46.3222	11.8176	-3.920	8.86E-05	***

Notes : 1. Significance level at 10%*, Significance level at 5%**,
Significance level at 1% ***

Based on table 4.5, it shows that FS and MO have a direct relation with the capital structure (debt ratio). On the other hands, CEODUAL, BOI, and PROF have the reverse relation with capital structure (debt ratio). When the figures of explanatory variables equal to zero, debt ratio will equal to -67.2073. Next, FS has a direct relation with debt ratio, which it defines that when there is an increase in each percentage of FS, the debt ratio will increase to 10.18%, when other explanatory variables will remain unchanged. As for MO, when the figure of MO is increased by 1%, the debt ratio will increase by 0.05%, while other explanatory variables will remain unchanged. Furthermore, when FS is decreased by 1%, the debt ratio will decrease to 10.18%. MO has the same outcome with FS, which it defines that when MO is decreased by 1%, the debt ratio will decrease to 0.01%. This is because both of these explanatory variables have the positive relation with the responding variable.

Furthermore, CEODUAL has a reverse relation with the debt ratio. When it is increased by 1%, the debt ratio will decrease 1.85%, by holding other variables constant. Besides, when BOI increase 1%, the debt ratio will decrease by 12.03%, holding other variables constant. Other than that, the debt ratio is affected by PROF, when PROF is increased by 1%, on average, the debt ratio will decrease by 46.32%, while other variables remain constant. It showed that there have a negative association in CEODUAL and debt ratio. When CEODUAL is decreased by 1%, the debt ratio will increase by 1.85%, by holding other variables constant. For BOI, when there has a decreasing pattern in BOI for 1%, the debt ratio will increase by 12.03%, by holding other variables constant. Last but not least, when RPOF decreases by 1%, the debt ratio will increase by 46.32%.

According to the table, there are significant and insignificant variables in the model and the p-value for each variable is mentioned in the table above. When the p-value is less than the significant level, the variable is significant. From the result of the table, there are three explanatory variables are significant and two explanatory variables are insignificant. From one of the explanatory variable (FS), the p-value from the table is 5.67e-018, it shows that FS is significant because the result is less than significant level. There have the same outcomes for BOI and PROF, the p-value for BOI is 0.0017 while the p-value for PROF is 8.86e-05. Based on this result, the decision is concluded as BOI and PROF are significant variables due to their p-values are lesser than the significant level. Furthermore, CEODUAL has a p-value of 0.5746, which it defines that the value is greater than the significant level. This result shows that CEODUAL is an insignificant variable and MO has a p-value of 0.1121, which it is considerable than the significant level. With this result, it includes that MO is also an insignificant variable.

4.4 Panel Data Analysis and Diagnostic Checking

4.4.1 Poolability Test

	Restricted	Decision Making
	F Test Statistic	
Capital Structure (Debt Ratio)	1.24159	Proceed to BPLM Test

Table 4.6 Poolability Test Result

- Notes:*
1. Significance level is 1%, 5%, and 10%.
 2. H_0 : There is common intercept on all the companies.
 H_1 : There is no common intercept on all the companies.
 3. Breusch-Pagan Lagrange Multiplier Test (BPLM Test)

The poolability test is tested to analyse whether the regression model is a POLS model FEM. By referring to the table 4.6, the restricted F-test statistics indicated that the Capital Structure is 1.24159. Based on the test statistic the null hypothesis, H_0 is rejected because the test statistic is greater than the critical value. From this result, the researcher concludes that there is no common intercept on all the companies. In this research, FEM is more appropriate in the regression model compare to POLS model. Besides, the research will proceed to BPLM Test to further determinant on selecting of POLS or REM.

4.4.2 Breusch-Pagan Lagrange Multiple Test

	Value	Decision
Capital Structure (Debt Ratio)	0.767133	Proceed to Hausman Test

Table 4.7: Breusch-Pagan Lagrange Multiplier (BPLM) Test Result

- Notes:
1. Significance level is 1%, 5%, and 10%.
 2. H_0 : There is no random effect on all the capital structure of the plantation listed companies..
 H_1 : There is a random effect on all the capital structure of the plantation listed companies.

From the outcomes that generated through gretl on the table above, it mentioned that BPLM test for the capital structure of Malaysia plantation listed companies is 0.767133 which it states that it is insignificant at all the significance level (1%, 5%, and 10%). Additionally, the null hypothesis (H_0) will not be rejected which it defines as the FEM model will be more appropriate at all the significance level (1%, 5%, and 10%). Thus, the Hausman Test is going to proceed in the following test for deciding whether FEM or REM will be adopted in the regression model.

4.4.3 Hausman Test

	p- value	Decision Making
Capital Structure (Debt Ratio)	1.96559e-005	FEM is preferred.

Table 4.8: Hausman Test Result

- Notes:*
1. Significance level is 1%, 5%, and 10%.
 2. H_0 : REM is preferred.
 H_1 : FEM is preferred.

