# DRIVERS OF CORPORATE SOCIAL PERFORMANCE: EVIDENCE FROM MALAYSIA DOMESTIC BANKS

BY

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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.
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#### **DEDICATION**

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#### TABLE OF CONTENTS

		Page
Copyright		ii
Declaration		iii
Acknowledgeme	ent	iv
Dedication		v
Table of Content	S	vi
List of Tables		X
List of Figures		xi
List of Abbreviat	tions	xii
List of Appendic	es	xiii
Preface		xiv
Abstract		xv
CHAPTER 1	RESEARCH OVERVIEW	
1.0	Introduction	1
1.1	Background of Study	2
1.2	Problem Statement	9
1.3	Research Objective	12
	1.3.1 General Objective	12
	1.3.2 Specific Objective	13

#### Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

1.4	Research Question.	13
1.5	Hypothesis of the Study	14
	1.5.1 Corporate Financial Performance	14
	1.5.2 Bank Size.	14
	1.5.3 Leverage Level	15
	1.5.4 Bank Age	15
1.6	Significance of the Study	16
1.7	Chapter Layout	17
1.8	Conclusion.	19
CHAPTER 2	LITERATURE REVIEW	
2.0	Introduction	20
2.1	Review of Relevant Theoretical Models	21
	2.1.1 Concept and Foundation of CSR	21
	2.1.2 Stakeholder Theory	26
	2.1.3 Legitimacy Theory	28
	2.1.4 Agency Theory	31
	2.1.5 Institutional Theory	32
	2.1.6 Slack Resources Theory	34
2.2	Review of Prior Empirical Studies	35
	2.2.1 Dependent Variable	
	Corporate Social Performance	35
	2.2.2 Independent Variable	
	Corporate Financial Performance	38
	2.2.3 Independent Variable	
	Bank Size	44
	2.2.4 Independent Variable	
	Leverage Level	47
	2.2.5 Independent Variable	
	Bank Age	49
2.3	Proposed Theoretical/Conceptual Framework	52

#### Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

2.4	Hypothesis Development	53
	2.4.1 Corporate Financial Performance	53
	2.4.2 Bank Size.	53
	2.4.3 Leverage Level	54
	2.4.4 Bank Age	54
2.5	Conclusion	55
CHAPTER 3	METHODOLOGY	
3.0	Introduction	56
3.1	Research Design	57
3.2	Data Collection Method	57
	3.2.1 Corporate Social Performance (CSP)	58
	3.2.2 Corporate Financial Performance (CFP)	59
	3.2.3 Bank Size.	60
	3.2.4 Leverage Level	61
	3.2.5 Bank Age	62
3.3	Sampling Design	63
	3.3.1 Target Population	63
3.4	Data Analysis	64
	3.4.1 Panel Data Regression Model	64
	3.4.2 Diagnostic Test	65
	3.4.2.1 Multicollinearity	66
	3.4.2.2 Heteroscedasticity	67
	3.4.2.3 Autocorrelation	68
	3.4.2.4 Hausman Test	70
3.5 (	Conclusion	71
CHAPTER 4	DATA ANALYSIS	
4.0	Introduction	72
4.1	Scale of Measurement	73
	4.1.1 Multicollinearity	73
	4.1.2 Heteroscedasticity	76

## Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

-	4.1.3 Autocorrelation	77
	4.1.4 Hausman Test	78
	4.1.5 Cluster Robust Standard Error	79
4.2	Inferential Analysis	80
	4.2.1 Corporate Financial Performance	81
	4.2.2 Bank Size	81
	4.2.3 Leverage Level	82
	4.2.4 Bank Age	82
4.3	Conclusion	83
CHAPTER 5	DISCUSSION, CONCLUSION AND IMPLICATIONS	
5.0	Introduction	84
5.1	Summary of Statistical Analysis	84
5.2	Discussion on Major Findings	85
	5.2.1 The Relationship Between	
	CFP and CSP	85
	5.2.2 The Relationship Between	
	Bank Size and CSP	86
	5.2.3 The Relationship Between	
	Leverage Level and CSP	86
	5.2.4 The Relationship Between	
	Bank Age and CSP	87
5.3	Implications of the Study	87
	5.3.1 Corporate Financial Performance	88
	5.3.2 Bank Size.	88
	5.3.3 Leverage Level	89
	5.3.4 Bank Age	89
5.4	Limitations of the Study	90
5.5	Recommendations	91
5.6	Conclusion	92
References		94
Appendices		106

## LIST OF TABLES

	PAGE
Table 1.1.1: List of Banks (in Malaysia)	7
Table 2.2.2.1: Overview of outcomes of previous named studies	
about relationship between CFP and CSP.	40
Table 2.2.3.1: Overview of outcomes of previous named studies	
about relationship between Bank Size and CSP.	44
Table 2.2.4.1: Overview of outcomes of previous named studies	
about relationship between Leverage Level and CSP.	47
Table 2.2.5.1: Overview of outcomes of previous named studies	
about relationship between Bank Age and CSP.	49
Table 3.2.1: Data Sources	57
Table 3.4.1.1: Symbols and Measurements	64
Table 3.4.2.1.1: Indications of VIF Value	67
Table 3.4.2.3.1: Durbin-Watson Statistic Decision Rule	69
Table 4.1.1.1: Correlation among the Independent Variables	73
Table 4.1.1.2: Indication of Correlation	74
Table 4.1.1.4: Figures of VIF among the Independent Variables	75
Table 4.1.2.1: Result of Breusch-Pagan LM Test	76
Table 4.1.3.1: Result of Durbin-Watson Stat	77
Table 4.1.4.1: Result of Hausman Test	78
Table 4.1.5.1: Cluster Robust Standard Error for Panel Data	
Regression Model	79
Table 4.2.1: Result of the Fixed Effect Model	80

## LIST OF FIGURES

		PAGE
Figure 2.1.1.1	: Model of CSP according to Wood (1991)	25
Figure 2.3.1:	Diagram of Conceptual Framework	52

#### LIST OF ABBREVIATIONS

BLUE BEST LINEAR UNBIASED ESTIMATOR

BNM BANK NEGARA MALAYSIA

CFP CORPORATE FINANCIAL PERFORMANCE

CLRM CLASSICAL LINEAR REGRESSION MODEL

CSP CORPORATE SOCIAL PERFORMANCE

CSR CORPORATE SOCIAL RESPONSIBILITY

EPS EARNING PER SHARE

EU EUROPEAN

FEM FIXED EFFECT MODEL

REM RANDOM EFFECT MODEL

ROA RETURN ON ASSET

ROE RETURN ON EQUITY

ROS RETURN ON SALE

OLS ORDINARY LEAST SQUARE

VIF VARIANCE INFLATION FACTOR

## LIST OF APPENDICES

	PAGE
Appendix 1: Raw data of dependent and independent variables for ten local banks in Malaysia from 2007 to 2015	106
Appendix 2: Result of Fixed Effect Model	110
Appendix 3: Result of Correlation Among Independent Variables	111
Appendix 4: Result of Variance Inflation Factor (VIF) Among Independent Variables	113
Appendix 5: Result of Breusch-Pagan LM Test	113
Appendix 6: Result of Durbin-Watson Test	114
Appendix 7: Result of Hausman Test	115
Appendix 8: Result of Cluster Robust Standard Error	116

#### **PREFACE**

To examine the corporate social performance is a very popular and interesting topic for many researchers. The effects of the corporate financial performance, bank size, leverage level and bank age by employ panel regression model.

This study provide useful information or guidelines to several parties such as policy makers, governments, investors, researchers and companies who tend to have better understanding about corporate social performance of domestic banks in Malaysia.

#### **ABSTRACT**

This study aims to examine the effect of corporate financial performance against the corporate social performance of domestic banks in Malaysia. The independent variables including in this study are corporate financial performance, bank size, leverage level and bank age to investigate its consequences on dependent variable, which is corporate social performance of domestic banks in Malaysia. This study is using panel data, consists of time series data from 2007 to 2015, and cross-sectional data with 10 domestic banks, which contains 90 observations. Moreover, this study employed Panel Data Regression Model to examine the regression model. For the diagnostic checking, the model is free from the econometric problems except heteroscedasticity issue, which had been solved by using Cluster Robust Standard Error.

The results indicate the corporate financial performance and bank age are significantly and positively related except for bank size and leverage level are insignificantly and negatively related to corporate social performance of domestic banks in Malaysia.

**CHAPTER 1: RESEARCH OVERVIEW** 

1.0 Introduction

There are 8 sections will be discussed in this chapter and all the sections will be

entitled as the research overview. These sections are background of this research

paper, problem statement, research objectives and questions, hypothesis and

significance of this research, outline of the chapter and conclusion.

In the first place, the background and activities of Corporate Social Responsibility

(CSR) in banking industry in Malaysia will be briefly explained and discussed in

order to deliver the context of this research. Following by the problem statement,

the major research problem and research objective will be briefly discussed to

point out the purpose of this study. Thus, research questions and hypothesis will

be identified and proposed as a guideline of this research. Moreover, the

significance of this study was constructed to address the involvement of this study.

In chapter layout, the outline of the entire 5 chapters in this research will be given.

Lastly, the conclusion to be made as a summary of Chapter 1 and provide a

linkage to Chapter 2.

## 1.1 Background of Study

Current and future bearings can be distinguished for the sustainability of corporate performance and reporting. Over the year globally, the corporate organizations have been increasing and continuously spending on the activities related to CSR. It is currently assumed and anticipated that a profit-making organization must participate in socially tractable activities (Karuti, Shano & Rukangu, 2015). According to CBK (2005), in order to ensure that the institutions' businesses remain sustainable and feasible both socially and in the environmental context, they are obligated to exercise and implement Corporate Social Responsibility (CSR) due to the recognition of the existing mutual relationships. On the other hand, Ghelli (2013) stated that due to the expandation of the industrialization which had caused the natural resources become depletion and saturated, the future equilibrium of the world had been affected. To avoid and protect these behaviour, the most suitable approach is to adopt and nurture the activities related with social responsibility.

Corporate Social Responsibility (CSR) activities can be identified by the behaviour and features of the firms and organizations in every businesses, and through the circumstances in which the firms all operating. Furthermore, all of the things that builds up for the company or organization social responsibility would be based on the contexts of that particular firms relevant businesses, as well as follow the anticipations placed by the society (Musdiana et al. 2012). Furthermore, Corporate Social Performance (CSP) can also be explained as a business organization's formation about the principles and philosophy about the social

responsibility activities, social responsiveness procedure, and guidelines, planning, and results that are observable as they are concern with the company's societal relationships (Sulaiman et al. 2012). It has become more and more important to the companies as CSR making companies become good citizens as they promote more on society's welfare rather than benefit themselves (Khanifar, Nazari, Emami, & Soltani, 2012). According to the recent global survey, there are 76% of managers believe the long-term shareholder value can conducted by the Corporate Social Responsibilities (CSR). Besides that, there are 55% of the managers believe that the Corporate Social Responsibilities (CSR) can helps them to build a strong reputation of their companies (McKinsey, 2010).

Some academicians and industrial experts are getting interest in the topic of Corporate Social Responsibility. They believed that CSR has become a potential and valuable way to build up a long-term and stronger linkage with external and internal stakeholders who related with their business entity. Beside of this, another research done by Mandhachitara and Poolthong (2011) illustrated that the CSR initiatives could be affected the consciousness of services quality, consumer affective behaviours and brand effect. During this research, the environment is determined as one of the various dimensions of the CSR.

The corporate performance model, sustainability (CSP) measurement and imploded reporting are executed by using progressed mathematical, statistical and econometric techniques, data and communication technologies. The examination standard can be expanded by likewise considering major phase of qualitative nature.

On the other hand, in the Western countries, the consultancy firms will give

advice toward the organizations to show them how to carry out the activities

related with CSR and how to convince public to notice of those execution.

Generally, most of the multinational companies will recruit a senior manager be in

charge of how implementing, coordination and developing and the CSR function

(Dusuki, 2008). Furthermore, CSR has become a critical instrument among the

business region, especially public policy in the EU countries that supporting it

through the strategic documents (Maria & Adriana, 2015) that can stimulate to the

sustainability of development in the whole society.

Besides, in Asian countries, Malaysia is one of the most dynamic arising

economies that comprise in CSR and Malaysia has a rapid development of CSR

since 1974. Malaysian Institute of Integrity (IIM) was established under the

National Integrity Plan in 2004 to boost CSR activities in both private and public

companies (Noor, Nurul et al. 2015).

The focus on CSR has been rapidly increased from the past 10 years within

Malaysia, because of this, many corporations' starting to treat the CSR as an

important element in their strategy to create the linkage with the public (Kostyuk,

2012). CSR had been practicing over the most developing countries, at the same

time, it started to be known by the largest organization in Malaysia progressively.

According to the studies carried out on the firms in Malaysia, 97.5% of the 198

respondents consented that firms in Malaysia are involving in the practices of

CSR (Lo & Yap, 2011).

The intervention of government has sparked by the significance of CSR. According to Malaysia Prime Minister, Dato' Seri Najib Tun Razak, during the 2006 budget speech, he stated that all of the Public Listed Firms are essentially to reveal their involving activities of Corporate Social Responsibility (CSR). It can be executed as a plan for attracting the investors, at the same time improving the Corporate Financial Performance (CFP) of firms. Therefore, the decision relating to the disbursement about the activities of CSR should be analysed and evaluated as other investment decisions assured by firms (McWilliams & Siegel, 2000).

Over the globe, banking industry is suffer from massive pressure to engage in the business related in a responsible and ethical manner from its investors, stakeholders, non-governmental organization (NGOs), media, even its customers (Frenz, 2005). It is because that a performance of banking industry can be seen as one of a representative of a country, which could be drove by several parties to strengthen the image of that particular country. Furthermore, based on the study of Martinez, Flores and Martinez (2006), they stated that banking industry is one of the most positive and dynamic industry who engaging in the marketing planning, which explained that why the public put so much attention on the banking industry as well. In addition, contrast with other industries, banking industries are more willing to visible their activities in the community (Mandell, Orgler & Lachman, 1981) to obtain the trust from public at the same time attracting the potential customers or investors.

