

# THE INFLUENCE OF CAPITAL STRUCTURE ON PROFITABILITY AND FIRM VALUE

(A Study on Food and Beverage Companies  
Listed in Indonesia Stock Exchange 2010-2012 period)

UNDERGRADUATE THESIS

“Thesis submitted to the University of Brawijaya  
for the degree of Bachelor of Business Administration”

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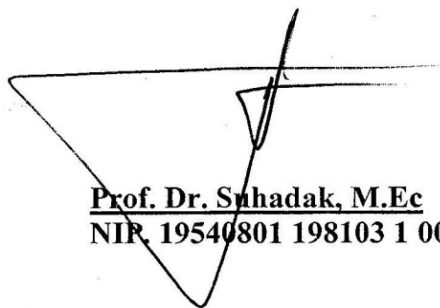
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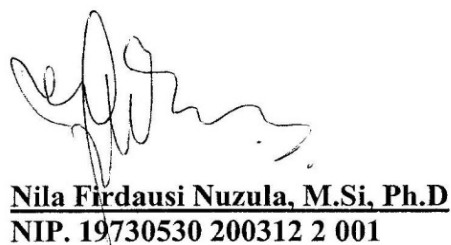
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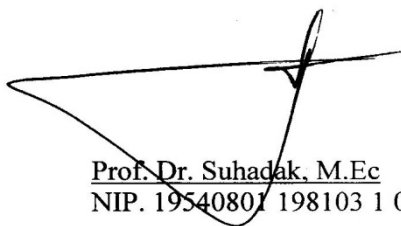
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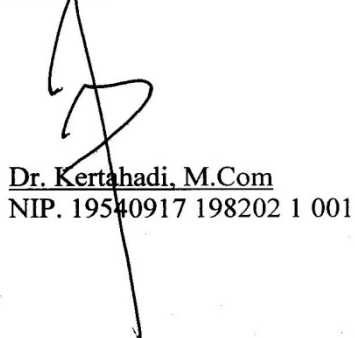
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## MOTTO

Those who hope in the Lord will renew their strength, they will  
soar on wings like eagles, they will run and not grow weary, they  
will walk and not be faint.

Isaiah 40 : 31

If you have knowledge, let others light their candles in it.

Margaret Fuller



## DEDICATION

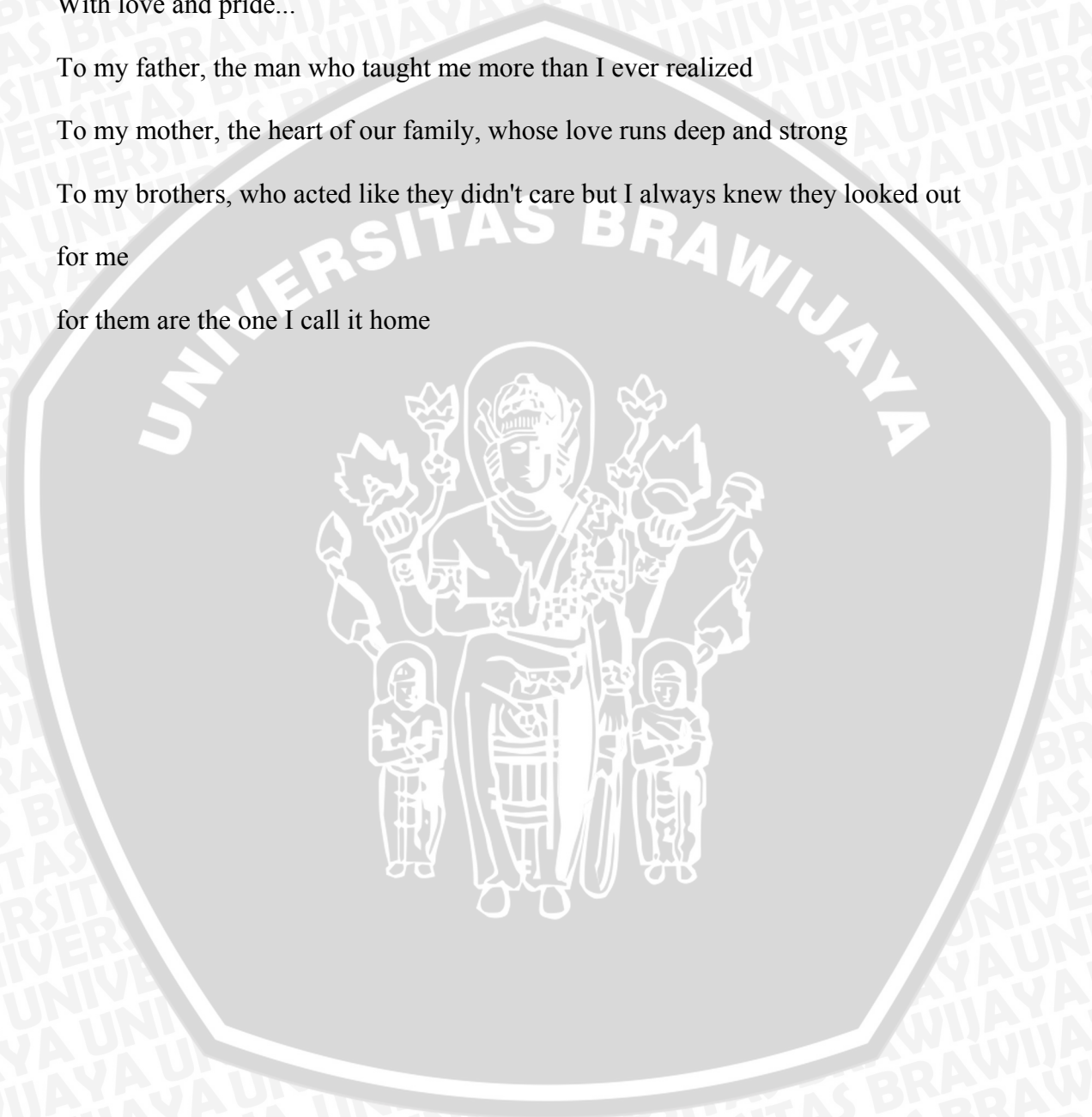
With love and pride...

To my father, the man who taught me more than I ever realized

To my mother, the heart of our family, whose love runs deep and strong

To my brothers, who acted like they didn't care but I always knew they looked out  
for me

for them are the one I call it home



## DECLARATION

The work in this undergraduate thesis is based on research carried out on The Influence of Capital Structure on Profitability and Firm Value. To the best of my knowledge, no part of this thesis has been submitted elsewhere for any other degree or qualification and it all my own work except where due reference has been given

Malang, December 2013



Shinta D. Manurung

## SUMMARY

Shinta D. Manurung, **The Influence of Capital Structure on Profitability and Firm Value (A Study on Food and Beverage Companies Listed in Indonesia Stock Exchange 2010-2012 period)**, Advisor: Prof. Dr. Suhadak, M.Ec, Co-Advisor: Nila Firdausi Nuzula, M.Si, Ph.D. 95 pages + xiii

This research is conducted to enhance the knowledge about capital structure, profitability, and firm value because studies about those variables still have different results. Moreover, the analysis of those variables in one single research is very limited. An opportunity to perform additional research is open in the form of replication and development to alter previous findings.

In this research, the capital structure is represented by three indicators: Debt Ratio, Debt Equity Ratio, and Long Term Debt to Equity. Profitability is proxy by Return on Asset, Return on Equity and Net Profit Margin, while firm value is proxy by Book Value, Price to Book Value, and Closing Price. There are three hypotheses in this study: firstly, the Capital Structure significantly influences Firm Value; secondly, Capital Structure affects firm's profitability, and thirdly, Profitability influences Firm Value significantly.

Using Partial Least Square Method, this study finds that all indicators are useful to measure the latent variables. While in the analysis of structural model or inner model, the result supports hypotheses 1 that capital structure has significant influence on firm value with p value significant at 0.04 ( $<0.05$  level of error). The higher the debts that firms employed, the lower its values. This study also supports hypotheses 2 that capital structure influences the profitability significantly by p value of  $<0.01$  negatively. This indicates that firms with high capital structures will have a decrease in profit. The result of the research also supports hypotheses 3 that profitability influences the firm values by p value significant at  $<0.001$  positively. It means that higher profitability of a firm will result in a higher firm value.

## ACKNOWLEDGEMENTS

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It is with a lot of gratitude and appreciation that I acknowledge the help of my advisor, Prof. DrSuhadak, M.Ec for providing continuous support, guidance and knowledge throughout this research. I also would like to offer my gratitude for my co-advisor, Mrs. Nila Firdausi Nuzula, M.Si, Ph.D for all the valuable advices and relevant feedback she has given me along the working process with this research. The meetings and discussions which I had with both of my advisors helped me attain a better understanding of issues pertaining to this research.

I also owe many thanks to the administrative support I enjoyed from the Faculty of Administrative Science, Brawijaya University, whom are worthy of a mention with special thanks.



During the course of one's stay for a long duration in a new region, one meets individuals whose love and affection make the stay despite the initial travails of adjusting to a new place, 'a home away from home'. This was very much the case with my K classmates. We may compete with each other but the friendship and dreams that we shared will grow in our hearts when our life will torn apart.

Last but not least, I must express my profound thanks to my family. Without their support, I would not have achieved this stage. This work is dedicated to them.



## TABLE OF CONTENT

<b>Approval Page</b> .....	i
<b>Motto</b> .....	ii
<b>Dedication</b> .....	iii
<b>Declaration</b> .....	iv
<b>Summary</b> .....	v
<b>Acknowledgement</b> .....	vi
<b>Table of Content</b> .....	viii
<b>List of Tables</b> .....	x
<b>List of Figures</b> .....	xi
<b>List of Appendix</b> .....	xiii

### **Chapter I Introduction**

A. Background of the Research .....	1
B. Problem Statements.....	7
C. Research Objectives .....	7
D. Contribution of the Research.....	7
E. Writing Structure.....	8

### **Chapter II Literature Review**

A. Prior Research.....	10
B. Capital Structure.....	12
1. Definition of Capital Structure.....	12
2. Theory of Capital Structure.....	14
a. MM Theory.....	14
b. Trade-Off Theory.....	15
c. Pecking Order Theory.....	15
d. Agency Theory.....	16
3. Optimum Capital Structure.....	17
4. Variables of Capital Structure.....	18
C. Profitability.....	19
1. Definition of Profitability.....	19
2. The Importance of Profitability Measurement.....	21
3. Profitability Measurement.....	21
4. Variables of Profitability.....	22
D. Firm Value.....	24
1. Definition of Firm Value.....	24
2. Type of Stock.....	25
3. Value Creation.....	26
4. Variables of Firm Value.....	27
E. Conceptual Framework.....	29
F. Hypothesis.....	31

<b>Chapter III</b>	<b>Research Method</b>	
A.	Type of the Research.....	33
B.	Location of Research.....	33
C.	Variables and Measurement.....	33
D.	Population and Samples.....	37
E.	Data Collection Technique.....	39
F.	Data Analysis.....	40
	1. Partial Least Squares.....	40
	2. Software Used for Analysis.....	40
	3. Analysing Stage.....	41
<b>Chapter IV</b>	<b>Discussion</b>	
A.	General Image of Food and Beverage Companies.....	47
B.	Data Presentation.....	62
	a. Debt Ratio.....	62
	b. Debt Equity Ratio.....	64
	c. Long Term Debt to Total Equity.....	65
	d. Return on Assets.....	67
	e. Return on Equity.....	68
	f. Net Profit Margin.....	70
	g. Book Value.....	71
	h. Price to Book Value.....	72
	i. Closing Price.....	74
C.	Analysis and Result of PLS Approach.....	76
	a. Stage One: Assessing the Measurement Model.....	76
	1. Indicators of Capital Structure.....	77
	2. Indicators of Profitability.....	78
	3. Indicators of Firm Value.....	79
	b. Stage Two: Assessing the Structural Model.....	81
	1. Coefficient Determination, $R^2$ .....	81
	2. Hypothesis Testing.....	82
	a. Hypothesis 1.....	82
	b. Hypothesis 2.....	83
	c. Hypothesis 3.....	84
<b>Chapter V</b>	<b>Conclusion and Recommendations</b>	
A.	Conclusion.....	86
B.	Recommendations.....	87
	<b>List of Reference</b> .....	89

## LIST OF TABLES

Table 1.1.	Contribution of Manufacturing Industry to Indonesian GDP.....	5
Table 1.2.	Comparison of Total Assets in Consumer Goods Industry.....	6
Table 3.1.	Sample Selection Process.....	37
Table 3.2.	List of Samples.....	38
Table 4.1.	Debt Ratio of Food and Beverage Companies.....	62
Table 4.2.	Debt Equity Ratio of Food and Beverage Companies.....	64
Table 4.3.	Long Term Debt to Total Equity of Food and Beverage Companies.....	65
Table 4.4.	Return on Assets of Food and Beverage Companies.....	67
Table 4.5.	Return on Equity of Food and Beverage Companies.....	68
Table 4.6.	Net Profit Margin of Food and Beverage Companies.....	69
Table 4.7.	Book Value of Food and Beverage Companies.....	70
Table 4.8.	Book Value of Food and Beverage Companies after transformation.....	71
Table 4.9.	Price to Book Value of Food and Beverage Companies.....	72
Table 4.10.	Closing Price of Food and Beverage Companies.....	73
Table 4.11.	Closing Price of Food and Beverage Companies after transformation.....	74
Table 4.12.	Assessment of indicators in Capital Structure.....	76
Table 4.13.	Assessment of indicators in Profitability.....	77
Table 4.14.	Assessment of indicators in Firm Value.....	78
Table 4.15.	P Values and Path Coefficient.....	81

