

**AN EMPIRICAL ANALYSIS ON THE EFFECT OF  
INTERNAL AND EXTERNAL FACTORS TO  
THE DETERMINANTS OF LEVERAGE  
IN THE SERVICE INDUSTRY  
IN MALAYSIA**

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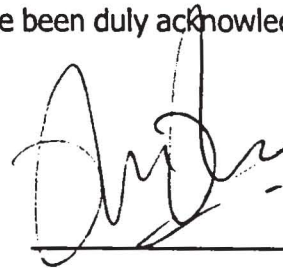
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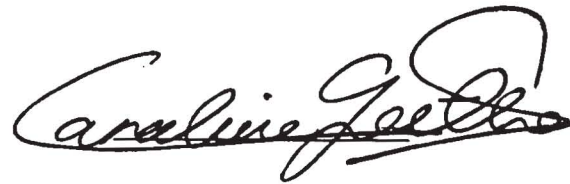
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## **ABSTRACT**

### **AN EMPIRICAL ANALYSIS ON THE EFFECT OF INTERNAL AND EXTERNAL FACTORS TO THE DETERMINANTS OF LEVERAGE IN THE SERVICE INDUSTRY IN MALAYSIA**

This study aimed to investigate the internal and external factors that influence the determinants of leverage in the service industry in Malaysia. The sample used in this study is made up of 15 public listed companies in the Malaysia service industry, with the observation period between 2006 to 2015. The variables involved in this study are leverage as the dependent variable, while profitability, size of firms, cost of capital, control of management and unanticipated events as the five independent variables. Panel data analysis is being used in this study, specifically was by using the fixed effects model. The results of this study concluded that cost of capital is the only significant determinant to the decision of leverage, while other variables are showing insignificant relationship towards leverage. The findings of this study is not very consistent with the previous study on leverage. As a conclusion, the results might indicate that the Malaysian service industry is different in the sense of managing the company's leverage if compare to the firms in the foreign countries.

## **ABSTRAK**

*Kajian ini bertujuan untuk mengenal pasti faktor dalaman and faktor luaran yang mempengaruhi penentu keumpilan dalam industri perkhidmatan di Malaysia. Sampel kajian terdiri daripada 15 syarikat tersenarai dalam industri perkhidmatan di Malaysia, dengan tahun pemerhatian antara 2006 hingga 2015. Antara pembolehubahan yang terlibat adalah keumpilan sebagai pembolehubahan bergantung, manakala pembolehubahan bebas adalah seperti keberuntungan, saiz firma, kos modal, kawalan pengurusan dan peristiwa yang tidak dijangka. Kaedah analisa panel data telah digunakan dalam kajian ini, khususnya kesan tetap modal regresi. Pendapat kajian tersebut berkesimpulan bahawa kos modal sahaja yang menunjukkan hubungan signifikan dengan keumpilan, manakala pembolehubah yang lain menunjukkan hubungan yang tidak signifikan. Pendapat kajian ini adalah tidak konsisten dengan beberapa kajian terdahulu. Konklusinya, pendapat kajian ini menunjukkan kemungkinan bahawa syarikat dalam industri perkhidmatan di Malaysia mempunyai gaya pengurusan keumpilan yang berlainan dengan syarikat di Negara yang lain.*

# CONTENTS

	Page
<b>TITLE</b>	i
<b>DECLARATION</b>	ii
<b>CERTIFICATION</b>	iii
<b>ACKNOWLEDGEMENT</b>	iv
<b>ABSTRACT</b>	v
<b><i>ABSTRAK</i></b>	vi
<b>LIST OF CONTENTS</b>	vii
<b>LIST OF TABLES</b>	x
<b>LIST OF FIGURES</b>	xii
<b>LIST OF APPENDICES</b>	xiii
<b>CHAPTER 1 INTRODUCTION</b>	<b>1</b>
1.0 Background of Study	1
1.1 Problem Statement	2
1.2 Research Question	4
1.3 Objectives of Study	5
1.4 Significance of Study	5
1.5 Scope of Study	5
1.6 Definition of Key Terms	6
1.6.1 Capital Structure	6
1.6.2 Leverage	6
1.6.3 Profitability	6
1.6.4 Cost of Capital	6
1.6.5 Control of Management	6
1.7 Organization of the Study	6
<b>CHAPTER 2 LITERATURE REVIEW</b>	<b>7</b>
2.0 Introduction	7
2.1 Determinants of Capital Structure	7
2.1.1 Internal Factors That Influence the Leverage in Service Industry	7
2.1.1.1 Profitability	7
2.1.1.2 Size of firm	8