According to the research of Zulkifli and Amran (2006), they demonstrated that Malaysia, within all the developing countries, seem to be active with engaging in relation with the corporate social responsibilities. Furthermore, banking businesses, especially domestic banks also indicated as a dynamic and positive

participation between all of the service industries for the CSR events. For instance,

Public Bank Bhd (PBB) had won the Malaysian Business CSR Awards in 2007

and 2008. They treating the CSR as a part of the corporate agenda, it shows an

obvious sign that the objectives of banking business are not just to maximize the

profit, but also throughout the socially and environmentally responsible

investment, they try to build a strong interaction and connection with their

stakeholders (Musdiana et al. 2012).

On the other hand, Holcomb et al. (2007) stated that the organizations such as

banks had realized the advantage of making known about their compensation

recently, as many studies indicated that a well corporate citizen can interests the

morale of employee, and also assisting in promoting the corporation reputation as

well as the image of their brand.

Furthermore, according to Nazir Razak, the chief executive officer of CIMB bank,

he demonstrated that the activities of CSR are no more about contributing the

money during the recent generation. He indicated that he wanted their efforts of

CSR being focused, as well as having a dynamic and sustainably long-term effect

toward the public. The fundamental of CIMB is to guarantee that these efforts are

incisive and scalable (CIMB, 2011).

Generally the CSP in Malaysian domestic banking institutions are mostly alike.

The compose of CSR activities including circumstances, donations, preservation,

contributions, and employees practicing, charity and apply well governance of

corporate to cite a few. The only difference is in the pattern of implementation

(Kostyuk, 2012).

The banking system in Malaysia covers of Bank Negara Malaysia (BNM), Islamic banks, commercial banks, investment banks and foreign banks. Following, all the domestic banks are listed as below.

Table 1.1.1 List of Banks (in Malaysia)

No.	List of Domestic Banks	Commercial Line	Investment Line	Islamic Line
1.	Affin Bank Berhad	*	*	*
2.	Alliance Bank Berhad	*	*	*
3.	AmBank (M) Berhad	*	*	*
4.	Bank Islam Malaysia Berhad			*
5.	Bank Mualamat Malaysia Berhad			*
6.	CIMB Bank Berhad	*	*	*
7.	Hong Leong Bank Berhad	*	*	*
8.	Malayan Banking Berhad	*	*	*
9.	Public Bank Berhad	*	*	*
10.	RHB Bank Berhad	*	*	*

<sup>\*</sup> shows the banking activity that particular bank involved.

Source: Bank Negara Malaysia

A well understanding of the determinants can help banks to have a clearer image

for the current position of the Malaysia domestic banking industry on contributing

and improving the consideration in the decision makings.

This research investigates on a framework that involved a structured equation, the

effect of corporate financial performance (CFP) on corporate social performance

(CSP) of domestic banking industry in Malaysia. Besides, some of the other

independent variables including bank size, leverage level, and bank age. This

research paper is main focus on the social performances of the domestic banks

which listed at the List of Malaysian banks with a targeted of period which from

year 2007 to 2015.

Meanwhile, there are also studies the ways to improve the social performance of

the domestic banks. After the whole analyses and studies are completed, some of

the relevant recommendations will be provided to the respected role.

This research only focus on the domestic banks in Malaysia is because there are

very few foreign banks involved in the corporate social responsibility activity.

This is because the domestic banks expressed a higher efficiency than the foreign

banks. On the other hand, the foreign bank require larger costs compared to the

domestic bank when providing the same or similar service such as the activities

that related with CSR. In addition, the foreign banks also will confront the

difficulty when conducting the CSR activity such as the diversity in language,

culture, regulatory and currency. Thus, the contribution over the society in foreign

bank will be much lower or even none compare to the domestic banks.

#### 1.2 Problem Statement

In today's, banking service activities had been changed significantly because of the changes in financial innovation, globalization and appearance of new technologies in delivery of service. The economic crisis in the global markets shows that the losses of confidence of society toward the financial systems, furthermore, it also increased the social awareness of the customers, regulators, employees and shareholders who seek for better business activities. Thus, the image of corporate becomes a vital conduit for organizations to face with the confidence global crisis. This kind of scenario is related with the retail banking sector, which recently dealing with one of the worst confidence crisis between its several stakeholders engage in the international arena. This is one of the major reasons why the banking sector is recently engage in leading of investors against the corporate social responsibility (Musdiana et al. 2012).

However, the literature on bank efficiency found that the foreign banks showed lower efficiency than domestic banks (Hasan et al., 1996; Mahajan et al., 1996; Kraft et al., 2006; Havrylchyk, 2006). Based on the study of Ong et al. (2011), the research indicated that, in Malaysia, the domestic banks exhibited higher level of efficiency than foreign banks. This reflected that domestic banks are relatively more managerially efficient in controlling their costs as home field advantage hypothesis can disadvantage to foreign banks in terms of higher costs. On the other words, the foreign banks will sustain higher costs compared to domestic banks when offering the same or similar financial services to consumers. Furthermore, the foreign banks confront the issue of diversity in language,

currency, regulatory, culture or bias towards the foreign banks and sometimes the

home regulators of that particular foreign banks might also confront the difficulty

in managing and monitoring the institutions from a long distance. Thus, the

contribution over the society will become inaccurate compared to the domestic

banks. At this stage, it is more valuable to evaluate the CSP of domestic banks

since it reflects the performance of almost whole banking industry.

On the other hand, the CSR activities are preponderantly considered as western

phenomenon because of the stronger institutions' standards and systems, which

are weaker in developing countries, such as Malaysia (Chapple & Moon, 2005).

However, most of the studies in Malaysia focus widely on the disclosure and less

on perception and awareness. Therefore, future research should focus more on the

perception towards CSR to minimize the existing gap (Noor, Nurul et al., 2015).

According to Sood and Orora (2006), in developing countries, the nature and

features of CSR are more rely on the policies and pattern of multinational

corporations, without connecting it with the financial performance. Thus, it seems

uncertainty whether involvement in CSR will affect firm's financial performance

positively or negatively.

During 1990's, there is no study and research on CSR practices in Malaysia has

been published (Liew et al. 2012). Although the studies on the CSR practices in

Malaysia are increasing recently, however, there is still a gap of knowledge about

CSR in today (Nik Ahmad, 2003). Also, previously, there are less studies and

researches investigating on all these four determinants simultaneously with the

CSP. The four determinants involved in this research are: CFP (Kartadjumena,

Abdul Hadi & Budiana, 2011), bank size (Udayasankar, 2007), leverage level

(Cormier & Magnan, 2003) and bank age (Delaney & Huselid, 1996).

On the other hand, Ng (2008) mentioned that the Malaysian companies are far

behind international standards when it comes to implement CSR, with nearly two-

thirds of those surveyed ranking between poor and average categories. In addition,

CSR study in Malaysia is still in a lacking level (Hamid, 2003). One of the reason

is the involvement in CSR required substantial amount of money and resourced to

allocate which will result lower corporation profitable margin. In current

competitive business market, resources are needed to intelligently allocate and

fully utilized to generate corporation income rather than being socially responsible.

Malaysian banks have the ability and power to perform and express much better.

Consumers in Malaysia are involving defaulters of payment or loan, worth to be

treated in a civic and professional pattern. However, in Malaysia, CSR activities

and governance of management are only at the initial levels while compared with

other Asian countries such as Thailand, Singapore and South Korea. When there is

awareness, the utilization, exercise and informing of the CSR is very low or slow.

Thus, the aim of this study is to find out the relationship between CFP and CSP, as

well as consists of other independent variables involve bank size, leverage level

and bank age.

## 1.3 Research Objectives

Research objective interpret as the aims in carry out this study. The listed objective should be reached at the end of this research. There are two categories under this research objective which are general objective and specific objectives. In this study, it involves a general objective and a few specific purposes.

#### 1.3.1 General Objective

The general objective is to investigate the determinants on the corporate social performance (CSP) of domestic banking industry in Malaysia. The investigation is carried out based on the study of ten banks in Malaysia with the time period from 2007 to 2015.

## 1.3.2 Specific Objective

- i. To investigate the relationship between corporate financial performance and corporate social performance.
- ii. To investigate the relationship between bank size and corporate social performance.
- iii. To investigate the relationship between leverage level and corporate social performance.
- iv. To investigate the relationship between bank age and corporate social performance.

v. To investigate the effect on corporate social performance from the period of year 2007 to year 2015.

## 1.4 Research Questions

The aim of carried out this research is to identify the factors that affecting the corporate social performance of domestic banking industry in Malaysia. This study is focusing on assessing the ten banks' corporate social performance in Malaysia.

- i. Is there any relationship between corporate financial performance and corporate social performance?
- ii. Is there any relationship between bank size and corporate social performance?
- iii. Is there any relationship between leverage level and corporate social performance?
- iv. Is there any relationship between bank age and corporate social performance?
- v. Which determinant has the most influence toward corporate social performance?

## 1.5 Hypothesis of the Study

#### 1.5.1 Corporate Financial Performance

H<sub>10</sub>: There is no significant relationship between corporate financial performance

and corporate social performance.

H<sub>1</sub><sub>A</sub>: There is significant relationship between corporate financial performance and

corporate social performance.

#### 1.5.2 Bank Size

H2<sub>0</sub>: There is no significant relationship between bank size and corporate social performance.

H2<sub>A</sub>: There is significant relationship between bank size and corporate social performance.

## 1.5.3 Leverage Level

H<sub>30</sub>: There is no significant relationship between leverage level and corporate social performance.

H3<sub>A</sub>: There is significant relationship between leverage level and corporate social performance.

## 1.5.4 Bank Age

- H4<sub>0</sub>: There is no significant relationship between bank age and corporate social performance.
- H4<sub>A</sub>: There is significant relationship between bank age and corporate social performance.

1.6 Significance of the Study

In this paper, the objective is to analyse the relationship between CFP and CSP on

the domestic banking industry in Malaysia by using the variables that have been

discussed in the previous part. The dependent variable using in this paper is CSP

while the independent variables are CFP, bank size, leverage level, and bank age.

Particular formulas are used in calculating each of the variables in order to get

more accurate and valid figures.

This research helps in understanding what is the relationship between corporate

financial performance, bank size, leverage level and bank age with the corporate

social performance. Besides that, this research will helps to understanding which

independent variable will affect the domestic banks social performance in

Malaysia and how those independent variable will affect the domestic banks

social performance in Malaysia.

It is also helpful for the bank to have a better understanding on the factors that

affecting their social performance because of banks can generate better image and

responsible by knowing well about the changing variables. If the banks have

better understanding on the factors that affecting their social performance, they

will know how to improve their social performance and it will led to improve the

bank reputation and image.

1.7 Chapter Layout

The structure and content of this research paper are listed as follows:

Chapter one provides a brief introduction about the background and purposes of

this study. This chapter is starting from the introduction of this paper, background

of this research, problem statement, objectives of the study as well as the

hypotheses and the questions of this research. It is then followed by the

significance of this research, layout of all the chapters, and a summary for ending.

Chapter two provides a review of literature of all the chosen variables. These

reviews instigate the researchers' interest and concern on how the Corporate

Financial Performance (CFP) can effects the Corporate Social Responsibility

(CSR) on banking industry in Malaysia. It involves of a general introduction of

the chapter, inspection of the literatures, inspection of the models, recommended

theoretical and conceptual framework, developing hypotheses and conclusion.

Chapter three provides the methodology and data that used in this research paper.

This chapter starts with introduction, design of the research, methods of collecting

the data, sampling design, variables specifications of measurements, analysis of

data which involve with the econometric diagnosis tests, as well as a conclusion of

this chapter.

Chapter four presents the finding and analysis of the results from the chapter three.

It consists of the investigation on the significant and insignificant effect between

the CFP and CSR. This chapter involve of the introduction, descriptive analysis, scale measurement, inferential analysis and conclusion.

Lastly, chapter five will be concluded all the results from chapter one to four, followed by the implications, limitations as well as the recommendation to be proposed for the future studies.

1.8 Conclusion

Generally, Malaysia's domestic banking industry suffered a lack of awareness and

knowledge about the CSR. Thus, it is necessary to improve the understanding on

the concept of CSR as well as the relationship to the banking industry operation.

The objective of this research is examining the effect of CFP against the CSR in

Malaysia's domestic banking industry. It focuses on the relationship between the

variables that can benefits particular players such as investor, shareholder,

government, and so forth.

The coming chapter will discuss the completed review of previous objectives and

findings.

## **CHAPTER 2: LITERATURE REVIEW**

## 2.0 Introduction

This chapter involves five parts. In the first part, the theoretical fundamental will be presented. Few theories that related with this study will be discussed. The second section is reviewing the prior empirical statement, at the same time, all of the variables will be discussed in depth. In the third part, the proposed conceptual framework will demonstrated. Meantime, the discussion about the development of hypotheses of this study will be indicate in fourth part. In last section, there will be a conclusion for this chapter.

2.1 Review of Relevant Theoretical Models/ Conceptual

**Foundation** 

Review of relevant theoretical models or conceptual foundation refer to the

theories that can describe and explain the philosophy related with this research

and it helps to form a linkage with the theoretical aspects and practical

applications. This part will discuss the theorized relationship among the variables

and helps to apply a logical meaning of the relationship among variables, which

provide a base to establish the proposed theoretical.

2.1.1 Concept and Foundation of CSR

<u>1950's</u>

Based on the knowledge, the modern social responsibility started in the 1950's.

Because of the publication of "Social Responsibilities of the businessman" which

written by Howard R. Bowen, it expand the starting of the social responsibility

modern generation (Ahmadi, 2014).

Bowen (1953) set a first premier definition about social responsibility: 'It refers to

the obligations of businessmen to pursue those policies, to make those decisions,

or to follow those lines of action which are desirable in terms of the objectives and

values of our society'.

According to the study of Rahman (2011), it stated that the study made by Heald

(1957) was also vital as he given a point of view about the CSR. Heald (1957)

defined that a CSR is an acknowledgement within the organization of a

responsibility toward the society, it serves not just maximizing the performance of

economic but also for compassionate and constructive social scheme as well.

According to Ahmadi (2014), the two definition that demonstrated by Bowen in

1953 and Heald in 1957 can be seen as the fundamental of CSR.

1960's

During the 1960's era, Keith Davis served as a major leader who stimulated the

increases of the awareness on CSR. He defined the CSR as the actions and

decisions made by the business man which at least partially not relating with their

immediate economic or professional interest.