The Hausman Test is to examine whether the FEM or REM is appropriate to be used in this study. Referring to the table above, the p-value is 1.96559e-005 which is significant at all the significant level. In this research, the null hypothesis H_0 will be rejected. Thus, the result indicates that the FEM is preferred in this study compared to the REM. Hence, the FEM will be applied in this study.

4.5 Inferential Analysis

4.5.1 T-Statistic

Responding Variable: Capital Structure (Debt Ratio)	Decision	Conclusion
Firm Size (FS)	Reject H_0	Firm size does significantly affect the capital structure.
CEO Duality (CEODUAL)	Do not reject H_0	CEO duality does not significantly affect the capital structure.
Managerial Ownership (MO)	Do not reject H_0	Managerial ownership does not significantly affect the capital structure.
Board of Independence (BOI)	Reject H_0	Board of independence does significantly affect the capital structure.
Profitability (PROF)	Reject H_0	Profitability does significantly affect the capital structure.

Table 4.9 Summary result from POLS, FEM, and REM Model

- Notes :*
1. Significant level at 1%, 5% and 10%
 2. Decision rule: Reject H_0 if p-value lesser than 0.01. Otherwise, do not reject H_0 .

In order to conduct whether there is any significant relation between the explanatory variable and responding variable, t-statistic is applied. From the table above the result showed that both CEO duality (CEODUAL) and managerial ownership (MO) does not significantly affect the capital structure (Debt Ratio). Whereas, the result indicated that firm size (FS), the board of independence (BOI) and Profitability (PROF) significantly affects the capital structure (Debt Ratio) respectively.

4.5.2 The Best Model

In this study, researchers will identify which model is the most preferable among the POLS Model, FEM, and REM. On this situation, researchers use three tests to identify the model. The tests utilize to identify the model Poolability Test, BPLM test, and Hausman Test to decide which model is the most suitable.

In Poolability Test is utilizing to compare between the POLS Model and FEM. The researchers utilize restricted R squared in the test statistic. The result of restricted R squared is 1.24159, this result is excellent than the critical value, so reject null hypothesis. Conclusion, there is no common intercept on all companies. According to this result, FEM is preferable when compare with POLS Model.

Besides, in BPLM Test is utilizing to compare POLS Model and REM. The result of this test is 0.767133, by referring to this result; null hypothesis should not be rejected. This will lead to POLS Model is preferable when compared with REM. Based on this result POLS Model is preferable, but referring to Poolability Test, it stated that FEM is preferable. In short, FEM is preferable when compared to POLS Model.

Furthermore, Hausman Test is utilized to compare between REM and FEM. From the result which collected by the researcher, null hypothesis should be rejected, because p-value is 1.96559E-005 which is lower than the significance level which are 1%, 5%, and 10%. According to this result, FEM is preferable when compared with REM.

Based on these three test results, proved that FEM is the best model among POLS Model and REM. This due to three of this test stated FEM is the best model.

4.5.3 F test- Statistic

Model	Decision	Conclusion
Capital Structure (Debt Ratio)	Reject H_0	There is a sufficient evidence to conclude that all the explanatory variables are significantly affect the capital structure.

Table 4.10 Summary result from POLS, FEM, and REM Model.

- Notes :*
1. Decision rule: Reject H_0 if p-value is lesser than 0.01. Otherwise do not reject H_0 .
 2. Significant level at 1%, 5% and 10%.

The objective of the F-statistic is to determine whether the explanatory variables are affecting the responding variable. From the table above, H_0 should be rejected if the p-value is lesser than the significant level of 1%. The capital structure has an F- test statistics of 0.0000 which are significant at the significant level of 1%. Thus, it can be concluded that the H_0 is rejected and the capital structure has a significant relation between the explanatory variables and responding variable which can explain to the relation of the corporate governance on firm's capital structure of listed companies (plantation) in Malaysia from the year 2008 to 2017.

4.6 Conclusion

In conclusion, a vast array of diagnostic checking method as well as hypothesis testing had conducted through gretl to examine the relation of the explanatory and responding variables in the regression model. All the empirical results had clearly interpreted and analysed in the form of tables and figures. In short, a summary of the major findings, implications, limitations, and recommendations for the overall research study will be highlighted in the coming chapter.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATION

5.0 Introduction

A short summary regarding the interpretation of statistical analysis which was demonstrated in chapter four along with the general findings of other chapters will be deliberated and included. Next, the implications for the research study for the members in societies such as public, shareholders, firms, governments, investors or future researchers will be proposed in this chapter, following with the recommendation for future studies and limitations for improvements will be presented. Thus, an integrated conclusion for the research projects also will be clearly stated and presented in order to summarize the research for completing the whole research.