	2.1.1.3	Cost of capital	9
	2.1.1.4	Control of management	9
	2.1.2	External Factors That Influence the Leverage in Service Industry	10
	2.1.2.1	Unanticipated events	10
2.2		Empirical study on the Internal Factors and External Factors that Influence the Leverage	10
2.3		Summary	30
<b>CHAPTER 3</b>		<b>RESEARCH METHODOLOGY</b>	<b>31</b>
3.0		Introduction	31
3.1		Research Framework	31
3.2		Variables	33
	3.2.1	Measurement of Dependent Variable – Leverage	33
	3.2.2	Measurements of independent Variables	33
3.3		Research Hypotheses	34
3.4		Data Collection	35
3.5		Data Analysis Techniques	36
	3.5.1	Correlation Analysis	36
	3.5.2	Multicollinearity Test	36
	3.5.3	Normality Test	37
	3.5.4	Unit Root Test	37
	3.5.5	Haussman Test	37
	3.5.6	Fixed Effects Model and Random Effects Model	38
<b>CHAPTER 4</b>		<b>RESULTS OF THE STUDY</b>	<b>40</b>
4.0		Introduction	40
4.1		Descriptive Statistics	40
4.2		Unit Root Test	42
	4.2.1	Leverage (LEV)	45
	4.2.2	Profitability (PFT)	46
	4.2.3	Size of Firm (SIZE)	48
	4.2.4	Cost of Capital (COC)	50
	4.2.5	Control of Management (MGT)	51
4.3		Correlation Analysis	53
4.4		Normality Test	54



4.5	Regression Analysis	55
4.6	Fixed Effects Regression Analysis	56
4.7	Random Effects Regression Analysis	57
4.8	Haussman Test	59
4.9	Hypothesis Testing	59
4.10	Summary	60
<b>CHAPTER 5</b>	<b>DISCUSSION AND CONCLUSION</b>	61
5.0	Introduction	61
5.1	Recapitulation of the Study	61
5.2	Discussion of Findings	62
5.2.1	Relationship between Profitability and Leverage	62
5.2.2	Relationship between Size of Firms and Leverage	63
5.2.3	Relationship between Cost of Capital and Leverage	64
5.2.4	Relationship between Control of Management and Leverage	65
5.2.5	Relationship between Unanticipated Events and Leverage	65
5.3	Implications of the Study	66
5.4	Limitations of the Study	67
5.5	Suggestion for Further Research	68
5.6	Conclusion	68
<b>REFERENCES</b>		71
<b>APPENDICES</b>		76



## LIST OF TABLES

Number of Table	Page
3.1 Research Framework	32
3.2 Expecte Signs	32
3.3 Proxies for variables	34
4.1 Descriptive Statistics of the Variables	40
4.2 Unit Root Test at Level	42
4.3 Unit Root Test at First Difference	43
4.4 Unit Root Test at Second Difference	44
4.5 Results of Correlation Test	54
4.6 Results of Normality Test	54
4.7 Results of Regression Analysis	55
4.8 Results of Fixed Effects Regression Analysis	57
4.9 Results of Random Effects Regression Analysis	58
4.10 Results of Haussman Test	59
4.11 Summary of Findings	59

## LIST OF FIGURES

Number of Figure	Page
4.1 Results of Normality Test	55

## LIST OF APPENDICES

	Page
APPENDIX A	List of Companies
APPENDIX B	List of Unanticipated Events from 2006-2015
APPENDIX C	Descriptive Statistics
APPENDIX D	Unit Root Test – Level
APPENDIX E	Unit Root Test – First Difference
APPENDIX F	Unit Root Test – Second Difference
APPENDIX G	Correlation Analysis
APPENDIX H	Normality Test
APPENDIX I	Regression Analysis
APPENDIX J	Fixed Effects Regression Model
APPENDIX K	Random Effects Regression Model
APPENDIX L	Haussman Test

# CHAPTER 1

## INTRODUCTION

### 1.0 Background of Study

As the Malaysian economic proceed towards a high income nation, the role of service industry becomes greatly significant to the growth of the nation. The importance given to the manufacturing industry and agriculture industry have begun to decline. This is one of the indicators showing that we are heading towards high income nation, in line with the National Economic Transformation Programme, launched on the 25<sup>th</sup> September 2010.