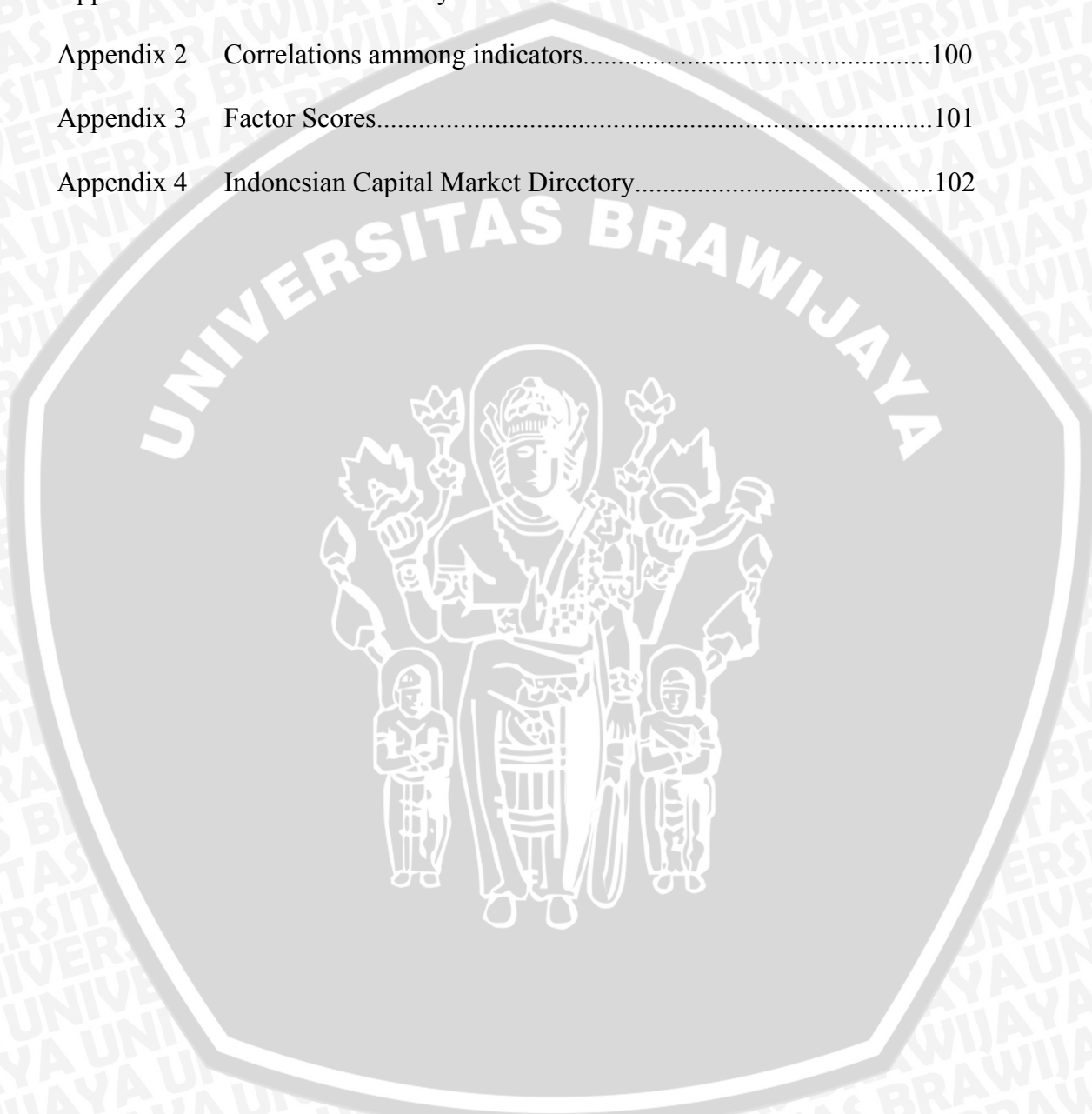
## LIST OF FIGURES

Figure 2.1.	Conceptual Framework.....	29
Figure 2.2.	Hypothesis Framework.....	30
Figure 4.1.	Assessment of indicators in Capital Structure.....	76
Figure 4.2.	Assessment of indicators in Profitability.....	77
Figure 4.3.	Assessment of indicators in Firm Value.....	79
Figure 4.4.	Direct Relationship Path Diagram.....	80



## LIST OF APPENDIX

Appendix 1	General SEM Analysis Result.....	95
Appendix 2	Correlations among indicators.....	100
Appendix 3	Factor Scores.....	101
Appendix 4	Indonesian Capital Market Directory.....	102



## CHAPTER ONE

### INTRODUCTION OF THE RESEARCH

#### A. Background of the Research

In the era of an intense competition nowadays, the business world will always require management to be creative in an effort to improve the firm value. Effective strategies are needed to direct the firm towards the goal. Prasetyo (2010: 132-138) stated that in the long run, strategic goals of the company is to increase the value. Damodaran (2001) explained that the maximization of a firm value consists of three major decisions; how to maximize firm's future free cash flow, the extending assets growth and how managers financed its project efficiently. In this context, it is clear that financial management plays an important part in the process of achieving the firm goals.

Finance is the significant factor that assists in the formation of new businesses, and allows businesses to take advantage of opportunities to grow, to expand or innovate further. As the old proverb saying it takes money to make money, the firm sure will need to buckle down and spend money in order to operate. In the language of finance, the business should make investments in assets such as inventories, machineries, lands and labors, in order to generate cash.

Before a firm can invest in an asset, it must decide whether financing the asset by using debt or equity, or mix of these two sources. The firm's mixture of debt and equity is called capital structure (Brigham and Daves, 2004). Capital structure has become such a great interest in the corporate finance studies. For more than fifty years since Modigliani and Miller's capital structure paper in 1958, various researchers were conducted researches in the field of capital structure. Modigliani and Miller stated that the choice between debt and equity financing has no material effects on the firm value if there is no taxes, no brokerage costs, no bankruptcy costs, and investors have the same information about a firm's prospects as managers.

This theory seems to be unreasonable in the real world since taxes, brokerage costs, bankruptcy costs, differences in borrowing costs, and information asymmetries exist in the real world. To that respect, many researchers then argue Modigliani and Miller's theory by adding assumptions that Modigliani and Miller omit, thus showed different results.

The influence of capital structure on firm value can be seen from several researches that were conducted, including the research performed by Chowdhury&Chowdhury (2010: 111-122) to test the influence of debt-equity structure on the value of shares given different sizes, industries and growth opportunities with the companies incorporated in Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) of Bangladesh.



For the robustness of the analysis samples are drawn from the four most dominant sectors of industry i.e. engineering, food & allied, fuel & power, and chemical & pharmaceutical to provide a comparative analysis. A strong positively correlated association is evident from the empirical findings when stratified by industry.

Antwi et al. (2012: 103-111) also provide evidence on the impact of capital structure on a firm's value. The analysis was implemented on all the 34 companies quoted on the Ghana Stock Exchange (GSE) for the year ended 31st December 2010. The ordinary least squares method of regression was employed in carrying out this analysis. The result of the study reveals that in an emerging economy like Ghana, equity capital as a component of capital structure is relevant to the value of a firm, and long-term-debt was also found to be the major determinant of a firm's value.

In other side, several researchers also found the relationship of capital structure to profitability. Shubita and Alsawalhah (2012) found a significantly negative relation between debt and profitability. This finding implies that an increase in debt position is associated with a decrease in profitability, thus the higher the debt, the lower the profitability of the firm. When trying to analyze the relationship between capital structure and profitability, Abor (2005: 438-445) found a significant positive association between ratio of total debt to total assets and return on equity.

The studies and empirical findings above have at least demonstrated that capital structure has more importance than in the simple

Modigliani-Miller model. While talking about the influence of capital structure on profitability and firm value, a question rises about profitability and firm value on whether those two variables interrelated. Theoretically, generating higher profitability will generates value because profitability is a barometer of the success of the company or good performance. This will be seen as a benchmark for investors to invest their fund. High performance will push the company's stock market price to increase. Chen & Chen (2011) performed research to identify the influence of profitability on firm value. The result showed that profitability has a positive effect on firm value. However, Hestinoviana (2013) found that profitability does not have a significant effect on the changes of firm value.

All of the efforts of studies during fifty years have provided the evidence that capital structure does affect profitability and firm value, and profitability affect firm value. However, analysis over the influence of capital structure, profitability, and firm value in one single research is very limited. An opportunity to perform additional research among those variables is open in the form of replication and development. This research is performed to investigate the influence of capital structure on profitability and firm value classified as the Food and Beverage Companies and listed in Indonesia Stock Exchange during 2010-2012. This study is useful to add information about capital structure, profitability, and firm value to bolster or alter previous findings.

This study uses Food and Beverage Companies as the samples because the companies have demonstrated a positive contribution into Indonesian economy. According to Statistics Indonesia (BPS-*Badan Pusat Statistik*), Food and Beverage Companies gave largest contribution to Indonesian Gross Domestic Products during 2010-2012 (see Table 1.1.) compared to other companies in manufacturing industry. This large contribution of food and beverage companies proved that those companies are important to Indonesian economy.

Table 1.1  
Contribution of Manufacturing Industry to Indonesian Gross Domestic Products during 2010-2012 (in billion Rupiah)

Industry	2010	2011	2012
Manufacturing Industry	1 599 073.10	1 806 140.50	1 972 846.60
a. Oil and Gas Manufacturing Industry	214 432.70	253 078.60	254 407.80
1. Petroleum Refinery	124 110.70	131 482.30	130 122.70
2. Liquefied Natural Gas (LNG)	90 322.00	121 596.30	124 285.10
b. Non-Oil & Gas Manufacturing Industry	1 384 640.40	1 553 061.90	1 718 438.80
<b>1. Food, Beverages and Tobacco Industries</b>	<b>465 367.90</b>	<b>546 752.00</b>	<b>624 371.00</b>
2. Textile, Leather Products and Footwear Industries	124 204.20	143 385.20	156 492.60
3. Wood and Other Products Industries	80 541.60	84 481.40	85 801.90
4. Paper and Printing Products Industries	65 822.20	69 339.60	66 770.90
5. Fertilizers, Chemical, Rubber Products Industries	176 212.40	189 700.00	216 382.50
6. Cement and Non-Metallic Quarr Products Industries	45 514.50	50 790.50	58 018.30
7. Iron and Steel Basic Metal Industries	26 853.90	31 101.10	33 476.40
8. Transport Equip, Machinery & Apparatus Industries	389 600.10	426 233.70	465 537.40
9. Other Manufacturing Products	10 523.60	11 278.40	11 587.80

Source: Statistics Indonesia (BPS-*Badan Pusat Statistik*)

Beside of the large contribution of food and beverages companies to Indonesian economy, the companies also have capital-intensive characteristics that issuitable for this research. Capital intensive characteristics can be known through heavy investment in the assets. According to Indonesian stock exchange statistics, food and beverage companies have largest assets in consumer goods industry from 2010-2012.

Table 1.2. Comparison of Total Assets  
in Consumer Goods Industry during 2010-2012

CONSUMER GOODS INDUSTRY	Total Assets (in Billion Rupiah)		
	2010	2011	2012
<b>Food and Beverages</b>	<b>70,263</b>	<b>85,054</b>	<b>99,530</b>
Tobacco Manufacturers	51,040	57,333	70,716
Pharmaceuticals	14,651	16,523	19,090
Cosmetics and Household	10,045	12,629	14,711
Housewares	1,209	1,324	1,421

Source: Indonesian Stock Exchange

By understanding the relationship among capital structure, profitability and firm value, food and beverage companies in Indonesia will be able to design an appropriate strategy that can have the maximum firm value and increase the contribution to Indonesian economy. Based on the reasons above, it is appropriate to study **“The Influence of Capital Structure on Profitability and Firm Value (Study on Food and Beverage Companies Listed in Indonesia Stock Exchange period 2010-2012)”**.

## **B. Problem Statements**

Based on the background described, the formulations of problem statement posed in this research are:

1. Does capital structure have a significant influence on firm value?
2. Does capital structure have a significant influence on profitability?
3. Does profitability have a significant influence on firm value?

## **C. Research Objectives**

Based on the research problems that have been made, the purpose of this research are:

1. To analyze the influence of capital structure on firm value.
2. To analyze the influence of capital structure on profitability.
3. To analyze the influence of profitability on firm value.

## **D. Contribution of the Research**

The result of this research will have contributions to several stakeholders, which are the company management, investors, and the next researcher.

1. For the company management, the result from this research can be used as the references for the companies in determining their capital structure in the future to improve the profitability and firm value, thus, attracting more investors.

2. For the investors, this research can help investors to understand information that they need to put into consideration before investing in a firm so they will invest in the firms that would really benefit them.
3. For the next researcher, this research can be used as a reference for those who are taking the research about the influence of capital structure on profitability and firm value.

#### **E. Writing structure**

The writing structure of this undergraduate thesis is:

#### **CHAPTER I INTRODUCTION**

Chapter one explained the background of conducting research in the field of capital structure, profitability, and firm value. It also describes how this research can contribute both to the academic world and to the practical work.

#### **CHAPTER II THEORITICAL FRAMEWORK**

This chapter deals with different capital structure, profitability, and firm value theories. These theories are essential for understanding why capital structure, profitability, and firm value matter to the firm. It also discusses prior research conducted by other researchers within the area relevant to this current study.

### **CHAPTER III            METHODOLOGY**

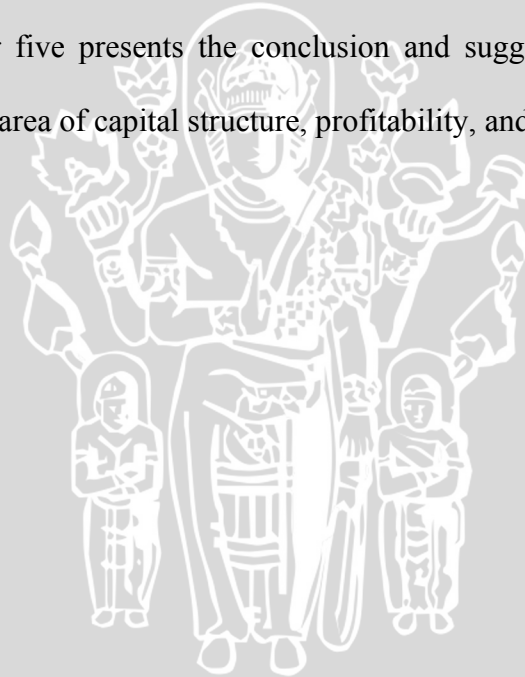
Chapter three describes the methodology used in this research by explaining the data collection and the research approach. This chapter will greatly assist in conducting the research.

### **CHAPTER IV            RESULT AND DISCUSSION**

Chapter four consists of the finding of the research. It will discuss the analysis performed and answer the research questions.

### **CHAPTER V            CONCLUSION AND SUGGESTION**

Chapter five presents the conclusion and suggestions for further research in the area of capital structure, profitability, and firm value.



## CHAPTER TWO

### LITERATURE REVIEW

#### A. Prior Researches

The prior researches presented in this section are meant to establish the current knowledge pertinent to the research questions.

1. Mariono (2012)

This research tests the influence of fundamental factors and capital structure on firm value. Capital structure is proxy by debt ratio and long term debt to total equity while firm value is proxy by Book Value. The result showed capital structure significantly influence the firm value.

2. Molik (2008)

This study seeks to provide evidence on the empirical effects of financial leverage (corporate capital structure) on the market value of a selection of firms listed on the Australian Stock Exchange, developing a direct value-leverage model. Employing a least square dummy variable method to a pooled time-series and cross-sectional data set, the results suggest that the value of a firm rises significantly with financial leverage. More specifically, there is a statistically significant positive effect of total interest bearing, and long-term financial leverage on the market value of a firm, suggesting that leverage



matters even under the Australia's (full) dividend imputation tax system.

3. Velnampy and Niresh (2012)

In this research, researchers examine the impact of capital structure on profitability. Capital structure is proxy by debt to equity ratio and profitability is proxy by return on equity. Result of the analysis showed that there is a negative association between capital structure and profitability. This reveals that an increase in the level of debt finance increases the interest payments thus resulting in a decline in profit.

4. Shubita and Alsawalhah (2012)

This research is trying to analyze the influence of capital structure on profitability. Capital structure is proxy by Debt Ratio while profitability is proxy by Return on Equity. The sample consists of 39 companies listed on Amman Stock Exchange during 2004-2009. The result showed a significantly negative relation between debt and profitability. This suggests that profitable firm depend more on equity as the financing option.

5. Chen & Chen (2011)

The research performed by Chen & Chen identified the role of profitability on the value of the company. The research was conducted in Taiwanese listed companies from 2005-2009. Profitability is proxy by return on assets while firm value is proxy by book value. The result

showed that the profitability has a positive and significant effect to the value of the company.

All the prior research presented above in some ways strengthening this research by providing a synthesis of the capital structure, profitability, and firm value. However it is necessary to understand the benchmarking literature of those concepts in particular. The following section will describe the relevant theory as the basis of this research as well as the definition of the three concepts that are central to this research to avoid possible confusion. Those concepts are capital structure, profitability, and firm value.

## **B. Capital Structure**

### **1. Definition of Capital Structure**

In order to fully understand the concept of capital structure, it is very important to give a fine line of what capital structure is. Given below are some quotations from the expert regarding the definition of capital structure.

- a. Capital structure of a company refers to the composition or make-up of its capitalization and its includes all long-term capital resources *i.e.*, loan, reserves, shares and bonds.

(Gerestonbeg in Patraet al.2006: 237).

- b. Capital structure is the mixture of long-term debt and equity that is used to finance the firm's productive assets (Swanson et al., 2003: 2).