5.1 Summary of Statistical Analyses

5.1.1 Descriptive Analysis

The main aim of this study is to analyse the effect of corporate governance on the capital structure of listed plantation companies in Malaysia and the research period covers from the year 2008 to the year 2017. All the data were collected using the Bloomberg. Moreover, the data collected were analysed using panel data. This research was conducted on 43 listed plantation companies in Malaysia over a 10 year period; therefore, the

number of observations is 430. The measurement that is used to evaluate the responding variable (debt ratio) of the firms is debt ratio. Besides, the explanatory variables are Firm Size, CEO Duality, Managerial Ownership, Board of Independents and Profitability.

Referring to Table 4.1, indicated that the mean value of the debt ratio is 13.932. Next, the mean value of firm size is 9.0534. Whereas, for the board of independence is 71.006 percent which indicates that the plantation firms have an average of 71 percent of the total members of the board of directors are the total number of non-executive directors. Despite that the CEO duality means is relatively low which only 3.8741 percent. The profitability of the firms has an average of only 5.5573 percent during the 10 years period. Lastly, managerial ownership of the listed plantation companies has a mean value of 12.657.

5.1.2 Correlation Analysis

According to the results in Table 4.2, the correlation matrix output in Chapter 4 is to compute the relation between all the explanatory variables and responding variable and also to measure the relation among the explanatory variables. The correlation matrix output shows that FS has a direct relation with the DR which is the responding variable. Whereas, the CEODUAL, MO, BOI and PROF have the inverse relation with the DR.

Besides, the explanatory variables, FS have the strongest positive correlation of DR with a coefficient value of 0.3693. In contrast, the BOI has the weakest positive relation with DR and its coefficient value is 0.0036.

Furthermore, the BOI has the strongest reverse relation with DR with a coefficient of $r = -0.1125$, whereas CEODUAL has the weakest reverse relation with DR and its correlation coefficient of -0.0142 .

5.1.3 Regression Model

$$\text{Capital structure}_{it} = \beta_0 + \beta_1 FS_{it} + \beta_2 CEO\ dual_{it} + \beta_3 MO_{it} + \beta_4 BOI_{it} + \beta_5 Prof_{it} + \varepsilon_{it}$$

$i = 1, 2, 3, \dots, 43$ (plantation companies in Malaysia)

$t = 2008, 2009, \dots, 2017$ (Annual data from year 2008 to 2017)

Where:

Capital structure_{it} = Debt ratio (in percentage)

β_0 = Constant coefficient

β_1 = Coefficient of Firm Size

FS_{it} = Firm Size

β_2 = Coefficient of CEO Duality

$CEO\ dual_{it}$ = CEO Duality (in dummy)

β_3 = Coefficient of Managerial Ownership

MO_{it} = Managerial Ownership

β_4 = Coefficient of Board of Independence

BOI_{it} = Board of Independence

β_5 = Coefficient of Profitability

$Prof_{it}$ = Profitability

ε_{it} = Error term

By referring to Table 4.3, the POLS regression model output shows that there is the significant relation between firm size, the board of independence and profitability with the debt ratio. Besides, profitability has the highest regression coefficient of -46.3222. Hence, when the profitability of the plantation company increases by 1 percentage point, the debt ratio will decrease by 46.3222 percentage point, on average, holding other variables constant. The second highest regression coefficient is board of independence with -12.0288 followed by firm size, 10.1844. CEO duality and managerial ownership have the least regression coefficient among all other explanatory variables that is -1.84739 and 0.0471471. In contrast, CEO duality, and managerial ownership are found to have an insignificant relation with the debt ratio. Therefore, CEO duality and managerial ownership cannot be predicted because it has the insignificant effect on the debt ratio. Regression analysis is to examine the strength of how much the responding variable and explanatory variables are related to each other.

R square results from the regression output are to measure how the closeness of the data on the regression line. From the result of Table 4.3, the R square result is 0.178866 indicates that any change in the debt ratio can be described by 17.8866 percent of the explanatory variables associated in this study.

Among all model, FEM is the most preferable due to the result stated in Chapter 4. When researchers applied Poolability Test, the result stated that when compared between POLS and FEM, FEM is preferable; due to the F-test restricted R squared is greater than the critical value. As for BPLM Test, it also stated that FEM is preferable, even though this test is compared between POLS Model and REM. Next, for Hausman Test, it compared between FEM and REM, FEM is preferable, and due to the result indicate that p-value is lesser than the critical value.

5.2 Discussion of Major Findings

Hypothesis	Result
H_{1a} : There is a positive relationship between FS and DR	Significant and accept
H_{1b} : There is a negative relationship between CEODUAL and DR	Not significant and reject
H_{1c} : There is a positive relationship between MO and DR	Not significant and reject
H_{1d} : There is a negative relationship between BOI and DR	Significant and accept
H_{1e} : There is a negative relationship between PROF and DR	Significant and accept

Table 5.1 Summary Result of Hypothesis Testing

This research, the researchers examine the effect of corporate governance on firm's capital structure of listed companies in the plantation sector in Malaysia. The researchers apply panel data of 43 plantation firm which is listed in Bursa Malaysia since the year 2008 to the year 2017.