The service sector in Malaysia is significantly recognized as one of the main contributor to the GDP. According to the Service Sector Blueprint (2015), the service sector alone has contributed 55 percent to the GDP and provided 8 million job opportunity to the public in Malaysia, which is about 61 percent of the total employment in Malaysia. By the time we reach year 2020, the contribution of services sector targeted will increase to 58 percent of the total GDP in Malaysia. Just tourism alone in the services sectors has already received several global recognition, with the latest one as the world's 5<sup>th</sup> best shopping destination by Expedia UK, in 2016.

With the recognition for how much the service sector could contribute to the growth of economy in Malaysia, the service sector Blueprint developed in March 2015 was incorporated into the 11<sup>th</sup> Malaysia Plan. Several policies has been recommended in this Blueprint. According to the Service Sector Blueprint (2015), one of the policies is Internationalization Strategy, where it aims to significantly raise the number of service providers in Malaysia, also to further their reach in the market. Basically it means to create an export-oriented service sector economy. The second policy is Investment Incentive, where it mainly focuses on increasing the incentive mechanism, by doing review on the current incentive framework, and propose steps aims to make it more effective and performance driven.

According to the Service Sector Blueprint (2015), the third policy is to do with human capital development, where its purpose is to produce, attract and retain skilled and talented workers. This is done by accelerating human capital development and also facilitate access to hard and soft technologies information. Last but not least is to do sectorial governance reform, which aims to cultivate an efficient environment and machinery that is able to give a thriving and competitive atmosphere for the service sector to develop positively.

External factor preferably known as uncontrollable factors and internal factors can influence the performance of service industry based business. The performance will be due to the changes in the capital structure that can suit the service industry. Thus, an empirical analysis can be conducted to determine the factors that can influence the capital structure of the service industry.

### **1.1 Problem Statement**

The service industry, as we all know is always exposed to the changes in the external factors, like financial crisis and also terrorism crisis. Several natural disasters that happened in Malaysia in the recent years has also brought about negative impact to the service sector in Malaysia. For example, the earthquake that happened in Sabah during 2015, has caused eighteen death in the famous Mount Kinabalu, which later brought about a shutdown for the visits to Mount Kinabalu due to damages of several infrastructure. According to the Sabah Tourism, Culture and Environment Minister, Datuk Masidi Majun said in Malaymail Online (2015), the earthquake has caused them the need for a huge amount of work to restore the confidence of people towards Kundasang and Ranau region. The earthquake has not only destroyed buildings and infrastructure in the places, but also the people who spread fake rumours around the place causing damages to the industry. According to The Star Online (2015), it is reported that Sabah suffered loss of nearly RM100mil in damages because of this incident.

The recent terrorist attack happened in Semporna Sabah in 2016, where four crewman from a Malaysian boat have been kidnapped by armed Filipino gunman near the Pulau Ligitan off Semporna, Sabah (The Star Online, 2016). According to The Sun Daily (2014), the kidnapping incidents happened in Sabah in the year 2014



have caused negative impact to Malaysia's tourism sector. In the news, Tourism and Cultural Minister Datuk Seri Mohamed Nazri Abdul Aziz said that, the impact of the kidnapping was way worse than the case of missing Malaysia Airlines flight MH370, where a numerous numbers of flights from the tourists in China has been cancelled. Perhaps the kidnapping attack happened in recent months would have caused a similar issue, where service sector in Sabah would face a gradual lost.

Some other challenges faced by the Malaysia's Service sector are such as deficiency in economic fundamentals. According to the Service Sector Blueprint (2015), service sector in Malaysia is facing a complication in terms of talent procurement, due to the lack of skilful workers and the skills mismatch of graduates from higher education provider and the industry. Another problem is that the sector is also facing problem where the policy is highly regulated, which could bring down the productivity of the industry, while at the same time adding unnecessary cost of business. In addition, most of the service providers are not performing export-oriented business, limiting the expansion of the sector internationally.