- c. Capital structure refers to the portion of the total funds available to the company except current liabilities. It consists of equity shares, preference shares, debentures, reserves, and surpluses (Patra et al., 2006:237).
- d. Capital structure is the proportion of debt and preference and equity shares on a firm's balance sheet (Khan et.al 2006).

All definitions presented above have their merits. However, whether the capital is riseusing shares, bonds, loans, reserves or any other form, but broadly speaking they are come from two sources which is equity financing and debt financing. Equity financing offers an ownership interest in the company to investors while debt financing is the use of borrowed money to obtain needed assets (Dlabay and Burrow, 2008: 118). According to the definition above, the main difference betweenequity financing and debt financing lies in the ownership. While *equity financing let the investors to become a part owner of the firm and shares any profit the firm makes*, *debt financing is not* giving up ownership since it is literally just borrowing money. However, debt financing often comes with strict conditions or covenants in addition to having to pay interest and principal at specified dates.

## 2. Theory of Capital Structure

Over the years, theories of capital structure emerged namely, Modigliani and Miller (MM) theory, trade off theory, pecking order theory and agency theory.

### a. MM Theory

The theory of modern business finance starts with the Modigliani and Miller (1958:261-297) capital structure irrelevant paper. MM theory was based on the strong assumptions include no brokerage costs, no taxes, no bankruptcy costs, and no asymmetric information. Modigliani and Miller have famously demonstrated how, under those very specific set of assumptions, the capital structure of the firm does not affect its value.

This finding has been subsequently overturned due to the unrealistic nature of its assumptions. However, Modigliani and Miller also had published their second attempt on capital structure that included taxes. In their correction paper on 1963, Modigliani and Miller had identified that as the level of gearing increases by replacing equity with cheap debt, the level of the Weighted Average Cost of Capital (WACC) drops and an optimal capital structure does indeed exist at a point where debt is 100%. MM Theory then stimulated serious researches

devoted to disproving those irrelevances. As a result, trade-off theory, pecking order theory and agency theory were born.

#### **b. Trade-Off Theory**

Trade off theory grew out of the debate over the Modigliani-Miller theory. In trade off theory, bankruptcy can be quite costly because bankruptcy often forces a firm to liquidate or sell assets for less than they would be worth if the firm were to continue operating. Trade-off theory posits that firms choose their capital structure by perfectly balances the costs and benefits of debt financing. The costs of debt financing include the potential for costly bankruptcy and agency conflicts. The benefits include the tax deductibility of interest payments. This trade-off implies the existence of a target leverage that maximizes the value of the firm (Abdeljawad et al., 2013).

#### **c. Pecking Order Theory**

The pecking order theory has emerged as an alternative theory to trade-off theory. Rather than introducing corporate taxes and financial distress into the MM framework, the key assumption of the pecking order is asymmetric information. Asymmetric information indicates that managers know more about their firms' risks and values than outside investors (Brealy and Myers in Beyer, 2010: 6). Thus, the managers

follow the pecking order by using internally generated funds over external financing. In case firms require external funding they would prefer debt over equity. In this sense, firms adopt conservative approach when it comes to dividends and use debt financing to maximize the value of Firm (Jibran et al., 2012).

#### d. Agency Theory

Traditionally, managers prefer internal financing to external financing because external sources require them to explain the project details to outside investors, and expose them to investor monitoring. Hence, managers dislike this process and prefer to use retained earnings rather than external financing. However there is no direct prediction about the relative use of debt versus equity when seeking external financing. These ideas were subsequently developed into agency theories with the study of Jensen and Meckling (1976: 305-360) being a prominent contribution. Agency theory concerns the relationship between the principal (shareholders) and the agent of the principal (firm's manager). In this relationship, the *principal* hires an *agent* to do the work, or to perform a task the principal is unable or unwilling to do. Agency theory assumes both the principal and the agent are motivated by self-interest. This assumption of self-interest dooms agency theory to inevitable inherent conflicts thus

raising an agency costs. An optimal relationship between principal and the agent is reached if the occurring of agency costs is minimal. Agency theory predicts that lower agency costs imply a higher firm value.

### 3. Optimum Capital Structure

The optimum capital structure may be defined as the capital structure or combination of debt and equity that leads to the maximum value of the firm (Khan and Jain, 2006). An appropriate capital structure is a critical decision to any firms. As capital structure is mainly based on two sources of finances that is debt and equity, the use of each source of financing shows mixed and contradictory results.

Kinsman and Newman (1998) found that firms having lower debt have higher value than firms which have high debt. According to this finding, firm should choose low debt or even zero debt to maximize its value. Nurhikmah (2013: 155-187) supported this finding and stated that an optimal capital structure is determined at debt ratio that have the lowest cost of capital and create highest value of the firm.

In 1963, M&M arrived at a new proposition with taxes that assumed firms benefit from the tax shield on debt therefore should be using 100% debt to arrive at an optimal capital structure. If a firm has stable income and a bright future, it can sustain increasing debt (Levy and Sarnat, 1994). However, to be financed entirely by debt is of

course an unsatisfactory in the positive sense, because in reality firms do not and in fact cannot achieve anywhere near this degree of leverage.

Until now, researchers still argue the exact composition of debt and equity for an optimum capital structure. However, Ross et al., (2005) stated that changes in capital structure benefit the stockholders if and only if the value of the firm increases. Since the value of the firm often referred to maximizes shareholder wealth, thus managers should choose the capital structure that they believe will be most beneficial to the firm's shareholder by maximizing the shareholders' wealth.

#### **4. Variables of Capital Structure**

##### **a. Debt Ratio**

The debt ratio is also called the debt to-assets ratio. This measures a firm's use of leverage. It indicates the percentage of debt used to finance assets. Assets can include both tangible (property, plant and equipment) and intangible (patents and trademarks) resources.

$$\text{Debt Ratio} = \frac{\text{Total debt}}{\text{Total ssets}}$$

(Moles et al., 2011: 129)

##### **b. Debt-equity Ratio**

Debt to Equity ratio is calculated by dividing total liabilities by total equity. This gives a measure of how much of the firm is



funded through debt and how much is funded through equity. A high debt to equity (greater than 1) means a high percentage of debt funding. This is not necessarily bad but does mean that interest payment is necessary to repay the loan. The firm should make sure that funds are available to cover the interest repayments.

The formula of debt ratio is:

$$\text{Debt to Equity Ratio} = \frac{\text{Total debt}}{\text{Equity}}$$

(Hansen, 2010: 533)

### c. Long term debt to total equity (LTDE)

Briefly put, the ratio gauges not only how much a firm owes but also the long-term debt (what is owed more than a year) amounts as a percentage of the firm's equity. The long term debt to equity ratio is expressed as follows.

$$\text{Long term debt to equity} = \frac{\text{Long term debt}}{\text{Total Equity}}$$

(Rich et al., 2011)

## C. Profitability

### 1. Definition of Profitability

Profitability comes from two different words namely profit and ability. The term profit refers to the difference of income from a firm

and how much it has cost to produce and market the product, while the term ability indicates the power of a firm to earn profits. Generally speaking, profitability can be defined as the ability of a firm to generate profits. There is no doubt that profit and profitability are closely related and mutually interdependent, yet there are different in a very important way.

Sarngadharan&Rajitha (2011:130) differentiate profit from profitability based on how it measure the earning capacity, in which profit is an absolute measure of earning capacity but profitability is a relative measure of earning capacity. In other words, profit figure indicates the amount of earning of a business during a special period. While, profitability denotes whether these profits are constant or improved or deteriorated, how and to what extent they can be improved. That is why profit in two separate firms may be identical, yet, at many times, it usually happens that their profitability varies when measured in terms of size of investment.

Profitability measurement is an important part of effectively managing firms and their work. A firm that is not profitable cannot survive in today's business climate. While firms strive to boost sales, cut costs, and increase market share, no business model can withstand a lack of profit. Conversely, a firm that is highly profitable has the ability to reward its owners with a large return on their investment. Increasing profitability is one of the most important tasks of the firm

managers, thus, managers constantly look for ways to change the business to improve profitability

## 2. The Importance of Profitability Measurement

Profitability is probably the most important factor to be considered in directing firm. The only way of determining how the assets available to an entrepreneur should be put to use is evaluating the profitability of firms and selecting the highest paying one. Bititci et al. (2009) even stated that profitability is highlighted as the most important performance indicator.

Firms with high profitability are more likely to have better performance. Putting profitability measurement systems in place can be an important way of keeping track on the progress of the firm by giving vital information about what is happening now and it also provides the starting point for a system of target-setting that will help to implement the strategies for growth..

## 3. Profitability Measurements

Profitability measurements are varied. The measurements of profitability include, among other things, the analysis of various profitability ratios. Profitability ratios indicate the profit earning capacity of a business. Rao (2003:101) classified profitability ratios

into two categories, namely general profitability ratios and overall profitability ratios.

General profitability ratios are related with the sales such as Gross Profit Ratios, Operating Ratio, Operation Profit Ratio, Expense Ratio, and Net Profit Ratio or Net Profit Margin. In other side, overall profitability ratios are concerned with measuring the overall efficiency of firms relating profit to the investment made by firms. The overall profitability ratios include Return on Investment or Return on Assets, Return on Equity, Return on Capital Employed, Return on Total Resources, Dividend Yield Ratio, Preference Dividend Cover Ratio, Equity Dividend Cover Ratio and Earning per Share.

Both general profitability ratios and overall profitability ratios are not metrics to be memorized, but are useful tools in measuring the profitability. One of the key challenges with performance measurement is selecting what to measure. The priority here is probably to focus on quantifiable factors that are clearly linked to the drivers of success of the firm.

#### **4. Variables of profitability**

The variables used in this research to describe profitability are overall profitability ratios in the form of Return on Assets and Return on Equity, but also using general profitability ratio in the form of Net Profit Margin. The reason to choose these ratio is because ROA, ROE,

and NPM are ratios that are commonly used in measuring the profitability such as the research by Mulyadi et al. (2012: 316-322), Warrad et al. (2013:25-34), and Paul et al. (2013:113-123).

**a. Return on Assets**

Return on Assets tells an investor about the firm's sustainable growth or how it is able to create a return on the capital investments of the company. It is an indicator of how successful a firm is. Thus, Return on Assets should be the primary indicator of the successful of a firm.

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$$

(Gildersleeve, 1999)

**b. Return on Equity**

Return on equity has been considered as another measure of profitability. ROE is an important indicator in which it tells how the firm has used the resources of its owners. This ratio reflects the extent to which the objective of wealth maximization of shareholders has been achieved.

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Common Equity}}$$

(Brigham & Daves, 2004)

### c. Net profit margin

Net profit margin establishes the relationship between net income and sales and indicates management's efficiency in manufacturing, administering and selling the products. Higher the net profit margin indicates the profitability position of the firm.

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Sales}}$$

(Callahan, et al. 2011:30)

## D. Firm Value

### 1. Definition of firm value

The value of firm can be defined as the amount of utility/benefits derived from the shares of a firm by the shareholders (Rashid and Islam, 2008:2). Maximizing firm value is more than a distant end goal. Rather, it should be on the top of mind. As Salvatore (1989:11) explained in the Theory of the Firm, the primary goal or objective of the firm is to maximize wealth or the value of the firm.

The value is a function of a firm's investment opportunities measured through its share price (Hall and Lowies, 2010) so maximizing firm's value also maximizes the wealth of the shareholders. Investor does not pay more for an asset that it is worth (Damodaran, 2011:1). Thus, investors are always tried to assess whatever they are buying before buying it. Investors come to the market with a wide range of investment philosophies. Some are market timers looking to

buy before market upturns, while others believe in picking stocks based on growth and future earning potential. Some invest for short-term profits and other for long-term gains.

## 2. Type of stock

A corporate stock is a certificate of ownership in a firm. Firms sell stocks to investors to finance the start-up costs of a new firm, or to finance new building projects or other expenses of existing firms. There are two type of stock that firms issue, each with its own advantages and disadvantages.

### a. Common stock

Common stock represents an ownership stake in a company (Schwab, 1996:36). It serves as an evidence of proportionate ownership, imparts proportionate voting rights, and gives its holder unlimited proportionate claim on the assets and income of the firm. The main advantage of common stock is its liquidity. When the market opens each day, a common stock may be sold or bought at whatever price the investors are willing to pay. Thus common stock is among the most liquid investments an investor can make.

### b. Preferred stock

Preferred stock combines characteristics of both stocks and bonds (Schwab, 1996:36). Like common stock, preferred stock represents ownership in a firm. But like a bond, the issuers

must pay regular dividends to the holders before they provide dividends for common stockholders.

### 3. Value creation

Koller et al. (2011:4) stated that there are four cornerstones of finance to guide the creation of lasting firm value. Those cornerstones are:

1. Companies create value by investing capital from investors to generate future cash flows at rates of return exceeding the cost of that capital.
2. Value is created for shareholders when companies generate higher cash flows, not by rearranging investors' claims on those cash flows.
3. A firm's performance in the stock market is driven by changes in the stock market's expectations, not just the firm's actual performance. This is also called the expectations treadmill because the higher the stock market's expectations for a firm's share price become, the better a firm has to perform just to keep up.
4. The value of a business depends on who is managing it and what strategy they pursue. This cornerstone says that different owners will generate different cash flows for a given business based on their unique abilities to add value.



The four cornerstones of finance by Koller et al. provide a stable frame of reference for making sound managerial decisions that lead to lasting value creation. Conversely, ignoring the cornerstones leads to poor decisions that erode the value of firms and, in some cases, create widespread stock market bubbles and painful financial crisis.

#### 4. Variables of firm value

The variables used to measure the firm value in this research are:

##### 1. Book value

Book value per share represents the rights of each share of stock to the net assets of the company (Porter and Norton, 2011:595). The term net assets refers to the total assets of the firm minus total liabilities. In other words, net assets equal the total stockholders' equity of the corporation. Book value is calculated using formula as follows:

$$\text{Book Value per Share} = \frac{\text{Total Stockholders' Equity}}{\text{Number of shares of Stock Outstanding}}$$

(Porter and Norton, 2011: 595)

##### 2. Price to book value

The price to book ratio compares the market's valuation of a company shows on its financial statements. The higher the ratio, the more the market is willing to pay for a firm above its hard assets, which include its buildings, inventory, accounts receivable,

and other clearly measurable assets. Investors looking to buy based on value rather than growth are more likely to check out the price to book ratio.

$$\text{Price to Book Value} = \frac{\text{Market price per share}}{\text{Book value per Share}}$$

(Brigham and Ehrhardt, 2005:456)

### 3. Closing Price

Closing price is the final price at which a security is traded on a given trading day (Rhoads, 2008: 38). The closing price represents the most up-to-date valuation of a security until trading commences again on the next trading day. Closing prices provide a useful marker for investors to assess changes in stock prices over time - the closing price of one day can be compared to the previous closing price in order to measure market sentiment for a given security over a trading day.

## E. Conceptual Framework

To address the objectives and the research issues identified in the preceding chapter, it is necessary to develop a conceptual framework that served as a guide for developing hypotheses tested in this research. Miles and Huberman (1994) defined conceptual framework as a visual or written product that explains, either graphically or in narrative form, the main things to be studied, the key factors, concepts, or variables and the presumed relationships among them. The conceptual framework of this research can be drawn as follows:

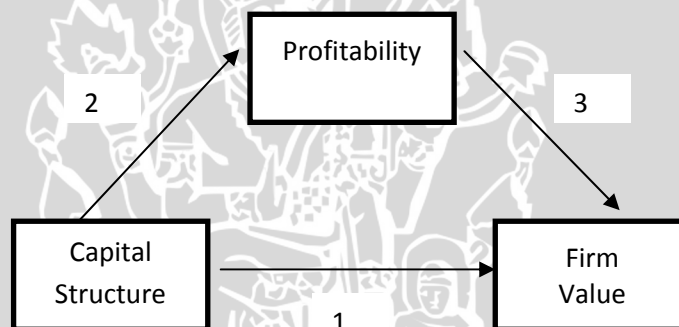


Figure 2.1. Conceptual Framework

To make it clearer, the writer puts numbers in the middle of the arrow above to indicate the literature relevant to this research.