Refer to the result from table 5.1, researchers found that FS, BOI, and PROF will affect the debt ratio of the firm in the plantation sector. On the other hand, CEODUAL and MO do not show an impact on debt ratio; this shows that these variables are insignificant variables.

Based on table 5.1, there is a significant relation between FS and DR due to the p-value which is lower than 0.10. When FS is significant, H_{1a} is accepted. The result is persistent with the findings of previous studies of Olawale, Ilo and Lawal (2017), Chepkwony (2015), Marete (2015), and Gonzalez and Gonzalez (2012).

Furthermore, BOI and DR are having a negative relation which shown in table 5.1. Even though there is a negative relation between BOI and DR but BOI is a significant variable. When there is a significant relation between BOI and DR, which means that the p-value of BOI is lesser than the p-value of 0.10, so H_{1d} is accepted. This result is consistent with the past researches of Rajangam, Sundarasan & Rajagopalan (2014), Almania (2017), Chepkwony (2015), Abdoli, Lashkary & Dehghani (2012), and Ganzeboom (2014).

According to the table 5.1, there is a significant relation with PROF and DR because the p-value of PROF is lower than the p-value which is 0.10. When PROF is significant, H_{1e} is accepted. This result is similar to previous findings which are Chen (2004), Huang & Song (2006), Bahbra et al.,(2008), Titman and Tsyplov (2005), Strebulaev (2004), Kayhan and Titman (2007), Booth et al. (2001), and Wald (1999).

On the other hand, CEODUAL and MO do not show an impact on debt ratio; this shows that these variables are insignificant variables. CEODUAL has a reverse relation with debt ratio, this result is parallel with the previous study which is Sheikh and Wang (2012). It is insignificant because, in this study of Sheikh and Wang (2012), CEO of a company becomes the chairman of the board, this might prefer to utilize less debt to mitigate pressure and problems identify with the employability of high leverage. In the research from Fosberg (2004), the researcher also stated that CEODUAL is a negative relation and an insignificant variable.

Next, MO is a direct relation with debt ratio, this result is parallel with past studies which are Leland and Pyle (1977), Kim and Sorensen (1986) and Stulz (1988), Agrawal and Mandelker (1987) and Berger et. al. (1997). From past researches, these researchers stated that there is a reverse relation with debt ratio. In the past researches from Leland and Pyle (1977) and Kim and Sorensen (1986), both of the researches have the similar view on the firms with the greater managerial ownership have the higher leverage ratios than the firms with the lower managerial ownership. As for Agrawal and Mandelker (1987), believed that higher the managerial ownership, the endearing the manager's willingness to receive the financial risk that associated with the raise of the financial debt. From

the previous research was written by Berger et. al. (1997), this research stated that managers who have a financial incentive are closely tied to the stockholder's wealth. When the stockholder's wealth is closely tied, the management of the company will seek for more capital structures that will increase the value of the firm.

5.3 Implications of the Study

Results from this research could contribute that Malaysian listed plantation companies to have a better understanding of the effect of the corporate governance on the firm's capital structure. As the result of correlation analysis shows that firm size has a direct relation with the debt ratio and firm size has the highest correlation with debt ratio among the explanatory variables. This can indicate that greater firm size increases the debt ratio thus directly improve the capital structure of a plantation company. It is believed that the management of the plantation companies will try to understand the importance of the variables (FS, CEODUAL, MO, BOI and PROF) utilized in this study. The management of the firms must also be able to identify the importance of the relation between the responding variables and explanatory variables.

Based on our study, firm size has a direct relation with the debt ratio with a coefficient of 10.1844. This indicates that the total asset of a firm contributes to the capital structure of the plantation firms. Besides, profitability has the strongest negative relation to the debt ratio with a coefficient of -46.3222. This means that the 1 percentage point increase in profitability will decrease the debt ratio by 46.3222 percentage point. Hence, the authority of the firm ought to pay more notice to the profitability of Plantation Company to improve the capital structure of the firm. Moreover, the management of the company should monitor on their sales department and also the staffs. This is because these are the two major points which contribute to the profit of the company.

Besides, managerial ownership has the weakest positive relation with the debt ratio and its coefficient is 0.047147. This indicates that the 1 percentage point

increase in managerial ownership will increase the debt ratio by 0.047147. To increase the managerial ownership, the management of firms should increase the total number of shares owned by all board members.

Furthermore, this study can be useful for the outsiders such as investors where they can observe the explanatory variables utilized in this study such as FS, CEODUAL, MO, BOI, and PROF in order to evaluate the debt ratio of the plantation companies to predict the future capital structure and investment. Through the data that can be collected from the Bloomberg, investors can evaluate the debt measurement of plantation industry. In addition, the relation between the variables that have been analysed in this study will be useful for the investors to identify the efficiency of firms in managing their debt ratio.