The internal factors of the firm is also recognized for having effects towards the capital structure of the firm. According to Gomez, Rivas and Bolanos (2014), nowadays, capital structure has become the hit topic of research, this is because the capital structure of a company determine the real value of that company. Capital structure is defined as the long run financing tools for a company to survive its business, which is made up of both debt and equity (Boakes, 2008), as a results, capital structure has always been represented by using leverages of the firm. According to Salim and Yadav (2012), the capital structure of a firm has some significance effects towards the performance of that firm, therefore it is vital for a finance manager of a firm to manage their capital structure of the firm wisely, by selecting the correct mix of debt and equity of financing. While there are numerous amount of theories being developed to explain about capital structure, Gomez *et al.* (2014) suggested that, the Trade-off Theory and the Pecking Order Theory are the final sum up of all those developed explanation.

The Trade-off Theory, as according to Gomez *et al.* (2014) suggested that, the optimal debt-equity combination has the ability to maximize the value of the



company, and it is generated between the balance of revenue and costs. Generally speaking, Trade-off Theory explained that, debt is very crucial to the funding of a company, it can be used to efficiently reduce the cost of a company, while at the same time remaining with a safe amount of free cash flow. This kind of debt financing comes with a type of obligations between the lenders and business owners, in the form of interest. If the equity-debt combination to invest has a low financing cost, then the financing decision could have the ability to generate high profit, as long as the amount doesn't exceed the optimal capital structure.

According to Gomez *et al.* (2014), the Pecking Order Theory explain that, a company would prioritized in getting internal financing for a new project, when internal financing is not available anymore, they will go for second best choice, which is external financing of issuance of debt; when the debt capacity is no longer available, only then they will go for issuing or increase equity. This theory tries to clarify the relationship of asymmetric information and capital structure, when a firm is trying to get financing for a new project. This is because the information that a business owner, or the debt issuers released to the market has the ability to reflect the value or the quality of the investment that they are making. When the company is confident about the profitability of the new project, they tends to get financing from debt issuance; when the company is not confident about the profitability of the new project, they will issue shares, or equity for financing, where a drop in stock price could happen with the issuance of equity.

As we all know that the service industry in Malaysia is always exposed to the external global factors such as terrorist attack, natural disasters and also financial crisis. Firms in the services sector such as restaurants, hotels and tourism are also affected by such external factors. But we never know how these external factors changes the determinants of leverage in these service sector firms.

## **1.2 Research Question**

What are the factors that influence the determinants of leverage in the service industry?

### **1.3 Objectives of Study**

The overall objective of the study is to measure what factors can influence the determinant of leverage in service industry. The specific objectives are as follows:

- a. To analyze whether profitability (internal factors) can influence the leverage of firms in the service industry.
- b. To examine whether the size of the firm (internal factors) can influence the leverage of firms in the service industry.
- c. To investigate whether cost of capital (internal factors) can influence the leverage of firms in the service industry.
- d. To analyze whether control of management (internal factors) can influence the leverage of firms in the service industry.
- e. To examine whether unanticipated events (external factors) can influence the leverage of the firm's in the service industry.

### **1.4 Significance of Study**

Theoretically it covered the knowledge gap by testing independent variables such as cost of capital, profitability, control of management and the size of the firm in influencing the capital structure of the firm's in the service industry. The findings is able to provide the changes that the firms have taken when unanticipated events take place in the industry to maintain the sustainability of the service sector.

Practically, it can help the service providers to maintain their financial stability when external shocks take place. The study is able to act as a guideline for the tour operation firms to know how to absorb the influence of the unanticipated events, in order to keep their capital structure in order.

### **1.5 Scope of Study**

The scopes of study is focused on researching on the determinants of leverage in the service industry in Malaysia, which include both internal and external factors.

## **1.6 Definition of Key Terms**

### **1.6.1 Capital Structure**

Capital structure is defined as the long run financing tools for a company to survive its business and investments, which is made up of both debt and equity (Boakes, 2008).

### **1.6.2 Leverage**

Leverage is the expansion in magnitude of the initial amount of model posted on an investment, which can be sourced from borrowing funds, reinvesting from the past short sales income or by the use of derivatives (AIMA, 2006).

### **1.6.3 Profitability**

Profitability is defined as the measure of earning power of a firm (Fisseha, 2010).

### **1.6.4 Cost of Capital**

The cost of capital is generally defined as the cost imposed on a company while trying to get the operation fund, in both debts and equity sources, for the purpose of investments (Bhatnagar, Kumari and Sharma, 2015).

### **1.6.5 Control of Management**

The control of management is basically referred as the ownership structure of a company (Boodhoo, 2009).