According to the study of Ahmadi (2014), based on the opinions of Keith Davis,

the businessman social responsibility should be commensurate with the social

power they had. And this philosophy had been applied widely during the period of

1970's and 1980's.

1970's

According to 'business in contemporary society: framework and issues' which

written by Harold Johnson, one of his arguments is company should consist of

CSR activities so as to maximizing its return in the long-term basis. In addition,

the other theory called 'utility maximization' given by him, indicated that the

most vital firm's objective should be maximizing utility. These definitions of CSR

given by Harold Johnson provided a great influence over 1970's.

In the 1970's, Milton Friedman demonstrated that the only social responsibility

toward the firms is using the resources for maximizing their returns at the same

time not engage in any fraudulent and deception.

These opinions are more concentrate about the firm's objective rather than social

responsibility, because of maximizing the utility and returns are being seen as

more important, which is different with the views applied in the 1950's and

1960's (Ahmadi, 2014).

1980's

In the 1980's, rather than emphasis on the definitions of CSR, researching were

more important. This actions give rise to the finding about different ideas and

issues, such as CSP, CSR, even the emerging of stakeholder theory (Ahmadi,

2014).

CSR should not be seen as a group of results, it's a procedure (Jones, 1980). This

give a rise to a totally up-to-date redefined philosophy about CSR activities, at the

same time also give a rise to a relationship among the CSR activities and the

profitability of firms (Ahmadi, 2014).

The research done by Cochran Wood (1984), which is one of the first researches

that relating with the relationship between CSP and CFP, given the impact of the

awareness and interest about whether the firms that engage in CSR can also be

profitable is increasing. At the same time also made way for CFP, rather than CSR

(Ahmadi, 2014).

<u>1990's</u>

During the 1990's there were more different themes arise, such like CSP,

stakeholder theory, corporate citizenship and theory of ethical business. The CSR

then became the fundamental point of these different themes (Ahmadi, 2014).

According to Wood (1991), he restructured the model of CSP and came out with a

brand new measurement model that tackles the CSR interest.

Furthermore, Wood (1991) stated that there have 3 procedures about CSR

involved, which are management of stakeholder, environmental assessment and

issues management. In addition, the CSP results can be the social programs, social

impact and social philosophies. Furthermore, based on the study of Carroll (1999),

it demonstrated that Keith Davis and Howard Bowen are the two most outstanding

writers about the CSR.

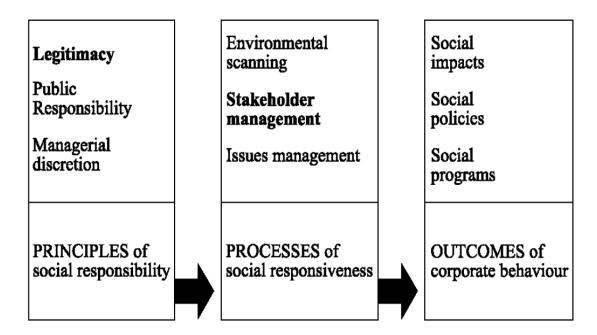
According to Ahmadi (2014), Wood was one of the first that carried out with the 3

dimensional phases about CSR: social aspect-people, economic aspect-profit and

environmental aspect-planet. And CSR has to lead to a business sustainable

through these three aspects.

Figure 2.1.1.1 Model of CSP according to Wood (1991)



Source: Wood, Donna J. (1991). Corporate Social Performance Revisited.

Academy of Management Review, 16(4), 691-718

#### 21st century

CSR in today's 21st century become a more global awareness. At the same time, the creation of United Nations Global Compact lead to a promotion about the CSR in Europe as well as worldwide. Beside of this, the European Commission's Green paper which concerning against the circumstance, labour, society and human right was also established (Ahmadi, 2014).

The studies that were presented in the 21st century more focus on the measurement methods and theoretical developments about the CSR, rather than emphasis on the definition about the CSR (Ahmadi, 2014).

# 2.1.2 Stakeholder Theory

Stakeholder theory of the CSR is linked with the principle that organizations have their own responsibility to the society rather than stockholders and except for the restriction by union contract or law (Jones, 1980). Furthermore, Freeman (1984) improve the advocation of stakeholder theory which given a greater positive view of supporting by manager to the CSR. He argued that the managers must satisfy and fulfill different constituents, such as investors and shareholders, customers, government, employees, suppliers and local community organizations, who can affect and influence the company outcomes.

The purpose of stakeholder theory is to alter and expand the foresight of directors who only focus on improving the worth of shareholder in order to maximize the profitable and sustainable. Some of the other research area using the stakeholder theory including the agency principle, externalities, governance, contracting cost, principle of limited immortality, and principle of entry and exit (Fontaine, Haarman & Schmid, 2006). Based on the research of Donaldson and Preston (1995), they indicated that most of the stakeholders literature emphasize on four major issues. First, it emphasize on explaining what is corporation and who is the stakeholders. Second, it argues that stakeholders have reasonable interests toward the corporate activities. Third, it defines the practices, attitudes and structures that form the stakeholder management. Last, it finds out the relationship among the management of stakeholder and the accomplishment of different goals of corporate performance such like growth and profitability.

According to Deegan (2002), he claims that the stakeholder theory should involved other parties, including political groups, associated corporations,

government bodies and communities. In an extension, Gray et al. (1995) argues that should be consider particular stakeholder groups, not only the society as a whole. The two branches of stakeholder theory are managerial branch of stakeholder theory and normative branch of stakeholder theory. The stakeholder will demand different information, and the companies will respond to their demands in several ways (Deegan, 2006). According to Brammer and Pavelin (2006), it considered that implement a corporate social responsibility strategy can bring good effect on prestige. Besides, according to Bayoud et al. (2012), he stated that the disclosures of CSR was known as extremely vital determinant that help to raise the reputation of corporation by signaling the founding and enhancement of the relationship with the stakeholders. Many companies used the reputation for justifying the CSR activities that they will enhance the image of a company and improve brand's image (Porter & Krammer, 2006). Hence, CSR over the rival advantage are considering important because good image may lead to an outcome of positive engagement in CSR (Melo & Garrido-Morgado, 2011).

The stakeholder theory also assumes that a positive relationship among a corporation's decision level in CSR reporting and economic performance, which means the profitable corporation are more likely to reveal the information about CSR tend to filter themselves from the less profitable companies (Ferreira, Branco & Moreira, 2012). It can be said that the stakeholder theory is an ethical theory, but also a managerial theory, which tend to argue the multiple relationship among the organization and its various stakeholders. At the same time achieving the maximization of profit, expectations and benefits of stakeholders (Muthee, 2015).

According to Bird et al. (2007), they predicates that the activities of CSR that follow all the suggestion from the stakeholder theory, can enhance the corporate value by (1) saving cost immediately, (2) enhancing the reputation of corporate, (3) dissuasion of the prospect movement by regulatory groups, involving the government which could apply huge expenses on the company. This research is arguing along the stakeholder theory that whether the banks can be responsible on the social at the same movement and still giving greater return to the shareholders or investors on their investments. Hence, stakeholder theory has become the most important and frequently theory cited in this literature. One of the useful way to developing the social responsible behaviour by the managers are pay more attention to the needs and right of all of the stakeholders in the business (Maignan & Ferrell, 2004).

# 2.1.3 Legitimacy Theory

Legitimacy theory states that the environmental pressures including social, economic and political forces are responded by CSR. Besides that, legitimacy theory is according to an idea that organizations operating with a social contract in society that retain among organizations and the individual parties of the society (Muthee, 2015). The social contract explained on how an organization should conduct its operations (Mathew 1993; Deegan 2000). If society is not satisfied that the organization is operating in a legitimate manner, society will revoke the social contract to continue its operations (Deegan & Rankin, 1997).

The organizations are looking for the equilibrium between how they finding out by the outliers and what is the society's thinking are appropriate (Tomer, 1994; Suchman,1995; Deegan, 2002). According to the definition given by Lindblom (1994), legitimacy plays as a term or status exists during the value system of entity is agreeable toward the bigger social system's value system which the entity is a past of it. There will be a threat toward the legitimacy of entity when a differences (actual or potential) are arise among these two value system. Furthermore, legitimacy theory has an advantage over other theories, as it presents the strategies of disclosing that the company might needed for legitimize their existence which may be tested (Gray, Kouhy & Lavers, 1995).

According to Suchman (1995), there are three aspects involved in legitimacy theory. First, a legitimacy "represented an umbrella evaluation that, to some extent, transcends specific adverse acts or occurrences". Second, it is a consciousness or supposition as it "represents a reaction of observes to the organization as they see it". Third, legitimacy have build as it "reflects a congruence between the behaviours of the legitimated entity and the shared beliefs of some social group". The main point in the second and third points is the legitimacy social aspect, which including the practices and relation of social (Muthee, 2015).

Based on the legitimacy theory, an entity is considered as legitimate when the activities of the entity follow with the social norm related to the values and belief of the larger social system. Furthermore, this theory also focus on organizations must concern about the society's rights as a whole rather than solely that of its shareholders or investors. On the other hand, management quality, economic resources availability and visibility of public provide the supports to the argument

showing that the CSR disclosure and the company's financial performance have positive relationship (Dai, 2010). When there is a legitimacy crisis or a negative changes appear in the perception of public, this theory generally suggests that companies' employ disclosures to operate their image (Muthee, 2015).

Maignan and Ralston (2002) found out that the concept about the corporate social responsibility became more importance during the past two decades. Current studies stated that the corporate social responsibility is a tool to enhance the company's legitimacy in the view of stakeholders, and generate a good images of CSR to drive out the reputation.

An idea of the legitimacy and the concept of "social contract" are directly related. Organizations should receive a social consent to operate as they don't have an intrinsic right to operate in the society (Deegan, 2002). According to the Davies (1997), he mentioned that the society's perceptions of the organizations are very important, if the organizations have violated their 'social contract' will affect the organization's survival. The society will rescind its 'contract' to continue operations if the society is unsatisfying that the firm is manipulating in an acceptable or legitimate manner. According to Gray et al. (1996), they stated that the social contract itself involved two terms, one is explicit terms which explain in the form of legal requirements, another one is implicit terms which including the expectations of non-legislated societal. From time to time, because of the differences of the organization's' visibility to society, and some of the organizations are greater dependent on the society supporting than others, the concept of legitimacy of an organization may hard to constant when facing a period of crisis (Mathew, 1993).

According to Neu et al. (1998), they stated the reasons of the important for company to operate well in legitimacy. It helps to safeguard the continued inflow of capital, customers and labour necessary for viability. It also prevent the regulatory events that might happen in non legitimacy and guard against the product from boycotts by outside parties. By extenuating those hidden issues, organizational legitimacy offer a degree of autonomy to managers to determine how and where business will be organize and carry out. All in all, it legitimize the behavior of company by improving the stakeholder perception is the major purpose of them. Hence, corporation should be responsible to provide CSR information to the social and conduct with the legitimacy theory.

# 2.1.4 Agency Theory

Agency theory is one transactor which is the principal appoint another person act as agent during transaction. The requirement is the principal need to believe the agent under incomplete information and inconclusive results. According to Germanova, R. (2008), the relationship between principal and agent arises when one party (the principal) hires another party (the agent) to perform some service and then delegate decision-making authority to the agents.

Friedman (1970) explained that the manager's act as the agents for the owners of the company has a duty to maximize the profits of the corporate and no need to spend a lot of money to doing anything that will misuse the relationship.

2.1.5 Institutional Theory

During 1970's to 1980's, the institutional theory just germinated. Based on the

study of Meyer and Rowan (1977), the firms should accept the fact to establish

and develop the legitimacy and gain resources, existing internal and external

pressures of institution in the environment where firms manipulate such as public,

cultural pressures and politics. Therefore, organizations can express in certain

ways for the purpose of survive by adopting such particular structural form.

Instead of this, Di Magio et al. (1983) noticed that the organizations that be alike

in the same industry or organizational field, search its direction by the course of

isomorphism, which is depended on the three influences' concepts. The concepts

including mimetic such as imitating, coercive such as political influence, and the

influence of normative such as organization professionalization.

Today's, institutional theory recommend that the business environment in which

the companies play will impose the pressure against the companies. Such

pressures from these systems will lead to several responses, as the organizations

will look for the legitimacy for the purpose of 'thrive and survive' in particular

environment (Scott, 2008).

According to Matten and Moon (2008), institutional theory is related to CSR by

two ways. First, it bringing in the interplay and mutuality between the companies

and stakeholders considering. Second, it seems as a founding of mythology that is

rationalized which adjust and demarcate the activities of firms to implement the

CSR to a certain extent, resulting in institutional environment homogenisation

uphold to socially responsible activity. Marquis et al. (2007) stated that the

institutional settings will influence the operation of organizations substantially.

Furthermore, the economic directions such as competition and financial

performance are inadequate to fully occupy the CSR activities of organizations.

Based on Husted and Allen (2006), they suggested that the institutional pressures

are the most important drivers for planning the CSR strategy for an organization

instead of stakeholders theory.

It can be familiarly concluded that in some extent, there exist the institutional

pressures for organizations to entertain CSR. These existing institutional pressures

include internal institutional pressures such as the forces inside the organizations,

and the external institutional pressures such as the forces at the macro-

organizational and inter-organizational level outside the organizations (Campbell,

2007).

**Pros of the institutionalization CSR:** 

1. The expert managers will cope with institutionalized actions.

2. The balance sheet and budget report have been control and publicly, which

net profits have emerged and won't bring trouble to consumers.

3. Firm enter into a program that gives bonus (points) for the combination of

different programs or favourable financing depending on the budget and

the actions.

4. Small firm could easily creating institutions or networks CSR because it is

hard for them to operate alone section dealing with CSR.

#### Cons of the institutionalization CSR:

- 1. The costs transfer to the product, at the end customers will suffer loss.
- 2. The executives who have no professional knowledge hard to achieve social objectives of ecological interest.
- 3. Public more prefer on government social programs and thus less confidence of corporation's CSR programs.

# 2.1.6 Slack Resource Theory

According to Miles et al. (2000), slack resource theory can be demonstrated about the association among the CSP and CFP two theories from management literature. Slack resource theory is created based on the view that an organization has the capacity to engage in its business activities is due to the resources holded by the organization which have generally been dedicated to the predetermined activities. The intention of this resource is to produce an organization the favourably adaption toward the pressures from external for changing or toward the pressures from internal for adjusting (Buchholtz et al., 1999). An organization require these resources to favourably adjust to slack in nature, which can be explained as any available or free resources (financial and other organization resource) used to achieve the organization's certain objective.