1. Mariono (2012) found that Capital Structure proxy by Debt Ratio and Long Term Debt to Equity has significantly negative influence on Firm Value proxy by Book Value. However, in testing the influence of capital structure to firm value, Antwi et al. (2012) found that capital structure proxy by Long Term Debt has positive influence on Firm Value.

2. The relationship between capital structure on profitability was tested by several researchers including Nirajini&Priya (2013) who found that Capital Structure proxy by Debt Ratio and Debt Equity Ratio has positive relation to Profitability that is represented by Return on Asset and Return on Equity. Conversely, the research performed by Shubita&Alsawalhah (2012) found that Debt Ratio has a significantly negative relationship to Return on Equity.
3. Chen & Chen (2011) found that profitability proxy by Return on Asset has a significantly positive influence on Firm Value that is represented by Book Value.



## F. Hypothesis

After a brief summary of the theoretical literature on the different theories developed on the capital structure, profitability, and firm value, then hypothesis for this research can be formulated as follows:

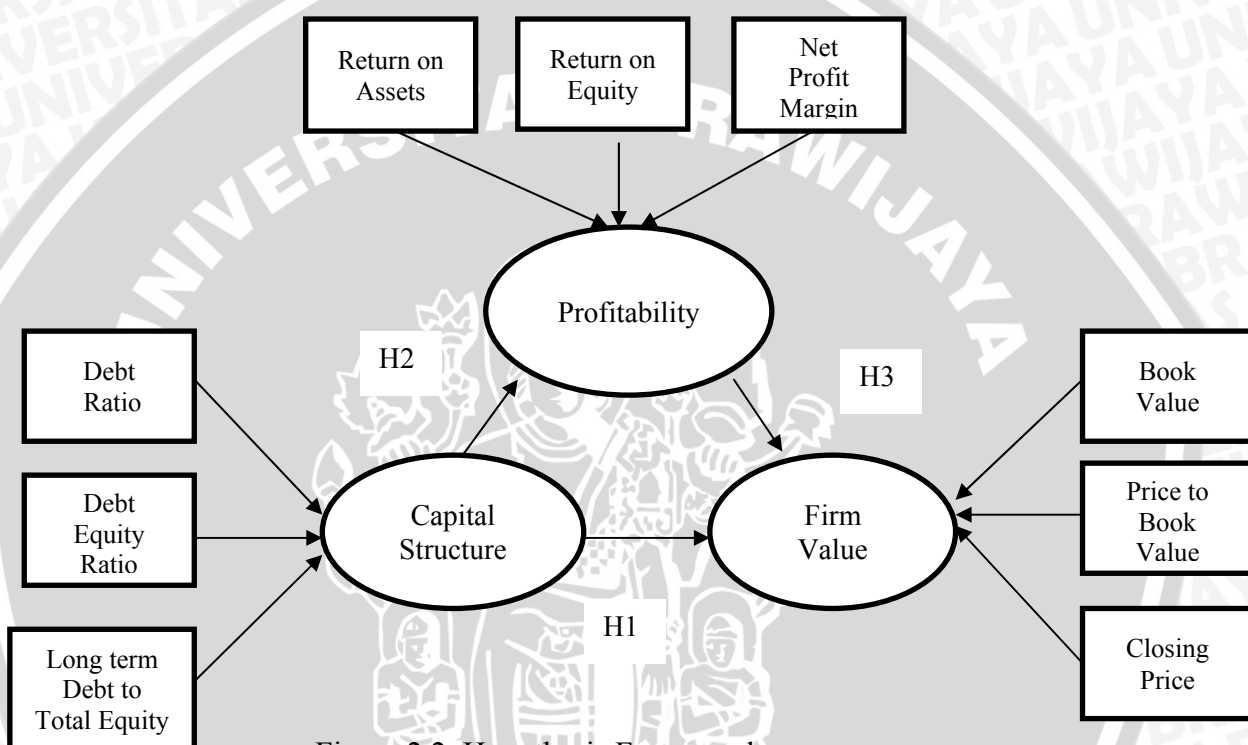


Figure 2.2. Hypothesis Framework

### H1 : Capital Structure has a significant influence on Firm Value

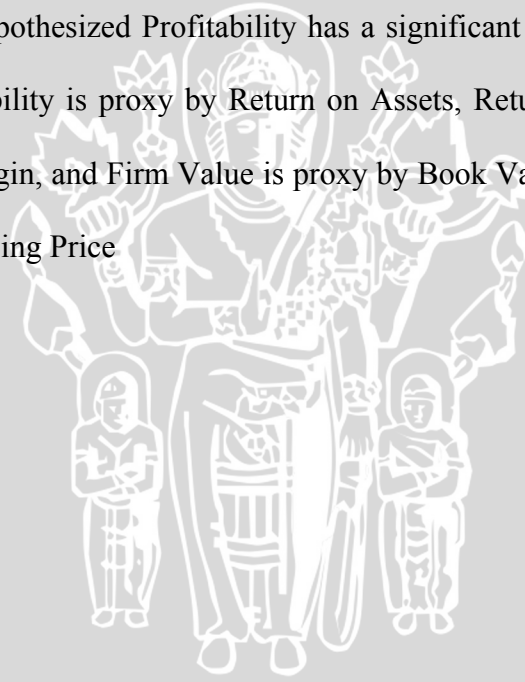
This research hypothesize that capital structure has a significant influence on firm value. Capital Structure is proxy by Debt Ratio, Debt Equity Ratio and Long term Debt to Total Equity, while Firm Value is proxy by Book Value, Price to Book Value and Closing Price.

## **H2: Capital Structure has a significant influence on Profitability**

This research is built on the hypothesis that Capital Structure has a significant influence on Profitability. Capital Structure is proxy by Debt Ratio, Debt Equity Ratio and Long term Debt to Total Equity, while Profitability is proxy by Return on Assets, Return on Equity, and Net Profit Margin.

## **H3: Profitability has a significant influence on Firm Value**

It is hypothesized Profitability has a significant influence on Firm Value. Profitability is proxy by Return on Assets, Return on Equity, and Net Profit Margin, and Firm Value is proxy by Book Value, Price to Book Value and Closing Price



## CHAPTER III

### RESEARCH METHOD

#### A. Type of the research

Given that this research is seeking to understand the influence of capital structure on profitability and firm value, it is appropriate to adopt an explanatory research. Explanatory research is aiming to explain events and assessing causal relationship between variables. This is why Rubin et al. (2010) consider explanatory research as a way of making sense of events.

#### B. Location of research

This research will be conducted at Indonesian Stock Exchange (IDX). Indonesia Stock Exchange has all the publications on Capital Market including financial statements and Indonesian Capital Market Directory needed in this research. The author will also collect related data from official website of the Indonesian Stock Exchange ([www.idx.co.id](http://www.idx.co.id)).

#### C. Variables and the Measurement

Kumar (2008:72) defines a variable as an experiment, a factor which vary, or change quantitatively so that its changes can be measured. There are two types of variables used in this research. The first is exogenous variables and the second is endogenous variables. According to Barro (2008:8),

exogenous variables are the one that take as given and does not attempt to explain, while endogenous variables are the one that a model wants to explain. Referring to this definition, this research will explain how exogenous variables affect the endogenous variables. The exogenous and endogenous variables in this research are:

1. Exogenous variables (X) in the form of Debt Ratio, Debt Equity Ratio, and Long Term Debt to Total Equity.
2. Endogenous variables (Y<sub>1</sub>) in the form of Return on Assets, Return on Equity, and Net Profit Margin.
3. Endogenous variables (Y<sub>2</sub>) in the form of Book Value, Price to Book Value and Closing Price.

In order to perform an accurate research, it is very important to set up a proper measurement of these variables as follow.

#### **1. Debt Ratio**

Debt ratio measures the extent to which a firm finances its assets from sources other than the shareholders (Moles et.al, 2011:129). The higher the debt ratio, the more debt the firm has in its capital structure.

$$\text{Debt Ratio} = \frac{\text{Total debt}}{\text{Total ssets}}$$

(Rich et al., 2011)

#### **2. Debt to equity Ratio**

The debt to equity ratio will be calculated by dividing the total debt of a firm by the firm's equity or net worth. Hansen (2010:533) stated that



debt to equity ratio shows the level of debt the firm is carrying. The formula of debt ratio is:

$$\text{Debt to Equity Ratio} = \frac{\text{Total debt}}{\text{Equity}}$$

(Hansen, 2010:533)

### 3. Long term Debt to total Equity

Long term debt to equity ratio provides information on the proportion of capital provided by creditors and by stockholder (Rich et al, 2011:665).

$$\text{Long term debt to equity} = \frac{\text{Long term debt}}{\text{Total Equity}}$$

(Moles et al., 2011:130)

### 4. Return on Equity

Return on equity compares net income, taken from the income statement, to equity, or owner's equity taken from the balance sheet. The ratio shows the amount that the firm earned on the investment during a particular period.

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Equity}}$$

(Brigham & Daves, 2004)

### 5. Return on Assets

Return on assets ratio measures how well assets have been employed in conducting the business (Davis & Davis, 2011; 629). In other

words, it measures how effectively a firm has used the total assets to generate income.

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$$

(Gildersleeve, 1999)

## 6. Net Profit Margin

Net profit margin is a measurement of a firm's ability to earn a net income from sales (Thomason, 2005: 67). According to Kapil (2011: 132) net profit margin is used to measure performance across companies in the same industry. Therefore, it is an integral part of business management.

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Sales}}$$

(Callahan, et al., 2011: 30)

## 7. Book value

Book value is the value that will be received by common stockholders if a firm is liquidated and all assets are sold (Mariono, 2012: 41).

$$\text{Book Value per Share} = \frac{\text{Total Stockholders' Equity}}{\text{Number of shares of Stock Outstanding}}$$

(Porter and Norton, 2011: 595)

## 8. Price to Book Value

Brigham and Ehrhard (2005) stated that the ratio of a stock's market price to its book value gives indication of how investors regard the firm. It also indicates the success of management in creating value for stockholders.

$$\text{Price to Book Value} = \frac{\text{Market Price per Share}}{\text{Book Value per Share}}$$

(Brigham and Ehrhardt, 2005:456)

## 9. Closing Price

Closing price is the final price at which a security is traded on a given trading day. The closing price represents the most up-to-date valuation of a security until trading commences again on the next trading day.

### D. Population and Samples

Singh and Bajpai (2008: 137) define population as the entire mass of observations, which is the parent group from which a sample is to be formed. The population of the research is all food and beverage companies listed in Indonesia Stock Exchange (IDX) during 2010-2012. Food and beverage companies are selected as population because most of them have capital-intensive characteristics that can be known through heavy investment in the form of assets (see Table 1.2.). According to Statistics Indonesia (BPS-*Badan Pusat Statistik*), food and beverage companies also gave largest contribution to Indonesian Gross Domestic Products during 2010-2012 compared to other companies in manufacturing sector.

Samples will be collect from the population using purposive sampling. According to Bryman (2012: 418), purposive sampling is conducted with reference to the goals of the research, so that the unit of analysis is selected in terms of criteria that will allow the research questions to be answered. The

goal of this research is to find whether capital structure influence firm value and profitability and whether profitability influence firm value. In order to answer the research questions, the writer establish certain criteria that should be meet in performing the research. Those criteria are:

1. Food and beverage companies listed in Indonesia Stock Exchange during 2010-2012.
2. Food and beverage companies that publish the financial statement ended on December 31st and have a complete closing price.
3. Food and beverage companies that scored profits during 2010-2012.

The sample selection proces resulted in a number of companies that meet the criteria. The steps of sample selection process are summarized in the following table.

Table 3.1. Sample Selection Process

Information	Number of Firms
Food and beverage companies listed on the Indonesian Stock Exchange during 2010-2012	18
Food and beverage companies which have not published its financial statement ended on December 31st	2
Food and beverage companies that scored loss during 2010-2012	1
	15

Based on the criteria previously mentioned, 15 firms meet the selection criteria. Those companies are as follows.

Table 3.2. List of Samples

No.	Names of Firms	Listing Code
1.	PT. AkashaWira International Tbk	ADES
2.	PT TigaPilar Sejahtera Food Tbk.	AISA
3.	PT CahayaKalbarTbk	CEKA
4.	PT Delta Djakarta Tbk	DLTA
5.	PT Fast Food Indonesia Tbk	FAST
6.	PT Indofood CBP SuksesMakmurTbk	ICBP
7.	PT Indofood SuksesMakmur	INDF
8.	PT Mayora Indah Tbk	MYOR
9.	PT Pioneerindo Gourmet International Tbk	PTSP
10.	PT Nippon IndosariCorpindoTbk.	ROTI
11.	PT SekarLautTbk.	SKLT
12.	PT Sinar Mas Agro Resources Technology Tbk.	SMAR
13.	PT Siantar Top Tbk.	STTP
14.	PT Tunas Baru Lampung Tbk.	TBLA
15.	PT Ultrajaya Milk Industry & Trading Company Tbk.	ULTJ

### E. Data Collection Technique

Data collection is the process of gathering and measuring information in systematic ways that enables the researcher to answer the research questions, test hypotheses, and evaluate outcomes. The data collection technique used in this research is documentation. The data used in this research are secondary data. Secondary data can be defined as data collected by others, not specifically for the research question at hand. In this research the secondary data exist in the form of internal reports and media publications.

### F. Data Analysis

#### 1. Partial Least Squares

The purpose of this study is to analyze the influence of capital structure on profitability and firm value. To test the proposed hypotheses in this research, the writer will use Partial Least Squares (PLS) approach. Partial Least squares (PLS) is a variance-based approach also known as component-based approach used for testing structural equation models. It is also known as a soft modeling technique which does not require a normal distribution assumption (Ghozali, et al. 2012)

PLS models consist of two parts, a structural part which shows the relationships between the latent variables, and a measurement part which shows the relationship between latent variables and their indicators. This research has latent variables in the form of capital structure, profitability and firm value. Each latent variable has its own indicator. Thus, it is appropriate to adopt PLS as an analyzing method.

## **2. Software Used for Analysis**

The PLS approach using WarpPLS version 2.0 will be used in this research. WarpPLS is a nonlinear structural modeling analysis developed by Professor Ned Knock from Texas A&M International University on 2010. The last version of the software is WarpPLS 2.0 that will be used in this research to explore statistical relationships among the measurement items of each construct.

## **3. Analysing Stages**

According to Ghozali and Latan (2012), in PLS analysis, there are five stages that have to be performed. Those stages are:

**a. Model Conceptualization**

Model conceptualization is the first stage of PLS-SEM analysis. In this stage, the researcher has to define the construct according to the concept or theory. Researcher also has to describing the relationship between latent variables based on the formulation of the problem or research hypothesis.

**b. Determine the Algorithm Analysis**

Warp PLS 2.0 offers the following analysis algorithms: Warp3 PLS Regression, Warp2 PLS Regression, PLS Regression, and Robust Path Analysis. The Warp2 PLS Regression algorithm tries to identify U-curve relationships between latent variables, and, if those relationships exist, the algorithm transforms (or “warps”) the scores of the predictor latent variables so as to better reflect the U-curve relationships in the estimated path coefficients in the model.

The Warp3 PLS Regression algorithm, on the other hand, tries to identify a relationship defined by a function whose first derivative is a U-curve. This type of relationship follows a pattern that is more similar to an S-curve (or a somewhat distorted S-curve), and can be seen as a combination of two connected U-curves, one of which is inverted.