This study can be useful for the policymakers to implement a new regulation, government policies, and an institutional framework in order to improve the capital structure of plantation companies in Malaysia. In other word, policymakers and the government could adopt this study to improve and evaluate on the existing regulations and develop new policies to enlarge the scale of plantation industry in Malaysia by improving the capital structure of the firms.

Lastly, students can also refer to this study as an example or a guideline for them to continue their future research in the same area. According to all the output, it gives a clear analysis on how all the variables contribute to the effect on the capital structure of the firms. This research can also give understanding to the students on the effects cooperate governance in the capital structure of a firm.

5.4 Limitations of the Study

In this study, the researcher has to face few limitations in this study. Firstly, the limitation of this study is the problem of collecting data. Researcher collecting data from the annual report of 43 plantation companies, they found that some of the data were missing in the annual report. Other than that, when the researcher runs the hypothesis testing, the researcher also found that the result of the test is the inconsistency with routine, due to the reason of the data from the annual report was inaccurate. Therefore, researchers recollect the data from Bloomberg to solve this problem. Furthermore, the second limitation found in this study is, there is lack of past research about the corporate governance of plantation companies in Malaysia, and also hard to find the adequate journal that published from Malaysia.

Moreover, the third limitation of this study is the E-views program incapable to run the hypothesis testing for the panel data with the combination of time series and cross-sectional data. Because of the E-view program can only run the time series data, so, the researcher was unable to run the Lagrange Multiplier Test and Breusch Pagan Test on E-views program. Therefore, the researcher uses another program to run the hypothesis testing; researcher used Gretl program replace the E-view program.

5.5 Recommendations for the Future Research

This research study has confronted a few difficulties or limitation as mentioned in the previous section. Hence, there have several recommendations will be put forward for future researchers to study about this topic as well as overcome these issues in order to extend and enrich this research study.

Firstly, this research study highlighted the factors of corporate governance; hence the future studies can be done on other specific internal variables from the public listed companies in a country such as board size, board committees, BOD meetings, ROA and ROE. Furthermore, this research study also found that the impact of corporate governance was related to the profitability of corporations.

Thus, the public listed companies that well-practiced corporate governance will help them to make a better business decision and strategy for carrying out their daily operations as well as general wealth for further expansion or acquisition. Also, it may be useful for the government to understand the reasons for well-practicing the corporate governance as well as it may boost or improve Malaysian economic growth. In short, the future researchers should study deeply to figure out the following determinants will affect the capital structure of public listed corporations.

Moreover, the future researchers are strongly proposed to use other software such as Stata (Statacorp) or Gretl (Gnu Regression) to run the regression model or data for their research since there are some limitations or weaknesses of E-Views. For instance, Gretl is the easiest econometrics application for the researchers to utilize since it is free to download and very powerful in the graphical user interface as well as good data import and export. Due to the benefits of Gretl for saving, editing or rerunning the data in a parallel batch system, the researchers will be convenient and they can obtain their desired outcomes in a short period.

Due to this research study was conducted only in Malaysia as well as on a particular sector which is plantation listed corporations, the data collected cannot be utilized to determine in other sectors either it is located in local or foreign countries. Next, it is a vast array of regional behaviours for the public listed corporations to exercise practices of corporate governance in many countries, so the research study should be involved the whole sectors of country and different suggestions from categories of persons such as state or federal governments, citizens, businessmen, investors and so on will be collected for future research purposes.

5.6 Conclusion

This research study attained the main empirical which is to investigate and determine how the corporate governance will affect the firm's capital structure of plantation listed companies in Malaysia. Next, it consists of 10 years data which it is from 2008 to 2017 as well as it obtains on annual basis from the Bloomberg. In this research, there have four explanatory variables are employed in the regression model to measure the leverage ratio of domestic listed companies which are firm sizes, CEO duality, managerial ownership, the board of independence as well as profitability. Additionally, the description analysis, panel data regression analysis as well as inferential analysis is involved in testing data analysis by using Gretl.

References

- Abdoli, M., Lashkary, M., & Dehghani, M. (2012). Corporate Governance and Its Effect on the Corporate Financial Leverage. *Journal of Basic and Applied Scientific Research*, 2(9), 8552-8560.
- Abel, E. E. (2008). Firm Size and Corporate Financial-Leverage Choice in a Developing Economy. *The Journal of Risk Finance*, 9(4), 351 – 364.
- Abobakr, M. G., & Elgiziry, K. (2015). The Effects of Board Characteristics and Ownership Structure on the Corporate Financial Leverage. *Accounting and Finance Research*, 5(1), 1–14.
- Abor, J. (2007). Corporate governance and financing decisions of Ghanaian listed firms. *Corporate Governance: The International Journal of Business in Society*, 7(1), 83–92.
- Abor, J. (2008). Agency theoretic determinants of debt levels: evidence from Ghana. *Review of Accounting and Finance*, 7(2), 183-192.
- Adams, M. B. (1994). Agency Theory and the Internal Audit. *Managerial Auditing Journal*, 9(8), 8–12.
- Agrawal, A., & Mandelker, G. (1987). Managerial Incentives and Corporate Investment and Financing Decisions. *The Journal of Finance*, 42(4), 823–837.
- Allison, P. D. (2009). *Fixed effects regression models*.
- Almania, O. (2017). Board of Director Independence and Financial Leverage in the Absence of Taxes. *International Journal of Economics and Finance*, 9(4), 90-94.
- Alnasser, S. (2012). What has changed? The development of corporate governance in Malaysia. *The Journal of Risk Finance*, 13(3), 269-276.
- Alshetwi, M. (2017). Saudi Arabia, 17(1).