## **1.7 Organization of the Study**

This study covered five chapters. Chapter 1 covered the introduction, the problem statement, research question and research objectives, significance as well as the organization of the study. Chapter 2 explained in detail the literature review meanwhile Chapter 3 discussed the methodology used in the study. Chapter 4 explained the result and Chapter 5 provided the discussion and the conclusion of the study.



## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

In this chapter, several empirical studies done in the past by other researchers are reviewed and presented. This chapter is divided into two sections; determinants of leverage and literature review of empirical studies. This review is vital for the process of generating the research framework for this study, and to explain the choices of independent variables chosen, which are also known as the determinants of leverage.

#### **2.1 Determinants of Leverage**

The determinants of leverage is defined as the factors affecting the decisions for the type of leverage chosen. There are several determinants of leverage being analyzed and discussed in previous studies by other researchers, but in this paper, the determinants chosen to be tested are profitability, size of firm, cost of capital, control of management and unanticipated events. Each of these determinants are further discussed in this section.

##### **2.1.1 Internal Factors That Influence the Leverage in Service Industry**

###### **2.1.1.1 Profitability**

According to Chiang, Chan and Hui (2002), leverage of firms in Hong Kong are obeying the pecking order theory, where if possible, they would have prefer to raise their own finances from their reserve of retained earnings, rather than bank loans and any other external sources of financing that includes debts. Gomez *et al.* (2014) suggested that as firms contain a higher profitability and retain earnings, they may use this advantage to reduce the level of debts for the company. Alipour, Mohammadi and Derakhshan (2015) stated that for firms that possessed greater level of profitability are assumed to shows less bankruptcy risks than those who uses debts as the main financing source.

According to Ukargbu and Oino (2014), they suggested that there is a significant negative relationship between profitability and leverages. Which is in line with the pecking order theory as firms with higher amount of internal funding tend to show low level of leverage. While Alipour *et al.* (2015) stated that for some of the companies, profitability shows significant positive relationships between profitability and the short term-debt ratio of a company, but interestingly, profitability shows significant negative relationship, or sometimes no relationships at all with the long-term debt of a company. This indicate that those companies might only needed short-term financing loan from bank to run their business, but since these companies contains enough amount of internal financing source, they are not in need of long-term debt to survive their business.

#### **2.1.1.2 Size of firm**

Viviani (2008) stated that, as smaller firms have higher chances of getting information asymmetries, due to the reason that it is more costly for smaller firms to acquire information with financiers, this discourages them to look for debt financing, while at the mean time increase the preferences of small firms to use internal financing. Researchers also revealed that large firms are generally more diversify in the sense of reducing volatility of cash flow if compare to small firms, and hence larger firms are considered to be less likely to undergone bankruptcy (Gomez *et al.*, 2014; Viviani, 2008).

According to Wahome, Memba and Muturi (2015), large firms are more often to choose long-term debt while small firms prefer using short-term debt for the operations of business. This is due to the fact that larger firm are able to take advantage of the economies of scale in acquiring debts with the creditors, so the cost of issuing debt show negative relationship with the size of firm. However, the effect of size of firms to leverage shows inconsistence results for every researchers, some find that there is a positive relationship between firm size and leverage due to the fact that larger firms possessed market confidence in acquiring more debts, while some found that there is a negative relationship because larger firms used to have more sales, and lead to high retained earnings, so it shows less debts loans with outside financing source.

#### **2.1.1.3 Cost of capital**

According to Bhatnagar *et al.* (2015), the cost of capital generally defined as the cost of a company getting the operation fund, for both debts and equity sources. An investment is said to be worthwhile when the expected return of the investment is larger than the cost of capital. Dhankar and Boora (1996) suggested that the cost of capital in general is negatively related to the decision of leverage. This is due to the fact that as the increase in debt level, there will be a decrease in the cost of debt. But the relationship is insignificant as the leverage is not affected by the cost of capital only. While Singh and Najadmalayeri (2003) reported that, highly diversified large firms are usually involved in higher level of debt financing, which in turn causing a reduction of cost of capital. Reducing in the overall cost of capital leads to an effects on the decision of leverage.

#### **2.1.1.4 Control of management**

The control of management in this context referred as the ownership structure of a company. Boodhoo (2009) suggested that as when the managing directors are also the shareholders of a company, the owners will be less likely to invest in some projects that may seems risky, by doing so, it helps to keep the debt level of a company as low as it possibly can. This results was in line with what suggested by Morri and Artegiani (2015), where the presence of block holders, which are the owners of the huge amount of shares of a company with voting rights, shows negative relationship with the amount of leverage, where firm with the presence of block holders are likely to be less leveraged than firms with huge number of free-floating shares.