The PLS Regression algorithm does not perform any warping of relationships. It is essentially a standard PLS regression algorithm, whereby indicators' weights, loadings and latent variable scores (factor scores) are calculated based on a least squares minimization sub-algorithm, after which path coefficients are estimated using a robust path analysis algorithm.

Finally, the Robust Path Analysis algorithm is a simplified algorithm in which latent variable scores are calculated by averaging all of the indicators associated with a latent variable; that is, in this algorithm weights are not estimated through PLS regression. This algorithm is called "Robust" Path Analysis, because, as with most robust statistics methods, the P values are calculated through resampling. If all latent variables are measured with single indicators, the Robust Path Analysis and the PLS Regression algorithms will yield identical results.

This research will use Warp3 PLS regression algorithm to as suggested by Ghozali et.al (2012)

### **c. Determining the Resampling Method**



Generally, there is two methods used by researcher for resampling, which are jackknifing and bootstrapping. Mosteller and Turkey in Ghozaliet. al. (2012: 34-35) explain Jackknifing as follows:

“the name ‘jackknife’ is intended to suggest the broad usefulness of a technique as a substitute for specialized tools that may not be available, just as the Boy Scout’s trusty tool serves so variedly....The basic idea is to assess the effect of each of the groups into which the data have been divided, not by the result for that group alone,...but rather through the effect upon the body of data that results from omitting that group”

While, Diaconis and Efron in Gozaliet. al. (2012: 34-35) explained Bootstrapping as follows:

“The bootstrap procedure is a means of estimating the statistical accuracy...from the data in a single sample. The idea is to mimic the process of selecting many samples...in order to find the probability that the values of their (test statistics) fall within various intervals. The samples are generated from the data in the original sample...The data ...are copied an enormous number of times, say a billion (for each group)....Samples....are then selected at a random and the test statistics is calculated for each sample....The distributionnof the test statistic for the bootstrap samples can be treated as if it were a distribution constructed from real samples”

WarpPLS provide both of the resampling method, so the researcher only need choose which one of the resampling methods that will be used.

#### **d. Construct a Path Diagram**

After conduct model conceptualization, determine the algorithm analysis, and determine the resampling method, the next

stage is to construct a path diagram. Constructing a path diagram should be performed under some determinates as follows:

- a. Theoretical constructs that describe latent variables should be drawn in circles.
- b. Observed variables or indicators should be drawn in squares.
- c. Asymmetrical relationships should be drawn in single headed arrow.
- d. Symmetrical relationship should be drawn in double headed arrow.

#### **e. Model Evaluation**

After construct a path diagram, the model is ready to be estimated and evaluate as a whole. The analysis in PLS consist of two stages. The first one is measurement mode and the second is structural model.

##### **1. Measurement Model**

In order to assess the measurement model, this research followed the validation guideline suggested by Ghozali et al (2012:38). To test the measurement model is by examine the reliability and validity with standard decision rules.

The purpose of assessing the measurement model or outer model is to specify which measurement items are related to each latent variable by using Confirmatory Factor Analysis (CFA). CFA requires one to specify which variables are

associated with each construct. It involves testing, and potentially confirming a theory. CFA is a tool which enables the researcher to either 'confirm' or 'reject' pre-conceived theory. Assessing the measurement model (outer model) was done by assess the significant of each indicator weights. If the indicator weights are not significant then the indicator is not valid and vice versa.

## 2. Structural Model

Once the validity of the structural model is confirmed, the next step is to assess the structural model. The structural model is defined as a set of one or more dependence relationships linking the hypothesized model's constructs; representing the interrelationships of variables between constructs (Hair et al. 2010). The structural model aims to specify which latent constructs directly or indirectly influence the values of other latent constructs in the model. In this stage, several properties were assessed to provide support for the proposed theoretical model.

### a. Coefficient Determination, $R^2$

Coefficient determination measures the amount of variation of each endogenous variable

accounted by the exogenous variable where values of around 0.670 as substantial, values around 0.333 as average and values of 0.190 and lower as weak.

**b. Predictive Relevance,  $Q^2$**

$Q^2$  values indicate how well observed values are reconstructed by the model and its parameter estimates. Positive  $Q^2$  values confirm the model's predictive relevance in respect of the particular construct.  $Q^2$  less than 0 mean that the model lacks predictive relevance. The proposed value is  $Q^2 > 0$

**c. Path Coefficient**

The path coefficient's shows the strength of the relationships between latent variables. Each path corresponds to each proposed hypothesis in this research. The higher the path coefficient, the stronger the effect of latent variables.

## CHAPTER IV

### DISCUSSION

#### A. General Image of Food and Beverage Companies

##### 1. PT. AkashaWira International Tbk

PT AkashaWira International Tbk (ADES) which previously known as PT Ades Waters Indonesia Tbk, is engaged in bottled drinking water industry and is producing and selling bottled drinking water under the brand name of AdeS, AdeS Royal owned by the Coca Cola Company, and Nestle Pure Life owned by Nestle SA. ADES was originally established under the name of PT Alfindo Putra Setia which domiciled in Jakarta.

The operations are supported by two bottling plants: one in Cibinong, West Java, and the other in Deli Serdang, North Sumatra. The company's bottled water has been exported to Singapore and Australia. In November 1993, the company took over full ownership of PT PamarghaIndojatim, which operates in the same line of business. In October 2000, the company sold its AdeS, Desta, Vica, and Desca brands to Coca Cola as part of its debt restructuring process. In 2009, the company changed its name to PT AkashaWira International Tbk. The company booked net income at IDR 25.868 billion in 2011, decrease from net income booked in 2010 at IDR 31.659 billion.

## 2. PT TigaPilar Sejahtera Food Tbk.

PT TigaPilar Sejahtera Tbk (“the Company”) was established on January 26, 1990 under the name of PT Asia Intiselera. In accordance with article 3 of the Company’s articles of association, the scope of activities are trading, manufacturing, farming, plantation, agriculture, fisheries and services. The Company is engaged in noodles manufacturing and trading, which consist of dry noodle, instant noodle, vermicelli, snack, biscuit and candy industry, palm oil plantations and rice mill distribution. Its product lines include Ayam 2 Telor, Superior Spesial, Hahamie, Bihunku, Manami, Mikita, Mie Kremezz and Gulas.

The company’s head office is located at AlunGraha Building, Jl. Prof. Dr. Soepomo No. 233 Jakarta. The location of noodle, biscuit and candy factories are located in Sragen, Central Java. The palm oil plantations are located in several locations in Sumatera and Kalimantan. Rice mill and distributions are located in Cikarang, West Java and Sragen, Central Java.

On June 11, 1997, the Company’s shares were effectively listed in the Indonesian Stock Exchange (IDX). The Company recorded net income amounted IDR 149.951 billion in 2011, increasing from IDR 80.066 billion in 2010.

### 3. PT CahayaKalbarTbk

PT CahayaKalbarTbk. was established on February 3, 1968 under the name CV TjahajaKalbar. The company's legal form was changed to a limited liability company on December 9, 1980. The company commenced its operations in 1971 and its scope of activities involves the production of vegetable and specialty oils used in the food industry and general trading, including exports and imports. The company's head office is located in KawasanIndustriJababeka II, Jl. Industri Selatan 3 Blok GG No. 1 Cikarang, Bekasi. The company's plants are located in KawasanIndustriJababeka, Cikarang, West Java, and Pontianak, West Kalimantan.

The company is well known producer of various ingredients for entire range of food products include chocolate and cocoa confectionary industries, icing coating, confectionary filling, aloe vera concentrates and powder for functional food, cosmetics and pharmaceutical industry. They are also produce and supply ingredients to the restaurant hotel industry, cake and bakery industry. The company then enter the retail/ wholesale market with the functional beverage drink products under the trademark ALOEFIT. The materials are carefully selected to ensure quality standards. The company is also equipped with modern quality control laboratory. The Company booked net income amounted IDR 96.306 billion in 2011, higher than income in 2010 that was worth IDR 29.56 billion.

#### 4. PT Fast Food Indonesia Tbk

PT. Fast Food Indonesia Tbk is a company founded in 1978 by the Gelael Group. PT Fast Food Indonesia Tbk is an Indonesia-based company engaged in food and restaurant activities. The Company is the only franchise holder of kentucky fried chicken (KFC) brand in Indonesia. The Company's core products include the original KFC fried chicken recipe. A wide variety of food and beverages are on the menu including: hot wings, chicken nuggets, french fries, coleslaw, corn, soups, and assorted desserts. It also offers catering and delivery services for its customers.

The first KFC outlet opened in October 1979 at Jl. Melawai, Jakarta proved to be successful and paved the way for the opening of more additional outlets in Jakarta. The Company expanded its regional coverage to include other major cities in Indonesia and because of its success in building KFC brand image for the past 20 years of operation, KFC became the country's dominant fast food market leader.

The Company has an International Master Franchise Agreement with Pepsi Cola Overseas Ltd. of London who was appointed by Pepsi Cola International to be the KFC franchiser in Indonesia. PT Fast Food Indonesia provides earnings guidance for 2012. The company has set income target at IDR 3.78 trillion (USD 420 million) in 2012, a 15% increase from 2011 target of IDR 3.34 trillion.



## 5. PT Delta Jakarta

PT Delta Jakarta Tbk is one of the biggest players in Indonesia's beer industry. The scope of PT Delta Jakarta activities is engage mainly in the manufacture and distribution of some of the best beer brands in the world under the Anker, Carlsberg, San Miguel, and KudaPutih trademarks. The company also manufactures and distributes non-alcoholic beverages under the "Sodaku" trademark. Some of the firm's products and other private label brands are exported to other countries.

Since its founding in 1932 by German firm ArchipelBrouwerij NV, leadership of PT Delta Jakarta has changed hands many times. In World War II, control of the company was turned over to a Dutch firm before being passed on to a Japanese company in 1942. Three years later, the Dutch regained control. In 1970, the company took the name PT Delta Jakarta; and in 1984 was part of the first-generation of companies in Indonesia to go public and sell shares at the Jakarta and Surabaya Stock Exchanges.

Nowadays, PT Delta Jakarta's major shareholders include the Municipal Government of Jakarta and San Miguel Malaysia (L) Private Limited. Its breweries are located in JalanInspeksiTarum Barat, East Bekasi and West Java. The company and its subsidiary had average total number of 436 and 388 employees in 2012 and 2011, respectively.

## 6. PT Indofood CBP SuksesMakmur Tbk

PT Indofood CBP SuksesMakmur Tbk (the company) was established in the Republic of Indonesia on September 2, 2009. The company was the result of the spin-off of Noodle Division and Food Ingredients Division of PT Indofood SuksesMakmur Tbk (ISM). The business operation started on October 1, 2009. ICBP is one of the leading packaged food producers in Indonesia, with a wide range of packaged food products. ICBP product brands are among the strongest brands with the most significant mindshare in Indonesia for consumer food brands

The scope of its business activities comprises, among others, the manufacture of noodles and food ingredients, culinary food products, biscuits, snacks, nutrition and special foods, packaging, trading, transportation, warehousing and cold storage, management services and research and development.

The company's head office is located at Sudirman Plaza, Indofood Tower, 23rd Floor, JalanJenderalSudirman, Kav. 76 - 78 Jakarta, Indonesia, while the firm and its subsidiaries' factories are located in various locations in Java, Sumatera, Kalimantan, Sulawesi Islands and Malaysia. ISM Indonesia, and First Pacific Company Limited Hong Kong, are the parent entity and the ultimate parent entity, respectively, of the company.

## 7. PT Indofood SuksesMakmur

PT Indofood SuksesMakmurTbk was established in the Republic of Indonesia on August 14, 1990 under its original name PT PanganjayaIntikusuma. PT Indofood SuksesMakmurTbk is an Indonesia-based food manufacturing company. Its operation ranges from the production of raw materials to consumer products in the market. The company's business activities are classified into four business groups: consumer branded products business group, which consists of noodles, dairy, food seasonings, snack foods, nutrition and special foods, packaging and export; Bogasari, which engages in wheat flour production; agribusiness group, which consists of two divisions, namely plantations, and edible oil and fats; and distribution business group, which covers the distribution of Company's products.

The company's head office is located at Sudirman Plaza Indofood Tower, 27<sup>th</sup> Floor, Jl. Jend. Sudirman, Jakarta, Indonesia, while the company and its Subsidiaries' factories and estates are situated in various locations in Java, Sumatra, Kalimantan, Sulawesi and even Malaysia. On September 4, 2013, the Company announced that it has raised its stake in China Minzhong Food Corporation Limited from 29.59% to 51.62%.

## 8. PT Mayora Indah Tbk

PT Mayora Indah Tbk engages in the manufacture and sale of food products in Indonesia and internationally. The company operates in food processing, processing of coffee powder, instant coffee and coffee beans. It offers biscuits, candies, wafers, chocolates, instant coffee, mix cereal, and cafe products, as well as processes coffee powder and cocoa beans. The company offers its products under the Kopiko, Danisa, Astor, Energen, Torabika, Marie Roma, SlaiO'lai, Better, Sari Gandum, KIS, and ChokiChoki brand names. It also provides financial services. PT Mayora Indah Tbk was founded in 1977 and is headquartered in Jakarta, Indonesia.

Mayora Group has been progressively transformed from a humble home biscuit industry into one of the biggest Fast Moving Consumer Goods Companies. It became a public listed company in 1990, by listing its share on Jakarta Stock Exchange, and throughout the following years, it continues its rapid expansion to become an ASEAN based Company, by establishing production facilities and marketing offices in several South East Asia countries. Currently, PT Mayora Indah products are sold in many countries around the world. Supported not only by modern logistic and warehouse management system, but also powered by strong distribution network, PT Mayora Indah Tbk has maintained its product availability in the market.

## **9. PT Pioneerindo Gourmet International Tbk**

PT Pioneerindo Gourmet International Tbk is an Indonesia-based fast food restaurant operator. The Company is engaged in restaurant business using the trademark of California Fried Chicken (CFC), Sapo Oriental and Cal Donat. Its products include fried chicken, chicken strips, fried rice, chicken burgers, cheese burgers, corn soup, cal blend and mix ice. As of December 31, 2011, it operated 213 CFC outlets, seven Sapo Oriental outlets and 24 Cal Donut Outlets throughout Indonesia. The Company has two subsidiaries: PT Putra Asia Perdana Indah and PT Mitra Hero Pioneerindo, which are engaged in the operation of fried chicken restaurant.

The Company's head office is located at Jaya Building, 6th floor, Jl. M.H. Thamrin No. 12, Central Jakarta. The total Company's and subsidiaries and franchisee's outlets throughout Indonesia totaled 274 and 244 as of December 31, 2012 and 2011, respectively.

#### **10. Nippon IndosariCorpindoTbk.**

PT Nippon IndosariCorpindoTbk is an Indonesia-based company engaged in the production of breads and cakes. The Company markets its products under the brand names Sari Roti, Boti and Sari Cake. Its products are categorized into three types: white bread, cake and sweat bread. The Company distributes its products through hypermakert, supermarket, minimarket and traditional network such as door to door bread seller and sundries stores in Jabodetabek, West Java, Yogyakarta, East Java, Lampung and Bali, Indonesia.

PT. Nippon IndosariCorpindo, Tbk was incorporated in 1995. The first plant is located at Blok W, Jababeka Industrial Estate, Cikarang. The Company expanded to East Java in 2005 by building a second factory in Pasuruan. To meet the demand of its bread PT. Nippon IndosariCorpindo, Tbk built the third factory in 2008, located at Jababeka Industrial Estate, Cikarang. Subsequent expansion involved building three factories in Semarang, Medan and Cikarang Barat in 2011 and two factories in Palembang and Makassar in 2012.