- Antoniou, A., Guney, Y., & Paudyal, K. (2014). The Determinants of Structure: Capital Market-Oriented versus Bank-Oriented Institutions.
- Bahbra, H. S., Liu, T., & Tirtiroglu, D. (2008). Capital Structure Choice in a Nascent Market : Evidence from Listed Firms in China.
- Baker, M., & Wurgler, J. (2002). Market timing and capital structure. *The journal of finance*, 57(1), 1-32.
- Balkin, D. B., Markman, G. D., & Gomez-Mejia, L. R. (2000). Is CEO pay in high-technology firms related to innovation? *Academy of Management Journal*, 43(6), 1118–1129.
- Bass, F. M., & Wittink, D. R. (1975). Pooling Analysis Regression Marketing Examples. *Journal of Marketing Research*, 12(4), 414–425.
- Bathala, C. T., Moon, K. P., & Rao, R. P. (1994). Managerial ownership, debt policy, and the impact of institutional holdings: An agency perspective. *Financial Management*, 23(3), 38–50.
- Berger, P., Ofek, E., & Yermack, D. (1997). Managerial entrenchment and capital structure decisions. *Journal of Finance*, 52, 1411-1438.
- Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. *Journal of Corporate Finance*, 14, 257-273.
- Blease, J. R. B., Kaen, F. R., Etebari, A., & Baumann, H. (2010). Employees, Firm Size and Profitability in U.S. Manufacturing Industries. *Investment Management and Financial Innovations*, 7(2), 7-23.
- Bohren, O. (1998). The agent's ethics in the principal-agent model. *Journal of Business Ethics*, 17, 745–755.
- Bokpin, G. A., & Arko, A. C. (2009). Ownership structure, corporate governance, and capital structure decisions of firms: empirical evidence from Ghana. *Studies in Economics and Finance*, 26(4), 246-56.

- Booth, L., Aivazian, V., & Demircug-kunt, A. (2001). American Finance Association Capital Structures in Developing Countries. *The Journal of Finance*, 56(1), 87–130.
- Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. (2010). *A basic introduction to fixed and random effects models for meta-analysis*. Retrieved from https://www.researchgate.net/publication/229923123_A_basic_introduction_to_fixed_and_random_effects_models_for_meta-analysis
- Borhanuddin, R. I., & Ching, P. W. (2011). Cash Holdings, Leverage, Ownership Concentration And Board Independence: Evidence From Malaysia. *Malaysian Accounting Review*, 10(1), 63-88.
- Breusch, T. S., & Pagan, A. R. (1980). The Lagrange Multiplier Test and Its Applications to Model Specification in Econometrics. *Review of Economic Studies*, 47(1), 239-253.
- Cheah, K. G. (2010). *Malaysian Corporate Governance Regulation: Before And After The Asian Financial Crisis*. Unpublished working paper. Universiti Tun Abdul Razak, Malaysia.
- Chen, C. R., & Steiner, T. L. (1999). Managerial Ownership and Agency Conflicts: A Nonlinear Simultaneous Equation Analysis of Managerial Ownership, Risk Taking, Debt Policy and Dividend Policy. *The Financial Review*, 34(1), 119–136.
- Chen, J. J. (2004). Determinants of capital structure of Chinese-listed companies. *Journal of Business Research*, 57(12), 1341–1351.
- Chen, Y. C. (2010). Introduction to EViews.
- Chepkwony, H. (2015). *Effect Of Corporate Governance On Capital Structure Of Firms Listed At The Nairobi Securities Exchange*. University Of Nairobi.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Davies, J. R., Hillier, D., & McColgan, P. (2005). Ownership Structure, Managerial Behavior and Corporate Value. *Journal of Corporate Finance*, 11, 645-660.

Davis, J., Schoorman, F. D., & Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management Review*, 22(1), 20-47.

Detthamrong, U., Chancharat, N., & Vithessonthi, C. (2017). Corporate governance, capital structure and firm performance: Evidence from Thailand. *Research in International Business and Finance*, 42, 689-709.