When a firm's financial performance enhances, the slack resources will be more available to allow the firm to engage in corporate social performance, for example, employee ralation, community and society relation, performance of environment (Waddock & Grave, 1997). Certain activities carried out by the firm in the domain of corporate social performance are represent to extend and improve the firm's competitive advantage through segmentation, image, long term cost saving and reputation (Miles et al., 1997; Miles & Russel, 1997; Miles & Covin, 2000). The Slack Resources Theory shows that the firms with lower-risk are more committed than others toward the activities about social responsibility. It is because they have a stabilizing profitability model and can therefore fund into the social activities (Roberts, 1992).

# 2.2 Review of the Prior Empirical Studies

### 2.2.1 Dependent Variable Corporate Social Performance (CSP)

Corporate social performance (CSP) can be defined as a business organization's structure of principles of social responsibility, processes of social responsiveness, and observable outcomes as can relate to the firm's societal relationships (Wood, 1991).

In this paper, going to use the content analysis method for obtaining the quantitative data base on the environmental and social reports of particular banks. Content analysis which is a way of pooling the categorized data through the way annotating particular or specific items which emerge in a written document. Along

the method of text codifying, content analysis seem as an effective tool to offer useful data for further study and analysis, no matter is the discussion of particular items qualitatively, or calculated the items used transform into a raw data for the purpose of quantitatively research (Riffe et al., 2005). Because of this purpose, Cochran and Wood (1984) used the method of content analysis to obtain the data from the CSR reports that were announced by five Japanese grocery companies from year 2006 to year 2009.

According to Unerman (2000), as a fundamental of coding, there have various unit analyses, for example, the documents' numbers, pages, words, paragraph, sentences, and also the roughly proportion of the whole document. In spite of Milne and Adler (1999) advocated that coded sentences method are isolated more stable and reliable than others, however, Unerman (2000) outlined: "Using sentences as the unit of measurement seems to ignore the possibility that differences in use of grammar might result in two different writers conveying the same message by using a similar number of words and taking up a similar amount of space but using a different number of sentences." This research used word as the unit of analysis and normalized the words number obtained, then dividing by the total words included of each reports. According to Nila and Kato (2010), by using word basis method also allows for maintaining the data consistency as well as the reliability because the researcher might employ the same keywords into other documents of CSR without any interpretation bias, which could happen frequently by using the sentences as the analysis unit. According to Milne and Adler (1999), a research that using content analysis must consider the reliableness that may cause differences among the coders and also reliableness related with the instrument utilized. According to the Ahmet and Ilker (2015), there are several ways to measure the CSR such like content analysis, ethical rating, surveys, unidimensional indicators and reputational measures.

According to Dell'Atti, S. and Iannuzzi, A. P. (2016), ethical rating can be represented by a numerical score or a synthetic assessment through letters. In some cases, the provider only publishes the ranking and omits the score assigned to each company. Currently, there is a wide range of ethical rating offered by the professional world but it raised some confusion and many questions. Indeed, a company will exclude the ethical rating but is still judged as good by another consulting firm. Surveys carried out using questionnaires, it sent to top company managers and analysed by researchers who then elaborate the answers received giving an appraisal of the level of social performance achieved by the firms. For example, Aupperle et al. (1985) asked respondents to express their level of agreement or disagreement with twenty statements about social responsibilities of businesses. For the unidimensional indicators method, it concerns indicators that express a judgement on a single aspect of various socially responsible practices that companies can undertake. Other than that, reputational measures are ratios worked out by researchers or specialised journals that, on the basis of a subjective definition of social performance, calculate a score on the "goodwill" associated with the reputation a company may have.

2.2.2 Independent Variable Corporate Financial Performance

(CFP)

There are two different measurements can be used in the CFP of the firms, which

are accounting based measures and market based measures. Because of two

different methods measure different financial aspects of the company, thus, they

have different results (Ahmadi, 2014).

According to Orlitzky (2003), using different methods for measuring will lead to

different results. When accounting based measures are applied, generally the

measures such as profitability, Return on Assets (ROA), Return on Equity (ROE)

and Return on Sales (ROS) are being adopted. When market based measures are

applied, most of the time Tobin's Q and the market return are being used.

Many of the previous studies have tried to discover the relationship among these

two different measurement methods. Most of the researchers agreed that the

accounting based measures are generally used for short term or past financial

performance of firms, while the market based measures are generally used for

evaluating long term financial performance of firms (Ahmadi, 2014). Thus,

Venkatraman and Ramanujam (1986) advocated that these two measurement

methods needless to be linked with each other, as the financial goals in short term

generally different with the financial goals in long term. However, some of the

previous studies stated that the relationship between these two measurement

methods provide different results.

According to Mcguire and Matte (2003), they advocated there was a positive

relationship between these two measurement methods. As both of the

measurement take the earning of firm into account, thus, when the return of the firm increase, both of the measurement results will also increased. But, Nelson (2003) argued that there was a negative relationship among them. It is because the different perspective of the firms. A firm with corporate maximization perspective will tend to use the return for corporate development rather than distribute to their shareholder. Thus, at this stage, EPS and ROA might move in the different directions. On the other hand, some of the previous studies concluded that these two measurement methods have no relationship among each other (Hillman, 2005). In general, the firms will try their best to satisfy the expectation from shareholder through distribution of dividend, thus, no matter how's the return of firms look like, it will not affect the result of EPS. It is important to know the relationship between the accounting based measures and market based measures since the decision of which methods to be used will influence the outcomes of the research. For example, if there is no relationship between accounting based and market based measurement, the market based measurement which EPS may remain the same or slightly different, thus, it could not significantly explain the relationship between CFP and CSP. At this point, it is suggested to apply the accounting based measurement to evaluate the CFP.

In facts, the study about the relationship between CFP and CSP has been carry on for more than 50 years, but there is still no authentic relationship is invented.

During the last 30 years, there is an significantly increased on the studies that discover the relationship among CFP and CSP. In generally, there are three types of relationship involved between CFP and CSP: positive relation, negative relation, and neutral or mixed relation (Ahmadi, 2014).

<u>Table 2.2.2.1 Overview of outcomes of previous named studies about relationship</u>

<u>between CFP and CSP.</u>

Author	Relationship	Measurement Method
Kartadjumena, Abdul Hadi and Budiana (2011)	Positive	Market based measures:  CFP = EPS (earning per share)
Mcguire, Schneeweis and Sundgren (1988)	Positive	Market based measures and Accounting based measures
Orlitzky et al. (2003)	Positive	Market based measures and Accounting based measures
Mills and Gardner (1984)	Positive	Accounting based measures:  CFP = ROA
Cochran and Wood (1984)	Positive	Accounting based measures:  CFP = ROA
Cormier and Magnan (1999)	Positive	Accounting based measures:  CFP = ROA
Cormier and Magnan (2003)	Positive	Accounting based measures:  CFP = ROA
Cormier et. al. (2004)	Positive	Accounting based measures:  CFP = ROA
Cheung and Mak (2010)	Neutral	Accounting based

# Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

		measures: CFP = ROA, ROE, EPS
Dkhili & Ansi, 2012	Positive	Accounting based measures
Maria-Gaia Soana (2011)	Negative	cost-to-income ratio
Wright and Ferris (1997)	Negative	abnormal returns

Source: Developed for the research.

#### Positive relationship

According to the studies of Kartadjumena, Abdul Hadi and Budiana (2011), there is a highly positive correlations between the CFP and the CSP of the companies on the manufacturing industries which are listed in the Indonesia Capital Market. The result shows that when the company EPS are increasing, it will lead to an increased in the level of CSP.

In the study of Mcguire, Schneeweis and Sundgren (1988), the CFP was used for predicting the level of CSP. Both accounting and market based measurement has been used to measure CFP. Market performance was measured by risk-adjusted return and total return, while the accounting performance was measured by ROA, total assets, assets growth, sales growth, and operating income growth. As a result, it indicates there is a positive relationship between the CFP and CSP. According to the research provided by Orlitzky et al. (2003), CSP has a positive relationship with the CFP, at the same time, CFP has a positive effect on the CSP. In this study, both market and accounting based measures have been used to evaluate CFP.

Market performance measured by stock price per share or stock price appreciation,

while accounting performance measured by ROA, ROE and EPS. Furthermore,

their results show that the CSP is greater highly correlated with the accounting

based measures rather than market based measures.

Various of the prior studies came out with a outcome of there is a positive

relationship between a firm's CSP and its financial performance (Mills & Gardner,

1984; Cochran & Wood, 1984; Cormier & Magnan, 1999, 2003; Cormier et al.,

2004). According to these studies, the financial performance is measured as the

return on assets (ROA). The reason behind is the ROA is more applicable to

reflect the actual financial performance of company compare with the market

based measurement which is EPS, as the company can always fund for the

dividend to payoff the investors even the company is in loss position.

Negative relationship

The researchers of the neoclassical economic school of thought have defined the

proposition of a negative association (Bird et al., 2007). Based on Aupperle,

Carrol, and Hatfield (1985), it shows that firms involved in CSR activities are

considering competitive disadvantage since it incur costs that could be avoided or

transferred to other parties (e.g., customers or the government).

The Wright and Ferris (1997) found that there have negative relationship between

Corporate Social Responsibility (CSR) and financial performance by study

methodology to assess the short-run financial impact (abnormal returns) when

firms engage in either socially responsible or irresponsible acts. It argued that the

firm will not compensated over the public in short-run although there is a better financial performance, they will tend to focus on short-term income generated or

save it as a precaution funds.

Neutral or mixed relationship

According to Cheung and Mak (2010), There is no clear relationship between CFP

and CSP with a sample of 100 publicly traded commercial banks collected from

several issues of Global Finance's Best Banks Rankings. It indicated that the

relationship shown unclear might due to the background of the sample. Banks in

different countries can be response toward different factors, the factor that can

apply in this country might not applicable to another.

The proposition of a neutral association assumes that the relationship between

CSP and CFP is either nonlinear or non-existent. According to Barnett and

Salomon (2006), the study have find evidence of a curvilinear relationship

between CSP and CFP, in which the greatest returns on CFP are associated with

the smallest and largest investments in CSP. For non-existent, Ullmann (1985),

who states that there have many factors or variables that influence the relationship

between CSP and CFP that even if a relationship existed, the relationship could

not be detected due to the problems associated with measurement in empirical

studies of the relationship between CSP and CFP.

## 2.2.3 Independent Variable Bank Size

#### Definition and method used by previous study

There is various of prior researches focus on the literature of social and environmental have been investigated that the extent of the CSP will related to certain corporate characteristics such as size, and provided consistent outcomes over the time. There are various researches, which had found out that there was a significant positive relationship between the corporate size and the degree of the CSP in the annual report of company in both developing, and developed countries (Hossain et al., 2006).

CSP studies use several measures of size available, such as total asset, sales, number of employees and so forth. However, these three proxies which is total asset, sales, number of employees for size measurement are highly relevant (Hossain et al., 2006).

Table 2.2.3.1 Overview of outcomes of previous named studies about relationship between Bank Size and CSP.

Author	Relationship	Measurement Method
Haniffa and Cooke (2005)	Positive	Size = Total Asset
Hassan (2010)	Positive	Size = Total Asset

# Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

Cormier & Gordon (2001)	Positive	Size = Total Asset
Scott (1994)	Positive	Size = Total Asset
Cormier and Magnan (1999)	Positive	Size = Total Asset
Neu et al. (1998)	Positive	Size = Total Asset
Leuz and Verrecchia (2000)	Positive	Size = Total Asset
Debreceny et al. (2002)	Positive	Size = Total Asset
Cormier and Magnan (2003)	Positive	Size = Total Asset
Udayasankar (2008)	U-shape	Literature Survey

Source: Developed for the research.

#### Positive relationship

A large corporations will engage in more activities, certainly generate a greater impact toward the society. Compared to smaller corporations, the costs that involved for operating the social responsibility activities might be higher than the larger corporations. Thus, this is highly possibility that the larger corporations having a higher level of CSP compared with the smaller one (Haniffa & Cooke, 2005).

Udayasankar (2008) mentioned that the larger corporations may facing the pressure to improve their level of CSP, as there are more concerns and scrutiny against them by the media, as well as government agencies. These point of views

also accepted by other studies. According to Hassan (2010), he agreed that due to

the highly pressure from several groups, a larger corporation will having a higher

level of CSP. Assuredly, the larger corporation who engage in business activities,

having a greater impact toward the society, will obtain larger number of

shareholders, at the same time gaining more attention from the public, therefore,

will also getting more pressure for conducting the CSR activities.

Cormier and Gordon (2001) stated that based on the legitimacy theory literature, it

shows that more attention and awareness will be paid to greater visible and more

rely on social supporting or political firms. Furthermore, the hypotheses show that

the larger size corporations have more visibility and are higher politically

sensitivity compared with the smaller size corporations.

There are various of the prior evidences had been consistent to prove that there is

a positive relationship between the degree of CSP and corporation size (Scott,

1994; Neu et al.1998; Cormier & Magnan, 1999; Leuz & Verrecchia, 2000;

Debreceny et al., 2002; Cormier & Magnan, 2003). According to all of these

studies, the measurement of the firm size is based on the company's total asset.

Neutral or mixed relationship

According to the Udayasankar (2008), it advocated that there should be a U-shape

relationship between the firm size and CSP. He argued that due to the various

combinations of resource access, public visibility and operations scale, lead to

distinct outcomes of the degree of CSP. Both small and large corporations will

engage in more CSR activities actively, while medium size corporations will be the least participate.

### 2.2.4 Independent Variable Leverage Level

Different with normal firms, the leverage of banks consists of the deposits from the depositors. Based on the prior studies, normally there are two ways to measure the leverage level, one is the total debt divided over the equity (Jensen & Meckling, 1976; Myres, 1977; Wallance et al., 1994; Belkaoui, 1989; Roberts, 1992; Ahmed & Curtis, 1999), anothe rone is the long-term debt divided over the equity (Cormier & Gordan, 2001; Cormier & Magnan, 2003). The different between these two measurement is the first measurement take the short-debt into account while the second measurement argue that only the long-term debt can reflect the actual leverage level that a firm be (Cormier & Gordan, 2001; Cormier & Magnan, 2003).