PT. Nippon IndosariCorpindo, Tbk was listed as a public company in the Indonesian Stock Exchange in 2010. Sari Roti as the leading bread producer in Indonesia has won numerous awards, namely: Top Brand and Top Brand for Kids since 2009 until now, Marketing Award 2010, Original Brand 2010, Investor Award 2012, and awards from Forbes Asia.

#### **11. PT SekarLautTbk.**

PT SekarLautTbk was established on July 19, 1976 in Surabaya.

The factory is located at JalanJenggolo II/17 Sidoarjo, East Java. Total consolidated employees amounted 1,420 and 1,301 as on December 31, 2012 and 2011, respectively. The entity's branch office is at Jalan Raya Darmo No. 23-25, Surabaya, East Java.

PT SekarLautTbk (SKLT) is engaged in the production of crackers, tomato sauce, chili sauce and ready to use seasoning, which is marketed under the brand name of 'FINNA'. SKLT sale its products in local and export markets. SKLT was listed on September 8, 1993. SKLT's products are marketed under the brand name Finna. The company produces seafood and vegetable crackers. Its head office and factory are in Sidoarjo, East Java, and it gets raw materials from local suppliers such as PT CahayaBintang

The history of PT SekarLautTbk began from a marine products trading in the city of Sidoarjo, east java in 1966. The business then developed to a traditional shrimp cracker production. With hard work and perseverance, the business grew rapidly from a home industry to a well-established company in July 19, 1976.

## 12. PT Sinar Mas Agro Resources and Technology Tbk

PT Sinar Mas Agro Resources and Technology (SMART) Tbk is one of the largest, publicly-listed, integrated palm-based consumer companies in Indonesia which is committed to sustainable palm oil production. Founded in 1962, SMART's palm plantations have a total coverage area of approximately 139,000 hectares (including small holders). SMART also operates 15 mills, four kernel crushing plants and four refineries. SMART listed its shares on the Indonesia Stock Exchange in 1992.

SMART's primary activities are cultivating and harvesting of palm trees, processing of fresh fruit bunches into crude palm oil ("CPO") and palm kernel, and refining CPO into value-added products such as cooking oil, margarine and shortening. Besides bulk and industrial oil, SMART's refined products are also marketed under several brands such as Filma and Kunci Mas. Today, these brands have been recognized for their high quality and command significant market share in their respective segment in Indonesia.

SMART is a subsidiary of Golden Agri-Resources Ltd ("GAR"), which is one of the largest palm-based companies in the world which is listed on the Singapore Exchange. SMART also manages all of GAR's oil palm plantations, which has a total planted area of 464,600 hectares (including small holders) in Indonesia, as at 30 June 2013.



### 13. Siantar Top Tbk.

In 1972, ShindoSumidomo started his operational business by establishing small cracker home industry in Sidoarjo. At the present time, the Company grows to become PT Siantar Top, Tbk, one of the leading and national scale food and beverage industries in Indonesia. First site location was built in 1987. The Company has continuously evolved and listed its shares in Jakarta Stock Exchange (now Indonesia Stock Exchange) in 1996.

PT Siantar Top, Tbk has developed food and beverages at the best quality by focusing on the finest taste. High commitment and dedication are delivered for consumers by presenting healthy food products including biscuit and wafers. The Entity is domiciled in Sidoarjo, East Java, and its plants are located in Sidoarjo (East Java), Medan (North Sumatera), and Bekasi (West Java). The Entity's head office is located at Jl. TambakSawah No. 21-23 Waru, Sidoarjo.

The Entity's products are marketed both domestically and internationally, especially in Asia. PT Siantar Top Tbk manufactures a variety of snack food products. The Company produces snack noodles, crackers, and candies under the brand names Fuji Mie, Mie Goreng, Olala, Tamiku, Twistko, Tic-Tic, Twistball, Fuji Chips, Tovie Candy, Balico-Kelapa, and XUXU.

#### 14. PT Tunas Baru Lampung Tbk

PT Tunas Baru Lampung Tbk is an Indonesia-based agricultural company. The Company is engaged in the manufacturing and distribution of agricultural-based consumer products, such as palm cooking oil, coconut cooking oil, vegetable cooking oil, crude coconut oil, stearine, crude palm oil, palm kernel oil and soap. PT Tunas Baru Lampung has grown to become one of the largest and lowest cost vegetable cooking oil producers.

Its products are marketed in both domestic and international markets. PT Tunas Baru Lampung was founded on December 22, 1973 and was listed on Indonesia Stock exchange on March 31, 2010. TBLA's head office is located in Jakarta. Its factories are located at Lampung, Surabaya, Tangerang, Palembang and Kuala Enok. It sells its products to domestic and international markets.

The Company has a land bank of more than 50,000 ha in Lampung, 30,000 ha in Palembang and 20,000 ha in Pontianak, which is used solely for oil palm plantations. As of December 31, 2011, its direct subsidiaries were PT BumiSentosaAbadi, PT Bangun Nusa Indah Lampung, PT Budi Dwiyasa Perkasa, PT AdikaryaGemilang, PT BangunTatalampungAsri, PT BudinusaCiptawahana, PT Agro Bumi Mas and PT MulyaMandraMukti.

## 15. Ultrajaya Milk Industry & Trading Company Tbk

The story of Ultrajaya began as a small home industry in 1958 at Bandung, West Java. Then in 1971, PT Ultrajaya Milk Industry & Trading Company was established. The Company engages in the food and beverage industry. In the beverage section the company produces various beverages like milk, fruit juices, tea, traditional drink and health drink, that are manufactured with the UHT (Ultra High Temperature) technology, and packaged in aseptic packaging material. In the food section the company produces sweetened condensed milk, powder milk, and tropical fruit juice concentrate. The Company markets all its products by direct selling, indirect selling, and by modern trade. Direct selling is conducted through retail outlets, P&D, kiosks, and traditional market utilizing the Company's sales forces. Indirect selling is handled by appointed agents/distributor in provincial capital of Indonesia.

Up to today, PT Ultrajaya Milk Industry & Trading Company is the pioneer and Indonesia's leading producer of aseptic dairy products and beverages for consumers throughout the country under some well-known brands such as Ultra Milk for dairy products, TehKotak, Sari KacangIjo, Sari AsemAsli for Healthy Drink product, and some other beverages for export. Nowadays, 90 percent of the company's total production volume is sold domestically throughout Indonesia, while the remainder is exported to various countries in Asia, Europe and The Middle East.

## B. Data Presentation

The constructs defined in the model were operationalized by selecting measurement scale items. There were 3 constructs defined in the proposed theoretical model which are capital structure, profitability, and firm value. Each construct are proxy by different indicators or variables. Capital structure is proxy by debt ratio, debt equity ratio, and long term debt to total equity. Profitability is proxy by return on assets, return on equity and net profit margin, while, firm value is proxy by book value, price to book value and closing price. In order to perform a better analysis, the writer has described all the variables that is used in this research from samples of 15 food and beverage companies period 2010-2012.

### a. Debt Ratio ( $X_1$ )

Debt ratio is defined as the ratio of total debt to total assets. It can be interpreted as the proportion of a company's assets that are financed by debt. The higher this ratio, the more leveraged the company and the greater its financial risk. A debt ratio of greater than 1 indicates that a company has more debt than assets. Meanwhile, a debt ratio of less than 1 indicates that a company has more assets than debt.

The average debt ratio of food and beverage companies in period 2010-2012 is 0.45. The average debt ratio in 2010 is 0.46 while in 2011 and 2012, the average debt ratio decrease to 0.45. Company with highest debt ratio in 2010 is PT. TigaPilarSejathera Food Tbk with debt ratio of 0.70, while in 2011, the highest debt ratio belong to PT.

Mayora Indah Tbk with debt ratio of 0.63. In 2012, PT. Tunas Baru Lampung Tbk scored the highest debt ratio with the amount of 0.66. In other side, the lowest debt ratio in 2010-2012 is belong to PT. Delta Djakarta Tbk with debt ratio of 0.16, 0.18, and 0.20 respectively.

Table 4.1. Debt Ratio of Food and Beverage Companies period 2010-2012

No.	Listing Code	DR (x)			Average
		2010	2011	2012	
1.	ADES	0.69	0.60	0.46	0.58
2.	AISA	0.70	0.49	0.47	0.55
3.	CEKA	0.64	0.51	0.55	0.57
4.	DLTA	0.16	0.18	0.20	0.18
5.	FAST	0.35	0.46	0.44	0.42
6.	ICBP	0.30	0.30	0.32	0.31
7.	INDF	0.47	0.41	0.42	0.43
8.	MYOR	0.54	0.63	0.63	0.60
9.	PTSP	0.62	0.47	0.42	0.50
10.	ROTI	0.20	0.28	0.45	0.31
11.	SKLT	0.41	0.43	0.48	0.44
12.	SMAR	0.53	0.50	0.45	0.49
13.	STTP	0.31	0.48	0.54	0.44
14.	TBLA	0.66	0.62	0.66	0.65
15.	ULTJ	0.35	0.36	0.31	0.34
	Total	6.93	6.72	6.80	6.82
	Average	0.46	0.45	0.45	0.45
	Maximum	0.70	0.63	0.66	0.65
	Minimum	0.16	0.18	0.20	0.18

Source: Indonesian Capital Market Directory

#### b. Debt Equity Ratio ( $X_2$ )

The debt-to-equity ratio is a measure of the relationship between the capital contributed by creditors and the capital contributed by shareholders. The ratio of 1 means that creditors and shareholders equally contribute to the assets of the business. A less than 1 ratio indicates that the portion of assets provided by shareholders is greater than the portion of assets provided by creditors, and a greater than 1 ratio indicates that the portion of assets provided by creditors is greater than the portion of assets provided by shareholders. A low debt-equity ratio is favorable from investment viewpoint as it is less risky in times of increasing interest rates. It therefore attracts additional capital for further investment and expansion of the business.

In average, debt equity ratio of food and beverage companies in 2010-2012 is 0.97. In 2010, the average debt equity ratio is 1.07 while in 2011, the average debt equity ratio decrease to 0.91. In 2012, the average debt equity ratio increase to 0.92. PT AkashaWira International Tbk. has the highest debt equity ratio in 2010 with the ratio of 2.25, however in 2011, the ratio of 1.72 in which belong to PT. Mayora Indah Tbk is acknowledge as the highest debt equity ratio. In 2012, PT. Tunas Baru Lampung Tbk scored the highest debt equity ratio with the amount of 1.95. The lowest debt equity ratio in 2010-2012 is PT Delta Djakarta, with the ratio of 0.19, 0.21, and 0.25 respectively.

Table 4.2. Debt Equity Ratio of Food and Beverage Companies  
Period 2010-2012

No.	Listing Code	DER (x)			Average
		2010	2011	2012	
1.	ADES	2.25	1.51	0.86	1.54
2.	AISA	2.23	0.96	0.90	1.36
3.	CEKA	1.75	1.03	1.22	1.33
4.	DLTA	0.19	0.21	0.25	0.22
5.	FAST	0.54	0.86	0.80	0.73
6.	ICBP	0.43	0.42	0.48	0.44
7.	INDF	0.90	0.70	0.74	0.78
8.	MYOR	1.16	1.72	1.71	1.53
9.	PTSP	1.64	0.90	0.72	1.09
10.	ROTI	0.25	0.39	0.81	0.48
11.	SKLT	0.69	0.74	0.93	0.79
12.	SMAR	1.14	1.01	0.82	0.99
13.	STTP	0.45	0.91	1.16	0.84
14.	TBLA	1.94	1.64	1.95	1.84
15.	ULTJ	0.54	0.65	0.44	0.54
	Total	16.10	13.65	13.79	14.51
	Average	1.07	0.91	0.92	0.97
	Maximum	2.25	1.72	1.95	1.84
	Minimum	0.19	0.21	0.25	0.22

Source: Indonesian Capital Market Directory

### c. Long Term Debt to Total Equity ( $X_3$ )

The long term debt to total equity ratio is found by dividing the total long term debt by total shareholders' equity. A long term debt to total equity which is greater than 1.0 indicates that the business has more debts than capital which is not a good thing for a business as it can lead to lots of financial problems, especially the company getting bankrupt. A lower long term debt to total equity indicates that the firm is not having any major financial difficulties.

The average long term debt to total equity of food and beverage companies for 2010-2012 is 0.41. In 2010, the average LDTE is 0.48 while in 2011 and 2012 the average LDTE is 0.37. PT. AkashaWira International Tbk. has the highest LDTE in 2010 with the ratio of 1.38, while in 2011, the highest LDTE belong to PT. Mayora Indah Tbk with the ratio of 0.96. As for 2012, PT. Tunas Baru Lampung Tbk has the highest LDTE of 1.12.

Table 4.3. Long Term Debt to Total Equity of Food and Beverage Companies Period 2010-2012

No.	Listing Code	LTDE (x)			Average
		2010	2011	2012	
1.	ADES	1.38	0.91	0.39	0.89
2.	AISA	1.37	0.46	0.30	0.71
3.	CEKA	0.51	0.13	0.04	0.23
4.	DLTA	0.04	0.05	0.05	0.05
5.	FAST	0.13	0.36	0.34	0.28
6.	ICBP	0.14	0.14	0.18	0.15
7.	INDF	0.51	0.29	0.35	0.38
8.	MYOR	0.65	0.96	1.08	0.90
9.	PTSP	0.70	0.31	0.25	0.42
10.	ROTI	0.04	0.12	0.51	0.22
11.	SKLT	0.26	0.24	0.24	0.25
12.	SMAR	0.43	0.42	0.43	0.43
13.	STTP	0.07	0.29	0.17	0.18
14.	TBLA	0.76	0.79	1.12	0.89
15.	ULTJ	0.18	0.14	0.09	0.14
	Total	7.17	5.61	5.54	6.11
	Average	0.48	0.37	0.37	0.41
	Maximum	1.38	0.96	1.12	0.90
	Minimum	0.04	0.05	0.04	0.05

Source: Indonesian Capital Market Directory



**d. Return on Assets ( $Y_{1,1}$ )**

Return on assets gives an idea as to how efficient management is at using its assets to generate earnings. Return on assets is calculated by dividing a firm's net income by its total assets. Sometimes this is referred to as "return on investment". The higher the return on assets number, the better, because the firm is earning more money on less investment. Management's most important job is to make wise choices in allocating its resources. Anybody can make a profit by throwing a ton of money at a problem, but very few managers excel at making large profits with little investment.

The average return on assets for 2010-2012 is 0.1110 while return on assets for 2010 is 0.1034. In 2011, the average return on assets is 0.1085 while in 2012 it is increase to 0.1212. PT. Delta Djakarta has the highest ROA in 2010 at the ratio of 0.2061. In 2011, PT. Pioneerindo Gourmet International Tbk scored the highest return on assets of 0.2245, while in 2012, it is belong to PT. Delta Djakarta Tbk with the ratio of 0.2864. In other side, PT. SekarLautTbk has lowest return on assets for 2010 to 2012. In 2010, it has the ratio of 0.0242. As for 2011 and 2012, the return on assets of PT. SekarLaut increased to 0.0279 and 0.0319 respectively. Return on assets of food and beverage companies in 2010 to 2012 can be seen in Table 4.4.