Donaldson, L., (1985). In *Defence of Organization Theory, A Reply to the Critics* (Cambridge, Cambridge University Press).

Donaldson, L., & Davis, J. H. (1991). Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns. *Australian Journal of Management*, 16(1), 49-64.

Element Sampling. (n.d.). Retrieved March 30, 2018, from DJS Research: <http://www.disresearch.co.uk/glossary/item/Element-Sampling>

Elizabeth, N. K. L, Shobha, S. D. & Amit, D. (2009). Diversification strategy, capital structure, and the Asian financial crisis (1997-1998). *Journal Strategic Management*, 30(6), 577-594.

England, P., Farkas, G., Kilbourne, B. S., & Dou, T. (1988). Explaining Occupational Sex Segregation and Wages: Findings from a Model with Fixed Effects. *American Sociological Review*, 53(4), 544.

Fama, E. F., & Jensen, M. (1983). Agency problem and residual claims. *Journal of Law and Economics*, 26, 327-349.

Fosberg, R. H. (2004). Agency Problems and Debt Financing: Leadership Structure Effects. *International Journal of Business in Society*, 4(1), 31-38.

- Friend, I., & Lang, L. H. P. (1988). An empirical test of the impact of managerial self-interest on corporate capital structure. *The Journal of Finance*, 43(2), 271–282.
- Ganzeboom, C. (2014). The influence of ownership concentration and the board structure on the capital structure.
- Gill, A., & Mathur, N. (2011). The impact of board size, CEO duality, and corporate liquidity on the profitability of Canadian service firms. *Journal of Applied Finance and Banking*, 1(3), 83–95.
- Gonzalez, V. M., & Gonzalez, F. (2012). Firm Size and Capital Structure: Evidence Using Dynamic Panel Data. *Applied Economics*, 44(36), 4745-4754.
- Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). Boston, MA: McGraw-Hill/Irwin.
- Haniffa, R., & Hudaib, M. (2006). Corporate governance structure and performance of Malaysian listed companies. *Journal of Business Finance & Accounting*, 33(7-8), 1034-1062.
- Hildebrand, P. M. (2008). *Is Basel II Enough ? The Benefits of a Leverage Ratio*. Financial Markets Group Lecture: London School of Economics.
- Holly, A. (1982). A remark on Hausman's specification test. *Journal of the Econometric Society*, 749-759.
- Huang, G., & Song, F. M. (2006). The determinants of capital structure. *China Economic Review*, 17(1), 14–36.
- Hulster, K. D. (2009). Public Disclosure Authorized A New Binding Limit on Banks Excessive leverage by banks is widely believed to have contributed to.
- Jaggi, S. (2003). Descriptive Statistics and Exploratory Data Analysis. *Indian Agricultural Statistics Research Institute*, 1–18.

Jaradat, M. S. (2015). Corporate Governance Practices and Capital Structure: A Study with Special Reference to Board Size, Board Gender, Outside Director and CEO Duality. *International Journal of Economics, Commerce and Management*, 3(5), 264–273.

Jarrow, R. (2013). A leverage ratio rule for capital adequacy. *Journal of Banking and Finance*, 37(3), 973–976.

Jensen, G. R., Solberg, D. P., & Zorn, T. S. (1992). Simultaneous determination of insider ownership, debt and dividend policies. *Journal of Financial and Quantitative Analysis*, 27(2), 247–263.

Jensen, M. C. & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. *Journal of Financial Economics*, 3, 305-60.

Jiraporn, P., Jang-Chul, Kim, Young, S. K., & Kitsabunnarat, P. (2012). Capital structure and corporate governance quality. *International Review of Economics & Finance*, 22(1), 208-221.

Jones, A., Schlomer, G., & Wiggs, C. B. (2014). T-Tests How To Guide. *University of Arizona*, 1–5.

Jonson, S., Boone, P., Breach, A., & Friedman, E. (2000). Corporate governance in the Asian financial Crisis. *Journal of Financial Economics*, 58(1-2), 141-186.

Kalyanaraman, L., & Altuwaijri, B. (2016). The Linkage Between Excess Board Independence And Capital Structure: An Exploration In The Context Of Listed Companies In Saudi Arabia. *Journal of Applied Finance and Banking*, 6(3), 129-144.

Kayhan, A., & Titman, S. (2007). Firms' histories and their capital structures. *Journal of Financial Economics*, 83(1), 1–32.

Keay, A. (2017). Stewardship theory: is board accountability necessary? *International Journal of Law and Management*, 59(6), 1292–1314.