<u>Table 2.2.4.1 Overview of outcomes of previous named studies about relationship</u>

<u>between Leverage Level and CSP.</u>

Author	Relationship	Method used
Jensen and Meckling (1976)	Positive	Leverage = Total debt/Equity
Myres (1977)	Positive	Leverage = Total debt/Equity

#### Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

Wallance et. al. (1994)	Positive	Leverage = Total debt/Equity
Belkaoui e Karpik (1989)	Negative	Leverage = Total debt/Equity
Roberts (1992)	No Empirical Result	Leverage = Total debt/Equity
Ahmed and Curtis (1999)	Positive	Leverage = Total debt/Equity
Cormier and Gordon (2001)	Negative	Leverage = Long-term debt/Equity
Cormier and Magnan (2003)	Negative	Leverage = Long-term debt/Equity

Source: Developed for the research.

#### Positive relationship

Based on the prior research made by Myers (1977) and Wallace et al. (1994), they have found a positive relationship among the leverage variable and CSR index. Furthermore, this outcome also been supported by Jensen and Meckling (1976). It identifying that a firm in order to enhance their information about social compensation, will tend to reduce the monitoring costs from higher leverage level. The same identification is derived from Ahmed and Courtis (1999), who emphasize into the larger portion of bonds percentage on the balance sheet contrast with the share percentage on the balance sheet, then the information and certification of the social will be higher.

Negative relationship

According to the prior researches made by Cormier and Magnan (2003), and

Cormier and Gordon (2001), both of them founded that the leverage level has a

negative relationship with the CSP. Furthermore, a negative correlation between

the leverage level and CSP were also obtained by Belkaoui e Karpik (1989).

However, the reaction to CSP generally to be expected as positive. The reason is

the measurement method that used to measure the leverage level is different.

No Empirical Result

According to Roberts (1992) research, it tested the following hypothesis: the

higher a firm's leverage, the higher creditors' expectations. Unfortunately he

found no empirical results.

2.2.5 Independent Variable Bank Age

There is several of researches use the firm age as one of the important factors that

will influence the level of CSR performance (Delaney & Huselid, 1996; Rettab et

al., 2009; Liu & Anbumozhi, 2009).

<u>Table 2.2.5.1 Overview of outcomes of previous named studies about relationship</u>

between Bank Age and CSP.

Author	Relationship	Method used
Delaney and Huselid (1996)	Positive	Year enter into market
Rettab et al. (2009)	Negative	Year enter into market
Liu and Anbumozhi (2009)	Negative	Year enter into market

Source: Developed for the research.

#### Positive relationship

Some of the studies expected that there is a significant and positive relationship between CSP and firm age (Delaney & Huselid, 1996). They believe that the older firms provide more information about CSR activities than younger firms. It is because the public will more concern over the firms that are engage in the market for a longer time compare to the new and fresh firms, thus, the older firms will more willing to response against the public by social activities compare with the younger firms.

#### Negative relationship

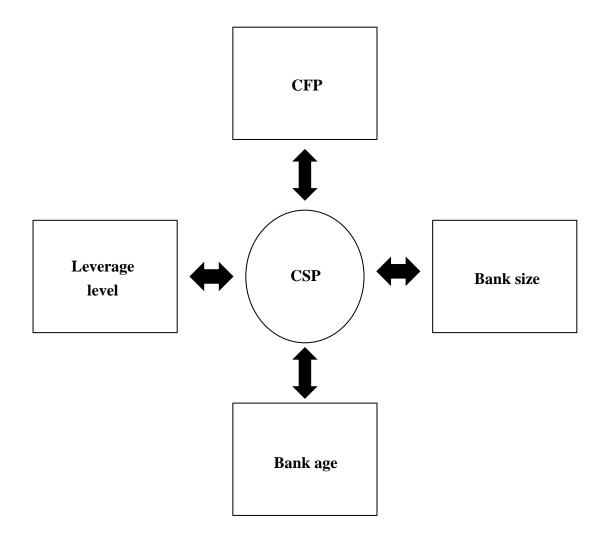
However, some studies found that there is a negative association between the CSP and firm age. For instance, Rettab et al. (2009) revealed a negative relationship between CSR and company age, while Xianbing Liu and Anbumozhi (2009) found a negative relationship between environmental disclosure and company age based on an empirical study over the Chinese listed companies. Both of the studies indicated that when the company getting older in that particular market, they will

tend to remain the funds into other ways of activities such as expand their businesses or project investment, rather than invest into social welfare. They believe that when come to the top position in that particular market, it is not necessary to conduct with that much social activities as a feedback to the public, the circumstances will remain the same.

# 2.3 Proposed Theoretical/Conceptual Framework

This section displays the relationships among the important variables. This framework developed according to the research objective which to investigate the relationship among the CFP, bank size, leverage level, and bank age will affect the CSP of banking industry in Malaysia.

Figure 2.3.1 Diagram of Conceptual Framework



# 2.4 Hypotheses Development

H<sub>0</sub> described the independent variable has no significant relationship with the dependent variable and H<sub>1</sub> described that the independent variable and dependent variable is significantly related to each other. Assumed that H<sub>0</sub> is not true, we rejected the H<sub>0</sub> indicating that there is a significant relationship between independent variable and dependent variable.

### 2.4.1 Corporate Financial Performance

H<sub>10</sub>: There is no significant relationship between corporate financial performance

and corporate social performance.

H<sub>1</sub><sub>A</sub>: There is significant relationship between corporate financial performance and

corporate social performance.

#### 2.4.2 Bank Size

H<sub>20</sub>: There is no significant relationship between bank size and corporate social performance.

H2<sub>A</sub>: There is significant relationship between bank size and corporate social performance.

# 2.4.3 Leverage Level

H<sub>30</sub>: There is no significant relationship between leverage level and corporate social performance.

H3<sub>A</sub>: There is significant relationship between leverage level and corporate social

performance.

# 2.4.4 Bank Age

H4<sub>0</sub>: There is no significant relationship between bank age and corporate social performance.

H4<sub>A</sub>: There is significant relationship between bank age and corporate social performance.

# 2.5 Conclusion

In the nutshell, chapter 2 reviews is based on research and theoretical models which have been studied by previous researchers in order to investigate the determinants of bank performance. The dependent variable and four independent variables are discussed respectively. Next, the proposed diagram illustrates the relationship between those variables and then followed by the hypothesis development. The empirical model that used in this research will be introduced in next chapter to test whether the hypothesis is correctly stated.

# **CHAPTER 3: RESEARCH METHODOLOGY**

# 3.0 Introduction

In this chapter, research methodology will further explained in details. The framework for this research, descriptions of data, data collection methods, data analyses techniques and the treatment of econometric problems will be explained in details. There are four factors involved in this study which are corporate financial performance, bank size, leverage level and bank age. There are 10 domestic banks involved in this research which are Affin Bank, Alliance Bank, AmBank, Bank Islam Malaysia, Bank Mualamat Malaysia, CIMB Bank, Hong Leong Bank, MayBank, Public Bank and RHB Bank during the research period from year 2007 to 2015.

# 3.1 Research Design

The aim of this research is to investigate how the corporate financial performance with other factors affect on the domestic bank's corporate social performance. The other factors in this study including bank size, leverage level and bank age. CSP is the dependent variable used in this research as a measurement for bank's corporate social performance. In this study, quantitative data have been taken because of dependent and independent variables involve quantitative measures. Quantitative data defined as numerical data which allow the user to measure or count.

# 3.2 Data Collection Methods

Secondary data was employed against this study to carry out empirical test. Data are obtained from the 10 domestic banks' annual report. Those annual reports are downloaded from the website of Bursa Malaysia. 9 years annual reports (2007-2015) are collected from each bank.

Table 3.2.1 Data Sources

TYPES OF DATA	DATA SOURCES	
Dependent Variable		
Corporate Social Performance	Bank's annual reports	

Independent Variable		
Corporate Financial Performance	Bank's annual reports	
Bank Size	Bank's annual reports	
Leverage Level	Bank's annual reports	
Bank Age	Bank's annual reports	

## **3.2.1** Corporate Social Performance (CSP)

According to Nila and Kato (2010), by using word basis method also allows for maintaining the data consistency as well as the reliability The reason is to avoid the bias of any interpretation due to the researcher may employ the comparative keyword under archive of CSR, which could happen frequently by using the sentences as the analysis unit.

#### Formula:

CSP = Nila Unit = (Number of CSRness words / Total number of words in one document) x 100

(Smith & Taffler, 2000)

This formula is obligated to institutionalize the reports extent (Smith & Taffler, 2000). This ratio named as Nila for purpose of reminding the audiences of the subjectivity nature in the word counting method adopted. In any case, it also been

Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

pointed that this method of measurement can be adjusted by following the theory

of the word counting basis which adopted in this research.

However, few of the reports were prevented for viewing. Such secured and

protected reports of CSR of certain firms have to be took out from the samples,

due to the reason that the word counting couldn't function toward these reports.

**3.2.2** Corporate Financial Performance (CFP)

Based on the study of Dkhili and Ansi (2012), it showed that an accounting based

measurement is the method that offered the most positive correlation outcome

based on the research on how the CFP influence the CSP. It is because this

accounting based measurement involve the benefits of offering much more vital

and relevant company's economic performance, at the same time, provide the data

that are more reliable on the relationship between the CFP and CSP. But,

Karagiorgos (2010), this accounting measurement is possible to be damaged or

affected to differential accounting methods and manageress control.

Formula:

CFP = ROA = Net Income / Total Asset

(Mubin, Iqbal, & Hussain, 2012)

Most of the researchers agreed that the accounting based measures are generally

used for short term or past financial performance of firms (Ahmadi, 2014). Thus, this study used the accounting based measurement which ROA ratio to evaluate the CFP. This ROA ratio is computed by contrasting the net income to total assets and it is a percentage expressed ratio and it indicate the performance of that particular firm's management in employing the total assets for generating the profits. The greater of the profits indicate that the management is more efficiently in applying its asset base.

#### 3.2.3 Bank Size

There are several measurement of size available in CSP studies, such as total asset, sales, number of the employee and others. Out of these measurements, the size measurement of total asset, sales and number of the employee are highly relevant to CSP (Hossain et al., 2006). However, there are many studies (Scott, 1994; Neu et al., 1998; Cormier & Magnan, 1999; Leuz & Verrecchia, 2000; Debreceny et al., 2002; Cormier & Magnan, 2003; Hossain, et al., 2006) used the total asset as size measurement to evaluate the relationship between CSP, at the same time, the result is significant. Thus, this study use total asset as a method of measurement of the bank size.

Formula:

Bank Size = Total Asset

(Scott, 1994; Neu et al., 1998; Cormier & Magnan, 1999; Leuz & Verrecchia, 2000; Debreceny et al., 2002; Cormier & Magnan, 2003; Hossain, et al., 2006)

## 3.2.4 Leverage Level

According to the prior researches made by Cormier and Gordon (2001); Cormier and Magnan (2003), both of the studies using the relationship between long-term liabilities and total equity of specific firm to measure the leverage level of that particular company as a ratio result. The reason this study do not carry the measurement applied by Meckling (1976); Myers (1977); Wallace et al. (1994); Ahmed and Curtis (1999), is that the total debt over equity ratio had been widely tested. Furthermore, based on the outcome obtained by Roberts (1992) by using this measurement, the result is insignificant and unable to prove that the method is accurate. Besides, the long-term debt over equity ratio had been prove that is one of the most popular and usable method to evaluate the leverage level ratio (Cormier & Gordan, 2001; Cormier & Magnan, 2003). Thus, this study use the same method of measurement to evaluate the bank's leverage level performance.

Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

Formula:

Leverage Level = Long-term Debt/ Total Equity

(Cormier & Gordan, 2001; Cormier & Magnan, 2003)

3.2.5 Bank Age

According to the researcher made by Delaney and Huselid (1996), they suggest a method by using year enter into market as a measurement of bank age. Based on the research of Rettab, et al. (2009) and study of Liu and Anbumozhi (2009), both of the researches also using year enter into market to test the bank age. Hence, this report use year enter into market as a measurement of bank age.

Formula:

Bank Age = Year enter into market

(Dalaney & Huselid, 1996; Rettab et al., 2009; Liu & Anbumozhi, 2009)

# 3.3 Sampling Design

# 3.3.1 Target Population

During this research, a panel secondary data was obtained to conduct the empirical test. These panel data obtained from 10 domestic banks operating in Malaysia are stated as below:

- i) Affin Bank
- ii) Alliance Bank
- iii) AmBank
- iv) Bank Islam Malaysia
- v) Bank Mualamat Malaysia
- vi) CIMB Bank
- vii) Hong Leong Bank
- viii) MayBank
- ix) Public Bank
- x) RHB Bank

# 3.4 Data Analysis

## 3.4.1 Panel Data Regression Model

This data as known as longitudinal or panel are referring to data to study about the behavior of entities with two or more than two time frame. The benefits of using panel data are providing informative data, more variability (more information for time series), less multicollinearity between X regressors, more degree of freedom, less error but efficiency and can add more independent variables. For panel data, generally there are 3 patterns of models involved which known as Fixed Effects Model (FEM), Random Effects Model (REM) and Pooled Panel regression. The two types of analyses make conceptually contrasting assumptions as either fixed or random.

The model specification of this research can be shown as follow:

$$CSPit = \alpha + \beta 1CFPit + \beta 2SIZEit + \beta 3LEVit + \beta 4AGEit + \epsilon it$$

Table 3.4.1.1 Symbols and Measurements

Symbols	Definition	<b>Unit Measurement</b>
CSP	Corporate Social Performance	(Number of CSRness words / Total number of words in one document)

#### Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

		x 100
α	Intercept	-
$\beta i$ (i = 1, 2, 3, 4)	Coefficient of each independent variables	-
CFP	Corporate Financial Performance	Net Income / Total Asset
SIZE	Bank Size	Total Asset
LEV	Leverage Level	Long-term Debt/ Total Equity
AGE	Bank Age	Year Enter into Market
Eit	Error Term	-

# 3.4.2 Diagnostic Tests

The diagnostic tests such as VIF, Breusch-Pagan / Cook-Weisberg test, and Durbin-Watson test, are performed to reform the model to fulfill the Classical Linear Regression Model (CLRM) assumptions. The Classical Linear Regression Model (CLRM) assumptions are as below:

- 1. There is no relationship between independent variables (No multicollinearity)
- 2. The error term is constant across the number of observations (Homoscedasticity)
- 3. There is no relationship among the error term at the period t and the error term at

period before t (No autocorrelation problem)

4. There are no relationship between error term and independent variables.

(Homoscedasticity and no autocorrelation problem).