According to Hasan and Butt (2009), managerial ownership of a company shows significant negative effects towards leverage represented by debt to equity ratio. Ruan, Tian and Ma (2011) suggested that, as the low level and a very high level of managerial ownership of a firm, it shows a negative relationship between control of management with the leverages ratio, while for the intermediate level of managerial ownership in a company, the leverages ratio increases as the increases in managerial ownership.



## **2.1.2 External Factors That Influence the Leverage in Service Industry**

### **2.1.2.1 Unanticipated events**

According to Rouse (2006), in the process of determining the leverage of a company, the amount of debt that a company possessed should have been plan wisely, and with the adequate flexibility in case there is an unanticipated events occurs. This shows that the unanticipated events shows significant effects towards the decision of leverage of a company. In some way, the unanticipated events as a variable could be represented by risk. Risk plays a very important role in leverage, and it is suggested that firms with high risk should avoid high level of debt to equity ratio, that has been said, risk is negatively related to debt or leverage of a company (Alipour *et al.*, 2015).

Gomez *et al.* (2014) further suggested that as the level of unanticipated events of a company increases, the risk of a company increases, then it is highly possible for a firm to undergone financial crisis. Therefore, the relationship of risk and debt level of a company should be kept at negative relationship. The same statement was suggested by Morri and Artegiani (2015), where the risk and leverage are negatively correlated. This is due to the fact that higher risk is associated with possibility of information asymmetry, causing the management of a company to be highly reluctant for more debt financing.

## **2.2 Empirical study on the Internal Factors and the External Factors that Influence the Leverage**

According to Morri and Artegiani (2015), in the study of "The effects of the global financial crisis on the capital structure of EPRA/NAREIT Europe index companies", the authors aimed to discover whether the financial crisis causing any sort of implications towards the capital structures of the real estate companies in Europe. Besides this, the authors are also interested in knowing if those impacts can be studied using the variables of trade-off and pecking order theories. Those variables are acting as independent variables for this study, they are size, profitability, growth, cost-of-debt, ownership and risk. The research is being conducted by using the fixed-effect panel regression analysis. While for the test subjects, the authors has chosen the data taken from 68 companies comprising the EPRA/NAREIT Europe index on 31<sup>st</sup> December, 2012, with their financial data of the period from 2003 to 2012. The

effect of financial crisis are represented by two dummy variables, where TYPE represent the different set of individual effects towards the company based of the company group. While another dummy variable is CRISIS, where it represent the time period of when the financial crisis happened. As a results, it shows that the global financial crisis does have impact on the capital structure of the company, and these effects are dependent on the variables in trade-off and pecking order theories.

According to Ukargbu and Oino (2014), their studies on "The determinants of capital structure – A comparison of financial and non-financial firms in a regulated developing country – Nigeria, shows the results that there are significant similarities and differences between financial firms (banks) and non-financial firms (manufacturing firms) in the sense of capital structure. Banks are usually more leveraged when they are profitable; while manufacturing firms are less leveraged when they are profitable. This has fulfilled the objective of this study to investigate the differences and similarities of the two type of firms. For the second objective, where the authors are intended to find out the speed of adjustment for both type of firms. The results shows that, banks adjusted their leverage faster than manufacturing firms in general. Banks are also getting more influence by the changes in the economy than manufacturing firms. This study was carried out by using the data of firms from annual financial statements from year 2004 to 2008. In order to estimate the effects between the independent variables and dependent variable, the researchers used pooled ordinary least square, random effects and fixed effects to achieve a balanced panel data. These three estimation methods are used in order to ensure that the comparisons between the models are usable and meant something.

According to Gomez *et al.* (2014), the research on "The determinants of capital structure in Peru" shows that, out of all the independent variables in the research, profitability, size of company, collateral value of assets, and tax protection different to debt are the factors that shows significant effects to the capital structure in Peru. This study is aimed to determine the factors that are going to influence the capital structure of non-financial companies listed in the Stock Exchange of Lima, while the country of research is in Peru. The independent variables in this study are the factors of capital structure of a firm obtained from several literature studies. The researchers are then taking these independent variables to test it against 64 sample



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