Table 4.4. Return on Assets of Food and Beverage Companies  
Period 2010-2012

No.	Listing Code	ROA (x)			Average
		2010	2011	2012	
1.	ADES	0.0976	0.0818	0.2143	0.1312
2.	AISA	0.0413	0.0418	0.0656	0.0496
3.	CEKA	0.0348	0.1170	0.0568	0.0695
4.	DLTA	0.2061	0.2179	0.2864	0.2368
5.	FAST	0.1615	0.1480	0.1156	0.1417
6.	ICBP	0.1375	0.1356	0.1288	0.1340
7.	INDF	0.0850	0.0936	0.0821	0.0869
8.	MYOR	0.1141	0.0733	0.0895	0.0923
9.	PTSP	0.1855	0.2245	0.2385	0.2162
10.	ROTI	0.1756	0.1527	0.1238	0.1507
11.	SKLT	0.0242	0.0279	0.0319	0.0280
12.	SMAR	0.1010	0.1213	0.1325	0.1183
13.	STTP	0.0657	0.0457	0.0597	0.0570
14.	TBLA	0.0680	0.0993	0.0470	0.0714
15.	ULTJ	0.0534	0.0465	0.1460	0.0820
	Total	1.5513	1.6269	1.8185	1.6656
	Average	0.1034	0.1085	0.1212	0.1110
	Maximum	0.2061	0.2245	0.2864	0.2368
	Minimum	0.0242	0.0279	0.0319	0.0280

Source: Indonesian Capital Market Directory

#### e. Return on Equity ( $Y_{1,2}$ )

Return on equity is calculated by dividing the firm's net income by shareholder's equity. Return on equity can reveal how much the firm is making compared with how much it has invested to make that. The average return on equity of food and beverage companies is 0.2036. In 2010, the average return on equity is 0.1992, while in 2011 it declines to 0.1980. However, in 2012, the return on equity increases to 0.2135. PT. Pioneerindo Gourmet International Tbk has the highest return on

equity in 2010 to 2012 by the ratio of 0.4903, 0.4266, and 0.4092 respectively. The lowest return on equity in 2010 to 2012 is belong to PT. SekarLautTbk. In 2010, PT. SekarLautTbk has return on equity of 0.0409. Although PT. SekarLautTbk increased its return on equity in 2011 and 2012 to become 0.0486 and 0.0615, but it remains to be the company that has the lowest return on equity.

Table 4.5. Return on Equity of Food and Beverage Companies period 2010-2012

No.	Listing Code	ROE (x)			Average
		2010	2011	2012	
1.	ADES	0.3170	0.2057	0.3987	0.3071
2.	AISA	0.1325	0.0818	0.1247	0.1130
3.	CEKA	0.0957	0.2378	0.1259	0.1531
4.	DLTA	0.2462	0.2530	0.3568	0.2853
5.	FAST	0.2490	0.2757	0.2080	0.2442
6.	ICBP	0.1962	0.1927	0.1908	0.1932
7.	INDF	0.1616	0.1587	0.1427	0.1543
8.	MYOR	0.2460	0.1995	0.2421	0.2292
9.	PTSP	0.4903	0.4266	0.4092	0.4420
10.	ROTI	0.2191	0.2122	0.2237	0.2183
11.	SKLT	0.0409	0.0486	0.0615	0.0503
12.	SMAR	0.2161	0.2434	0.2408	0.2334
13.	STTP	0.0953	0.0871	0.1287	0.1037
14.	TBLA	0.1999	0.2624	0.1388	0.2004
15.	ULTJ	0.0823	0.0848	0.2108	0.1260
	Total	2.9881	2.9700	3.2032	3.0538
	Average	0.1992	0.1980	0.2135	0.2036
	Maximum	0.4903	0.4266	0.4092	0.4420
	Minimum	0.0409	0.0486	0.0615	0.0503

Source: Indonesian Capital Market Directory

**f. Net Profit Margin (Y<sub>1,3</sub>)**

Net profit margin is the percentage by which a firm's total sales or revenue exceeds or is less than the sum of its expenses. If a company has a positive net profit margin, it means the firm made more money during that period than it spent. The average net profit margin in 2010 to 2012 is 0.10. In 2010 and 2011 the average net profit margin is 0.09 while in 2012, it increase to 0.10. PT Delta Djakarta Tbk has the highest net profit margin from 2010 to 2012 at the ratio of 0.27, 0.27 and 0.30 respectively. PT. SekarLautTbk has the lowest net profit margin in 2010 to 2012 with the ratio of 0.02 in each year.

Table 4.6. Net Profit Margin of Food and Beverage Companies

No.	Listing Code	NPM (x)			Average
		2010	2011	2012	
1.	ADES	0.14	0.09	0.17	0.13
2.	AISA	0.11	0.09	0.09	0.10
3.	CEKA	0.04	0.08	0.05	0.06
4.	DLTA	0.27	0.27	0.30	0.28
5.	FAST	0.07	0.07	0.06	0.07
6.	ICBP	0.10	0.11	0.11	0.11
7.	INDF	0.10	0.11	0.10	0.10
8.	MYOR	0.07	0.05	0.07	0.06
9.	PTSP	0.08	0.10	0.14	0.11
10.	ROTI	0.16	0.14	0.13	0.14
11.	SKLT	0.02	0.02	0.02	0.02
12.	SMAR	0.06	0.06	0.08	0.07
13.	STTP	0.06	0.04	0.06	0.05
14.	TBLA	0.08	0.11	0.06	0.08
15.	ULTJ	0.06	0.05	0.13	0.08
	Total	1.42	1.39	1.57	1.46
	Average	0.09	0.09	0.10	0.10
	Maximum	0.27	0.27	0.30	0.28
	Minimum	0.02	0.02	0.02	0.02

Source: Indonesian Capital Market Directory



**g. Book Value (Y<sub>2,1</sub>)**

Book value is the value of share based on the firm's equity. Book value is calculated by dividing total stockholders' equity to number of shares. The average book value of food and beverage companies for 2010 to 2012 is IDR 3,561. PT. Delta Djakarta has the highest book value for 2010-2012 with the amount of IDR 36,075; IDR 35,779; and 37,357 respectively. The lowest book value in 2010 is IDR 165 belong to PT. Pioneerindo Gourmet International Tbk, while for 2011-2012 PT SekarLautTbk has the lowest book value with the amount of IDR 178 and IDR 187 respectively.

Table 4.7. Book Value of Food and Beverage Companies  
Period 2010-2012

No.	Listing Code	Book Value (IDR)			Average
		2010	2011	2012	
1.	ADES	169	213	355	246
2.	AISA	344	626	695	555
3.	CEKA	1,038	1,362	1,558	1,319
4.	DLTA	36,075	35,779	37,357	36,404
5.	FAST	1,796	1,804	2,152	1,917
6.	ICBP	1,530	1,837	2,056	1,808
7.	INDF	1,912	3,600	3,888	3,133
8.	MYOR	2,598	3,163	4,002	3,254
9.	PTSP	165	318	538	340
10.	ROTI	450	540	658	549
11.	SKLT	171	178	187	179
12.	SMAR	2,030	2,554	2,947	2,510
13.	STTP	341	374	443	386
14.	TBLA	261	325	363	316
15.	ULTJ	449	486	536	490
	Total	49,329	53,159	57,735	53,408
	Average	3,289	3,544	3,849	3,561
	Maximum	36,075	35,779	37,357	36,404
	Minimum	165	178	187	179

Book value data in IDR should be transformed in order to normalized the data and decrease the standard error in PLS analysis.

The transformation result of book value data can be seen in table 4.8.

Table 4.8. Book Value of Food and Beverage Companies  
Periode 2010-2012 after transformation

No.	Listing Code	Book Value (Ln.N)			Average
		2010	2011	2012	
1.	ADES	5.13	5.36	5.87	5.45
2.	AISA	5.84	6.44	6.54	6.27
3.	CEKA	6.95	7.22	7.35	7.17
4.	DLTA	10.49	10.49	10.53	10.50
5.	FAST	7.49	7.50	7.67	7.55
6.	ICBP	7.33	7.52	7.63	7.49
7.	INDF	7.56	8.19	8.27	8.01
8.	MYOR	7.86	8.06	8.29	8.07
9.	PTSP	5.11	5.76	6.29	5.72
10.	ROTI	6.11	6.29	6.49	6.30
11.	SKLT	5.14	5.18	5.23	5.18
12.	SMAR	7.62	7.85	7.99	7.82
13.	STTP	5.83	5.92	6.09	5.95
14.	TBLA	5.56	5.78	5.89	5.74
15.	ULTJ	6.11	6.19	6.28	6.19
	Total	100.13	103.75	106.41	103.43
	Average	6.68	6.92	7.09	6.90
	Maximum	10.49	10.49	10.53	10.50
	Minimum	5.11	5.18	5.23	5.18

Source: Indonesian Capital Market Directory

#### h. Price to Book Value ( $Y_{1.2}$ )

Price to book value is the ratio that compares the market value of share to its book value. This ratio is useful to measure the management ability in creating market value that exceeds the book value. The average price to book value of food and beverage companies in 2010 to 2012 is 3.15. PT AkashaWira International Tbk has the highest price

to book value in 2010 with the ratio of 9.57, however in 2011 and 2012, the highest price to book value belong to PT. Nippon IndosariCorpindoTbk with the ratio of 6.16 and 10.48 respectively. The lowest price to book value in 2010 is 0.82 belong to PT. SekarLaurTbk, as for 2011 and 2012 it belong to PT. CahayaKalbarTbk with the ratio of 0.70 and 0.83.

Table 4.9. Price to Book value of Food and Beverage Companies periode 2010-2012

No	Listing Code	PBV (x)			Average
		2010	2011	2012	
1.	ADES	9.57	4.74	5.42	6.58
2.	AISA	2.15	0.75	1.55	1.48
3.	CEKA	1.06	0.70	0.83	0.86
4.	DLTA	3.24	2.98	6.83	4.35
5.	FAST	5.12	5.51	5.58	5.40
6.	ICBP	2.91	2.83	3.79	3.18
7.	INDF	1.72	1.28	1.50	1.50
9.	MYOR	4.04	4.51	5.00	4.52
11.	PTSP	1.66	2.17	4.55	2.79
12.	ROTI	5.89	6.16	10.48	7.51
13.	SKLT	0.82	0.79	0.96	0.86
14.	SMAR	2.46	2.51	2.10	2.36
15.	STTP	1.13	1.84	2.37	1.78
16.	TBLA	1.56	1.81	1.38	1.58
17.	ULTJ	2.69	2.61	2.29	2.53
	Total	46.02	41.19	54.63	47.28
	Average	3.07	2.75	3.64	3.15
	Maximum	9.57	6.16	10.48	7.51
	Minimum	0.82	0.70	0.83	0.86

Source: Indonesian Capital Market Directory

**i. Closing Price**

Closing price is the final price at which a security is traded. It represents the most up-to-date valuation of a security until trading commences again on the next trading day. The average closing price for 2010 to 2012 is IDR 14,397. PT. Delta Djakarta Tbk has the highest closing price by the amount of IDR 120,000; IDR 111,500 and IDR 255,000. The lowest closing price is also belongs to one company in which PT. SekarLautTbk by the amount of IDR 140, IDR 140, and IDR 180 respectively.

Table 4.10 Closing price of Food and Beverage Companies

No	Listing Code	Closing Price (IDR)			Average
		2010	2011	2012	
1.	ADES	1,620	1,010	1,920	1,517
2.	AISA	780	495	1,080	785
3.	CEKA	1,100	950	1,300	1,117
4.	DLTA	120,000	111,500	255,000	162,167
5.	FAST	9,200	9,950	12,000	10,383
6.	ICBP	4,675	5,200	7,800	5,892





7.	INDF	4,875	4,600	5,850	5,108
8.	MYOR	10,750	14,250	20,000	15,000
9.	PTSP	310	690	2,450	1,150
10.	ROTI	2,650	3,325	6,900	4,292
11.	SKLT	140	140	180	153
12.	SMAR	5,000	6,400	6,550	5,983
13.	STTP	385	690	1,050	708
14.	TBLA	410	590	490	497
15.	ULTJ	1,210	1,080	1,330	1,207
	Total	163,105	160,870	323,900	215,958
<b>No</b>	<b>Listing Code</b>	<b>10,874</b>	<b>Closing Price (Ln.N)</b>	<b>21,593</b>	<b>14,397</b>
	<b>Max</b>	<b>20,000</b>	<b>11,900</b>	<b>20,000</b>	<b>Average</b>
	<b>Min</b>	<b>7.340</b>	<b>6.9240</b>	<b>7.56180</b>	<b>7.29153</b>
1.	AISA	6.66	6.20	6.98	6.61
2.	CEKA	7.00	6.86	7.17	7.01
3.	DLTA	11.70	11.62	12.45	11.92
4.	FAST	9.13	9.21	9.39	9.24
5.	ICBP	8.45	8.56	8.96	8.66

Source: Indonesian Capital Market Directory

Closing price data in IDR should be transformed in order to normalized the data and decrease the standard error in PLS analysis. The transformation result of closing price data can be seen in table 4.11.

Table 4.11 Closing Price of Food and Beverage Companies Period 2010-2012 after transformation

7.	INDF	8.49	8.43	8.67	8.53
8.	MYOR	9.28	9.56	9.90	9.58
9.	PTSP	5.74	6.54	7.80	6.69
10.	ROTI	7.88	8.11	8.84	8.28
11.	SKLT	4.94	4.94	5.19	5.02
12.	SMAR	8.52	8.76	8.79	8.69
13.	STTP	5.95	6.54	6.96	6.48
14.	TBLA	6.02	6.38	6.19	6.20
15.	ULTJ	7.10	6.98	7.19	7.09
	Total	114.25	115.61	122.04	117.30
	Average	7.62	7.71	8.14	7.82
	Maximum	11.70	11.62	12.45	11.92
	Minimum	4.94	4.94	5.19	5.02

Source: Indonesian Capital Market Directory

### C. Analysis and Results of PLS approach

The Partial Least Square analysis is used to examine the hypothesis developed from the proposed theoretical model in Chapter 2. WarpPLS software examines the measurement model and the structural model simultaneously to produce the results. The first stage which is measurement model stage, the analysis is conducted by specifying the

relationships between the indicators and the latent variables. Once achieved acceptable standard, the next stage is to test the causal relationships between exogenous (independent) and endogenous (dependent) variables, in the structural model. This thesis adopted Warp3 PLS Regression with jackknifing re-sampling method.

#### **a. Stage One: Assessing The Measurement Model (Outer Model)**

The first stage to be conducted is measurement model to assess the validity and reliability of the indicator. The purpose of assessing the measurement model or outer model is to specify which measurement items are related to each latent variable by using Confirmatory Factor Analysis (CFA). CFA requires one to specify which variables are associated with each construct. It involves testing, and potentially confirming a theory. CFA is a tool which enables the researcher to either 'confirm' or 'reject' pre-conceived theory. Assessing the measurement model (outer model) was done by assessing the significance of each indicator weights. If the indicator weights are not significant then the indicator is not valid and vice versa.

#### **1. Indicators of Capital Structure Construct**

Capital structure is measured by using three indicators namely Debt Ratio, Debt Equity Ratio, and Long Term Debt to Total Asset. The outer weight of each indicator in capital structure can be seen in Table 4.12. and Figure 4.1.

Table 4.12 Assessment of indicators in Capital Structure

Capital Structure	Indicator Weights	P value
X <sub>1</sub> DR	0.346	<0.001
X <sub>2</sub> DER	0.355	<0.001
X <sub>3</sub> LTDE	0.337	<0.001

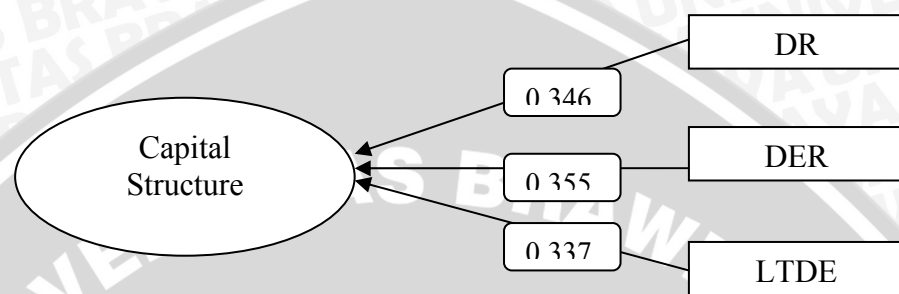


Figure 4.1. Assessment of indicators in Capital Structure

Based on table 4.12 and Figure 4.1, debt ratio, debt equity ratio and long term debt to total equity have path coefficient of 0.346, 0.355, and 0.337 respectively. All indicators are also significant at p value<0.001. This result indicates that debt ratio, debt equity ratio, and long term debt to total equity are valid indicators to form capital structure. This result is also means that high capital structure will be formed by having higher debt ratio, debt equity ratio and long term debt to total equity. In other side, firms with low debt ratio, debt equity ratio, and long term debt to total equity will also have a low capital structure. Thus, high capital structure shows that the external financing or debt financing is used to fulfill the need of capital.