5. The error term is normally distributed.

Best Linear Unbiased Estimator (BLUE) result will be obtained once all the CLRM assumptions are fulfilled. When BLUE result is achieved, the variance of errors will be achieved at optimal level and its estimators are efficient. Since BLUE results are achieved, the research result would not overestimate or underestimated. Therefore, the p-values obtained will be accurate and reliable

#### 3.4.2.1 Multicollinearity

Multicollinearity problem exist when the independent variables in this model are highly correlated with one and another. Existing of multicollinearity problem might bring the consequences of increasing standard error of estimates of the  $\beta$ 's and the accuracy of the models has been reduced. Variance Inflation Factor (VIF) is calculated to examine the seriousness of the multicollinearity problem among independent variables in this study. If the VIF obtained is equal or less than 1, indicates that there is no multicollinearity problem in this model. However, if VIF obtained is between figures 1 to 10, it indicates that no serious multicollinearity problem exist in this model. Thus, it is not required to solve multicollinearity problem if the VIF is less than 10 (Robert, 2007).

Formula:

$$VIF = \frac{1}{1 - R^2}$$

Table 3.4.2.1.1 Indications of VIF Value

VIF Value	Indication
1 <vif<10< td=""><td>No serious multicollinearity problem</td></vif<10<>	No serious multicollinearity problem
VIF ≥ 10	Serious multicollinearity problem
$VIF = \infty$ (Undefined)	Perfect multicollinearity problem

Source: Robert M. O'Brien (2007). A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Quality & Quantity*, 41, 673-690

#### 3.4.2.2 Heteroscedasticity

Heteroscedasticity is the econometric problem that exist when the variance of error term is not constant across the observations number. In this research, the heteroscedasticity problem is tested by using Breusch-Pagan / Cook-Weisberg test. If the p-value obtained is more than 10% significant level, it demonstrates no heteroscedasticity issue exist in this model. However, if the p-value obtained is less than 10% significant level, it indicates that this model consist of heteroscedasticity issue (Breusch & Pagan, 1979).

Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

 $H_0$ : There is no heteroscedasticity problem

 $H_1$ : There is heteroscedasticity problem

Decision Rule : Reject the  $H_0$  if p-value is less than significant level.

Otherwise, do not reject the  $H_0$ .

Decision Making : Reject  $H_0$  since the p-value is less than the significant

level

0.10 (10%).

Conclusion : There is sufficient evidence to conclude that the model

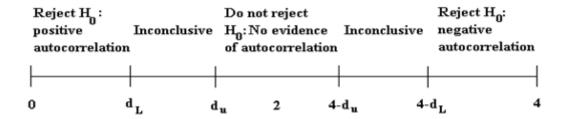
consist

of heteroscedasticity problem.

#### 3.4.2.3 Autocorrelation

Autocorrelation issue occurred when error term for any observations is relating with the error term of other observations. This autocorrelation issue is most likely exist in the pure time series data while less likely to be existed in the pure cross-sectional data. Autocorrelation can be categorized into two kinds, which are pure autocorrelation and impure autocorrelation. Pure autocorrelation is autocorrelation that exists in a correctly specified regression meanwhile impure autocorrelation is caused by specification errors such as omitted variables. Autocorrelation test is carried out by using Durbin-Watson test. If the p-value obtained is between du and 4-du proved that there is no autocorrelation problem exists.

#### Table 3.4.2.3.1 Durbin-Watson Statistic Decision Rule



Source: Durbin J. & Watson G. S. (1951). Testing for Serial Correlation in Least

Squares Regression. II. Biometrika, 38(1-2), 159-178

#### **Durbin-Watson Test Statistic**

 $H_{\theta}$ : There is no autocorrelation problem

 $H_1$ : There is autocorrelation problem

Decision Rule : Reject the  $H_0$  if p-value is less than dL or more than 4-dL.

Do

not reject H₀ if p-value is between du and 4-du.

Otherwise, indecision.

Decision Making : Reject  $H_0$  since the p-value is less than the significant level

0.10 (10%).

Conclusion : There is sufficient evidence to conclude that the model

consist

autocorrelation problem.

3.4.2.4 Hausman Test

Hausman test is employed to determine the FEM and REM which one is the most

appreciate model to be employed to the research. Null hypotheses will be stated as

random effect to be consistent and efficient or vice versa. FEM consists of some

omitted data that constant over period but differ among cases while REM consists

of omitted data that may have constant over period but fixed among cases or vice

versa. To determine the best model to be used, Hausman test will be conducted to

run the hypothesis testing as below:

 $H_0$ : Random effect model is better than fixed effect model

 $H_1$ : Fixed effect model is better than random effect model

Decision rule : Reject null hypothesis if p-value of test stats is not more

than

the significant level (a=0.10), otherwise do not

reject

null hypothesis.

When  $H_0$  is rejected, the REM is not the best model compared to FEM.

# 3.5 Conclusion

In this chapter, the progress of this research is explained which includes the data collection methods, research framework, variable specification, and data analysis. Next chapter 4 will provide discussion on hypothesis testing and diagnostic tests. Those diagnostic tests are carried out by using Eview 9.

# **CHAPTER 4: DATA ANALYSIS**

# 4.0 Introduction

Referring to the earlier division, the research methodology (eg: configuration of the research, clarifications of data, methods involved for data collection, data analyses techniques and the treatment of econometric problems) of the study is discussed meticulously. For this chapter, all the related tests will be carried out so as to certify the trustworthiness of the data as well as to authenticate the hypothesis and the analysis of the outcomes will present in a systematized order then following by a conclusion.

## **4.1 Scale of Measurement**

## **4.1.1** Multicollinearity Test

Multicollinearity would be an occurrence if there is a linear relationship between the independent variables in a model. Hence, in detecting purpose, selected common methods or tests were needed to conduct.

Initially, multicollinearity test was implemented to scrutinize the existence of relationship among the involved independent variables. In order to measure the strength of linear relationships among independent variables in a set, correlation matrix test is one of the ways. Result has been listed in the Table 4.1 after the correlation matrix test was performed on the model. The table shows the result of the strength of the correlation between four independent variables for all the independent variables.

<u>Table 4.1.1.1 Correlation among the Independent Variables</u>

Correlation				
	CFP	SIZE	LEV	AGE
CFP	1.000000	-0.406147	-0.399232	0.340006
SIZE	-0.406147	1.000000	0.517906	0.074611
LEV	-0.399232	0.517906	1.000000	0.071444

<b>AGE</b> 0.340006 0.074611 0.071444 1.000000
--

For a perfect model, the issue of multicollinearity must not shows in the model which take place when there are more than two independent variables are strongly interrelated with each other. This situation causes the problems of understanding and interpreting arise whether which independent variable contributes to the variance explained in the dependent variable, along with the practical concerns in computing a multiple regression model. As shown in the Table 4.1, the figures conclude that the strength between the independent variables involved is very weak which means that they are not highly correlated.

Among all the pairs within the four independents variables, the pair of size and leverage gets the highest figure in correlation, 0.517906 which considers moderate correlation. While the pair of age and size gets the lowest figure, 0.074611 which considers no correlation issue.

Table 4.1.1.2 Indication of Correlation

Positive Correlation	Indication	Negative Correlation
Between 0 and 0.2	Negligible or No Correlation	Between 0 and -0.2
Between 0.21 and 0.4	Weak Correlation	Between -0.21 and - 0.4
Between 0.41 and 0.6	Moderate Correlation	Between -0.41 and - 0.6
Between 0.61 and 0.8	Strong Correlation	Between -0.61 and -

		0.8
Between 0.81 and 1	Very Strong Correlation	Between -0.81 and -1

Source: Donald & Robert (1967). Multicollinearity in Regression Analysis: The Problem Revisited. *The Review of Economics and Statistics*, 49(1), 92-107

Since all the relationships among the independent variables are weakly correlated which are less than the positive or negative 0.6, therefore the possibilities for the model to suffer from the issue of multicollinearity are low.

Moreover, the variance inflation factor (VIF) can also be used as a pointer of the significance of multicollinearity problem in a model by measure the amount of variance of the estimated regression coefficients are overblown by comparing to when the predictor variables are not linearly related. It is also used in defining the seriousness of the multicollinearity occurs in the regression analysis. Multicollinearity is precarious because it can boost up the variance of the regression coefficients, make it difficult to interpret as well as making them unstable.

Formula: 
$$VIF \varepsilon = \frac{1}{1 - R\varepsilon^2}$$

<u>Table 4.1.1.4 Figures of VIF among the Independent Variables</u>

Variable	VIF	Indication
CFP	1.15	No serious multicollinearity problem
SIZE	1.26	No serious multicollinearity problem
LEV	1.12	No serious multicollinearity problem
AGE	1.04	No serious multicollinearity problem
Mean VIF	1.14	No serious multicollinearity problem

Based on the result above, it shows that the model having a mean value, 1.14 for the VIF calculation. This figure can determine that no serious multicollinearity problem exists in the model. Thus, there is adequate confirmation to prove that the model does not contain any serious multicollinearity problem.

# **4.1.2** Heteroscedasticity Test

The Breusch-Pagan/Cook-Weisberg test is aimed to identify any linear form of heteroscedasticity (Williams, 2015). After detecting for the multicollinearity problem that has been performed in the previous part, next it is a heteroscedasticity test where it is testing for the constant variance of error term.

Table 4.1.2.1 Result of Breusch-Pagan LM Test

|--|

#### Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

Breusch-Pagan LM 118.8122 45 0.0000
-------------------------------------

Since the p-value is 0.000 which is less than the significant level 0.10 (10%). Thus, there is sufficient evidence to conclude that the model consists of the heteroscedasticity problem.

#### 4.1.3 Autocorrelation Test

Autocorrelation problem happened when the error term of one observation is related to the error term of other observation and the Autocorrelation problem are mostly happen in time series data. The time series data is the correlation between the variable of some observations by using different time series.

Table 4.1.3.1 Result of Durbin-Watson Stat

Durbin-Watsor	n stat	1.530457

According to the Durbin-Watson test table, the value of Durbin-Watson statistics is 1.530457 which means is more than 0 and less than 2, which means this is a positive autocorrelation. Thus, there are sufficient evidence to conclude that the model consists of the positive autocorrelation problem.

#### 4.1.4 Hausman Test

This research is studying about how the corporate financial performance influence the corporate social performance of domestic banks in Malaysia during the period from 2007 to 2015, and a panel-data sample had been used for testing the performance of domestic over the time span.

A Hausman test is a statistic test that used to determine which of the models - Fixed Effect Model (FEM) or Random Effect Model (REM) is more prefered to this panel-data sample.

Table 4.1.4.1 Result of Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.285150	4	0.1788

Since the p-value is 0.1788 which is more than the significant level 0.10 (10%). Therefore, there is sufficient evidence to conclude that the model is considering as a Random Effect Model (REM).

## 4.1.5 Cluster Robust Standard Error

Since the model involved the issues of heteroscedasticity and autocorrelation, thus, in order to solve these issues, particular method is needed. In this case, the model been transformed into Robust Least Square. After performing this method, the model will become efficient, consistent and unbiased. At last, the variance of errors is attained at the acceptable or optimal level (Mitchell, 2009).

Table 4.1.5.1 Cluster Robust Standard Error for Panel Data Regression Model

Variables	Cluster Robust Standard Error
Constant (C)	2.700759
Corporate Financial Performance (CFP)	0.183250
Bank Size (SIZE)	0.108086
Leverage Level (LEV)	0.250776
Bank Age (AGE)	0.266433

# 4.2 Inferential Analysis

Table 4.2.1 Result of the Fixed Effect Model

Independent Variables	Coefficient Value	Sign	P-Value
Corporate Financial Performance (CFP)	0.550321	Positive; Significant	0.0155**
Bank Size (SIZE)	-4.24000014	Negative; Insignificant	0.2394
Leverage Level (LEV)	-0.005642	Negative; Insignificant	0.4908
Bank Age (AGE)	0.002177	Positive; Significant	0.0091*

<sup>\*</sup>significant at 1% (strong effect); \*\*significant at 5% (effect); \*\*\*significant at 10% (weak effect)

(*Model 4.2.1*)

In the Model 4.2.1, panel data regression model is used to examine the selected data. According to Greene (2010), when there is a cross-sectional data which known as the data has observation across time for various different units, Panel Data Regression Model is one of the models that usually carried out on those data. The relevant data are gathered from targeted financial institutions annual reports for 9 years, starting from 2007 until 2015.

According to the figures in Table 4.2.1, it shown that corporate financial performance and bank age are significant at 5% which implies that they are significantly affect the bank's corporate social performance. However, it also verified on the bank size and leverage level which do not have any effect on the bank's corporate social performance.

## **4.2.1** Corporate Financial Performance

Based on the result, the return of assets is positively related with the corporate social performance of banks in Malaysia and it shows that return of assets will bring effects to corporate social performance of banks. By increased one unit of CFP, the CSP will increased by 0.550321. Furthermore, the p-value of CFP is 0.0155 which less than 5% significant level. Thus, there is sufficient evidence to conclude that there is significant relationship between corporate financial performance and corporate social performance on domestic banks in Malaysia.

#### 4.2.2 Bank Size

According to the result, the bank size has a negative relationship. However, the p-value of bank size is 0.2394 which is more than 10% significant level. Thus, there is not sufficient evidence to conclude that there is significant relationship between bank size and corporate social performance on domestic banks in Malaysia.

**4.2.3** Leverage Level

Based on the outcome, the leverage level is negative. However, the p-value of

leverage level is 0.4908 which is more than 10% significant level. Thus, there is

not sufficient evidence to conclude that there is significant relationship between

leverage level and corporate social performance on domestic banks in Malaysia.