- Kester, C. W. (1986). Capital and ownership structure: a comparison of United States and Japanese corporations. *Financial Management*, 15, 5 – 16.
- Kim, S. W., & Sorensen, E. H. (1986). Evidence on the impact of the agency cost of debt on Corporate Debt Policy. *Journal of Financial and Quantitative Analysis*, 21(2), 131–144.
- Kumar, J. (2015). Capital Structure and Corporate Governance. *Journal of Entrepreneurship & Organization Management*, 4(3), 1-9.
- Larson, S. L. (2013). Stewardship Theory, Stakeholder Theory and Convergence.
- Leland, H. E., & Pyle, D. H. (1977). Information asymmetries, financial structure, and financial intermediation. *The Journal of Finance*, 32(2), 371–387.
- Liao, L.-K., Mukherjee, T., & Wang, W. (2015). Corporate governance and capital structure dynamics: an empirical study. *Journal of Financial Research*, 38(2), 169–191.
- Luan, C. J., & Tang, M. J. (2007). Where is independent director efficacy? *Corporate Governance*, 15(4), 636–643.
- Marete, D. (2015). *The Relationship Between Firm Size And Financial Leverage Of Firms Listed At Nairobi Securities Exchange*. Unpublished final year project. University Of Nairobi.
- Mokarami, M., Ahmadi, M. R., & Hosseinzadeh A. H. (2012). Corporate Governance and Financial Decision Making in the Firms Listed on Tehran Stock Exchange. *International Research Journal of Finance and Economics*, 93.
- Myers, M. H. (1989). *Still searching for optimal capital structure*. Federal Reserve Bank of Boston.
- Naseem, M. A., Zhang, H., Malik, F., & Rehman, R. U. (2017). Capital Structure and Corporate Governance . *The Journal of Developing Areas*, 51(1), 33-47.

Nilssen, C. M. (2014). *Determinants of Capital Structure in Listed Norwegian Firms*. (Doctoral dissertation). Lancaster University.

Noreen, E. (1988). The economics of ethics: A new perspective on agency theory. *Accounting, Organizations and Society*, 13(4), 359–369.

Olawale, L. S., Ilo, B. M., & Lawal, F. K. (2017). The Effect of Firm Size on Performance of Firms in Nigeria. *Aestimatio, The IEB International Journal of Finance*, 15, 2-21.

Onofrei, M., Tudose, M. B., Durdureanu, C., & Anton, S. G. (2015). Determinant Factors of Firm Leverage: An Empirical Analysis at Iasi County Level. *Procedia Economics and Finance*, 20(15), 460–466.

Ponnu, C. H., & Karthigeyan, R. M. (2010). Board Independence And Corporate Performance. *African journal of business management*, 4(6), 858-868.

Qian, Y., Tian, Y., & Wirjanto, T. S. (2008). *An empirical investigation into the capital-structure determinants of publicly listed Chinese companies: A static analysis*. University of Waterloo.

Qian, Y., Tian, Y., & Wirjanto, T. S. (2009). Do Chinese publicly listed companies adjust their capital structure toward a target level? *China Economic Review*, 20(4), 662–676.

Rajan, R. G., & Zingales, L. (1995). What Do We Know about Capital Structure? Some Evidence from International Data What Do We Know about Capital Structure? *The Journal of Finance*, 50(5), 1421–1460.

Rajangam, N., Sundarasan, S. D. D., & Rajagopalan, U. (2014). Impact Of Governance On Profitability, Liquidity And Gearing Of Companies. *Asian Social Science*, 10(10), 13-22.

Ranti, U. O. (2013). The Effects of Board Size and Ceo Duality on Firms ' Capital Structure : a Study of Selected Listed Firms in Nigeria. *Asian Economic and Financial Review*, 3(8), 1033–1043.

- Ross, S. (1973). The Economic Theory of Agency: The Principal's Problem. *American Economic Review*, 63, 134-9.
- Salim, M., & Yadav, R. (2012). Capital Structure and Firm Performance: Evidence from Malaysian Listed Companies. *Procedia - Social and Behavioral Sciences*, 65, 156–166.
- Secondary data. (n.d.). BusinessDictionary.com. Retrieved from:
<http://www.businessdictionary.com/definition/secondary-data.html>
- Sheikh, N. A., & Wang, Z. J. (2012). Effects of corporate governance on capital structure: empirical evidence from Pakistan. *The international journal of business in society*, 12(5), 629-641.
- Singam, K. (2003). Corporate Governance In Malaysia. *Bond Law Review*, 15(1), 314-344.
- Strebulaev, I. (2004). *Do tests of capital structure theory mean what they say?* Unpublished working paper. Stanford University.
- Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of Financial Economics*, 26, 25–54.
- Thompson, C. B. (2009). Descriptive Data Analysis. *Air Medical Journal*, 28(2), 56- 59.
- Titman, S., & Tsyplakov, S. (2005). *A dynamic model of optimal capital structure.* Unpublished working paper. University of Texas, Austin.
- Uwuigbe, U. (2014). Corporate governance and capital structure : evidence from listed firms in Nigeria stock exchange. *Journal of Accounting and Management*, 4(1), 5–14.
- Wald, J. K. (1999). How Firm Characteristics Affect Capital Structure: An International Comparison. *Journal of Financial Reserach*, 22(2), 161–187.