**2. Indicators of Profitability Construct**

Profitability is measured by using three indicators, namely, Return on Asset, Return on Equity, and Net Profit Margin. The outer weight of each indicator in profitability can be seen in Table 4.13. and Figure 4.2.

Table 4.13 Assessment of indicators in Profitability

Firm Performance	Indicator Weights	P value
Y <sub>1.1</sub> ROA	0.404	<0.001
Y <sub>1.2</sub> ROE	0.363	0.002
Y <sub>1.3</sub> NPM	0.347	<0.001

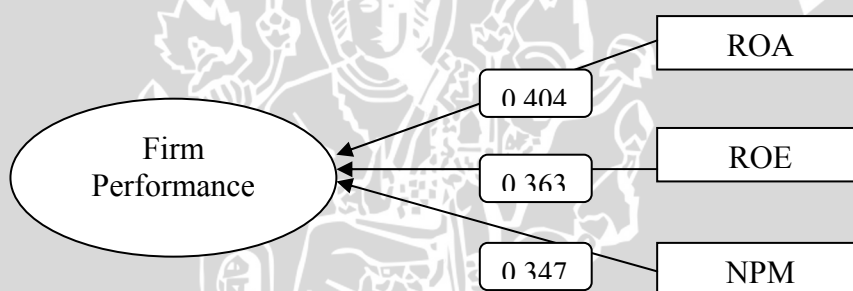


Figure 4.2. Assessment of indicators in Profitability

Based on table 4.13 and Figure 4.2, return on assets and net profit margin have indicator weights of 0.404 and 0.347 respectively with p value significant at <0.001. This means that return on assets and return on equity can be used to form profitability. Return on equity has indicator weight of 0.363 with p value  $0.002 < 0.05$  (5% significant), it means that return on equity is also a valid indicator in forming profitability. This result

indicates that return on assets, return on equity, and net profit margin can be used to proxy profitability. Firms with high return on assets, return on equity, and net profit margin perform higher rather than those with low return on assets, return on equity, and net profit margin.

### 3. Indicators of Firm Value

Firm value is measured by using three indicators, namely, Book Value, Price to Book Value, and Closing Price. The outer weight of each indicator in firm value can be seen in Table 4.14. and Figure 4.3

Table 4.14 Assessment of indicators in Firm Value

Firm Performance	Indicator Weights	P value
Y <sub>2.1</sub> BV	0.427	<0.001
Y <sub>2.2</sub> PBV	0.264	0.025
Y <sub>2.3</sub> CP	0.474	<0.001

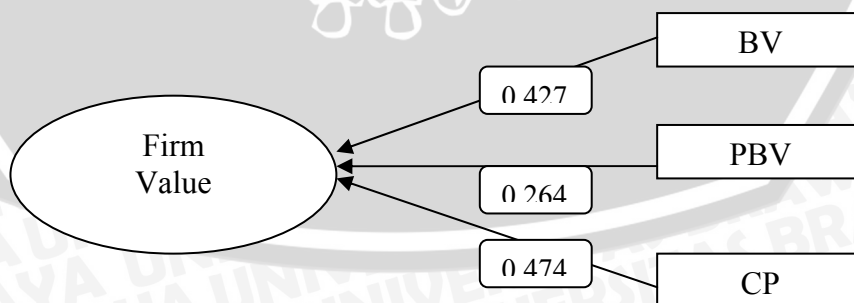


Figure 4.3. Assessment of indicators in Firm Value

Based on table 4.14 and Figure 4.3, book value and closing price have indicator weights of 0.427 and 0.474 respectively with p value significant at  $<0.001$ . This means that book value and closing price can be used to form firm value. In addition, Price to Book Value is also a valid indicator to measure Firm Value because it has path indicator weight of 0.264 and p value of 0.025 which is lower than 0.5 (5% significance). This result indicates that the value of a firm will be determined by its book value, price to book value, and closing price. The higher the book value, price to book value and closing price will have an impact on increasing the firm value. Conversely, firms having low book value, price to book value and closing price will also have a low firm value.

In the first stage of measurement model, the indicators were assessed using confirmatory factor analysis in measuring the latent variables. All indicators proved to be significant in measuring the latent variables. With satisfactory result of confirmatory factor analysis, the next stage is to perform the analysis of the structural model, in order to determine the explanatory power of the proposed model and to test the research hypotheses in this thesis.

#### **a. Stage Two - Assessing the Structural Model**

The structural model aims to specify which latent variables directly or indirectly influence the values of other latent constructs in

the model. The structural model in PLS-SEM is assessed by examining the explanatory power of the structural model and the path coefficient. Thus, in this stage, several properties were assessed to provide support for the proposed theoretical model.

### 1. Coefficient of Determination, $R^2$

Coefficient of determination is the degree or the amount of variation of endogenous variable accounted by the exogenous variable. Figure 4.1 below shows the  $R^2$  value for firm value is 0.58 and the  $R^2$  value for profitability is 0.27. This result means that firm value is influenced by capital structure and profitability by 58%. In other side, profitability is influenced by capital structure by 27%.

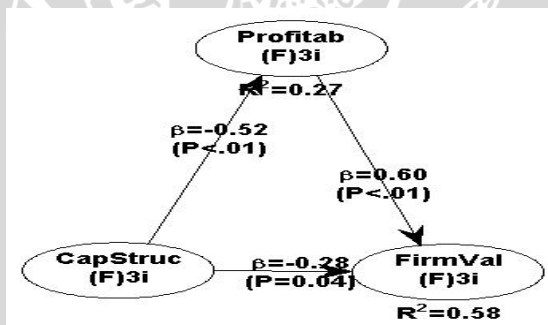


Figure 4.4. Direct Relationship Path Diagram

Table 4.15 P Values and Path Coefficient

	Path Coefficients	P Values
Capital Structure->Firm Value	-0.281	0.037
Capital Structure-> Profitability	-0.523	0.005
Profitability-> Firm Value	0.600	<0.001

### 2. Hypothesis testing



The result of hypothesis testing can be seen from the path coefficients and P values on figure 4.4 and table 4.15.

**a. Hypothesis 1: Capital structure has significant influence on firm value**

Based on the above findings, it can be concluded that the finding supported hypotheses 1 by path coefficient of 0.281 and p value  $0.037 < 0.05$  (5% level of error). It means that capital structure has a significant influence on the firm value. An optimal capital structure will have a strong influence to firm value. A negative path coefficient showed that the influence of capital structure on firm value is negative. It means that the higher the capital structure of a firm, the lower the value of the firm. The decreasing of firm value is caused by a high use of debt. Using debt in a high proportion will increase the firm risk of unable to repay the interest and installment that will eventually caused a bankruptcy. High debt is also means a firm has a weak internal financing and a weak ability to finance investment. These will be seen as an indication that will decrease the firm value.

According to Static Trade-Off Theory, firms will have an optimum capital structure by balancing the tax advantage of borrowed money with the cost of financial distress. When

a firm relied too much on debt, the cost of financial distress increase. Firms that have too much debt, relative to their optimal level will result in the decreasing of firm value.

This result is consistent with Mariono (2012) that capital structure has significantly negative relationship with firm value. However, this result do not support the research conducted by Chowdhury&Chowdhury (2010) in which they find that capital structure has a strong positive correlation on firm value. This result is also supported the MM theory with tax that capital structure influence the firm value. However, Modigliani and Miller's opinion on using higher debt to increase the firm value is different with the result of this research because higher debt will decrease e the firm value.

**b. Hypothesis 2: Capital structure has significant influence on profitability**

The path coefficient of capital structure on profitability shows the value of -0.523 and p value of  $0.005 < 0.01$  (1% level of error). It can be concluded that there is a significant influence of capital structure on profitability, thus, accepting hypothesis 2. The negative path coefficient indicates that the higher the capital structure of a firm employed by having higher debt will decrease the profitability of a firm.

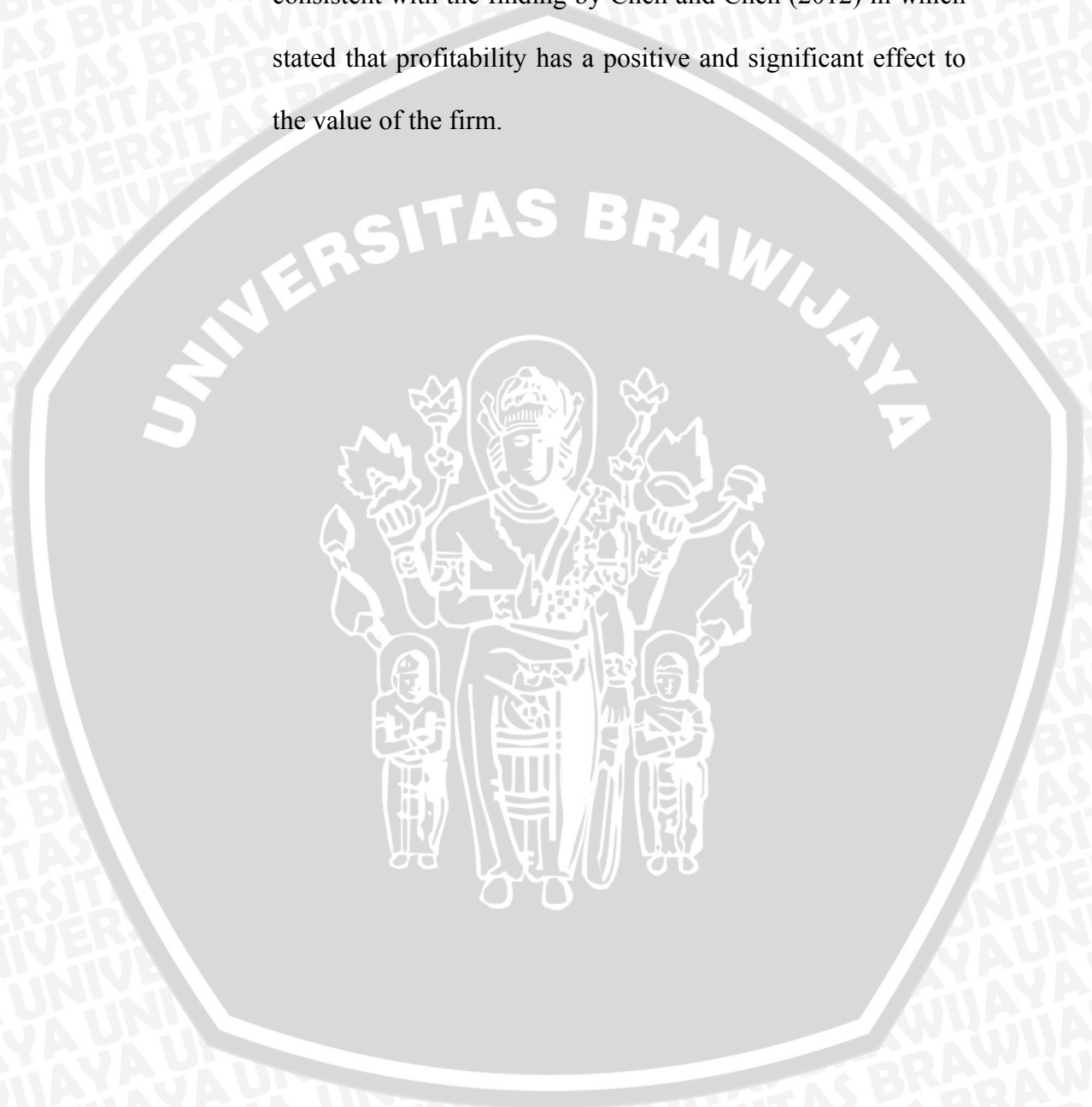
This negative relation of capital structure on profitability may be caused by the increasing level of the debt finance will increases the interest payment, thus resulting in a decline in profit. In addition to these, an increase in the level of debt also increases the riskiness of firms. Therefore, Food and Beverage firms should concern much on internal sources of financing in order to increase their profitability.

This result supported the research performed by Velnampy and Niresh (2012) and the research conducted by Shubita and Alsawalhah (2012) in which they stated that capital structure has a negative influence on profitability.

**c. Hypothesis 3: Profitability has a significant influence on firm value**

The influence of profitability on firm value showed a significantly positive relation with the path coefficient of 0.600 and significant at p value  $<0.001$ . This result supported hypothesis 3 in which profitability has significant influence on firm value. The positive path coefficient of profitability on firm value indicates that firms with higher profitability will be followed by the increasing of firm value. The reason of this relationship is because high profitability indicates the success of a firm. It will be seen as a benchmark for investors to invest

their funds. High profitability will push the firm's stock market price to increase, thus, increasing the firm value. This result is consistent with the finding by Chen and Chen (2012) in which stated that profitability has a positive and significant effect to the value of the firm.



## CHAPTER V

### CONCLUSION AND RECOMENDATION

Based on the discussion on previous chapter, this research is conduct to analyze the influence of capital structure on firm value, the influence of capital structure on profitability and the influence of profitability to firm value. Analyzing those influence is crucial for firm because it provides firms with understanding on factors that they should put into considerations in order to achieve success. In this chapter, the conclusions and recommendations of this research are summarized as follows:

#### A. Conclusions

1. Based on the testing on hypothesis 1, it can be concluded that the result supported hypothesis 1 that capital structure has significant influence on firm value. The significant result means that determining an optimal capital structure will give a strong influence on firm value. Negative path coefficient shows the influence of capital structure on firm value is negative. It means that the higher the capital structure of a firm, the lower the value of the firm. Debt ratio, debt equity ratio and long term debt to total equity were proved to be valid indicators to measure capital structure while valid indicators to measure firm value are book value, price to book value and closing price.

2. Based on the testing on hypothesis 2, it can be concluded that capital structure has a significantly negative influence on profitability. It means that firms which have higher debt in which constructed by debt ratio, debt equity ratio, and long term debt to total equity will have lower profitability constructed by book value, price to book value and closing price.
3. Based on the testing on hypothesis 3, it can be concluded that profitability has a positive significant influence on firm value. The significant result means that profitability will give strong influence on firm value. The positive coefficient shows that the influence of profitability to firm value is linier. It means that higher profitability, in which constructed by return on assets, return on equity, and net profit margin will increase the value of the firm constructed by book value, price to book value, and closing price.

## **B. Recommendation**

### **1. For the firm's management**

In order to increase the firm value, management is expected to increase the profitability because higher profitability will be followed by having higher value as the finding of this research. The result stated capital structure has a negative influence on firm value can be used as a reference for the management in determining the capital structure by remembering that high debt will decrease the firm value.

## 2. For investors

The goal of investors is to invest their fund in investments that would really benefit them, thus investors should wisely choose investment that have a promising prospect. Based on the result of this research, firm with low debt and high profitability will increase its value. According to this finding, investors should investin companies with lower debt and high profitability in order to increase the firm value that will eventually benefit the investors.

## 3. For the next researchers

Researcher that is interested in doing research on capital structure, profitability, and firm value should add more variables in order to better represent the construct. In addition, the next researcher can also adding external variables such as inflation and interest rate deliver a more accurate result

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