**4.2.4 Bank Age** 

To assess the effect of bank age on corporate social performance, the Fixed Effect

Model (FEM) was run. From the result, it shows that bank age has the positive

relationship influence on corporate social performance which means that those

banks have the longer number of year in Malaysia lead to strong effect on

corporate social responsibility. By increased one unit of bank age, the CSP will

increased by 0.002177. Furthermore, the p-value of bank size is 0.0091 which is

less than 1% significant level. Thus, there is sufficient evidence to conclude that

there is significant relationship between bank age and CSP on domestic banks in

Malaysia.

# 4.3 Conclusion

In summary, the result found out the bank size and leverage level are the independent variable that was insignificant in explaining the banks' corporate social performance. On the other hand, the bank's corporate financial performance and bank age are significant and positively correlated with the banks' corporate social performance. All the findings are consistent with the previous researchers excluding the relationship between bank size and banks' corporate social performance. In the coming chapter, discussion on the limitations of this research and recommendations for the future researchers will be carried out.

# CHAPTER 5: DISCUSSION, CONCLUSION AND <u>IMPLICATION</u>

# **5.0 Introduction**

This chapter including the integrated conclusion about this whole study. Besides, it also involves the interpretation of statistical analysis which was demonstrated and deliberated in previous chapter. Furthermore, this chapter also shows the implication and major findings of this study. The chapter followed by recommendation for future researchers and lastly ends with a conclusion that summarizes the research.

# **5.1 Summary of Statistical Analysis**

Independent Variables	Sign	P-Value	Hypothesis Decision
Corporate Financial Performance (CFP)	Positive; Significant	0.0155**	Reject H10
Bank Size (SIZE)	Negative; Insignificant	0.2394	Do Not Reject H20
Leverage Level (LEV)	Negative;	0.4908	Do Not Reject

	Insignificant		H30
Bank Age (AGE)	Positive; Significant	0.0091*	Reject H40

<sup>\*</sup>significant at 1% (strong effect); \*\*significant at 5% (effect); \*\*\*significant at 10% (weak effect)

# **5.2 Discussion of Major Finding**

## 5.2.1 The relationship between CFP and CSP

Based on the result shown previously, there is a positive relationship between corporate financial performance and corporate social performance. This result have been supported by few researchers. According to the result provided by Orlitzky et al. (2003), CSP has a positive relationship with the CFP. Besides, various of the prior studies came out with a outcome of there is a positive relationship between a firm's CSP and its financial performance (Mills & Gardner, 1984; Cochran & Wood, 1984; Cormier & Magnan, 1999, 2003; Cormier et al., 2004). Hence, it shows a same result with this report. Furthermore, the relationship shows that meeting of expectations and demands of very diverse stakeholders, shareholders, customers, employees, suppliers and etc which contributes to improve the performance of the company (Perrini et al., 2011). The positive results indicates that high levels of corporate social responsibility lead to an improvement in financial performance which able to make it possible to reinvest in socially responsible actions.

## 5.2.2 The relationship between Bank Size and CSP

According to the result shown previously, there is a negative and insignificant relationship between bank size and corporate social performance. The result shows that when bank size increase, the corporate social performance will decrease. It means the bank size is large but less involved in CSP activities. This finding can be supported by Udayasankar (2008) which found that is U-shape relationship between size and corporate social performance. It means the large size of firms and small size of firms are involved more in corporate social performance activities while the medium size of firms are less involved in corporate social performance activities, so the result will show U-shape.

# 5.2.3 The relationship between Leverage Level and CSP

According to the outcome that shown in the previous chapter, there is a negative and insignificant relationship between the leverage level and corporate social performance. This result is supported by Hu et al. (2016). This result also agreed by Cormier and Magnan (2003) stated that leverage level is negatively and significantly influence the corporate social performance. When there is an increase over the leverage level, the corporate social performance of particular firm will be reduced as the higher borrowing costs will obstructed the portion of compensation toward the society become lesser. Moreover, according to Cormier and Gordon (2001), higher portion of debts will affect the whole business

development, not only profit, but also the compensation of that particular firm over the society welfare.

## 5.2.4 The relationship between Bank Age and CSP

Based on the result from the table, there is a positive relationship between bank age and corporate social performance. Due to the younger banks might facing firm rivalry may causes them do not have the ability to put much effort and money connected to CSR disclosures. Hence, result prove that longer age of bank have better result in CSR activities. This finding have been supported by study in Kenyan, commercial banks found that bank age has a positive and significant effect in voluntary CSR (Okwoma, 2010).

# **5.3 Implication of Study**

According to the outcomes of this research, during this section, it will recommend and suggested the beneficial implications for policy makers and management of banks. The existing of implications is to offer recommendation on certain policies and appropriate strategies, so that government and banks can enhance the corporate social performance of domestic banks by managing the factors which are corporate financial performance, bank size, leverage level and bank age.

**5.3.1** Corporate Financial Performance

According to the outcomes of this study, corporate financial performance is

positively affecting corporate social performance of domestic banks. To achieve a

better CSP, domestic banks should improve their CFP. There are several ways to

improve the CFP, one of them is increased the profit directly, either through sales

boosting or cost cutting, which are more based on price competition. Beside of

this, domestic banks can also go for non-price competition such as promotion to

improve their CFP as well (Moore, 2001).

Furthermore, in order to improve the CFP lead to an increase over CSP, Bank

Negara Malaysia can intevent into the banking activities of domestic banks. For

example, by adjusting the capital reserve requirement can indirectly provide

domestic banks much more usage of cash flow, to compensate over the social

welfare, which consists with the slack resources theory (Miles et al., 1997; Miles

& Russel, 1997; Miles & Covin, 2000).

5.3.2 Bank Size

Based on the outcomes of this study, the bank size is negatively but insignificantly

affecting the corporate social performance of domestic banks. On the other words,

the changes in bank size of domestic banks would not influence the CSP. Thus,

management of domestic banks and policy makers are not encourage to concern

over the amount and direction of bank size in order to improve their CSP.

# **5.3.3** Leverage Level

According to the results of this study, the leverage level is negatively but insignificantly affecting the corporate social performance of domestic banks. Similar with the outcomes of bank size in this study, the changes in leverage level of domestic banks will not affect the CSP. Therefore, the management of domestic banks and policy makers are not recommended to focus on the amount and direction of leverage level in order to enhance their CSP.

# **5.3.4 Bank Age**

The result in this report indicates that bank age have positive relationship and strong effect on the corporate social performance which supported the hypothesis by p-value < 0.10 level. From time to time, the domestic banks will contribute more and more to the society. It assists the policy makers to identify the actual situation of domestic banks. The policy makers should concern about the movement of domestic banks toward the society contribution. If the domestic banks' CSP become lower when they getting older, there might be affected by other factors. Thus, the policy makers can further identify and assists them if needed.

**5.4 Limitation of Study** 

This research has been subject to few limitations.

Firstly, there are four independent variables had been chosen in this study, which

are corporate financial performance, bank size, leverage level and bank age. These

independent variables are classify into bank-specific factors. On the other words,

the view of this study are more in a specific and narrow way which just look deep

into how the domestic banks' performance can influence itself.

Second, the data of all the variables in this study were collected based on the

particular domestic banks' annual reports. However, this data collection method

might caused to a data inaccurate issue. Since the annual reports are published by

the particular domestic banks itself, the informations inside the annual report can

be manipulated and rearrange by them before published to the public as well.

The last limitation is the scope of study. Every country is distinctive and different

countries have different regulations, political background, culture, and economy

policy. Since this study is based on 10 domestic banks in Malaysia, thus the

implications and findings are only useful and meaningful to Malaysia's

government, domestic banks, and future researcher. For other countries'

researcher, they only can use this research as a reference because the findings and

implications might not be applicable in other countries.

5.5 Recommendation of Study

For further research regarding this report, there are several recommendations can

be made.

Future researcher should take note on other variables that might affect the CSR

performance. According to Roitto (2013), they stated that media exposure have

positive relationship towards banks corporate social responsibility. The visibility

of a company rises as its media coverage or exposure is heightened. Today, the

media is more than ever an image shaper that actively affect a bank's processes

through positive or negative announcements. Gender also have positive

relationship towards banks corporate social responsibility which can be explained

that having more female managers and board members can bring a higher levels

of CSR (Babcock, 2012; Grosser & Moon, 2005; Soares et al., 2011). Most of the

bank have to encourage female leadership have higher level of philanthropy and

engage in better quality initiatives. Therefore, future researchers are suggested to

include this variable or other relevant variables into the model if the data are

available.

Second, future researchers are suggested to apply a different data collection

method, in order to improve the accuracy of the outcomes of study. For example,

survey methodology. Survey methodology studies the sampling of individual units

from a population and the associated survey data collection techniques, such as

questionnaire construction and methods for improving the number and accuracy of

responses to surveys. Survey methodology includes instruments or procedures that ask one or more questions that may, or may not, be answered (Rikard, 1993).

In addition, future researchers are recommended to study against the whole banking industry CSP not only domestic banks, but also foreign banks as well, to explore the whole industry compensation over social welfare (Eric, 1998). Besides, a comparison of CSP between different business lines can also be suggested for studying, For example, how is the CSP among commercial banking line and islamic banking line. Furthermore, future researchers are also encouraged to study the movement of CSP based on the comparison between different countries such as Malaysia and Singapore, or the comparison among developing and developed countries, to extend the perspective of CSP to a wider field (Richard, 2004).

## **5.6 Conclusion**

The purpose of this research project is to investigate how the corporate financial performance affects the corporate social performance of domestic banks in Malaysia during 2007 to 2015. In this research, corporate financial performance, bank size, leverage level and bank age are employed to measure domestic banks' corporate social performance. Panel data regression model are involved in this research by using Eviews 9 for data analysing. Data analysis result shows that corporate financial performance and bank age contributes significant relationship on domestic banks' corporate social performance, however, bank size and leverage level are found to be insignificant.

Future researchers are recommended to have wider coverage of data collection method, target samples, and comparative analysis between local and foreign banks should be carried out.

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#### **APPENDICES**

# Appendix 1 Raw data of dependent and independent variables for ten local banks in Malaysia from 2007 to 2015

Bank(s)	Year	CSP	ROA	SIZE	LVN	AGE
Affin Bank	2007	0.0017896454	0.0288976412	36,813,000,000	0.5329484836	33
Affin Bank	2008	0.0017564553	0.0282555438	36,836,000,000	0.6154889385	34
Affin Bank	2009	0.0016584791	0.0275961334	35,598,637,000	0.6899713368	35
Affin Bank	2010	0.0028546612	0.0336584917	42,063,921,000	0.4648351899	36
Affin Bank	2011	0.0023457995	0.0374467911	49,248,203,000	0.4367866014	37
Affin Bank	2012	0.0022311586	0.0352617453	52,104,980,000	0.4386510835	38
Affin Bank	2013	0.0026394578	0.0435452269	56,437,113,000	0.3399618298	39
Affin Bank	2014	0.0023596641	0.0394775801	48,333,687,000	0.3924900181	40
Affin Bank	2015	0.0023369986	0.0415965012	48,733,392,000	0.3630315746	41
Alliance Bank	2007	0.027654871	0.03493747632	2,639,000,000	0.8913082937	50
Alliance Bank	2008	0.036902182	0.03678410117	2,767,500,000	0.8767593745	51
Alliance Bank	2009	0.036027802	0.03321403905	3,185,400,000	0.8391972205	52
Alliance Bank	2010	0.038044584	0.03363441132	3,166,400,000	0.9465579106	53
Alliance Bank	2011	0.019691426	0.03129851408	3,607,200,000	0.72021803	54
Alliance Bank	2012	0.020085478	0.03156326541	3,960,300,000	0.4239423308	55
Alliance Bank	2013	0.019993426	0.03050901767	4,369,200,000	0.4070582917	56
Alliance Bank	2014	0.021469059	0.02806032241	4,807,500,000	0.3869989938	57
Alliance Bank	2015	0.02597613	0.0260246133	5,314,200,000	0.5672450365	58
AmBank	2007	0.028837747	0.0404566123	78,622,673,000	2.09378801	33
AmBank	2008	0.025763646	0.0402890759	83,191,707,000	1.799244687	34
AmBank	2009	0.047893769	0.0363874866	89,892,900,000	1.48067112	35
AmBank	2010	0.039846822	0.0252232447	96,480,300,000	1.812050242	36
AmBank	2011	0.037836785	0.00389657064	108,236,200,000	1.892408358	37

### Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

			8			
			0.00380879680			
AmBank	2012	0.034239353	6	112,922,800,000	1.758543586	38
			0.00759444092			
AmBank	2013	0.023256218	6	127,572,261,000	1.96807084	39
			0.00443104761			
AmBank	2014	0.026376389	1	132,353,257,000	1.761360496	40
			0.00988684000			
AmBank	2015	0.013943464	5	133,803,824,000	1.538920133	41
Bank Islam						
Malaysia	2007	0.002389727	0.0329788353	19,088,303,000	0.1426157208	25
Bank Islam						
Malaysia	2008	0.001997895	0.0323422344	23,556,443,000	0.2693252352	26
Bank Islam						
Malaysia	2009	0.001823746	0.025525395	27,488,507,000	0.2444152096	27
Bank Islam						
Malaysia	2010	0.001604973	0.0305859831	30,386,052,000	0.2735214016	28
Bank Islam						
Malaysia	2011	0.001682335	0.0337446648	32,186,451,000	0.3021063876	29
Bank Islam						
Malaysia	2012	0.002723983	0.0344552631	37,422,991,000	0.4096614045	30
Bank Islam						
Malaysia	2013	0.003237895	0.0358983538	42,811,371,000	0.528469852	31
Bank Islam						
Malaysia	2014	0.004234876	0.0389857378	45,820,682,000	0.469341134	32
Bank Islam						
Malaysia	2015	0.05226757	0.0405638933	49,763,719,000	0.4043557356	33
Bank Mualamat			0.00348690729			
Malaysia	2007	0.015552364	3	13,805,357,000	0.904809373	9
Bank Mualamat			0.00221902824			
Malaysia	2008	0.017723456	9	14,398,645,000	1.421194584	10
Bank Mualamat			0.00161824332			
Malaysia	2009	0.019456523	3	15,906,137,000	0.586127194	11
Bank Mualamat			0.00591317137			
Malaysia	2010	0.021411483	8	16,714,212,000	0.347095171	12

### Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

Bank Mualamat			0.00729700003			_
Malaysia	2011	0.030551148	4	18,305,742,000	0.556434778	13
-	2011	0.030331140		10,505,742,000	0.550454770	13
Bank Mualamat	2012	0.013889916	0.00415194707	20,468,469,000	0.612354254	14
Malaysia	2012	0.013669910	3	20,408,409,000	0.012334234	14
Bank Mualamat				-1 1 101 000		
Malaysia	2013	0.016914659	0.00796796379	21,076,401,000	0.450395647	15
Bank Mualamat						
Malaysia	2014	0.073827751	0.00755489692	20,061,690,000	0.335598106	16
Bank Mualamat			0.00145765915			
Malaysia	2015	0.064192206	8	22,676,769,000	0.309951263	17
CIMB Bank	2007	0.054278863	0.052361811	13,508,512,000	0.371242397	84
CIMB Bank	2008	0.059787845	0.057307564	14,287,857,000	0.273848523	85
CIMB Bank	2009	0.066521985	0.062951967	14,315,200,000	0.276406716	86
CIMB Bank	2010	0.074994381	0.071859406	16,754,508,000	0.294269427	87
CIMB Bank	2011	0.087794796	0.075221785	18,380,429,000	0.417893537	88
CIMB Bank	2012	0.085023413	0.080704823	19,159,301,000	0.451139977	89
CIMB Bank	2013	0.089927683	0.081785291	20,896,369,000	0.400198206	90
CIMB Bank	2014	0.097192918	0.091943411	26,145,541,000	0.327547707	91
CIMB Bank	2015	0.103363512	0.093992924	29,515,360,000	0.416080558	92
Hong Leong			0.00867287275			
Bank	2007	0.025886038	5	71,423,739,000	1.058666063	103
Hong Leong			0.00957719415			
Bank	2008	0.030478585	8	77,461,205,000	0.663800119	104
Hong Leong						
Bank	2009	0.030443114	0.01140304	79,331,915,000	0.630131081	105
Hong Leong						
Bank	2010	0.029898027	0.011663636	84,705,573,000	0.730454265	106
Hong Leong			0.00781755840			
Bank	2011	0.019258824	4	145,498,881,000	1.661729612	107
Hong Leong						
Bank	2012	0.018867008	0.010445431	157,787,262,000	1.180597674	108
Hong Leong						
Bank	2013	0.020724204	0.011347397	163,585,697,000	1.177057496	109
Hong Leong	2014	0.019723085	0.012340828	170,350,803,000	1.270252367	110

### Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

Bank						
Hong Leong						
Bank	2015	0.020410009	0.012135584	184,019,735,000	1.182742499	111
Public Bank	2007	0.04192367401	0.0126426668	174,155,187,000	0.7073174388	42
Public Bank	2008	0.03570590247	0.01336979238	196,163,106,000	0.7378546041	43
Public Bank	2009	0.04739589966	0.0117508759	217,136,154,000	0.7254289339	44
Public Bank	2010	0.05345212874	0.01344257396	226,328,976,000	0.6921241427	45
Public Bank	2011	0.0621371091	0.01416275647	249,410,982,000	0.6309088675	46
Public Bank	2012	0.06505917812	0.01427790889	274,624,879,000	0.5360908704	47
Public Bank	2013	0.07131675166	0.01412987621	305,725,396,000	0.4937203015	48
Public Bank	2014	0.07131675166	0.01344262988	345,721,934,000	0.3987588339	49
Public Bank	2015	0.07517030515	0.01535663226	363,758,206,000	0.3659163521	50
Maybank	2007	0.030819218	0.0126734933	256,667,276,000	1.293846955	48
Maybank	2008	0.023158608	0.0011498805	269,100,700,000	1.859107977	49
Maybank	2009	0.019386481	0.0024158979	310,739,123,000	1.691661476	50
Maybank	2010	0.024509843	0.0117863165	336,699,766,000	1.669885582	51
Maybank	2011	0.020326845	0.0112141292	451,594,837,000	1.97745214	52
Maybank	2012	0.016842603	0.0119590885	494,866,293,000	1.658685079	53
Maybank	2013	0.014613026	0.0120821034	560,318,784,000	1.569892247	54
Maybank	2014	0.014152382	0.010793446	640,299,956,000	1.525066952	55
Maybank	2015	0.012536084	0.0098629805	708,344,503,000	2.184769072	56
RHB Bank	2007	0.02852992308	0.00781770262	105154294000	0.7910249494	25
RHB Bank	2008	0.02772903328	0.01004235332	104532769000	0.7236752226	26
RHB Bank	2009	0.05765129212	0.01051406237	114951382000	0.7622089563	27
RHB Bank	2010	0.02472352191	0.01121793503	129325495000	0.7955016409	28
RHB Bank	2011	0.01651366892	0.01037736509	152393694000	0.6747624321	29
RHB Bank	2012	0.01776036453	0.00952442982	189077565000	0.3929278665	30
RHB Bank	2013	0.05055306164	0.00954303672	191089907000	0.5772864663	31
RHB Bank	2014	0.1249957606	0.01040048262	219354436000	0.658370561	32

## Drivers of Corporate Social Performance: Evidence from Malaysia Domestic Banks

			0.00881931594			
RHB Bank	2015	0.04264852675	8	230717667000	0.5364546937	33

#### Appendix 2 Result of Fixed Effect Model

Dependent Variable: CSP Method: Panel Least Squares Date: 02/21/17 Time: 21:12 Sample: 2007 2015

Sample: 2007 2015 Periods included: 9

Cross-sections included: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.			
С	-0.078191	0.039548	-1.977103	0.0517			
CFP	0.550321	0.222249	2.476143	0.0155			
SIZE	-4.24E-14	3.57E-14	-1.185669	0.2394			
LEV	-0.005642	0.008149	-0.692360	0.4908			
AGE	0.002177	0.000813	2.678241	0.0091			
Effects Specification							
Cross-section fixed (dur	mmy variables	)					
R-squared	0.736891	Mean depend	lent var	0.032387			
Adjusted R-squared	0.691885	S.D. depende	ent var	0.026902			
S.E. of regression	0.014933	Akaike info cr	iterion	-5.428464			
Sum squared resid	0.016947	Schwarz crite	rion	-5.039604			
Log likelihood	258.2809	Hannan-Quin	n criter.	-5.271653			
F-statistic	16.37335	Durbin-Watso	n stat	1.530457			
Prob(F-statistic)	0.000000						

#### Appendix 3 Result of Correlation Among Independent Variables

Correlation							
	CFP	SIZE	LEV	AGE			
CFP	1.000000	-0.406147	-0.399232	0.340006			
SIZE	-0.406147	1.000000	0.517906	0.074611			
LEV	-0.399232	0.517906	1.000000	0.071444			
AGE	0.340006	0.074611	0.071444	1.000000			

# Appendix 4 Result of Variance Inflation Factor (VIF) Among Independent Variables

Dependent Variable: CFP Method: Panel Least Squares Date: 02/27/17 Time: 12:44

Sample: 2007 2015 Periods included: 9

Cross-sections included: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C SIZE LEV AGE	0.023724 -4.25E-14 -0.010703 0.000295	0.004541 1.47E-14 0.003930 6.71E-05	5.224104 -2.889361 -2.723302 4.400119	0.0000 0.0049 0.0078 0.0000
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.358199 0.335810 0.017231 0.025534 239.8347 15.99927 0.000000	Mean depend S.D. depende Akaike info cr Schwarz crite Hannan-Quin Durbin-Watso	ent var iterion rion in criter.	0.024209 0.021143 -5.240771 -5.129669 -5.195968 0.075746

Dependent Variable: SIZE Method: Panel Least Squares Date: 02/27/17 Time: 12:41

Sample: 2007 2015 Periods included: 9

Cross-sections included: 10

Total panel (balanced) observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C CFP LEV AGE	4.80E+10 -2.08E+12 1.03E+11 7.98E+08	3.61E+10 7.21E+11 2.64E+10 5.13E+08	1.327661 -2.889361 3.906966 1.556579	0.1878 0.0049 0.0002 0.1232
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.334274 0.311051 1.21E+11 1.25E+24 -2422.127 14.39407 0.000000	Mean dependent var S.D. dependent var Akaike info criterion Schwarz criterion Hannan-Quinn criter. Durbin-Watson stat		1.22E+11 1.45E+11 53.91392 54.02503 53.95873 0.078299

Dependent Variable: LEV Method: Panel Least Squares Date: 02/27/17 Time: 12:45

Sample: 2007 2015 Periods included: 9

Cross-sections included: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.690583	0.115250	5.992026	0.0000
CFP	-7.417669	2.723778	-2.723302	0.0078
SIZE	1.46E-12	3.74E-13	3.906966	0.0002
AGE	0.002795	0.001932	1.446503	0.1517
R-squared	0.327319	Mean dependent var		0.826900
Adjusted R-squared	0.303853	S.D. depende	ent var	0.543684
S.E. of regression	0.453625	Akaike info cr	iterion	1.300335
Sum squared resid	17.69671	Schwarz crite	rion	1.411438
Log likelihood	-54.51508	Hannan-Quin	n criter.	1.345138
F-statistic	13.94886	Durbin-Watso	n stat	0.253516
Prob(F-statistic)	0.000000			

Dependent Variable: AGE Method: Panel Least Squares Date: 02/27/17 Time: 12:48

Sample: 2007 2015 Periods included: 9

Cross-sections included: 10

Total panel (balanced) observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	22.91113	7.152453	3.203255	0.0019
CFP	622.3511	141.4396	4.400119	0.0000
SIZE	3.43E-11	2.20E-11	1.556579	0.1232
LEV	8.499198	5.875687	1.446503	0.1517
R-squared	0.189503	Mean dependent var		49.20000
Adjusted R-squared	0.161230	S.D. dependent var		27.31514
S.E. of regression	25.01640	Akaike info criterion		9.320367
Sum squared resid	53820.56	Schwarz criterion		9.431470
Log likelihood	-415.4165	Hannan-Quinn criter.		9.365170
F-statistic Prob(F-statistic)	6.702583 0.000405	Durbin-Watso	n stat	0.016397

#### Appendix 5 Result of Breusch-Pagan LM Test

Residual Cross-Section Dependence Test

Null hypothesis: No cross-section dependence (correlation) in residuals

Equation: Untitled Periods included: 9

Cross-sections included: 10 Total panel observations: 90

Cross-section effects were removed during estimation

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	118.8122	45	0.0000
Pesaran scaled LM	7.780490		0.0000
Bias-corrected scaled LM	7.155490		0.0000
Pesaran CD	-0.778826		0.4361

#### Appendix 6 Result of Durbin-Watson Test

Dependent Variable: CSP Method: Panel Least Squares Date: 02/21/17 Time: 21:12

Sample: 2007 2015 Periods included: 9

Cross-sections included: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.	
C CFP SIZE LEV AGE	-0.078191 0.550321 -4.24E-14 -0.005642 0.002177	0.039548 0.222249 3.57E-14 0.008149 0.000813	-1.977103 2.476143 -1.185669 -0.692360 2.678241	0.0517 0.0155 0.2394 0.4908 0.0091	
Effects Specification					
Cross-section fixed (dun	nmy variables	)			
R-squared Adjusted R-squared S.E. of regression Sum squared resid Log likelihood F-statistic Prob(F-statistic)	0.736891 0.691885 0.014933 0.016947 258.2809 16.37335 0.000000	Mean dependent var S.D. dependent var Akaike info criterion Schwarz criterion Hannan-Quinn criter. Durbin-Watson stat		0.032387 0.026902 -5.428464 -5.039604 -5.271653 1.530457	

#### Appendix 7 Result of Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.285150	4	0.1788

#### Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
CFP SIZE LEV	0.550321 -0.000000 -0.005642	0.524282 0.000000 -0.010012	0.008856 0.000000 0.000015	0.7820 0.0146 0.2570
AGE	0.002177	0.000392	0.000001	0.0182

Cross-section random effects test equation:

Dependent Variable: CSP Method: Panel Least Squares Date: 02/21/17 Time: 21:18

Sample: 2007 2015 Periods included: 9

Cross-sections included: 10

Total panel (balanced) observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.	
С	-0.078191	0.039548	-1.977103	0.0517	
CFP	0.550321	0.222249	2.476143	0.0155	
SIZE	-4.24E-14	3.57E-14	-1.185669	0.2394	
LEV	-0.005642	0.008149	-0.692360	0.4908	
AGE	0.002177	0.000813	2.678241	0.0091	
Effects Specification					
Cross-section fixed (dummy variables)					
R-squared	0.736891	Mean dependent var		0.032387	
Adjusted R-squared	0.691885	S.D. dependent var		0.026902	
S.E. of regression	0.014933	Akaike info criterion		-5.428464	
Sum squared resid	0.016947	Schwarz criterion		-5.039604	
Log likelihood	258.2809	Hannan-Quinn criter		-5.271653	

0.000000

16.37335 Durbin-Watson stat

F-statistic

Prob(F-statistic)

1.530457

#### Appendix 8 Result of Cluster Robust Standard Error

Dependent Variable: LOG(CSP) Method: Robust Least Squares Date: 02/28/17 Time: 17:33

Sample: 2007 2015 Included observations: 90 Method: M-estimation

M settings: weight=Bisquare, tuning=4.685, scale=MAD (median centered)

Huber Type I Standard Errors & Covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.	
С	-6.334250	2.700759	-2.345359	0.0190	
LOG(CFP)	-0.368078	0.183250	-2.008616	0.0446	
LOG(SIZE)	-0.081055	0.108086	-0.749915	0.4533	
LOG(LEV)	0.034071	0.250776	0.135862	0.8919	
LOG(AGE)	0.788998	0.266433	2.961342	0.0031	
Robust Statistics					
R-squared	0.114959	Adjusted R-squared		0.073310	
Rw-squared	0.140152	Adjust Rw-squared		0.140152	
Akaike info criterion	68.88606	Schwarz criterion		84.54736	
Deviance	98.46962	Scale		1.259755	
Rn-squared statistic	11.13577	Prob(Rn-squared stat.)		0.025080	
Non-robust Statistics					
Mean dependent var	-3.917797	S.D. dependent var 1		1.185942	
S.E. of regression	1.116477	Sum squared resid		105.9544	
	<u> </u>				